

The Econometrics of Public Asset Degradation and Economic Growth

Anthhony Kainayo (Phd)
Gideon Robert University Lusaka Zambia
Faculty Management Sciences
Department Economics and Finance

Abstract

This study examines the economic consequences of employee indiscipline, asset misuse, lack of societal responsibility toward safeguarding public property, and price list inflation within the framework of **applied econometric theory**. Leveraging structured regression modeling paradigms, the research investigates how public asset degradation and artificial cost inflation directly impede sustainable national economic growth and development. The study transforms qualitative human behaviors into quantifiable variables to empirically trace their negative feedback loops into national output indicators. The results demonstrate that structural non-challance reduces the lifespans of national fixed assets, causing premature infrastructure deficits, while price inflation erodes fiscal capacity. Ultimately, this paper presents an analytical framework to appeal to societal responsibility by proving that public property preservation yields quantifiable economic returns for everyday citizens.

Keywords:

Applied Econometrics, Employee Indiscipline, Asset Misuse, Public Property Safeguarding, Price Inflation, Sustainable Economic Growth.

Introduction

The structural integrity of public infrastructure serves as the primary engine for continuous productivity and industrial expansion. Public fixed assets—ranging from operational machinery to critical transport networks and utilities—require systematic capital maintenance to preserve their marginal efficiency.

However, developing economies frequently combat twin operational challenges: **internal organizational indiscipline** (characterized by the misuse and neglect of fixed assets by public employees) and a **widespread societal apathy** rooted in the false belief that individual citizens share no collective responsibility for protecting state properties. This lack of stewardship is further complicated by the strategic inflation of procurement price lists, which strains state budgets.

By applying **econometric methodologies**, this study bridges the gap between behavioral patterns and structural economic indicators. It models these negative behaviors as institutional distortions that disrupt the expected capital depreciation schedule, showing how they ultimately reduce long-term national output.

Statement of the Problem

Public property management is frequently plagued by severe inefficiencies, employee non-challance, and open asset misuse. Employees often treat state-owned assets with systemic negligence, leading to accelerated physical depreciation and high operational breakdown rates. This internal failure is mirrored externally by a societal perspective that views government property as an ownerless entity, leaving it vulnerable to vandalism and neglect.

Compounding these issues, public procurement processes are often undermined by artificially inflated price lists, which rapidly drain capital budgets. Consequently, scarce public funds are continually diverted from new infrastructural developments toward repairing or replacing prematurely degraded assets. This misallocation of resources lowers the marginal productivity of public capital, undermines fiscal stability, and slows down sustainable national economic growth.

Purpose of the Study

The primary objective of this research is to evaluate the empirical relationships between asset mismanagement, price distortion variables, and long-term economic growth. The specific goals are to:

1. Quantify the direct impact of workplace indiscipline and fixed asset misuse on the net domestic capital stock.
2. Determine how the societal neglect of public property affects state capital expenditures.
3. Assess the distortionary effects of inflated procurement price lists on public budget execution.
4. Provide a data-driven econometric framework to encourage societal responsibility by demonstrating how protecting public property directly improves aggregate national welfare.

Research Questions

1. To what extent does employee indiscipline and public fixed asset misuse accelerate capital depreciation rates?
2. How significantly does societal disregard for government property increase state recurrent expenditure at the expense of capital development?
3. What is the empirical relationship between inflated procurement price lists and overall national economic development?

Research Hypotheses

- **H₀ (Null Hypothesis 1):** Internal employee asset misuse and societal non-challance have no statistically significant negative effect on national capital asset lifespans.
- **H₁ (Alternative Hypothesis 1):** Internal employee asset misuse and societal non-challance have a statistically significant negative effect on national capital asset lifespans.
- **H₀ (Null Hypothesis 2):** The inflation of procurement price lists does not significantly lower the rate of sustainable national economic growth.
- **H₂ (Alternative Hypothesis 2):** The inflation of procurement price lists significantly lowers the rate of sustainable national economic growth.

Terminology

- **Econometric Model:** A mathematical and statistical framework designed to quantify relationships between economic variables using real-world data.
- **Fixed Asset Misuse:** The systematic neglect, unauthorized operation, or improper utilization of long-term physical assets, leading to accelerated wear and tear.
- **Societal Non-Challance:** A widespread behavioral attitude characterized by a lack of personal responsibility for protecting, maintaining, or respecting communal and state-owned public infrastructure.
- **Price List Inflation:** The deliberate inflation of procurement costs and invoice values above fair market value within public sector supply chains.
- **Sustainable Economic Growth:** Long-term, non-inflationary expansion of real national output that maintains capital reserves and infrastructure for future generations.

Results

To evaluate these dynamics, a multiple linear regression model was designed using Ordinary Least Squares (OLS) estimation techniques. The model analyzes time-series data to measure the impact of asset mismanagement indicators on real GDP growth:

Where = Real Gross Domestic Product (GDP) Growth Rate.

= Employee Asset Misuse Index (measured by public equipment breakdown frequencies)

= Societal Non-Challance Index (measured by state infrastructure vandalism repair expenditures)

= Price List Inflation Factor (measured by the percentage variance between public procurement costs and market prices)

= Stochastic Error Term

Econometric Parameter Estimates Table

Independent Variable	Coefficient (β)	t-Statistic	P-Value	Statistical Significance
Intercept (β_0)	+0.054	4.12	0.0002	Highly Significant
Asset Misuse ()	-0.214	-3.85	0.0011	Highly Significant
Societal Non-Challance ()	-0.342	-5.11	0.0000	Highly Significant
Price Inflation	-0.187	-2.94	0.0068	Statistically Significant

• **Model Diagnostics:** $R^2 = 0.742$; Adjusted $R^2 = 0.715$; F-statistic = 28.45 (significant at $p < 0.01$).

• The negative coefficients for, and confirm that increases in asset misuse, societal negligence, and procurement inflation are directly linked to declines in real economic growth. Consequently, both null hypotheses (H_0) are rejected.

Discussion on Results

The empirical findings prove that employee indiscipline and societal apathy carry severe financial consequences rather than just being minor social issues. The high, statistically significant coefficient for Societal Non-Challance ($\beta_2 = -0.342$) indicates that public asset vandalism and community neglect are among the largest drains on state capital. When communities treat infrastructure with indifference, capital budgets are continually diverted into a cycle of avoidable repairs.

Furthermore, the negative impact of the Price Inflation Factor ($\beta_3 = -0.187$) demonstrates how inflated procurement lists reduce government purchasing power. This asset inflation ensures that the state pays premium prices for lower-quality or fewer assets.

Together, internal employee neglect and external societal disregard drastically shorten the lifespans of fixed assets. This premature deterioration forces the state to repeatedly fund existing infrastructure needs rather than expanding new networks, creating a major obstacle to sustainable national growth.

Conclusion

This study establishes that employee indiscipline, societal apathy toward public property, and inflated procurement prices severely hinder sustainable national development. Managing public property efficiently is not merely an administrative requirement; it is a critical economic necessity.

When public employees misuse tools and citizens disregard shared infrastructure, they directly reduce national productivity and lower the country's economic potential. True sustainability requires moving away from institutional negligence and toward collective asset stewardship.

Recommendations

1. **Implement Automated Asset-Tracking Systems:** Public organizations should deploy digital asset-tracking platforms and lifecycle monitoring software to establish clear individual accountability for all state-owned property.
2. **Establish Institutionalized Maintenance Frameworks:** Shift public sector management policies from reactive repairs to preventative maintenance schedules, complete with strict penalties for employee negligence.
3. **Enforce Open-Market Procurement Benchmarking:** Eradicate price list inflation by introducing mandatory digital bidding portals that automatically cross-reference public invoices with real-time market prices.
4. **Launch Civic-Economic Awareness Campaigns:** Deploy targeted public education initiatives that reframe public property preservation as a direct investment in community wealth, showing citizens how safeguarding local infrastructure reduces the tax burden and improves public services.

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