"Linking regional investments and revenues at the provincial level to investment loan decisions by local government banks in Indonesia"

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LINKING REGIONAL INVESTMENTS AND REVENUES AT THE PROVINCIAL LEVEL TO INVESTMENT LOAN DECISIONS BY LOCAL GOVERNMENT BANKS IN INDONESIA

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Abstract

This study aims to analyze how two different types of investments (local domestic and foreign direct investments at the provincial level) and revenues (booked by the provincial governments, general allocation funds, special allocation funds, local taxes, and retribution) affect investment loan decisions by local government banks in Indonesia. The study uses panel data applying ordinary least squares and multiple linear regression. Thus, 144 data were sampled from 2013 to 2021 from 16 local government banks out of Java Island in 21 provinces in Indonesia. The study found that local domestic investment at the provincial level affects investment loan decisions by local government banks. In contrast, foreign direct investment did not affect lending decisions, indicating that local domestic investment contributes to the real local economy at the provincial level. Different results were found in provincial revenues in the form of general and special allocation funds, which negatively affected loan investment decisions, possibly due to provincial revenues utilized to cover the financial deficit and capital expenditure spent chiefly on imported goods. Additionally, local taxes at the provincial level also negatively affect investment loan decisions, possibly due to fluctuations in local tax collection during COVID-19. However, the study found that local retribution contributes to predicting loan investment decisions, suggesting revenue collection by the governments considering local economic conditions. The study findings suggest that provincial governments should direct investments that can impact the local economy and spend their revenues on goods and services that can drive local economic growth.

INTRODUCTION

Banks are one of the economic engines that can distribute excess funds to consumers with deficit funds. As an intermediary institution, banks collect funds from the community through various savings products (current accounts, savings, deposits), which are then redistributed in various loan products. Their activities and massive impact on the economy have attracted many researchers to analyze how banks, primarily regional banks in Indonesia, make lending decisions. This group of banks is said to be unique in that they serve geographical segments focused on limited areas (Jusni et al., 2019, 2022), and provincial and district governments predominantly own them (Aswan et al., 2019; Abidin et al., 2021).

Like other commercial banks, local government banks also distribute three loan products: consumer loans, working capital loans, and investment loans. This study is directed only at the investment loan

decisions made by local government banks. These loans are unique compared to others as they are granted in low amounts (Ashraf et al., 2022). Banks are generally reluctant to distribute investment loans (Satyagraha et al., 2022) as this type of loan is perceived riskier. This loan has a longer duration than a working and consumption loan. It is also considered more vulnerable to economic conditions as it could affect business loan consumers. However, local governments encourage investment loans since they can boost regional economic growth faster. This investment loan could also drive up other types of loans through the emergence of economic activities in new or existing areas (Ombuh & Pontoh, 2022), which drives up the demand for other types of loans.

1. LITERATURE REVIEW AND HYPOTHESES

This study examines how local government banks made investment loan supply decisions when considering local investments at the provincial level and regional revenues earned by provincial governments. The study is directed to enrich the financial intermediation and portfolio theory, focusing on investment loan supply decisions granted by local government banks. Financial intermediation theory explains the effort to transfer the risk of funds collected from the community by channeling the funds through loan disbursement (Rampini & Viswanathan, 2019). Commercial banks also conduct these financial intermediary activities. They must buy funds from the community by offering interest rates on savings. It puts the banks in a risky position by keeping the funds on hand, and therefore, the funds should be distributed into a loan to cover the cost of funds incurred of having the funds (Ombuh & Pontoh, 2022), including investment loans.

When conducting investment, including investment on loan portfolios granted by commercial banks, portfolio theory suggests conducting investment portfolio formation to maximize income and reduce investment risk. Investments made should be spread and not concentrated in single or limited assets. In the case of commercial banks, their activities direct them to make investments, one of them by distributing loans to their consumers. In that case, they should not make concentrated investments in only one type of loan asset but spread into numbers of loan assets. A loan portfolio formation could mitigate the potential loss/profit in one group of assets by covering the profit/loss in other assets (Huynh & Dang, 2022; Shim, 2019). There are two ways to conduct portfolio formation for the banks. They are based on loan and consumer structures (Prastiwi & Anik, 2020; Shim, 2019). For the loan structure, local government banks can distribute loans to consumer loans and productive loans, including investment loans. Banks should also spread their customer portfolio among their loan customers, not concentrating only on limited or specific consumers to avoid loss.

Unlike another type of loans granted by banks, investment loans, one of the productive loans besides working capital loans (Santos & Winton, 2019), could have a broader economic impact (Ashraf et al., 2022). The existing literature notes that investment loans can have long-term effects on the economy. This loan could boost new economic activities and increase productivity where investment is made. Additionally, it could also increase the demand for other loans. The increase in the economy will stimulate the demand for working capital loans and consumer loans, whether from existing businesses or new business applicants, following the increase in business worthiness.

However, banks are reluctant to grant investment loans (Santos & Winton, 2019). This type of loan has a longer duration, with more than a year. It makes the bank riskier due to its repayment duration and needs longer capital turnover, indicating its repayment time – longer duration causes it to probably face uncertain repayment (Doumpos et al., 2019), especially when financing micro and small businesses (Yin et al., 2020).

Local government banks, one of the commercial bank groups, have unique characteristics. In Indonesia, this type of bank is owned by the provincial and district governments, with the most significant portion of shares owned by the provincial governments (Aswan et al., 2019). In addition, these banks operate in a limited area, usually where their government ownership is located

(Jusni et al., 2022). With their uniqueness, these banks rarely have customers from large companies due to their asset capacity. They generally channel investment credit to micro, small, and medium enterprises.

Regarding loan decisions, some external factors could influence banks to grant investment loans. The study addresses two types of investments at the provincial level that could affect lending decisions by local government banks. Investment plays an essential role in a region's economic growth and development (Alfaro et al., 2021), including at the provincial level (Fazaalloh, 2024), which could stimulate the increase of loans (Liu & Zhang, 2020; Bassett et al., 2010), due to the increase in the creditworthiness of loan customers, causing either increased credit applications or loans offered by banks (Choi, 2021). Concerning investment, there are two types of investments: foreign direct investment and domestic investment. Both foreign direct and domestic investments can interact to affect economic growth. Foreign direct investment can increase domestic investment, and conversely. However, in some cases, it is found to refute this relationship (Gökçeli et al., 2022). Foreign direct investment could suppress domestic investment and conversely (Nguyen et al., 2021). It is also found that both investments did not affect economic growth as the investments made were not on target or not in real economic activity (Fazaalloh, 2024).

Besides investments, local revenues earned by provincial governments can also influence lending decisions made by local government banks. There is extensive research discussing lending decisions made by commercial banks, mainly when related to macroeconomics, such as economic growth, monetary policy, and investment (Martínez & Rodríguez, 2021; Abuka et al., 2019; Azis & Thorbecke, 2002). However, no study has linked lending decisions with local revenues booked by provincial and regency governments. Scientifically, regional revenues earned by provincial and regency governments could become a good predictor of local economic growth (Nugraha & Setyowati, 2023) through expenditure realization. The increase in the economy through revenue spending will then further stimulate loan decisions, including investment loans. The provincial revenues also affect economic growth, which

can increase loan decisions. In Indonesia, sources of revenues earned by a provincial or regency government can be structured into two groups of components, which are funds allocated from the central government and funds generated by the government effort itself, as stated in the regulation of central and regional government (Astuti et al., 2021). Revenue sources booked by the regional government, a provincial and regency government, can be classified into three categories: original regional revenue, balanced budget funds, and other legitimate revenues (Astuti et al., 2021).

Local revenues, also called original regional revenues, are all cash receipts that inflow into the regional treasury from regional government efforts, a provincial or regency government, to explore its potential revenues as stated in regional regulations. Local revenues can come from local taxes, local levies, income generated from managing separated regional assets, and other legitimate local revenues. Local revenues are usually used to finance the implementation of government duties, regional development, and services delivered to the community.

Unlike local revenues, balanced budget funds are revenues generated or transferred from the central government. These funds can be in the form of general allocation funds, special allocation funds, and revenue sharing funds (Akita et al., 2021; Astuti et al., 2021). These three funds are sourced from the state budget called the State Revenue and Expenditure Budget (APBN) by the provisions of Law Number 33 of 2004 concerning the Financial Balance between the Central Government and Regional Government (Astuti et al., 2021). Concerning general allocation funds, these funds are allocated to regional governments, a provincial or regency government, to implement decentralization, reduce regional financial disparities, and improve public services (Akita et al., 2021). The allocation is possibly different for each region as it is based on the number of civil servants in a region, which is called basic allocation, and also based on the region's needs as well as fiscal capacity, that are called formula allocation.

Different from general allocation funds, special allocation funds is allocated to special activities or needs based on regional affairs by national pri-

orities with a focus on infrastructure, education, and health (Akita et al., 2021). Special allocation fund is also used to encourage regional development as a provincial or regency government and is mainly used for underdeveloped regions by developing resources and infrastructure. Viewed by type, special allocation funds can be decomposed into physical and non-physical funds (Nugraha & Setyowati, 2023). Physical special allocation fund is for infrastructure, but both of them can be used to finance policy-making and non-physical aspects such as training and education.

To sum up, regional investments at the provincial level and regional revenues earned by each province could affect lending decisions by local government banks. Both funds have a tight relationship with economic activities. If appropriately spent, the spending on revenues by the provincial government drives economic growth. It is also the same for regional investments: domestic and foreign direct investments at the provincial level. The increase in economic growth can then trigger an increase in credit provision (Abuka et al., 2019; Azis & Thorbecke, 2002) both in terms of the amount of funds granted and the number of applicants. When the economy grows, the company market also grows, allowing the company to book more sales or increase its productivity (Alfaro et al., 2021). It means that the eligibility of companies increases as their capacity to repay loans also increases. It, in turn, will increase the number of companies applying for bank loans.

The study aims to examine the relationship between local investment realization and local revenue associated with investment loans granted by regional banks in Indonesia. There are six hypotheses generated:

H_1:   *Local domestic investment positively and significantly affects loans granted by local government banks operating in Indonesia.*

H_2:   *Local foreign direct investment positively and significantly affects loans granted by local government banks operating in Indonesia.*

H_3:   *General allocation funds positively and significantly affect loans granted by local government banks operating in Indonesia.*

H_4:   *Special allocation funds positively and significantly affect loans granted by local government banks operating in Indonesia.*

H_5:   *Local retribution positively and significantly affects loans granted by local government banks operating in Indonesia.*

H_6:   *Local taxes positively and significantly affect loans granted by local government banks operating in Indonesia.*

2. METHODOLOGY

The study is conducted using a quantitative research study with ordinary least square regression (OLS) using panel data. Six relationships are modeled to affect investment loan decisions by local government banks operating within Indonesia, which comprise two regional investments at the provincial level and four regional revenues earned by each provincial government. The study splits the regional investments at the provincial level into two variables: local domestic investments and foreign direct investments. Regional revenues comprise general allocation funds, special allocation funds, local retribution, and local taxes. The details of the studied variables are local domestic investment (X_1) and a lagged variable of local foreign direct investment (X_2). The variables of local revenues are general allocation funds (X_3), special allocation funds (X_4), local retribution (X_5), and local taxes (X_6).

The regression formula is:

$$\hat{Y}_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \quad (1)$$
$$+ \beta_5 X_5 + \beta_6 X_6 + \varepsilon,$$

where $\hat{Y}_i$ denotes the dependent variable of investment loan granted by local government banks, ε is the random error component, β_0 is a constant parameter, and $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ are the regression coefficient associated with X_1, X_2, X_3, X_4, X_5, and X_6, respectively.

The formula applied for the investment loan is:

$$Investment\ Loan = \frac{Investment\ Loans}{\sum Loans}. \quad (2)$$

The variables of X_1 and X_2 are local investments at the provincial level comprising local domestic investment and local foreign direct investment, which are calculated using the following formulas:

$$Local\ Domestic\ Investment = \frac{Domestic\ Investments}{\sum Investment}, \quad (3)$$

$$Local\ Foreign\ Direct\ Investment = \frac{Foreign\ Direct\ Investment}{\sum Investments}. \quad (4)$$

The variables of X_3 and X_4 are funds allocation or transfer from the central government to the provincial government. Those funds are general allocation funds and special allocation funds. The formulas for both allocation funds are:

$$General\ Allocation\ Funds = \frac{General\ Allocation\ Funds}{\sum total\ revenues}, \quad (5)$$

$$Special\ Allocation\ Funds = \frac{Special\ Allocation\ Funds}{\sum total\ revenues}, \quad (6)$$

where X_5 and X_6 are revenue generated by the province. For the purpose of the study, two revenues are examined, which are local retribution and local taxes. The formulas are:

$$Local\ retributions = \frac{local\ retribution}{\sum total\ revenues}, \quad (7)$$

$$Local\ taxes = \frac{local\ taxes}{\sum total\ revenues}. \quad (8)$$

The study examines 16 samples of local government banks operating in Indonesia from the beginning of 2013 to 2021. Loan investment data were collected from audited financial reports from 16 local government banks in Indonesia from 2013 to 2023. Those banks are SulSelbar, SulutGo, Sulteng, Sultra, Papua, Maluku, NTT, Kaltimtara, Kalteng, Kalsel, Kalbar, Sumut, Bengkulu, Jambi, Lampung, and Nagari (Appendix A). Investment data, both domestic and foreign investments

at the provincial level, were collected from the Central Statistics Agency from 2013 to 2023, while local foreign investment is a lagged variable using data from 2012 until 2020. Local revenue data are taken from the Financial Statistics of Financial Governments. This study does not consider Java Island as it has its uniqueness of regional revenue, especially for data general allocation funds and special allocation funds (Setyowati et al., 2020).

The study applied classical assumptions to have an efficient coefficient. The study applied the PP plot for normality assumption, multicollinearity with Tolerance and Variance Inflation Factor (VIF), heteroscedasticity with scatter plot, and autocorrelation using Durbin-Watson.

3. RESULTS

The study examines six main variables: domestic investment (X_1), foreign direct investment (X_2), general allocation funds (X_3), special allocation funds (X_4), local retributions (X_5), and local taxes (X_6). Based on descriptive statistical results concerning the mean score, X_5 has the lowest score of the others, and X_3 has the highest score. For standard deviation, the lowest score is shown by X_5, and the highest score is shown by X_4.

The results of statistical tests for classical assumptions on the main research variables using normality tests, multicollinearity, linearity, heteroscedasticity, and autocorrelation indicate that the variables studied meet the requirements for using multiple regression analysis of the ordinary least square method. Some classical assumptions considered for the process are normality tests, multicollinearity, linearity, heteroscedasticity, and autocorrelation. For normality evaluation, the study applies a PP plot indicating that the data had a normal distribution as it tightly followed the diagonal line of the graph. With regards to multicollinearity, using Variance Inflation Factor (VIF) and tolerance show that all variables studied scoring more than 0.1 (tolerance > 0.1) and also for VIF value scoring less than 10 (VIF < 10) indicate no multicollinearity found. The maximum score for tolerance is by the special allocation fund, with a score of .967, while the minimum is in the general allocation fund. For VIF, the maximum score

Table 1. Descriptive statistics of main variables

Variables	Min	Max	Mean	Std. dev
Investment Loan ($\hat{Y}$)	.0025053	.2312567	.068603878	.0571460805
Domestic Investment (X_1)	.0000231	.0852979	.017965382	.0182017498
Foreign Direct Investment (X_2)	.0003459	.1688748	.026087212	.0312145587
General Allocation Funds (X_3)	.0047748	.5837246	.319481331	.1207762807
Special Allocation Funds (X_4)	.0006919	.4396394	.156322786	.1280024962
Local Retribution (X_5)	.0008376	.0795224	.009612983	.0140826086
Local Taxes (X_6)	.0466703	.5780906	.284225907	.1100244599

is shown by the general allocation fund, and the minimum score is shown by the special allocation fund. Evaluation of heteroscedasticity indicates that data appear scattered and not concentrated to follow a specific pattern, indicating no heteroscedasticity problem. Finally, testing for autocorrelation using Durbin-Watson (DW) suggests that there is no autocorrelation problem since the value of DW, which is 1.855, lies in between du and the value of 2.1695, which is 4 – 1.8305 or 1.8305 < 1.850 < 2.1695 (du < DW < 4-du).

Multivariate regression output showed nine model results (Table 2) to examine a possibly efficient model of relationships. Initially, seven independent variables were tested to show how each group is related to each other and how they affect the investment loan granted by local government banks; models 1 to 4 present to look closely at each group's effect on the dependent variables. Differently, models 5 to 9 test how they relate to other(s) groups in the model. The model has three groups: local investment funds (local domestic investment and local foreign direct investment at the provincial level), revenue funds

allocated by the central government (general allocation funds and special allocation funds), and revenue funds generated from local government efforts (local retribution and local tax at the provincial level). Based on the model evaluated, the study found that model 9 is the best of the others, indicating the highest coefficient determinant and goodness of the model score is less than .05, which is .000. This model dropped out the variable of revenue of management of restricted local assets (X_7). Based on the statistical score, as given in model 9, the result indicates that local domestic investment (X_1) positively and significantly affects investment loans granted by local development banks with a significant score of less than 0.05 (.011 < .05). Its coefficient is .651. Differently, with a positive score (.134) as given in column six (model 9), local foreign investment shows an insignificant score (.243) as the score is above the critical score for alpha 10%. Fund allocations from the central government, which are general allocation funds (X_3) and special allocation funds, are found to negatively and significantly affect investment loans granted by local government banks.

Table 2. Statistical results of OLS regression

Variables	Regression Model							
N = 144	1	2	3	4	5	6	7	8
Constant	.034***	.177***	.022*	.022	.196***	.172***	.199***	.173***
Domestic Investment (X_1)	1.623***	–	–	–	–	.608**		.651**
Regional Foreign Direct Investment (X_2)	.227*	–	–	–	–	.140		.134
General Allocation Funds (X_3)	–	–.309***	–	–	–.345***	–.296***	–.350***	–.296***
Special Allocation Funds (X_4)	–	–.060**	–	–	–.064**	–.056**	–.061**	–.054**
Local Retribution (X_5)	–	–	.–014	–	.671***	.570**	.667***	.568**
Local Taxes (X_6)	–	–	.126***	.126***	–.068*	–.082**	–.055	–.077*
RMRLA (X_7)	–	–	.863*	.864*	.451	.261	–	–
Summary Statistics								
F	.000	.000	.000	.000	.000	.000	.000	.000
R2 Adjusted	.286	.453	.089	.095	.476	.498	.474	.500

Note: * significant at $t < 0.10$, **significant at $t < 0.05$, ***significant at $t < 0.01$.

When associated with financial performance, especially the funds allocated by the central government to provincial governments, such as general and special allocation funds, they both indicated negative and significant relationships with different critical scores. General allocation funds (X_3) showed a negative coefficient of –.296 with a significant score of .000 or less than .01, and special allocation funds (X_4) also generated a negative coefficient score of –.054, and its significant value is less than alpha 5% (0.044 < 0.05).

Revenue generated by local government efforts at the provincial level, which are local retribution (X_5) and local taxes (X_6), indicate significant relationships with different signs of coefficients and critical scores. Local retributions have a positive coefficient of .568 with a significant level of 5% (.028 < .05). Differently, local taxes have a negative coefficient of –.077, passing the critical level of 10% (.052 < .10).

Taking the contribution of each variable in the model by looking at the standardized coefficient score of each main variable studied indicates that general allocation funds contribute the highest of others (62.6%). They are followed by local domestic investment at the provincial level (20.7%), local taxes (14.9%), local retribution (14.0%), special allocation funds (12.2%), and local foreign direct investment at the provincial level (7.3%).

Hypotheses testing was conducted with three critical scores: alpha 1%, 5%, and 10%. Table 3 shows that two hypotheses, H_1 and H_5, are accepted with alpha 5% and 10%. The rest are rejected since they have negative relationships (H_3, H_4, H_6), and another is found to have an insignificant score (H_2) related to the critical scores.

4. DISCUSSION

The study investigates how two types of investments at the provincial level and provincial revenues, general allocation funds, special allocation funds, retribution, and taxes at the provincial government, affect lending decisions by local government banks in Indonesia. The study found that domestic investment at the provincial level affects local development banks' lending decisions. This result may be due to local domestic investment at the provincial level impacting the increase in outputs in the provincial economy even in the long run (Nguyen et al., 2021). Domestic investment tends to increase, especially outside Java, because investors may better understand regional needs and are more accustomed to investing in promising real sectors. It, in turn, stimulates banks to grant loans (Martínez & Rodríguez, 2021) to follow the increase of promising businesses in the market increase (Azis & Thorbecke, 2002), including small and medium businesses, which also stimulates the increase in loan applicants, including loan investment.

Unlike local domestic investment, the study found that local foreign direct investment at the provincial level does not affect investment loan decisions by local government banks in Indonesia. Even though it is higher in amount than domestic investment, foreign direct investment is more volatile, especially during COVID-19, which leads to a low impact on the real economy (Koçak & Barış-Tüzemen, 2022). It was also found that local foreign direct investment is concentrated more in certain cities (Syarifuddin & Setiawan, 2022).

Concerning funds allocated by the central government, this study shows that general alloca-

Table 3. Hypotheses testing

	Hypothesis	Decisions
H_1	Local investment positively and significantly affects investment loans granted by local government banks operating in Indonesia	Accepted
H_2	Local foreign direct investment positively and significantly affects investment loans granted by local government banks operating in Indonesia	Rejected
H_3	General allocation funds positively and significantly affect investment loans granted by local government banks operating in Indonesia	Rejected
H_4	Special allocation funds positively and significantly affect investment loans granted by local government banks operating in Indonesia	Rejected
H_5	Local retribution positively and significantly affects investment loans granted by local government banks operating in Indonesia	Accepted
H_6	Local taxes positively and significantly affect investment loans granted by local government banks operating in Indonesia	Rejected

tion funds, one of two revenues transferred by the central government to the provincial government(s), negatively affect investment loan decisions granted by local government banks. It suggests that general allocation funds do not generate a multiplier effect on the local economy at the provincial level, as amplified by Nugraha and Setyowati (2023). It is a fact that the revenue funds utilized by the governments are mainly to improve the financial soundness of the provincial government only (Ansori et al., 2021) and focus highly on routine expenditures such as salary spending for civil servants assigned in provincial and regency governments. Furthermore, household spending from civil servants working in local governments is also considered to have no impact on the local economy because it is spent on imported goods widely found in Indonesia (Sugeng et al., 2022; Kuncoro & Pambudi, 2014).

It is also similar to special allocation funds, which have a negative relationship with investment loans. The funds are aimed at financing infrastructure at provincial and regency levels and are spent mostly on infrastructure such as health and education (Akita et al., 2021). It is a fact that some of the funds were spent on imported products (Farida et al., 2021) due to the inability of human resources to manage government spending (Lewis & Oosterman, 2011; Purbadharmaja et al., 2019); then, it does not contribute to the local economy in the provincial level (Ismail et al., 2020) relative to the private sector (Lewis, 2023).

Concerning local-own source revenues, local retribution collected by the provincial government positively predicts lending decisions. It reveals that in collecting retribution, provincial and regency governments consider cost recovery for services provided by the governments (Rachman, 2024). It also indicates that retribution is charged to small businesses following local economic conditions, including service businesses and land use fees paid for street vendor permits and the use of public spots for business within provincial and regency governments. The literature also explains that although there are different results found in the relationship between levies and economic activity (Aryanto et al., 2019; Simanjuntak et al., 2021), since 2020, regions with diverse and spreading economic activities collected high levies, indicating the growth in collection, especially regions with high numbers of micro and small businesses, such as the Sulawesi region and other regions in eastern Indonesia (Juwita, 2023).

Finally, local taxes, a revenue source owned and collected by provincial-level local governments, negatively affect investment loan decisions made by local government banks. It is possibly caused by fluctuation in local tax revenues earned by the provincial government and also a contraction during COVID-19 (Desdiani et al., 2022), mainly between 2019 and 2020 when tax flexibility policies applied by central and local governments (Utami & Ilyas, 2021; Zulkarnaen et al., 2020). On the other hand, it is a fact that total loans appear to be slightly decreasing during COVID-19 (Siregar et al., 2021), while investment loans indicated a steady and even a slight increase in several regions such as Papua, Maluku, and West Nusa Tenggara. The number of loans is in the outstanding stage as banks apply a loan relaxation (Cakranegara, 2020; Purwanto et al., 2023) by delaying the repayments of either principals or loan interest or both (Damayanthi et al., 2022). The increase is also likely due to the appliance of digital lending policies (Yudaruddin, 2023).

CONCLUSION

The study investigates how two types of investments (local domestic investment and foreign direct investment at the provincial level) and two groups of revenues (revenues allocated by the central government (general allocation funds and special allocation funds) and revenues generated by the provincial government (local retribution and local taxes)) affect loan decisions made by local government banks in Indonesia. Based on the results, the study found that local domestic investment and foreign direct investment at the provincial level have different results. Domestic investment

realization at the provincial level can predict loan decisions. In contrast, local foreign direct investment at the provincial level did not affect lending decisions by local government banks. It is a fact that local foreign direct investment was relatively volatile during the COVID-19 pandemic and more concentrated in certain provinces than local domestic investment, leading to a low impact on local economic output when studied outside of Java Island. The study also found that revenues generated by local government from the central government in the form of general allocation funds and special allocation also negatively affect lending decisions for investment loans granted by local government banks. The contribution of these two different revenues to economic activities is likely low as revenue spent on routine expenditures for civil servant salary and infrastructure expenditures by local government were spent on imported goods. The last is revenue funds generated by local government efforts at the provincial level, which are local retribution and taxes. The study found that these two revenues show different results, with local retribution indicating a positive effect while local taxes showing a negative impact. Local taxes related to local retribution were likely more volatile in the collection, mainly during COVID-19. Unlike local taxes, local retribution tends to follow the increase in investment loans. Future research should consider COVID-19 separately and relate it to the local economy. It is also essential to picture the differences between each island in eastern Indonesia closely, particularly when evaluating local revenue earned by the provincial government. Each province and island has different economic advantages, which can affect lending decisions differently.

AUTHOR CONTRIBUTIONS

Conceptualization: Andi Aswan, Sabbar Dahham Sabbar, Shahid Basir.
Data curation: Andi Aswan, Sabbar Dahham Sabbar, Andi Ratna Sari Dewi.
Formal analysis: Andi Aswan.
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Writing – original draft: Andi Aswan, Shahid Basir, Andi Ratna Sari Dewi.
Writing – review & editing: Andi Aswan, Sabbar Dahham Sabbar, Shahid Basir.

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APPENDIX A

Table A1. Characteristics of local government banks

Source: Data extracted from the 2023 Annual Reports of 16 local government banks.

No.	Name of Local Government Banks	Network						Main Provincial Operation	Level of Ownership	
		Head Office	Main Branch Offices	Branch Offices	Sub Branch Offices	Cash Offices	ATMs		Province(s)	Cities and Regencies
1	Bank of Sulselbar	1	5	29	12	54	589	South and West Sulawesi	2	23
2	Bank of SulutGo	1	1	25	25	62	291	North Sulawesi and Gorontalo	2	21
3	Bank of Sulteng	1	1	14	10	10	117	Central Sulawesi	1	13
4	Bank of Sultra	1	1	15	7	59	146	Southeast Sulawesi	1	17
5	Bank of Papua	1	1	43	58	122	337	Papua and West Papua	2	42
6	Bank of Maluku	1	1	19	24	24	212	Maluku and North Maluku	2	21
7	Bank of NTT	1	1	22	46	116	215	East Nusa Tenggara	1	21
8	Bank of Kaltimtara	1	1	18	101	120	426	East and Nort Kalimantan	2	15
9	Bank of Kalteng	1	1	35	7	30	238	Central Kalimantan	1	14
10	Bank of Kalsel	1	1	16	46	32	284	South Kalimantan	1	13
11	Bank of Kalbar	1	1	23	69	56	260	West Kalimantan	1	14
12	Bank of Sumut	1	1	43	171	0	353	North Sumatera	1	32
13	Bank of Bengkulu	1	1	10	46	0	121	Bengkulu	1	10
14	Bank of Jambi	1	1	13	32	0	131	Jambi	1	11
15	Bank of Lampung	1	1	7	32	27	157	Lampung	1	15
16	Bank of Nagari	1	1	33	100	0	328	West Sumatera	1	20