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The Influence Of Changes In Regional Transfers, Economic Growth, And Regional Tax Potential On The Fiscal Independence Of Regencies/Cities In West Nusa Tenggara Province (2021–2025)

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ABSTRACT

The planned reduction in Transfers to Regions (TKD) in 2026 raises the question of whether local governments can finance themselves from their own revenue. This study analyzes the effect of changes in TKD, economic growth, and regional tax potential on the fiscal independence of regencies and cities in West Nusa Tenggara (NTB) Province, Indonesia, during 2021–2025. This quantitative study uses secondary data from the Directorate General of Fiscal Balance and Statistics Indonesia for ten regencies and cities in NTB over 2021–2025 (a balanced panel of 50 observations). Fiscal independence is the share of own-source revenue (PAD) in total revenue, TKD is captured by its year-on-year percentage change, economic growth by the growth of constant-price GRDP, and tax potential by the regional tax target. Panel data regression is applied, and the Chow, Hausman, and Lagrange Multiplier tests select the random effect model. The results show that changes in TKD ($p = 0.1775$) and economic growth ($p = 0.8233$) have no significant effect, whereas regional tax potential has a positive and significant effect ($p < 0.001$). Jointly, the three variables are significant ($F = 13.4796$; $p < 0.001$; adjusted $R^2 = 0.4331$). The findings indicate that, during the period studied, fiscal independence is associated with the size of regional tax targets but is not shown to respond to fluctuations in TKD. Local governments should strengthen regional tax revenue.

Keywords: Fiscal Independence, Transfers To Regions, Economic Growth, Regional Tax, Panel Data Regression.

INTRODUCTION

Under fiscal decentralization, regional governments are authorized to run their own governance and finances (Republik Indonesia, 2022). Fiscal independence refers to how far a

region can pay for its administration, development, and public services from its own sources, chiefly Locally-Generated Revenue (PAD). Rather than relying wholly on outside funding (Halim, 2016). A larger PAD share in total revenue means a region leans less on central government funds.

This situation can be explained through the theory of fiscal federalism. Oates (1972) holds that public goods with geographically limited benefits are better provided by local governments, which are closer to community needs, whereas stabilization and redistribution fit the central government. Oates, (1999) adds that this division of roles is carried out through fiscal instruments, including intergovernmental transfers. Given the varying revenue-generating capacities of different regions, the central government provides support through Transfers to Regions (TKD). Under Law Number 1 of 2022 concerning Financial Relations between the Central Government and Regional Governments, TKD is the portion of the state budget (APBN) channeled to regions to finance the affairs under their authority (Republik Indonesia, 2022), and includes the Revenue-Sharing Fund (DBH), the General Allocation Fund (DAU), and the Special Allocation Fund (DAK).

The relationship between regional transfers (TKD) and fiscal independence can be explained in two ways. The first channel is the flypaper effect: grants tend to remain with the recipient government and raise spending more than an equal rise in other income would (Hines & Thaler, 1995). Large transfers can weaken local incentives to generate own-source revenue; indeed, Bird and Smart, (2002) emphasize that the design of transfers influences local incentives regarding own-source revenue collection. The second is arithmetic: since TKD is part of total revenue, TKD growing faster than PAD reduces PAD's share, and the reverse also holds.

Regional dependence on Transfers to Regions (TKD) came under scrutiny when the central government reduced their allocation. In the 2026 Draft State Budget (RAPBN), TKD was initially allocated at IDR 650 trillion a decrease of approximately 29% compared to the previous year's allocation, though the figure was subsequently cited as IDR 693 trillion. For West Nusa Tenggara (NTB), the TKD allocation for the 2026 fiscal year was reported to have decreased by approximately IDR 902 billion. This reduction raises the question of whether local governments can offset the shortfall using locally generated revenue. The study period (2021–2025) concludes prior to the implementation of these cuts; thus, the findings offer an initial overview of the relationship between the fiscal independence of regencies/cities in NTB and fluctuations in TKD. TKD is measured as its year-on-year percentage change instead of nominal amounts, so negative figures signal a cut and positive figures an increase. This allows fluctuations to be tracked for each regency/city across the study years (Table 1).

Table 1. Percentage Change in Transfers to Regions (TKD) for Regencies/Cities in West Nusa Tenggara Province, 2021–2025 (%)

Kabupaten/Kota	2021	2022	2023	2024	2025
Lombok Barat	-2.42	10.04	0.17	7.71	12.63
Lombok Tengah	2.37	7.76	4.43	11.81	6.56
Lombok Timur	7.66	14.25	2.32	11.59	6.99
Kab. Sumbawa	-0.11	9.58	23.95	-5.53	25.23
Kab. Dompu	3.70	19.35	-1.83	1.94	4.98
Kab. Bima	0.69	4.73	6.69	3.76	5.15
Kab. Sumbawa Barat	16.83	56.93	24.60	-38.48	94.98
Lombok Utara	2.15	3.28	12.18	-4.65	9.64
Kota Mataram	0.42	7.38	13.74	-3.07	11.22
Kota Bima	3.36	12.38	-2.67	-4.04	35.50

Source: Directorate General of Fiscal Balance, Ministry of Finance (processed).

Table 1 shows that the decline in TKD was not uniform. Out of 50 observations, 9 (18%) showed negative values: two in 2021 (West Lombok and Sumbawa Regency), two in 2023 (Dompu Regency and Bima City), and five in 2024 (Sumbawa, West Sumbawa, and North Lombok Regencies, as well as Mataram and Bima Cities). No regions experienced a decline in 2022 or 2025. The average change in TKD across all regions was positive in every year except 2024 (-1.90%). The magnitude of the change varied significantly, ranging from -38.48% (West Sumbawa Regency, 2024) to 94.98% (West Sumbawa Regency, 2025). This situation indicates that regions face fluctuating transfer revenues from year to year, with declines occurring only in specific regions and years.

Fiscal independence is proxied by the share of PAD in total regional revenue, as shown in Table 2.

Table 2. Fiscal Self-Reliance Percentage of Regencies/Cities in West Nusa Tenggara Province, 2021–2025 (%)

Kabupaten/Kota	2021	2022	2023	2024	2025
Lombok Barat	17.25	15.52	18.98	22.56	23.64
Lombok Tengah	7.73	10.80	10.86	14.85	17.83
Lombok Timur	14.13	11.81	13.95	14.69	15.86
Kab. Sumbawa	12.36	10.23	9.62	13.06	10.21
Kab. Dompu	11.81	10.50	9.54	16.11	12.50
Kab. Bima	7.98	6.82	8.37	11.49	9.71
Kab. Sumbawa Barat	13.40	8.24	8.90	9.62	7.75
Lombok Utara	10.24	16.04	19.80	23.45	28.49
Kota Mataram	27.65	28.75	28.43	32.84	33.85
Kota Bima	6.44	6.15	6.62	14.60	8.99

Source: Directorate General of Fiscal Balance, Ministry of Finance (processed).

Table 2 shows that the average fiscal independence across all observations was only 14.62%, with a low of 6.15% (Bima City, 2022) and a high of 33.85% (Mataram City, 2025). Thirty-three out of the 50 observations fell below 15%, while only six reached 25% or higher (Mataram City on five occasions and North Lombok Regency in 2025). The annual averages were 12.90% (2021), 12.49% (2022), 13.51% (2023), 17.33% (2024), and 16.88% (2025). This indicates that for the majority of regencies and cities in NTB, more than 80% of local revenue still originates from sources other than Locally-Generated Revenue (PAD) such as transfer revenue.

Economic growth, another determinant, shows how fast a regional economy is expanding and is commonly proxied by the growth rate of real GRDP (Sukirno, 2016). A growing economy expands production, consumption, and public income, thereby enlarging the base of taxable objects and levies potentially increasing Locally-Generated Revenue (PAD) although a local government's ability to collect taxes depends on the accessible tax base within its territory (Bahl & Bird, 2008).

Existing research has largely examined how transfers (balancing funds) and the components of PAD shape regional financial independence. On the transfer side, Wasil et al. (2020), Nurrahmadani et al. (2024), and Ferdiansyah and Febrianti (2025) report that balancing funds, particularly DBH, weaken independence. Ferdiansyah and Febrianti (2025) also find that DAU and DAK have no significant effect, while Syafri et al. (2021) show that balancing funds matter significantly in the western and central regions of Indonesia. On the own-source side, PAD and local taxes are generally found to strengthen independence (Syafira et al., 2024; Hasanah et al., 2025). Related work has examined PAD, DAU, and DAK in East Java (Yulkhaq & Amiranto, 2024), and PAD, tax effort, and capital expenditure in West Java (Nur Oktavianti et al., 2023). Across these studies, which cover regions such as East Java, Bali, East Nusa Tenggara, and East Kalimantan, transfers are measured in absolute amounts or by component, not as year-to-year changes.

This study therefore departs from earlier work in three ways. First, it measures transfers as the percentage change in Transfers to Regions (TKD). Second, it uses local tax targets as a proxy for tax potential. Third, it concentrates on the regencies and cities of West Nusa Tenggara (NTB) for 2021–2025. Its aim is to examine, both individually and jointly, how changes in TKD (X1), economic growth (X2), and local tax potential (X3) affect fiscal independence (Y), using fiscal federalism as the theoretical basis. The hypotheses are as follows:

H1: Year-on-year changes in TKD have a negative influence on the fiscal independence of regencies and cities in West Nusa Tenggara during 2021–2025.

H2: Economic growth has a positive influence on the fiscal independence of regencies and cities in West Nusa Tenggara during 2021–2025.

H3: Regional tax potential, proxied by the local tax target, has a positive influence on the fiscal independence of regencies and cities in West Nusa Tenggara during 2021–2025.

H4: Changes in TKD, economic growth, and regional tax potential jointly have a significant influence on the fiscal independence of regencies and cities in West Nusa Tenggara during 2021–2025.

METHODS

A quantitative, causal-associative design is adopted. It is quantitative because the analysis rests on numerical data processed statistically (Sugiyono, 2019), and causal-associative because it tests how changes in Transfers to Regions (TKD) (X1), economic growth (X2), and regional tax potential (X3) influence fiscal independence (Y) (Sanusi, 2017).

The study covers ten local governments in NTB, namely eight regencies (West Lombok, Central Lombok, East Lombok, Sumbawa, Dompu, Bima, West Sumbawa, and North Lombok) and two cities (Mataram and Bima), observed for 2021–2025. Since the population is small and fully accessible, total sampling was applied (Arikunto, 2019). With 10 regions and a five-year observation period, a total of 50 observations (10 × 5) were obtained in a balanced panel.

Panel data, which combine cross-section and time-series dimensions (Gujarati & Porter, 2012) were collected from official institutional websites. PAD, local tax, and TKD figures come from the 2021–2025 APBD realization reports released by DJPK, Ministry of Finance, while constant-price GRDP was taken from BPS NTB. PAD and total regional revenue are recorded in the same units, ensuring the resulting ratio is unaffected by the unit of measurement, whereas TKD and local tax targets are expressed in billions of rupiah.

Fiscal independence and the change in TKD are calculated using the following formulas:

$$KF = (PAD / TPD) \times 100\%$$

$$\text{Change in TKD} = [(TKDit - TKDit{-}1) / TKDit{-}1] \times 100\%$$

where KF is regional fiscal independence, PAD is Locally-Generated Revenue, TPD is total regional revenue, TKDit is the TKD of regency/city i in year t, and TKDit−1 is the TKD in the previous year.

Table 3 defines how each variable is operationalized.

Table 3. Operational Definitions and Variable Measurement

Variable	Definition and Measurement	Unit
Fiscal Independence (Y)	The capacity of a local government to finance its administration, development, and services from its own sources (Halim, 2016); calculated as PAD divided by total regional revenue.	%
Change in TKD (X1)	Year-on-year percentage change in realized TKD of each regency/city; negative values denote a cut, positive values an increase.	%
Economic Growth (X2)	Annual growth rate of each regency's/city's GRDP at constant prices, taken directly from BPS publications (Sukirno, 2016).	%
Local Tax Potential (X3)	Nominal value of the local tax target in the regional budget (APBD) report (Siahaan, 2016); used in its original form without logarithmic transformation.	IDR billion

Data are analyzed with panel data regression in EViews 12, which offers more observations and captures variation across regions and over time (Widarjono, 2018; B. Baltagi, 2021). The estimated model is specified as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \varepsilon_{it}$$

Where:

- Y_{it}: fiscal independence (%) of regency/city i in year t (PAD as a share of total regional revenue).
- X_{1it}: year-on-year percentage change in TKD (%) of regency/city i in year t.
- X_{2it}: economic growth rate (%) of regency/city i in year t.
- X_{3it}: local tax target (IDR billion) of regency/city i in year t.

- β_0 : intercept (the expected value of Y when all X equal zero)
- β_1, β_2, β_3: regression coefficients indicating how much Y changes for a one-unit rise in the corresponding X, other variables held constant.
- $i = 1, 2, \ldots, 10$ (regencies/cities) and $t = 2021, 2022, \ldots, 2025$.
- εit: error term (residual) accounting for factors outside the model.

The model can be estimated using three approaches: the Common Effect Model (CEM), which pools all observations and applies OLS without regional distinctions; the Fixed Effect Model (FEM), which gives each region its own intercept; and the Random Effect Model (REM), which treats regional differences as a random component of the error (B. Baltagi, 2021).

Model choice relies on three tests: the Chow test (CEM vs FEM; FEM is preferred if the cross-section F and Chi-square probabilities are < 0.05), the Hausman test (FEM vs REM; performed if the Chow test selects FEM, with FEM preferred if the probability is < 0.05), and the Breusch–Pagan Lagrange Multiplier (LM) test (CEM vs REM; REM is preferred if the probability is < 0.05) (B. Baltagi, 2021). The Hausman test is applicable because the number of regions (10) exceeds the number of slope coefficients (3).

Classical assumption tests are run on the selected model so that the estimates are unbiased and efficient (Gujarati & Porter, 2012; Ghozali, 2018), Normality is checked with the Jarque–Bera test (residuals are normal if p > 0.05); multicollinearity with the correlation matrix and VIF (correlation < 0.80, VIF < 10); heteroskedasticity with the Glejser test (absent if all p > 0.05); and autocorrelation with the Durbin–Watson statistic, which serves only as an indication given the five-year panel. If heteroskedasticity or autocorrelation is found, estimation uses robust standard errors (B. H. Baltagi, 2021).

Hypotheses are tested at the 5% level (α = 0.05) (Ghozali, 2018) using the t-test (partial), F-test (simultaneous), and adjusted R^2. H1 is accepted if p < 0.05 and the coefficient is negative; H2 and H3 require p < 0.05 and a positive coefficient, and a significant result with the opposite sign leads to rejection. H4 is accepted when the F-probability is below 0.05. Adjusted R^2 lies between 0 and 1, and higher values indicate a better fit.

RESULTS AND DISCUSSION

Data Analysis Results

Descriptive Statistics

The dataset covers ten NTB regencies and cities over 2021–2025, a balanced panel of 50 observations; Table 4 summarizes the variables.

Table 4. Summary of Descriptive Statistics Results

Variable	Minimum	Maximum	Mean	Standard Deviation
Fiscal Independence (Y)	6.15	33.85	14.62	7.19
Change in TKD (X1)	-38.48	94.98	9.16	17.76
Economic Growth (X2)	-10.37	24.14	3.75	4.02
Local Tax Potential (X3)	11.37	291.09	94.46	71.23

Source: Data processed using EViews 12.

Fiscal independence (Y) averages 14.62% (SD 7.19%), ranging from 6.15% in Bima City (2022) to 33.85% in Mataram City (2025). TKD changes (X1) span −38.48% to 94.98% (mean 9.16%, SD 17.76%), with both extremes in West Sumbawa Regency (2024 and 2025, respectively). Economic growth (X2) lies between −10.37% and 24.14% (mean 3.75%, SD 4.02%), again with extremes in West Sumbawa (2023 and 2022, respectively); a standard deviation larger than the mean signals wide variation across regencies and cities. Local tax targets (X3) range from IDR 11.37 billion (Dompu Regency, 2021) to IDR 291.09 billion (Mataram City, 2025), with a mean of IDR 94.46 billion (SD IDR 71.23 billion).

Based on regional averages for the 2021–2025 period, Mataram City exhibited the highest fiscal independence (30.30%), followed by North Lombok Regency (19.60%) and West Lombok Regency (19.59%), while Bima City (8.56%) and Bima Regency (8.87%) ranked the lowest. West Sumbawa Regency recorded the highest average change in Transfers to Regions (TKD) (30.97%), yet its average fiscal independence stood at only 9.58%.

Panel Data Regression Model Selection

C.Chow (1974), Hausman (1978), and Breusch-Pagan LM tests (Breusch & Pagan, 1980) were used to choose among CEM, FEM, and REM (Table 5).

Table 5. Model Selection Test Results (Chow, Hausman, and Lagrange Multiplier)

Testing	Statistic	d.f.	Prob.	Decision
Chow: *Cross-section* F	15.740584	(9,37)	0.0000	FEM is more accurate than CEM.
Chow: *Cross-section* Chi-square	78.729804	9	0.0000	FEM is more accurate than CEM.
Hausman: *Cross-section random*	0.720077	3	0.8685	REM is more accurate than FEM
LM Breusch-Pagan: *Cross-section*	52.14339	–	0.0000	The regional random effect is significant.
LM Breusch-Pagan: *Time*	1.662862	–	0.1972	The time effect is not significant.
LM Breusch-Pagan: *Both*	53.80625	–	0.0000	significant

Source: Data processed using EViews 12

Both Chow statistics have probabilities of 0.0000, under 0.05, so the null of a common intercept is rejected and FEM is preferred to CEM. The Hausman probability of 0.8685 exceeds 0.05, so the null is retained and REM is preferred to FEM. As a supplementary check, the LM test indicated significant cross-section effects (probability 0.0000), consistent with the Chow

test findings that inter-regional differences needed to be incorporated into the model, whereas inter-temporal differences did not. Based on these three tests, the Random Effects Model (REM) using the Swamy and Arora variance component estimator (Swamy & Mehta, 1979) was selected, and all subsequent analysis is based on this model.

Regression Estimation Results

Table 6 reports the REM estimates for 50 observations (10 regencies/cities × 5 years).

Table 6. Estimation Results of the Random Effects Model

Dependent Variable: Y
Method: Panel EGLS (Cross-section random effects)
Sample: 2021 2025
Periods included: 5
Cross-sections included: 10
Total panel (balanced) observations: 50
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.318155	1.989220	4.684325	0.0000
X1	-0.031781	0.023209	-1.369329	0.1775
X2	-0.021106	0.093958	-0.224629	0.8233
X3	0.060052	0.009822	6.113881	0.0000

Source: Data processed using EViews 12.

The estimated equation is:

$$Y = 9.3182 - 0.0318X_1 - 0.0211X_2 + 0.0601X_3$$

The constant of 9.3182 means that when TKD change, economic growth, and the local tax target are all zero, fiscal independence is predicted at 9.32%. For TKD change (X1, −0.0318), each one-point increase lowers fiscal independence by 0.0318 point, ceteris paribus, though the coefficient is not statistically significant. Economic growth (X2, −0.0211) shows the same pattern: a one-point rise is associated with a 0.0211-point fall in fiscal independence, and the coefficient is insignificant. For the local tax target (X3, 0.0601), each additional IDR 1 billion raises fiscal independence by 0.0601 point, and this coefficient is significant.

Model statistics are reported in Figure 1. For the REM, the R-squared, F, and Durbin–Watson values are computed on GLS-transformed data and are therefore weighted statistics (B. Baltagi, 2021).

Figure 1. Random Effects Model Statistics

Weighted Statistics			
Root MSE	2.434097	R-squared	0.467832
Mean dependent var	3.106409	Adjusted R-squared	0.433125
S.D. dependent var	3.370546	S.E. of regression	2.537721
Sum squared resid	296.2413	F-statistic	13.47960
Durbin-Watson stat	1.487061	Prob(F-statistic)	0.000002

Source: Data processed using EViews 12.

With an adjusted R^2 of 0.4331, the three regressors jointly account for 43.31% of the variation in fiscal independence; the remaining 56.69% reflects factors outside the model. A cross-section rho of 0.8088 shows that roughly 81% of error variance stems from differences between regions.

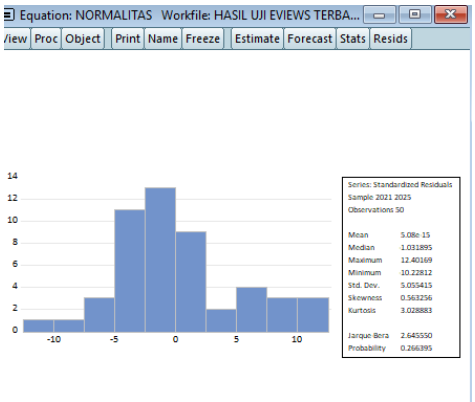
Classical Assumption Tests

Following the Methods, the tests below check that the estimates are unbiased and efficient (Ghozali, 2018; Gujarati & Porter, 2012).

a. Normality Test

Normality is assessed with the Jarque–Bera statistic (Jarque & Bera, 1980); a probability above 0.05 indicates normally distributed residuals.

Figure 2. Normality Test Results



Source: Data processed using EViews 12.

The Jarque–Bera probability of 0.2664 exceeds 0.05, so normality is not rejected; kurtosis of 3.0289 is close to the normal value of 3.

b. Multicollinearity Test

Multicollinearity is examined through the correlation matrix and VIF, and is ruled out when correlations are below 0.80 and VIF is below 10.

Figure 3. Correlation Matrix of Independent Variables

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Correlation

	X1	X2	X3
X1	1.000000	-0.055642	-0.045195
X2	-0.055642	1.000000	0.115115
X3	-0.045195	0.115115	1.000000

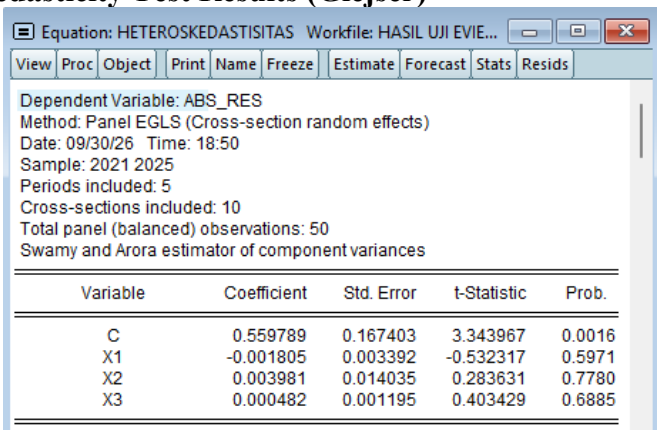
Source: Data processed using EViews 12.

The highest correlation among the regressors is only 0.1151 (X2 with X3), and all VIF values (1.0046 to 1.0161) are far below 10, so multicollinearity is not a concern.

c. Heteroskedasticity Test

The Glejser test (Machado & Santos Silva, 2000) regresses the absolute residuals on the regressors; heteroskedasticity is ruled out when every probability exceeds 0.05.

Figure 4. Heteroskedasticity Test Results (Glejser)



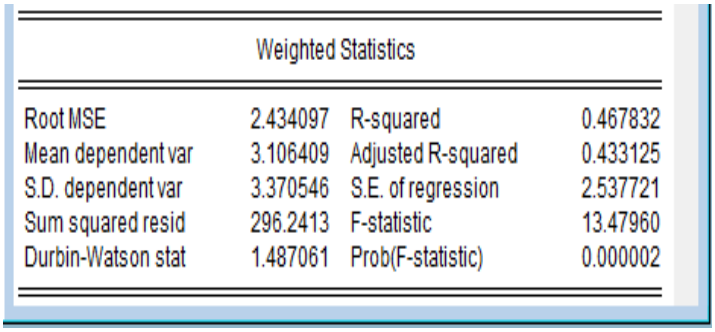
Source: Data processed using EViews 12.

The probabilities for X1 (0.5971), X2 (0.7780), and X3 (0.6885) all exceed 0.05, and the F-statistic probability (0.9089) is also insignificant, so heteroskedasticity is not present.

d. Autocorrelation Test

Autocorrelation is examined using the Durbin-Watson statistic (Durbin & Watson, 1951).

Figure 5. Autocorrelation Test Results



Source: Data processed using EViews 12.

Durbin-Watson with n = 50 and three regressors at the 5% level, dL = 1.421 and dU = 1.674. The REM statistic of 1.4871 lies between them, so the test is inconclusive: autocorrelation can be neither confirmed nor ruled out.

To limit the influence of possible autocorrelation, the REM was re-estimated with robust (White cross-section) standard errors, and the significance conclusions are unchanged.

HYPOTHESIS TESTING

Hypotheses are evaluated at $\alpha = 0.05$ (Ghozali, 2018), using Table 6 and Figure 1. H1 (TKD): $\beta = -0.0318$, $t = -1.3693$, $p = 0.1775$; the sign is as expected but the effect is insignificant, so H1 is rejected. H2 (economic growth): $\beta = -0.0211$, $t = -0.2246$, $p = 0.8233$; the sign is opposite to the hypothesis and the effect is insignificant, so H2 is rejected. H3 (tax potential): $\beta = 0.0601$, $t = 6.1139$, $p = 0.0000$; the sign is as expected and the effect is significant, so H3 is accepted. H4: $F = 13.4796$ ($p = 0.0000$), so the three variables jointly influence fiscal independence and H4 is accepted. An adjusted R^2 of 0.4331 means the model explains 43.31% of the variation, with the other 56.69% due to factors outside the model (moderate explanatory power).

DISCUSSION

The Impact of TKD Changes on Fiscal Independence

Changes in TKD carry a negative coefficient but are statistically insignificant ($p = 0.1775$), so H1 is rejected. The sign is consistent with the flypaper effect (Hines & Thaler, 1995) and with Bird and Smart (2002), argument that transfer design shapes local revenue effort, yet the 2021–2025 data do not show that year-to-year TKD movements shift fiscal independence in NTB.

This contrasts with Ferdiansyah and Febrianti (2025), Nurrahmadani et al. (2024), and Wasil et al. (2020), who found significant negative effects of balancing funds or DBH. Part of the gap is measurement: those studies used absolute amounts or specific components, whereas this study uses percentage changes. The finding agrees with Ferdiansyah and Febrianti (2025) on the insignificance of DAU and DAK and with Syafri et al. (2021), who report regional differences in the effect of balancing funds. TKD changes are also highly dispersed (−38.48% to 94.98%), driven by West Sumbawa, which lowers the precision of the estimate (standard error 0.0232).

The Impact of Economic Growth on Fiscal Independence

Economic growth is insignificant ($p = 0.8233$) and carries a sign opposite to H2, so H2 is rejected. This agrees with Ichwan and Haviz (2026), for Bandung City but differs from Syafri et al. (2021).

Growth should widen the tax base, yet revenue depends on the portion of the base a local government can actually tap (Bahl & Bird, 2008). GRDP growth may come from activities that do not feed PAD, and any effect may take longer than five years to appear. West Sumbawa illustrates the mismatch: its growth swung between 24.14% (2022) and −10.37% (2023) while its average fiscal independence stayed low at 9.58%. This explanation is speculative and was not tested here.

The Influence of Regional Tax Potential on Fiscal Independence

Tax targets have a positive, significant effect ($p = 0.0000$), so H3 is accepted; each additional IDR 1 billion in the target accompanies a 0.0601-point rise in fiscal independence. This is in line with Anjani and Ayuningsasi (2024), Ferdiansyah and Febrianti (2025), and Nurrahmadani et al. (2024), who found that local taxes strengthen regional financial independence.

These results should be interpreted with two caveats. First, regional taxes constitute a component of Locally-Generated Revenue (PAD); consequently, the relationship with the ratio of PAD to total revenue is, in part, direct. Second, tax targets are determined by local governments themselves and do not necessarily equate to actual tax potential (Siahaan, 2016). Regions with larger economies tend to set higher tax targets, yet this relationship is not entirely proportional. Central Lombok Regency, for instance, has an average tax target of IDR 180.34 billion, yet its average fiscal independence stands at only 12.41%. Therefore, while the results indicate a strong link between the magnitude of tax targets and fiscal independence, they cannot be directly interpreted to mean that raising tax targets will automatically increase fiscal independence.

Simultaneous Effect and Model Capability

Jointly the variables are significant ($F = 13.4796$; $p = 0.0000$), so H4 is accepted, though this is driven mainly by the tax target because the other two are individually insignificant. With an adjusted R^2 of 0.4331, 56.69% of the variation lies outside the model. Syafri et al. (2021) also tie independence to PAD effectiveness, the Human Development Index, and investment, which future studies could add. The cross-section rho of 0.8088 indicates that regional characteristics account for most of the unexplained variation.

CONCLUSION AND RECOMMENDATIONS

CONCLUSION

Using random-effects panel regression on ten NTB regencies and cities for 2021–2025, the study concludes that:

1. Year-on-year TKD changes exert no significant influence on fiscal independence ($\beta = -0.0318$; $p = 0.1775$); H1 is rejected.
2. Economic growth has no significant influence on fiscal independence ($\beta = -0.0211$; $p = 0.8233$); H2 is rejected.
3. Regional tax potential significantly and positively influences fiscal independence ($\beta = 0.0601$; $p = 0.0000$); H3 is accepted.
4. Jointly, TKD changes, economic growth, and regional tax potential significantly influence fiscal independence ($F = 13.4796$; $p = 0.0000$; adjusted $R^2 = 0.4331$); H4 is accepted.

RECOMMENDATIONS

Local governments need to strengthen local tax revenue through tax intensification and extensification, as well as by setting realistic tax targets based on the conditions of taxable objects in their respective regions, given the significant positive correlation between local tax targets and fiscal independence. Regions with low average fiscal independence specifically Bima City (8.56%), Bima Regency (8.87%), and West Sumbawa Regency (9.58%) must prioritize strengthening their Locally-Generated Revenue (PAD) sources in preparation for the reduction in Transfers to Regions (TKD) in the coming years. Furthermore, local governments should not assume that economic growth automatically boosts PAD; such growth must be accompanied by efforts to expand the tax and user fee bases that serve as PAD sources for regencies and cities.

The central government needs to monitor the fiscal independence of regencies and cities following the implementation of the 2026 TKD reduction, as the current study does not cover that period. Monitoring efforts should account for disparities in regional capacity, given that average fiscal independence ranges from 8.56% (Bima City) to 30.30% (Mataram City).

For future researchers, it is recommended to: (1) utilize measures of tax potential that more closely reflect actual conditions such as realized tax revenue, tax effort, or estimated tax capacity to ensure the relationship with PAD is not merely direct or dependent on government-set targets; (2) extend the observation period to include 2026 and beyond, or expand the scope to other provinces, to allow for direct testing of the TKD reduction's impact and to draw conclusions regarding autocorrelation test results; and (3) incorporate additional variables related to regional financial independence, such as the Human Development Index, investment, and capital expenditure (Syafri et al., 2024), given that more than half of the variation (56.69%) is attributable to factors outside the model.

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