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DISCOUNT RATE SENSITIVITY OF EMPLOYEE BENEFIT OBLIGATIONS IN INDONESIAN STATE - OWNED CONVENTIONAL BANKS

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ABSTRACT

This study examines the comparability of discount rate sensitivity disclosures for employee benefit obligations under Indonesian Financial Accounting Standard 219. It covers the four listed conventional members of Indonesia's state-owned bank association: Bank Mandiri, Bank Negara Indonesia, Bank Rakyat Indonesia, and Bank Tabungan Negara. The descriptive analysis uses eight bank-year observations for 2024 and 2025. Data were extracted from the employee benefit notes to the 2025 consolidated financial statements, except for Bank Mandiri's 2024 sensitivity, which was taken from its 2024 statements. The analysis traces each scenario to the disclosed plan and reporting entity, compares the magnitude of responses to one-percentage-point changes in discount rates, and scales the effects where the gross obligation can be matched to the scenario. A rate decrease increased the obligation by more than an equivalent increase reduced it in every observation. Asymmetry in 2025 ranged from 13.8% to 21.2%. The nominal effect of a rate decrease grew at all four banks. At Bank Negara Indonesia, the effect relative to the matched gross pension obligation increased from 11.08% in 2024 to 11.54% in 2025. The principal contribution is a disclosure-based procedure for distinguishing comparable scenario movements from amounts that reflect different plan or entity boundaries. The findings help readers interpret reported sensitivities alongside recognised liabilities and remeasurements.

Keywords: Actuarial Assumptions, Defined Benefit Obligation, Discount Rate, Other Comprehensive Income, Disclosure Comparability

ABSTRAK

Penelitian ini mengkaji keterbandingan pengungkapan sensitivitas tingkat diskonto atas kewajiban imbalan kerja berdasarkan Pernyataan Standar Akuntansi Keuangan 219. Cakupan penelitian meliputi empat bank konvensional anggota Himbara yang tercatat di Bursa Efek Indonesia, yaitu Bank Mandiri, Bank Negara Indonesia, Bank Rakyat Indonesia, dan Bank Tabungan Negara. Analisis deskriptif menggunakan delapan observasi bank-tahun pada 2024 dan 2025. Data diambil dari catatan imbalan kerja pada laporan keuangan konsolidasian tahun buku 2025, dengan pengecualian sensitivitas Bank Mandiri 2024 yang ditelusuri ke laporan tahun buku 2024. Analisis menelusuri cakupan program dan entitas pada setiap skenario, membandingkan besaran respons terhadap perubahan diskonto satu poin persentase, dan menghitung dampak relatif ketika kewajiban bruto dapat dipadankan dengan skenario. Pada seluruh observasi, penurunan diskonto menaikkan kewajiban lebih besar daripada besaran penurunan kewajiban akibat kenaikan diskonto yang setara. Asimetri pada 2025 berkisar antara 13,8% dan 21,2%. Dampak nominal penurunan diskonto meningkat pada keempat bank. Pada Bank Negara Indonesia, dampak tersebut meningkat dari 11,08% kewajiban pensiun bruto pada 2024 menjadi 11,54% pada 2025. Kontribusi utama penelitian berupa prosedur berbasis pengungkapan untuk membedakan perubahan skenario yang dapat dibandingkan dari angka yang mencakup program atau entitas berbeda. Temuan membantu pengguna membaca sensitivitas bersama liabilitas yang diakui, aset program, dan pengukuran kembali yang disajikan dalam penghasilan komprehensif lain.

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Kata Kunci: Asumsi Aktuaria, Kewajiban Imbalan Pasti, Tingkat Diskonto, Penghasilan Komprehensif Lain, Keterbandingan Pengungkapan

I. INTRODUCTION

A discount rate translates expected future employee benefit payments into a present obligation. A lower rate increases the present value of a given stream of payments, even when contractual benefits and their expected timing are unchanged. Financial statements may therefore present three distinct amounts for a single pension arrangement: the gross obligation, the net liability after allowing for qualifying plan assets, and the hypothetical change in the gross obligation under a sensitivity scenario. Each amount answers a different question about financial position or estimation uncertainty.

The Indonesian Institute of Accountants renumbered the employee benefits standard from PSAK 24 to PSAK 219 effective 1 January 2024 (Ikatan Akuntan Indonesia [IAI], 2023). The corresponding international standard, IAS 19, sets out how entities measure obligations, present defined benefit costs, and explain the timing and uncertainty of future cash flows (IFRS Foundation, 2023). Bank Rakyat Indonesia illustrates the importance of reading these disclosures together. Its 2025 consolidated net liability for the defined benefit pension plan was IDR 2.66 trillion, while its parent-only sensitivity table reported a hypothetical increase of IDR 3.43 trillion in the present value of the pension obligation under a one-percentage-point decrease in the discount rate. These figures differ in both measurement basis and entity scope (Bank Rakyat Indonesia, 2026).

Previous research has examined discount rate choices and pension funding (Armitage et al., 2023), discretion associated with the recognition of pension amounts (Kusano, 2025), and the role of narrative readability in credit assessment (Chen et al., 2025). In Indonesia, studies have investigated the classification of other comprehensive income (OCI) and its association with audit fees and other reporting outcomes (Kusuma, 2023; Kusuma & Luayyi, 2024). These studies offer insight into how pension information is produced and used. A practical question remains for readers comparing published sensitivity figures: do apparently similar shocks refer to comparable plans, entities, and measurement bases?

This study asks how pension obligations respond to equal upward and downward discount rate shocks, and under what conditions the reported effects can support comparisons. It makes two contributions. First, it documents the plan boundary, reporting entity, source year, and stated assurance status for each bank. Second, it distinguishes an absolute scenario amount, its year-to-year growth, its directional asymmetry, and its size relative to the gross obligation. A matched calculation for Bank Negara Indonesia demonstrates the last distinction. This design directs attention to disclosure comparability, with the expected direction of the discounting effect serving as a consistency check.

II. LITERATURE REVIEW

Measurement and Presentation of Defined Benefits

The allocation of risk determines the measurement basis for employee benefit obligations. For a defined contribution plan, the employer generally recognises the contribution payable for employee service during the period. For a defined benefit plan, the employer's obligation depends on accrued benefits and actuarial assumptions about future payments. The employer therefore bears the risk that the actual cost differs from its estimate. The sensitivity analysis in this study concerns obligations subject to actuarial measurement and follows the scope stated in each bank's published table (IFRS Foundation, 2023, paras. 27–30 and 50–55).

The projected unit credit method attributes benefits to periods of service and discounts the estimated payments accrued at the reporting date. The calculation uses both demographic and financial assumptions. IAS 19 directs entities to reference reporting-date market yields on high-quality corporate bonds, or government bonds when a deep market for such corporate bonds is unavailable in the relevant currency. The currency and term of the reference instruments should be consistent with the obligation (IFRS Foundation, 2023, para. 83). Evidence from the United Kingdom and Brazil also shows that the

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relationship between the selected rate and a plan's funded position depends on the setting and the benchmark used (Armitage et al., 2023; de Freitas & Carvalho, 2026).

The present value of the obligation less the fair value of plan assets gives the plan deficit or surplus. Recognition of a net asset in a surplus position is subject to the asset ceiling. Service cost and net interest are generally recognised in profit or loss, while remeasurements of the net defined benefit liability or asset are recognised in OCI and are not subsequently reclassified to profit or loss. Remeasurements include actuarial gains and losses and relevant changes in plan assets or the asset ceiling outside net interest. An actual remeasurement may reflect changes in assumptions, experience adjustments, and asset performance during the period (IFRS Foundation, 2023).

IAS 19 links defined benefit disclosures to three objectives: describing the plans and associated risks, explaining recognised amounts, and helping users assess the amount, timing, and uncertainty of future cash flows. The sensitivity requirements cover reasonably possible changes in significant assumptions, the methods and limitations of the analysis, and relevant changes from the prior period. Indonesian work on pension fund reporting gives additional context for accountability, while the bank's financial statements describe the employer's own obligations and eligible plan assets (IFRS Foundation, 2023, paras. 135–147; Pratiwi et al., 2025; Wardani & Firman, 2023).

Discount Rates and the Interpretation of Actuarial Sensitivity

The base discount rate and the sensitivity shock serve separate purposes. The base rate measures the obligation at the reporting date. The shock applies a specified change to the rate to show how the measured obligation would respond. When expected benefit payments are fixed, cash flows due further in the future tend to respond more strongly in percentage terms to the same rate change. The monetary response also depends on the size of the obligation. As a result, plans with different payment profiles or obligation balances can report substantially different monetary responses to the same one-percentage-point shock (Armitage et al., 2023; IFRS Foundation, 2023, paras. 83–86 and 145).

A scenario that varies only the discount rate isolates the effect of that rate on the valuation. In practice, movements in rates may coincide with changes in inflation, salary expectations, or asset prices. A sensitivity amount is best interpreted alongside the benefit maturity profile and the characteristics of the programme. The directional asymmetry used here describes the relative difference between the two scenario impacts within a bank-year. A separate measure, calculated by dividing a scenario impact by the matched gross obligation, describes the effect relative to the size of the underlying commitment (IFRS Foundation, 2023, paras. 145–147).

Decision Usefulness for Financial Statement Users

The Conceptual Framework identifies current and potential investors, lenders, and other creditors as the primary users of general purpose financial reports. They use financial information to assess future net cash inflows and management's stewardship of resources. Employee benefit information supports those assessments when users can link recognised amounts to the assumptions and uncertainty underlying the estimates and to the expected timing of payments. An estimate can faithfully represent the obligation when its basis, methods, and limitations are explained. Comparability and understandability make the estimate easier to apply (IFRS Foundation, 2026, paras. 1.2–1.10 and 2.4–2.37).

Investors can use the gross obligation and the fair value of plan assets to assess the funded position. Service cost and net interest explain components of period expense, whereas remeasurements in OCI explain changes in equity arising from updated estimates and other remeasurement components. In a study of FTSE 100 companies, Kirkpatrick and Radicic (2023) found that several individual pension items, including pension costs and interest expense, were associated with firm value, while aggregate net pension earnings did not show value relevance in their sample. Larcher (2023) examined whether the association with market value differed between recognised and disclosed pension amounts. Together, these studies support examining the components and their presentation when assessing financial performance and equity.

For equity analysts, OCI can inform forecasts of book value. Black and Neururer (2024) found evidence consistent with financial-sector analysts incorporating future OCI into book value per share

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forecasts. In an experiment, Du (2024) showed that analysts' interpretation of OCI gains and losses depended on whether the entity reported a net profit or a loss. Yao et al. (2024) further showed that presentation labels can affect non-professional investors' judgments. Indonesian studies consider OCI in relation to tax avoidance, earnings management, dividends, and audit fees, while Ratih et al. (2025) examine the use of fair value information in ratio analysis (Kusuma, 2022, 2023; Kusuma & Agustin, 2023; Kusuma & Luayyi, 2024). For the banks examined here, the appropriate unit for interpretation is the specific pension remeasurement disclosed in the notes.

Lenders and other creditors can use maturity information, plan assets, funding policies, and expected employer contributions to assess possible demands on cash available for debt service (IFRS Foundation, 2023, paras. 135 and 145–147). Kusano (2023) found that Japanese credit rating agencies could incorporate reliable pension liabilities disclosed in notes. Chen et al. (2025) linked less readable pension narratives to wider corporate bond spreads in their sample. In a related study, Chen et al. (2024) documented a positive association between volatility in pension funded status and bond spreads among US firms. These studies distinguish information about the funded position from information about uncertainty in that position. A discount rate scenario quantifies a valuation response, while the contribution schedule and projected benefit payments provide evidence for a cash-flow assessment.

Sensitivity disclosures may also change the precision of investors' assessments. Li (2026) found an association between voluntary disclosure of pension obligation sensitivity and a lower implied cost of equity in a UK setting. The four-bank study assesses the comparability of published figures and does not estimate market responses. The evidence from the United Kingdom nevertheless illustrates why it matters to identify what an individual scenario measures before assigning it informational value.

Employees and their representatives may use the notes to understand programme features and funding risks. Supervisors and audit committees may use reconciliations and assumption disclosures to scrutinise management's explanation of changes in pension balances. An assessment of benefit security also requires plan rules and funding information appropriate to the intended decision. Evidence on pension governance and managerial discretion underscores the importance of documenting how estimates are produced (Cumming et al., 2024; Davila et al., 2024; England, 2024, 2026; Gupta & Matkin, 2024; Kusano, 2025). Li and Henry (2022) also connect pension investment choices with the sponsor's wider management of risk, which helps explain why an obligation sensitivity cannot capture the full risk profile of a funded plan.

Completeness and readability are complementary. Chen et al. (2026) reported that larger projected pension obligations and more volatile funded positions were associated with less readable disclosures at US firms. Anantharaman et al. (2026) documented differences in pension asset transparency under disclosure rules that used similar language. Indonesian value-relevance research also points to the importance of presentation and materiality (Christanto & Fuad, 2023; Prayoga et al., 2026). For the present analysis, practical comparability requires identification of the plan, the entity boundary, the shock, the base obligation, and the reporting date.

Two examples illustrate the distinction. At Bank Negara Indonesia, pension expense in profit or loss fell from 2024 to 2025 while the remeasurement item in the pension note reversed direction. At Bank Rakyat Indonesia, the increase in plan assets partly offset the increase in the gross pension obligation. The first example helps investors distinguish period cost from changes in estimates. The second helps creditors interpret movements in net liabilities alongside contributions and benefit payments (Bank Negara Indonesia, 2026; Bank Rakyat Indonesia, 2026).

Synthesis of Prior Research and Position of the Study

The literature addresses three connected issues. Research on actuarial assumptions considers reporting incentives and valuation judgment (Armitage et al., 2023; de Freitas & Carvalho, 2026; Kusano, 2025). Research on disclosure explains why the detail and readability of notes matter to users assessing pension risk (Anantharaman et al., 2026; Chen et al., 2024; Chen et al., 2025; Chen et al., 2026). Indonesian studies distinguish the purposes served by reported expenses, OCI, and pension balances (Kusuma, 2023; Kusuma & Luayyi, 2024; Pratiwi et al., 2025).

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This study connects these issues through a comparison of published disclosures for the four conventional Himbara banks. It treats the shock direction as a common feature and checks whether the plan and entity boundaries also permit comparisons of magnitude. It links hypothetical remeasurement effects to the separate roles of recognised liabilities, period expense, and OCI. The design supports descriptive conclusions about disclosure and interpretation.

III. RESEARCH METHODS

The study uses comparative document analysis. Its population consists of the four conventional Himbara member banks listed on the Indonesia Stock Exchange at the end of 2025: PT Bank Mandiri (Persero) Tbk (BMRI), PT Bank Negara Indonesia (Persero) Tbk (BBNI), PT Bank Rakyat Indonesia (Persero) Tbk (BBRI), and PT Bank Tabungan Negara (Persero) Tbk (BBTN). Government information establishes the wider Himbara grouping, and the banking regulator provides the basis for distinguishing conventional from Islamic banking. Bank Syariah Indonesia belongs to the wider Himbara grouping but falls outside the conventional banking population used here (Kementerian Sekretariat Negara Republik Indonesia, 2026; Otoritas Jasa Keuangan, n.d.).

A census is appropriate when every unit in the defined population is covered (Australian Bureau of Statistics, 2023; Saunders et al., 2023). All four banks provided public financial statements and two-direction discount rate sensitivities for 2024 and 2025, giving eight bank-year observations. The bank is the population unit and the bank-year is the observation unit. The results apply to this defined population, period, and set of published scenarios.

The main data source was the employee benefit note to each bank's 2025 consolidated financial statements (Bank Mandiri, 2026; Bank Negara Indonesia, 2026; Bank Rakyat Indonesia, 2026; Bank Tabungan Negara, 2026). The 2025 Bank Mandiri sensitivity table gives a 2025 amount only, so its 2024 amount was extracted from the preceding edition (Bank Mandiri, 2025). For each observation, Table 1 records the financial statement note, programme and entity boundaries, and any explicit assurance qualification for the sensitivity table. Parentheses were recorded as decreases in the obligation. Monetary amounts are reported in millions of Indonesian rupiah (IDR).

Table 1. Sources and Scope of Discount Rate Sensitivity Disclosures

Bank	Financial Statement Source	Scope and Stated Assurance Status
BMRI	2025 Note 51, p. 387. 2024 comparator from Note 51 in the 2024 statements.	Defined benefit obligation, Bank Mandiri only. The 2025 sensitivity is labelled unaudited.
BBNI	2025 Note 42, p. 223.	Defined benefit pension plan. Both years are provided in the same note.
BBRI	2025 Note 42(g)(ii), p. 373.	Defined benefit pension plan, BRI only. Sensitivity figures are labelled unaudited and unreviewed.
BBTN	2025 Note 43(g).	Employee benefit obligations within the scope of the source table. The sensitivity is labelled unaudited.

Source. Financial statement notes of Bank Mandiri (2025, 2026), Bank Negara Indonesia (2026), Bank Rakyat Indonesia (2026), and Bank Tabungan Negara (2026).

To make the extraction reproducible, each row was linked to a bank, reporting date, named programme or source label, scenario direction, and financial statement note. The comparative values were recorded using the source presentation, and both directions were kept even where the prose emphasises the decrease in the rate. A proportional sensitivity is reported only when the note identifies a closing gross obligation and the sensitivity as relating to the same plan and reporting entity. Gross balances that combine plans or use a different consolidation boundary are excluded from the denominator check.

Directional asymmetry equals the increase in the obligation under the rate decrease minus the absolute decrease under the rate increase, divided by the latter amount and multiplied by 100. Year-to-year growth is the difference between the 2025 and 2024 absolute effects divided by the 2024 absolute effect. Changes in asymmetry are in percentage points and use unrounded estimates. For a proportional

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comparison, the denominator must be the closing gross obligation for the same programme, entity boundary, and date. A scenario is retained in monetary terms when the corresponding gross base cannot be linked unambiguously from the notes used. In the BBRI reconciliation, opening balance plus movements is checked against the closing liability and the difference between the gross obligation and fair value of plan assets.

Three outputs are distinguished in the analysis. Nominal comparisons describe the reported amount of a shock in IDR million. Within-bank growth compares that shock with its prior-year equivalent. The matched-obligation ratio expresses the current shock as a percentage of the closing gross commitment. Each answers a separate question, so the resulting rankings or percentages cannot be used interchangeably. The study uses only published financial statement notes and reports calculations that can be reproduced from the cited tables.

IV. RESULTS AND DISCUSSION

Direction, Magnitude, and Asymmetry

Across all eight observations, an increase in the discount rate reduced the obligation and a decrease increased it. The absolute increase under the downward shock was larger in every case. In 2025, the differences between the magnitudes of the two effects were IDR 342,820 million at BMRI, IDR 186,819 million at BBNI, IDR 599,010 million at BBRI, and IDR 81,549 million at BBTN. The corresponding asymmetry measures were 13.8%, 20.3%, 21.2%, and 18.1%, respectively (Table 2).

Table 2. Changes in Obligations Under Discount Rate Shocks of One Percentage Point

Bank	Year	Rate Increase	Rate Decrease	Difference in Magnitudes	Asymmetry
BMRI	2024*	−2,073,001	+2,362,524	289,523	14.0%
BMRI	2025	−2,475,575	+2,818,395	342,820	13.8%
BBNI	2024	−801,632	+959,403	157,771	19.7%
BBNI	2025	−920,366	+1,107,185	186,819	20.3%
BBRI	2024	−2,612,884	+3,169,026	556,142	21.3%
BBRI	2025	−2,831,077	+3,430,087	599,010	21.2%
BBTN	2024	−367,005	+431,519	64,514	17.6%
BBTN	2025	−450,205	+531,754	81,549	18.1%

Source: Authors' calculations (2026)

The observed asymmetry is consistent with the convexity of present value for a fixed stream of positive benefit payments. A payment F due in t years has a present value of $F/(1 + r)^t$ at rate r. Equal changes in r can therefore produce unequal changes in the amount measured. This expected pattern provides a check on the direction of the extracted figures. The notes do not allow the contribution of duration, the shape of the yield curve, or membership composition to be estimated separately.

The nominal impact of a one-percentage-point rate decrease rose between 2024 and 2025 for each bank. The increases were IDR 455,871 million at BMRI, IDR 147,782 million at BBNI, IDR 261,061 million at BBRI, and IDR 100,235 million at BBTN. These movements concern the magnitudes of scenarios calculated at two reporting dates and may reflect differences in the base valuation or the projected profile of benefits. The relationship between discounting and pension funding can vary across plans and jurisdictions (Armitage et al., 2023; de Freitas & Carvalho, 2026).

Changes in Sensitivity Between 2024 and 2025

Table 3 expresses the growth in each scenario impact relative to its 2024 magnitude. BBTN recorded the largest percentage increase in both directions. Under the lower-rate scenario, its response rose from IDR 431,519 million to IDR 531,754 million, an increase of 23.23%. BMRI recorded the largest absolute increase and the second-largest percentage increase, at 19.30%. Differences in ranking arise because the growth rates use each bank's own prior-year scenario impact as the base.

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Table 3. Year-to-Year Change in the Magnitude of Discount Rate Sensitivity

Bank	Growth in Rate Increase Effect	Growth in Rate Decrease Effect	Change in Asymmetry
BMRI	+19.42%	+19.30%	−0.12 pp
BBNI	+14.81%	+15.40%	+0.62 pp
BBRI	+8.35%	+8.24%	−0.13 pp
BBTN	+22.67%	+23.23%	+0.54 pp

Source: Authors' calculations (2026)

Asymmetry moved by less than one percentage point at each bank. It increased by 0.62 percentage points at BBNI and 0.54 percentage points at BBTN, and declined by 0.12 and 0.13 percentage points at BMRI and BBRI, respectively. The ratio increases when the downward-shock effect grows faster than the upward-shock effect. A small movement in asymmetry can therefore coexist with substantial growth in both nominal effects.

Programme Scope and Limits on Comparability

BMRI's Note 51 gives the sensitivity for Bank Mandiri only and labels its 2025 calculation unaudited. BBNI presents its sensitivity in the defined benefit pension plan subsection of Note 42. BBRI reports several programmes separately in Note 42(g). The row used here is for the parent bank's defined benefit pension plan, and the note labels its sensitivity information unaudited and unreviewed. BBTN's Note 43(g) gives unaudited sensitivity figures for employee benefit obligations without disaggregating the discount rate impact by programme in that table.

Each scenario applies a discount rate change of the same magnitude: one percentage point. A proportional comparison also requires a denominator that represents the same gross obligation affected by the shock. Dividing a parent-only scenario by a consolidated net pension liability would combine different entity boundaries and introduce the effect of plan assets. The checks used here preserve both the economic object measured and its reporting scope.

The edition of the source matters for year-to-year comparisons. BBNI, BBRI, and BBTN provide the two sensitivities in the same edition. BMRI's prior-year sensitivity is traceable to a separate edition, as marked in Tables 1 and 2. The assurance descriptors in Table 1 refer specifically to the source sensitivity information. Retaining these details allows a reader to determine how each comparative amount was obtained.

Table 4 applies the scope check to BBNI. Note 42 identifies the same defined benefit pension plan in the gross obligation reconciliation and the sensitivity subsection. The closing gross obligation increased from IDR 8,660,892 million in 2024 to IDR 9,593,741 million in 2025. The percentage effect of the lower-rate shock increased from 11.08% to 11.54%, while the absolute higher-rate effect increased from 9.26% to 9.59% of the obligation. The monetary increase at BBNI therefore coincided with a modest increase in sensitivity relative to the size of the matched obligation.

Table 4. Discount Rate Sensitivity Relative to the Matched Gross Pension Obligation at BBNI

Year	Gross Obligation (IDR million)	Rate Increase (% of obligation)	Rate Decrease (% of obligation)
2024	8,660,892	−9.26%	+11.08%
2025	9,593,741	−9.59%	+11.54%

Source: Authors' calculations (2026)

The remaining banks are compared in monetary terms or against their own prior-year scenario. BMRI reports a parent-only sensitivity and describes multiple benefit arrangements, so the selected note was insufficient to identify a single matching gross denominator for that table. For BBRI, the parent-only scenario cannot be divided by the consolidated obligation in the reconciliation below. BBTN presents the scenario at the employee benefit obligation level and does not separate the shock effects by programme in the sensitivity table. A pension-only denominator would therefore require evidence that its boundary matches the reported scenario. This treatment avoids treating an unavailable match as a zero exposure.

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The matched calculation at BBNI illustrates what a proportional result can contribute to the interpretation. The downward-shock response grew by 15.40% in monetary terms, compared with about 10.77% growth in the gross obligation. The relative shock therefore rose by about 0.46 percentage points, which is smaller than the nominal increase might suggest on its own. The ratio still does not identify which assumption or demographic feature caused that change. For a proportional comparison across all four banks, a matched closing gross obligation would be needed for each scenario.

Reconciliation of Net Pension Liabilities and Remeasurements

BBRI's consolidated net defined benefit pension liability rose from IDR 1,070,315 million at the end of 2024 to IDR 2,662,200 million at the end of 2025. Net remeasurements reduced the balance by IDR 1,436,835 million in 2024 and increased it by IDR 1,791,005 million in 2025. The consolidated closing obligation of IDR 29,635,987 million less plan assets of IDR 26,973,787 million also gives the 2025 net balance in Table 5. BBRI's parent-only hypothetical scenario in Table 2 has a separate scope.

Table 5. Reconciliation of the Consolidated Defined Benefit Pension Liability at BBRI

Consolidated Component	2025	2024
Opening Balance	1,070,315	2,367,561
Net Defined Benefit Pension Expense	361,736	508,594
Contributions Paid	−560,737	−368,903
Benefits Paid	−119	−102
Net Remeasurements	1,791,005	−1,436,835
Closing Balance	2,662,200	1,070,315

Source: Authors' calculations (2026)

The IDR 1,591,885 million increase in BBRI's net liability can be checked in two ways. The gross obligation increased by IDR 2,206,240 million, partly offset by a rise of IDR 614,355 million in the fair value of plan assets. From the liability roll-forward, net remeasurement increased the balance by IDR 1,791,005 million and the other reported movements together reduced it by IDR 199,120 million. The two calculations reconcile to the same change in the closing balance.

BBNI reports pension expense and OCI remeasurement separately. Pension expense in profit or loss fell from IDR 309,291 million in 2024 to IDR 295,563 million in 2025. The remeasurement item in the pension cost table changed from negative IDR 467,327 million to positive IDR 566,757 million. These signs follow the convention used in the pension cost table. The presentation illustrates how period expense and remeasurement can move differently (Bank Negara Indonesia, 2026).

Actual remeasurements may combine the effects of changes in more than one assumption, experience differences, and plan asset performance. The reconciliation explains movements that have already affected the closing balances. The sensitivity scenario instead describes how the reported gross obligation would respond to a specified change at the measurement date. The distinction is useful when interpreting OCI components and when assessing the information users can extract from presentation choices (Kusuma, 2023; Kusuma & Luayyi, 2024; Yao et al., 2024).

One implication concerns the relationship between a change in accounting measurement and a change in plan funding. A larger gross sensitivity identifies a greater monetary response to the specified shock at that reporting date. An increase in that amount can arise from a larger obligation, a change in the timing of expected benefits, a different base discount rate, or a combination of these factors. Plan assets may also respond to financial market movements, so the effect on the net funded position need not mirror the gross obligation scenario. This distinction is particularly important where the sensitivity table reports the obligation alone and the consolidated balance reflects both sides of the plan (Chen et al., 2024; IFRS Foundation, 2023; Li & Henry, 2022).

Source Data and Calculation Checks

This section records how the published sensitivities were linked to their reporting boundaries. The denominator decision concerns the documents used in this study. A monetary comparison within the stated scope remains possible when the evidence is insufficient to construct a matched gross-

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obligation ratio. Table 6 summarises the decision for each bank and identifies the point at which another reader can verify the source.

Table 6. Evidence Used to Match Scenario and Gross Obligation Scope

Bank	Scenario Source	Treatment of the Gross Obligation
BMRI	Note 51 in the 2025 statements, p. 387, and Note 51 in the 2024 statements.	The scenario is parent-only. The two editions are used to trace the comparative effects. No single matching gross base was established for the scenario table.
BBNI	Note 42 in the 2025 statements, p. 223, defined benefit pension plan.	The closing gross balance for the same plan appears in Note 42, p. 221. Both years can be scaled using that balance.
BBRI	Note 42(g)(ii) in the 2025 statements, p. 373, pension plan of the parent bank.	The consolidated obligation in Note 42(a), pp. 358–359, is used to reconcile the group liability. The parent-only sensitivity remains in monetary terms.
BBTN	Note 43(g) in the 2025 statements, employee benefit liability sensitivity.	The table reports the shock without a separate amount for each programme. A pension-only gross amount is therefore not used as its denominator.

Source: Authors' calculations (2026)

Worked Check for BBNI

For 2025, the lower-rate shock of IDR 1,107,185 million divided by the closing gross pension obligation of IDR 9,593,741 million yields 11.54%. The directional asymmetry for the same bank-year is calculated as (1,107,185 − 920,366) divided by 920,366, multiplied by 100, yielding 20.3% to one decimal place. The denominator in the first calculation is the gross obligation. In the second calculation it is the magnitude of the opposite scenario. The two outputs describe different features of the disclosure.

Worked Check for BBRI

For 2025, the consolidated gross obligation of IDR 29,635,987 million less plan assets of IDR 26,973,787 million yields the closing net liability of IDR 2,662,200 million. The movement check adds pension expense and net remeasurements to the opening liability and deducts contributions and benefits paid. It produces the same closing balance. This check uses only the consolidated reconciliation, whereas the parent-only sensitivity remains traceable to the separate programme table.

Implications for the Use of Pension Disclosures

Readers can first identify the gross obligation and reporting boundary, then read the scenario, and finally check the movements recognised during the period. This sequence explains why a hypothetical change in an obligation can be large even when the related expense moves little or in the opposite direction. For liquidity assessment, expected contributions and payment maturity provide additional evidence about when cash outflows may arise.

For preparers, linking sensitivities to material plans and matched gross balances would make disclosures more useful. Identifying whether a table covers the parent or the consolidated group would help users avoid mismatched ratios. Where a scenario is shown only for the current year, a clear reference to its prior-year counterpart would improve traceability. These implications concern reporting design in the documents examined and are consistent with findings that disclosure clarity and pension programme characteristics can affect the information available to users (Anantharaman et al., 2026; Chen et al., 2025; Chen et al., 2026).

Limits of the Evidence

The comparison uses the values published at the two reporting dates. It treats the two scenario directions as paired observations and does not use changes in scenario impacts to estimate the effect of observed movements in market rates. The shock is a one-percentage-point change in the discount rate. The percentage of gross obligation in Table 4 is the resulting change on the valuation scale. It is a finite-scenario ratio rather than an estimate of a derivative or a direct measure of duration.

The published tables provide different levels of detail about which obligations are included. This makes the coverage assessment part of the empirical result. The two-direction pattern is observable for all four banks, but proportional measurement is illustrated for one plan at one bank over two years. The example therefore establishes how the comparison can be made where the inputs match. It cannot

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establish a proportional ranking for the wider group. The analysis also cannot determine how investors, creditors, or supervisors acted on the reported figures because it does not observe their decisions.

V. CONCLUSION

Across eight bank-year observations, a one-percentage-point discount rate decrease increased obligations by more than the absolute decrease under the equivalent upward shock. Asymmetry ranged from 13.8% to 21.2% in 2025, and all banks reported larger nominal effects for the lower-rate scenario than in 2024. The practical contribution is to show how to compare those disclosures by checking the programme, reporting entity, and underlying obligation before interpreting magnitude. BBNI provides a matched illustration, where the lower-rate effect rose from 11.08% to 11.54% of the gross pension obligation. The BBRI and BBNI reconciliations also show how actual remeasurements differ from the hypothetical scenarios. The study covers four banks and two reporting dates, with different plan boundaries and a separate comparative source for BMRI. Future work could extend the coverage and obtain more programme-level gross obligation data to support proportional comparisons across banks.

Data Availability

The data are available in the public financial statements cited in Table 1 and the reference list. Table 2 provides the eight extracted pairs of scenario impacts. Table 4 identifies the additional gross obligation balances and source pages used in the matched calculation. The remaining calculations can be reproduced from the values and formulas reported in the article. The Source Data and Calculation Checks subsection in Section IV documents the denominator decisions and provides two worked checks.

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