

Petroleum Profit Tax Revenue and Economic Growth in Nigeria: Empirical Evidence, 2010–2023

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Citation: Edeh Mark Bekweri, Ihedinma Godfrey Ikechukwu, Njoku Hyacinth Tochukwu (2026) Petroleum Profit Tax Revenue and Economic Growth in Nigeria: Empirical Evidence, 2010–2023. *J of Eco Inn & Busi Development* 1(1): 1-7.

Received Date: August 13, 2026

Accepted Date: September 14, 2026

Published Date: October 09, 2026

Abstract

Nigeria's federal budget has depended on petroleum revenue for the greater part of five decades, yet whether this revenue stream translates into measurable economic growth remains empirically contested. This study examines the effect of Petroleum Profit Tax (PPT) revenue on gross domestic product (GDP) in Nigeria over the period 2010 to 2023, controlling for the exchange rate and the inflation rate. Grounded in ability-to-pay and benefit theories of taxation, the study formulates and tests the hypothesis that PPT revenue exerts a significant positive effect on GDP. Using annual time-series data drawn from the Nigeria Extractive Industries Transparency Initiative, the Central Bank of Nigeria, and the Federal Reserve Economic Data repository, an ordinary least squares regression was estimated on log-transformed GDP and PPT revenue. The overall model was statistically significant, explaining approximately 90 per cent of the variation in GDP, but PPT revenue itself was not a statistically significant predictor once the exchange rate and inflation rate were controlled for. The exchange rate emerged as the dominant significant predictor, while the inflation rate approached but did not reach conventional significance. A robustness check using real, inflation-adjusted GDP in place of nominal GDP confirmed the null result for PPT revenue and additionally rendered the inflation rate significant. The findings suggest that petroleum tax revenue, considered in isolation, does not exert a measurable direct effect on Nigeria's economic growth once currency and price dynamics are accounted for, a result with material implications for how petroleum revenue is framed in national fiscal policy discourse.

Keywords: Petroleum Profit Tax; economic growth; ability-to-pay theory; benefit theory; exchange rate; Nigeria

Introduction

Economic growth, conventionally measured as the change in a nation's gross domestic product, remains the central outcome against which fiscal policy is judged across resource-dependent developing economies. Across Africa, the Middle East, and Latin America, governments that derive a large share of revenue from extractive resources have long debated whether that revenue meaningfully lifts national output or merely substitutes for other forms of public financing without adding to it. Nigeria presents one of the most closely watched cases of this debate. As Africa's largest oil producer, the country has financed the greater part of its federal budget through petroleum revenue since the early 1970s, and the Petroleum Profit Tax has historically stood as one of the principal instruments through which that revenue is captured.

Whether this tax revenue translates into measurable growth in gross domestic product is, however, an empirical question rather than a settled fact. Nigeria's GDP has grown substantially in nominal terms over the past decade and a half, but the same period has also witnessed sharp currency devaluation, elevated inflation, and pronounced volatility in global oil prices, any of which could plausibly account for observed movements in output independently of the tax revenue collected from petroleum operations. The Petroleum Industry Act of 2021 further complicated the picture by replacing the Petroleum Profit Tax with a hydrocarbon tax regime for new licences, while retaining the legacy tax for pre-existing

contracts, altering the composition of petroleum tax revenue during the latter part of the present study's sample period.

The specific gap this study addresses is the absence of a recent, methodologically explicit test of the relationship between PPT revenue and GDP in Nigeria that simultaneously controls for exchange rate and inflation dynamics, both of which are plausible confounders given Nigeria's macroeconomic history over the study period. The objective of this study is therefore to formulate and test the hypothesis that PPT revenue exerts a significant positive effect on GDP, using annual data from 2010 to 2023, and to establish whether this relationship holds once exchange rate and inflation are controlled for. The study adopts an ex post facto research design and estimates an ordinary least squares regression on log-transformed GDP and PPT revenue, with the exchange rate and inflation rate entered as control variables.

The remainder of this paper proceeds as follows. Section 2 sets out the theoretical framework, drawing on ability-to-pay and benefit theories of taxation and justifying their selection. Section 3 reviews the empirical literature on tax revenue, oil revenue, and economic growth in Nigeria and comparable economies. Section 4 formulates and states the study's Null Hypotheses. Section 5 describes the methodology, including the research design, data sources, measures, and analytical approach. Section 6 presents the analysis and interpretation of results. Section 7 discusses the

findings in relation to theory and prior literature, and Section 8 concludes.

Theoretical Framework

Ability-to-pay theory holds that the burden of taxation should be distributed according to a taxpayer's capacity to bear it, typically proxied by income or profit, such that entities earning greater economic rent contribute proportionately more to public revenue. Applied to the petroleum sector, this principle underpins the structure of the Petroleum Profit Tax itself, which is levied on the assessable profits of companies engaged in petroleum operations rather than on a flat or output-based basis. The theory's relevance to the present study lies in its implicit prediction: if petroleum companies are taxed in proportion to genuine economic rent, then PPT revenue should track the underlying profitability and scale of petroleum sector activity, and by extension should carry information about the broader economy's productive capacity that is reflected in GDP.

Benefit theory offers a complementary but distinct rationale, holding that taxation is justified to the extent that it finances public goods and services from which the taxed entity, and by extension the wider economy, derives benefit. Under this view, PPT revenue matters for GDP not because of how it is assessed but because of what it funds, namely public infrastructure, security, and administrative capacity that lower the cost of doing business and thereby support broader economic activity. Read together, ability-to-pay and benefit theories generate a joint expectation that PPT revenue should exhibit a positive statistical association with GDP, whether through the profitability signal the tax captures or through the public expenditure it enables.

These two theories were selected over alternative frameworks, such as resource curse theory or a purely macroeconomic growth-accounting approach, because the present study's research question concerns the direct revenue-to-growth linkage of a specific tax instrument rather than the broader political economy of resource dependence. Resource curse theory, which is applied in the companion study examining crude oil price dynamics using the same underlying dataset, is better suited to questions about institutional distortion and rent-seeking than to a direct test of whether a particular fiscal instrument's yield moves together with national output. Ability-to-pay and benefit theories, by contrast, speak directly to the mechanism by which tax revenue could plausibly influence GDP, making them the more appropriate lens for the hypothesis formulated in Section 4.

Literature Review

Empirical scholarship on the relationship between tax revenue, oil revenue, and economic growth in Nigeria has expanded considerably in recent years, driven partly by renewed policy interest following the Petroleum Industry Act and partly by growing availability of longer annual time series. This body of work can be grouped into three broad strands: studies examining oil revenue and growth directly, studies examining broader tax revenue and fiscal sustainability, and studies applying more advanced time-series techniques to isolate long-run relationships.

Several recent studies report a positive association between oil-related revenue and Nigeria's GDP. Ekiran (2024) examines petroleum revenue and gross domestic product in Nigeria over an extended period and reports a statistically discernible positive relationship, while Uchime (2024) reaches a broadly similar conclusion using a shorter and more recent sample. Ebimobowei (2022) extends the estimation window back to 1990 and likewise finds oil revenue to be positively associated with growth, though the magnitude of the effect varies considerably across sub-periods, a pattern the author attributes to structural shifts in Nigeria's

oil sector governance. Aruleba (2025) instead foregrounds the volatility of oil revenue itself, arguing that fiscal policy responses to fluctuating receipts, rather than the level of revenue collected, are what ultimately shape the growth relationship, a nuance that speaks directly to the present study's inclusion of exchange rate and inflation as controls capturing the macroeconomic environment surrounding revenue collection.

A second strand examines tax revenue more broadly, of which PPT is one component alongside company income tax, value added tax, and customs revenue. Ebun (2024) investigates the effect of overall tax structure on economic growth in Nigeria and reports mixed results across tax types, with direct taxes on corporate profit, the category into which PPT falls, showing a weaker and less consistent relationship with growth than indirect consumption-based taxes. Enowkenwa (2023) situates this question within a comparative African panel, finding that the growth effect of tax revenue depends heavily on complementary public expenditure patterns rather than on revenue collection alone, a finding consistent with the benefit-theory mechanism outlined in Section 2. Kolawole (2026) narrows the focus specifically to the human capital channel, reporting that oil and non-oil tax revenues jointly predict human capital development in Nigeria using a dynamic ordinary least squares approach, though the oil-tax component's individual contribution is smaller than that of non-oil revenue in that study's estimates.

A third strand applies more advanced time-series methods to test whether these relationships hold over longer horizons and survive tests for structural breaks and non-stationarity. Arhuere (2026) examines tax revenue sustainability and macroeconomic stability in Nigeria across an extended 2000 to 2024 window, reporting that the long-run relationship between tax revenue and macroeconomic stability is sensitive to the specific sub-period examined, with post-2020 observations behaving differently from the preceding decade. Anagbado (2023) re-evaluates fiscal sustainability in Nigeria as a resource-rich developing country and cautions that revenue-growth relationships estimated without accounting for the country's specific institutional and currency history risk overstating the contribution of any single revenue stream. Omoruyi (2025) evaluates the effectiveness of Nigeria's tax reforms on revenue generation across a 1999 to 2023 time-series and reports that reform episodes produced measurable but temporally uneven improvements in collection efficiency, without a correspondingly consistent effect on aggregate output. Ibitowa (2024) focuses specifically on the volatility of Nigeria's oil revenue and questions whether that volatility itself, rather than the revenue's average level, is the more policy-relevant concern, a perspective this study's annual sample period, which spans the 2015 to 2016 oil price collapse and the 2020 pandemic-era shock, is well positioned to speak to.

Taken together, this literature suggests two things relevant to the present study. First, the direction of the oil revenue and growth relationship is not uniform across studies, with some reporting a robust positive association and others finding the relationship weaker or contingent on the specific tax component and time period examined. Second, very few of these studies simultaneously control for both the exchange rate and the inflation rate within a single specification, despite both variables having undergone substantial change over the period most of these studies cover. This is the specific gap the present study addresses, formulating a direct test of the PPT-GDP relationship with both macroeconomic controls included, using the most recent available annual data through 2023.

Null Hypotheses

Based on the theoretical framework in Section 2 and the literature reviewed in Section 3, the following hypothesis was formulated

and tested. The exchange rate and inflation rate are included as control variables to isolate the PPT-GDP relationship from currency and price effects, consistent with their role as controls rather than as variables under direct hypothesis testing.

H1: Petroleum Profit Tax revenue has a significant effect on gross domestic product in Nigeria, controlling for the exchange rate and the inflation rate.

Methodology
Research Design

This study adopts an ex post facto research design, appropriate where the variables under investigation, namely PPT revenue, GDP, the exchange rate, and the inflation rate, are historical macroeconomic series that cannot be manipulated or assigned experimentally. The design permits the estimation of statistical association and, subject to the study’s limitations discussed in Section 7.1, inference about the direction and strength of the relationship between petroleum tax revenue and national output.

This study draws on data collected as part of a wider research programme examining Nigeria’s petroleum tax and revenue landscape. A companion paper using an overlapping dataset examines the relationship between crude oil price and Nigeria’s GDP from a resource curse theoretical perspective, using oil price rather than PPT revenue as the primary independent variable (Author, forthcoming). The present study examines a distinct research question, namely the direct effect of petroleum tax revenue on economic growth, using a separate primary variable and theoretical framework from the companion study.

Sample and Data Collection

The study uses annual time-series data covering the period 2010 to 2023, comprising 14 annual observations. PPT revenue figures, combining direct Petroleum Profit Tax remittances to the Federal Inland Revenue Service with in-kind Production Sharing Contract and Modified Carry Agreement payments, were sourced from the Nigeria Extractive Industries Transparency Initiative’s Oil and Gas Industry Audit Reports, covering the relevant editions published between 2011 and 2024. GDP at current basic prices, in Naira, was sourced from the Central Bank of Nigeria’s Nominal Gross Domestic Product database. The annual average official exchange rate and the annual average headline inflation rate were likewise sourced from the Central Bank of Nigeria’s statistics database. A robustness check reported in Section 6.6 additionally draws on real GDP at constant 2010 basic prices, also sourced from the Central Bank of Nigeria.

Measures and Operationalisation

GDP is measured as the natural logarithm of nominal GDP at current basic prices, in Naira billion, serving as the dependent variable. PPT revenue is measured as the natural logarithm of total Petroleum Profit Tax revenue, converted from United States dollars to Naira billion using the corresponding year’s annual average exchange rate to maintain currency consistency with the dependent variable, serving as the independent variable. The exchange rate is measured as the annual average official Naira-to-United-States-dollar rate, entered in levels as a control variable. The inflation rate is measured as the annual average headline consumer price index-based inflation rate, entered in levels as a control variable. Following Aruleba (2025) and Anagbado (2023), the exchange rate and inflation rate are controlled for on the basis that both variables plausibly confound the relationship between petroleum tax revenue and nominal economic output over a period marked by substantial currency depreciation and price volatility.

Analytical Approach

The study estimates an ordinary least squares regression of the following form:

$$\ln(\text{GDP}_t) = \beta_0 + \beta_1 \ln(\text{PPT}_t) + \beta_2 \text{EXR}_t + \beta_3 \text{INF}_t + \varepsilon_t$$
where GDP_t denotes nominal GDP in year t , PPT_t denotes Petroleum Profit Tax revenue in Naira billion in year t , EXR_t denotes the annual average exchange rate in year t , INF_t denotes the annual average inflation rate in year t , and ε_t denotes the error term. The model specification follows the general revenue-growth regression form used in Aruleba (2025) and Ebun (2024), adapted here to a single-country, log-linear specification with PPT revenue as the variable of primary interest. Estimation was performed using the numiqo online statistics calculator, which implements ordinary least squares estimation locally within the browser, with cross-validation of coefficients, model fit statistics, and diagnostic tests performed independently in Python using the statsmodels library.

Validity and Reliability

Internal validity is supported by the use of official, independently audited data sources for each variable, namely the Nigeria Extractive Industries Transparency Initiative for PPT revenue and the Central Bank of Nigeria for GDP, the exchange rate, and the inflation rate. Reliability was assessed through independent cross-validation of the regression estimates in a second statistical environment, which reproduced the coefficient estimates, model fit statistics, and significance levels obtained from the primary estimation software, providing confidence that the reported results are not an artefact of a single software implementation.

Table 1. Descriptive statistics (n = 14)

Variable	Mean	SD	Minimum	Maximum
ln(GDP), ₦ billion	11.617	0.436	10.908	12.345
ln(PPT revenue), ₦ billion	7.949	0.370	7.397	8.448
Exchange rate, ₦/US\$	297.442	147.130	150.300	645.200
Inflation rate, %	13.688	4.511	8.050	24.520

Author’s Output (2026).

Table 2: Correlation matrix

Variable	ln(GDP)	ln(PPT)	EXR	INF
ln(GDP)	1.000	-.184	.932	.671
ln(PPT revenue)	-.184	1.000	-.188	-.241
Exchange rate	.932	-.188	1.000	.829
Inflation rate	.671	-.241	.829	1.000

Author’s Output (2026).

Analysis and Interpretation of Results

Table 1 presents descriptive statistics for the study's variables in their estimation form. Table 2 presents the correlation matrix among the study's variables.

Figure 1 presents the trend in nominal GDP and PPT revenue, both in Naira billion, across the study period, and Figure 2 presents the bivariate relationship between the log-transformed variables.

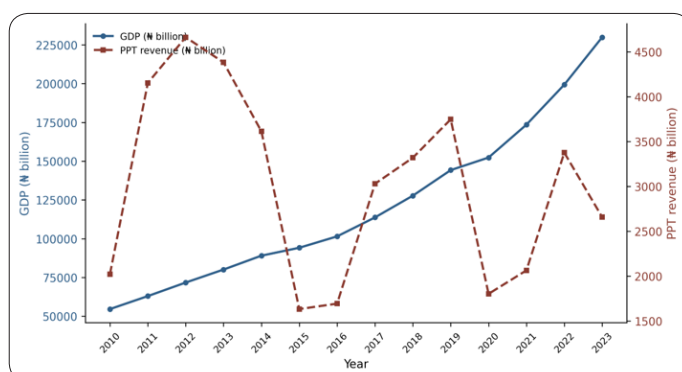


Figure 1: GDP and Petroleum Profit Tax revenue trend, Nigeria, 2010–2023
Author's Output (2026), based on data described in Section 5.2.

The bivariate correlation between $\ln(\text{PPT revenue})$ and $\ln(\text{GDP})$ is weak and negative ($r = -.184$), a pattern that runs contrary to the direction predicted by H1 and foreshadows the regression result reported below. The exchange rate, by contrast, correlates strongly with GDP ($r = .932$), and the exchange rate and inflation rate are themselves highly correlated with one another ($r = .829$), consistent with the historical pattern in which Naira depreciation has been accompanied by imported price inflation over the study period.

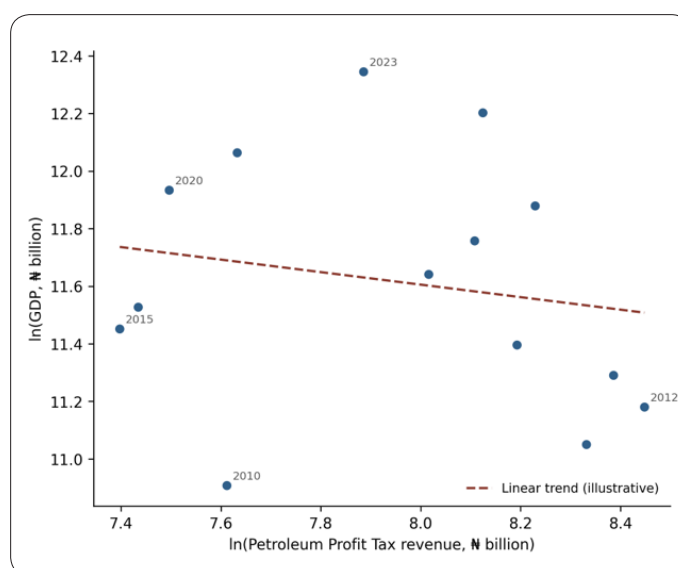


Figure 2: Scatter plot of $\ln(\text{Petroleum Profit Tax revenue})$ against $\ln(\text{GDP})$
Author's Output (2026).

Table 3 presents the pre-estimation multicollinearity diagnostics. Variance inflation factors for all three predictors fall well below the conventional threshold of 10, indicating that multicollinearity does not pose a material threat to the reliability of the coefficient estimates reported below.

Table 3: Pre-estimation multicollinearity diagnostics

Variable	Variance Inflation Factor
$\ln(\text{PPT revenue})$	1.06
Exchange rate	3.20
Inflation rate	3.27

Author's Output (2026).

Table 4 presents the ordinary least squares regression results. The overall model was statistically significant, $F(3, 10) = 30.80$, $p < .001$, and explained approximately 90 per cent of the variance in $\ln(\text{GDP})$, $R^2 = .90$, adjusted $R^2 = .87$. Petroleum Profit Tax revenue was not a statistically significant predictor of GDP, $B = -0.05$, $SE = 0.12$, $t = -0.39$, $p = .706$, 95% CI $[-0.31, 0.22]$. The exchange rate was a statistically significant positive predictor of GDP at the 1 per cent level, $B = 0.0036$, $SE < 0.001$, $t = 6.80$, $p < .001$, 95% CI $[0.00, 0.00]$, and carried the largest standardised effect in the model, $\beta = 1.20$. The inflation rate approached but did not reach conventional statistical significance at the 5 per cent level, $B = -0.03$, $SE = 0.02$, $t = -1.87$, $p = .091$, 95% CI $[-0.07, 0.01]$.

Table 4: Ordinary least squares regression results (dependent variable: $\ln(\text{GDP})$)

Predictor	B	SE	β	t	p	95% CI
Constant	11.37	1.00	—	11.40	<.001	[9.15, 13.59]
$\ln(\text{PPT revenue})$	-0.05	0.12	-0.04	-0.39	.706	[-0.31, 0.22]
Exchange rate	0.00	0.00	1.20	6.80	<.001	[0.00, 0.00]
Inflation rate	-0.03	0.02	-0.33	-1.87	.091	[-0.07, 0.01]

Author's Output (2026). $n = 14$; $R^2 = .90$; Adjusted $R^2 = .87$; $F(3, 10) = 30.80$, $p < .001$.

The fitted regression equation is: $\ln(\text{GDP}) = 11.37 - 0.05 \cdot \ln(\text{PPT revenue}) + 0.00 \cdot \text{Exchange rate} - 0.03 \cdot \text{Inflation rate}$. The constant term represents the model's mathematical baseline, the predicted value of $\ln(\text{GDP})$ when all predictors equal zero, a combination that does not correspond to any economically realistic scenario within the observed data and is therefore not interpreted substantively here.

Post-estimation diagnostics support the model's reliability. The Durbin-Watson statistic was 1.51, indicating mild positive autocorrelation in the residuals, a limitation discussed further in Section 7.1. Tests for normality of the residuals were consistent with a normal distribution, Shapiro-Wilk $W = .96$, $p = .768$, Kolmogorov-Smirnov $p = .983$, and Anderson-Darling $p = .815$, indicating that the ordinary least squares assumption of normally distributed errors was reasonably satisfied. Figure 3 presents observed against predicted values of $\ln(\text{GDP})$, and Figure 4 presents the residual histogram and normal quantile-quantile plot.

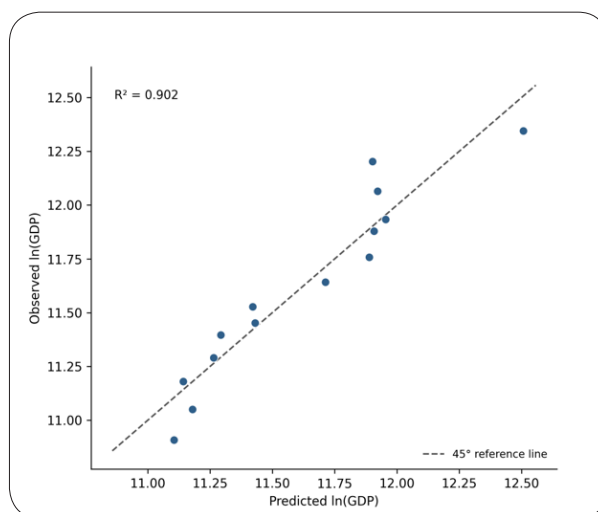


Figure 3: Observed against predicted values of $\ln(\text{GDP})$
Author's Output (2026).

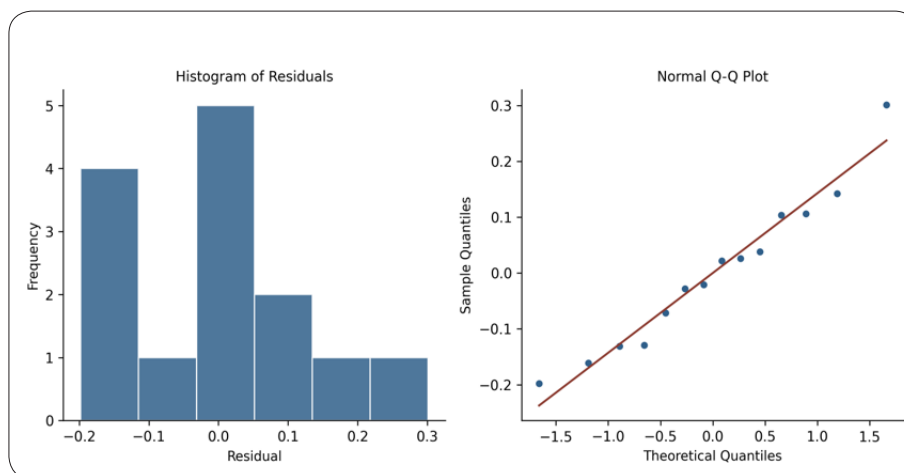


Figure 4: Residual diagnostics: histogram and normal quantile-quantile plot
Author's Output (2026).

Hypothesis Testing Summary

H1, which stated that Petroleum Profit Tax revenue has a significant effect on GDP controlling for the exchange rate and inflation rate, is rejected. PPT revenue was not a statistically significant predictor of GDP at the 5 per cent level ($p = .706$). The overall model's explanatory power was driven predominantly by the exchange rate.

Robustness Check: Real GDP Specification

To assess whether the null result for PPT revenue was an artefact of using nominal, currency-denominated GDP as the dependent variable, the model was re-estimated using real GDP at constant 2010 basic prices in place of nominal GDP. This robustness check follows the general logic applied in Anagbado (2023), who cautions against estimating Nigerian revenue-growth relationships without accounting for currency effects. The re-estimated model explained a smaller but still substantial share of variance in real GDP, $R^2 = .775$, adjusted $R^2 = .708$, $F(3, 10) = 11.50$, $p = .001$. PPT revenue remained a non-significant predictor, $B = -0.032$, $SE = 0.041$, $t = -0.768$, $p = .460$, confirming that the null finding for PPT revenue is not an artefact of the currency-denomination of the dependent variable. The exchange rate remained a significant predictor, $B = 0.0009$, $SE < 0.001$, $t = 4.816$, $p = .001$. Notably, the inflation rate became statistically significant at the 5 per cent level in this specification, $B = -0.013$, $SE = 0.006$, $t = -2.229$, $p = .050$, a result not observed in the primary nominal-GDP specification and discussed further in Section 7.

Discussion

The rejection of H1 indicates that Petroleum Profit Tax revenue, considered on its own and net of exchange rate and inflation effects, does not exert a statistically discernible direct effect on Nigeria's GDP over the 2010 to 2023 period. This result stands in partial contrast to Ekiran (2024) and Uchime (2024), both of which report a positive association between petroleum-related revenue and GDP, though neither study controls simultaneously for the exchange rate and inflation rate within a single specification. Once these two macroeconomic variables are held constant, the present study's results suggest that much of the apparent co-movement between petroleum revenue and nominal GDP identified in prior single-variable or partially controlled studies may reflect the shared influence of currency depreciation on both series, rather than a direct causal contribution of tax revenue to output. This interpretation is consistent with Aruleba's (2025) emphasis on the macroeconomic environment surrounding oil revenue, rather than the revenue's level alone, as the more analytically important object of study.

The dominance of the exchange rate as a predictor, carrying a standardised effect roughly six times larger than any other variable in the model, is consistent with the mechanical relationship between Naira depreciation and nominal GDP growth in a country where GDP is measured and reported in local currency. As the Naira has weakened substantially against the United States dollar since 2010, and particularly since the 2023 unification of Nigeria's foreign exchange market, nominal GDP has risen in Naira terms even where underlying real output growth has been comparatively modest, a pattern the robustness check in Section 6.2 partially corroborates through the reduced model fit obtained under the real GDP specification.

The theoretical implication of these findings is that ability-to-pay and benefit theories, while providing a coherent rationale for why petroleum tax revenue ought to relate to national economic capacity, may describe a relationship that operates at a longer time horizon or through channels, such as public infrastructure investment, that are not fully captured within a same-year annual regression of the kind estimated here. This reading is consistent with Enowkenwa's (2023) finding, in a comparative African panel, that the growth effect of tax revenue depends heavily on complementary public expenditure patterns rather than on revenue collection in isolation, and with Kolawole's (2026) result that oil tax revenue's contribution to human capital development in Nigeria, a plausible transmission channel to longer-run output, is smaller and slower to materialise than that of non-oil revenue. The practical implication is that policymakers should exercise caution in attributing observed GDP growth to petroleum tax revenue performance without first accounting for concurrent currency and price movements, since the present findings suggest that such attribution

may overstate the tax revenue's independent contribution, a caution that echoes Arhuere's (2026) observation that Nigeria's tax revenue and macroeconomic stability relationship has behaved differently in the post-2020 sub-period than in the preceding decade.

Limitations

This study is subject to several limitations. The sample comprises 14 annual observations, a sample size that, while consistent with the available range of officially reconciled PPT revenue data, limits statistical power and the precision with which smaller effects can be detected. The Durbin-Watson statistic of 1.51 in the primary specification, and 1.04 in the robustness specification, indicates the presence of mild to moderate positive autocorrelation in the residuals, a common feature of short annual macroeconomic time series that was not formally corrected for in the present analysis through techniques such as Newey-West standard errors or a generalised least squares re-estimation; this represents a post-estimation diagnostic concern that future work using a longer time series should address directly. Heteroscedasticity was likewise not formally tested using a Breusch-Pagan or related Lagrange multiplier procedure of the kind developed by Pagan (1979), and while the residual diagnostics reported in Section 6 provide no visual indication of heteroscedasticity, a formal test would strengthen confidence in the standard errors reported here. The study is further limited to a single country and a single tax instrument, and its findings should not be generalised to other petroleum-exporting economies or to Nigeria's broader tax revenue portfolio without independent testing.

Future Research Directions

Future research would benefit from extending the sample period as additional years of reconciled PPT revenue data become available, from applying autocorrelation-robust estimation techniques such as Newey-West standard errors or an autoregressive distributed lag specification to formally address the serial correlation identified in Section 7.1, and from testing whether the PPT-GDP relationship operates with a lag rather than contemporaneously, given the theoretical possibility that tax revenue's effect on output may materialise through public expenditure channels over more than one fiscal year. As with the companion study examining crude oil price, a longer annual series would permit formal unit root testing of each variable using the augmented Dickey-Fuller procedure developed by Dickey and Fuller (1979), followed, where appropriate, by the autoregressive distributed lag bounds testing approach of Pesaran, Shin, and Smith (2001) to establish whether PPT revenue and GDP share a long-run cointegrating relationship beyond the contemporaneous association tested here.

Conclusion

This study formulated and tested the hypothesis that Petroleum Profit Tax revenue exerts a significant effect on Nigeria's GDP, controlling for the exchange rate and the inflation rate, using annual data spanning 2010 to 2023. The hypothesis was not supported. The exchange rate emerged as the dominant predictor of nominal GDP in the estimated model, and this pattern persisted, alongside a null finding for PPT revenue, when the model was re-estimated using real, inflation-adjusted GDP as a robustness check. These findings suggest that petroleum tax revenue's contribution to Nigeria's measured economic growth is considerably more modest than a simple bivariate reading of the two series would suggest, once the currency and price dynamics that have characterised the Nigerian economy over this period are properly accounted for. The result carries a caution for fiscal policy discourse that treats petroleum tax revenue performance as a direct proxy for economic growth, and it points towards exchange rate stability, rather than tax revenue collection alone, as a more immediate correlate of measured output over the period examined.

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