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Assessing the impact of indirect taxation on poverty and inequality: A pseudo-panel data analysis on Bangladesh and global insights from cross-country panel regressions

Mohammad A. Razzaque, Md. Deen Islam, Jillur Rahman, and Syed Rafsan Ali

- In Bangladesh, almost two-thirds of revenue is derived from indirect sources, particularly regressive taxes like a value-added tax (VAT).
- This study investigates the impact of the indirect tax burden on household poverty levels in Bangladesh, employing both pseudo-panel analysis and cross-country panel analysis.
- Findings suggest that each 1% increase in the indirect tax burden leads to a 0.42% rise in poverty – revealing the importance of reducing reliance on indirect taxation and utilising progressive taxation to address income inequality and bolster government revenue.
- This brief suggests a phased tax reform initiative spanning 10-15 years, prioritising broadening the tax base, modernising tax administration, and shifting from traditional policing and threats to more user-friendly and automated technology.

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Introduction

Escalating income inequality in Bangladesh, evidenced by a rising Gini coefficient from 0.448 in 2010 to 0.499 in 2022, is a significant socio-economic challenge. With almost two-thirds of revenue derived from indirect sources, particularly regressive taxes like value-added tax (VAT), there is growing concern about the impact of taxes on poverty and inequality.

Bangladesh faces historical challenges in tax revenue generation, with a tax-GDP ratio of only 8% – significantly lower than comparable countries like China, India, and Japan. Although direct tax collection has increased over the years, the direct tax-GDP ratio remains low at just 2.5%. Weak direct taxation limits public expenditure on essential services, including health, education, and social protection programmes, which tend to benefit low-income households – thereby contributing to the rising inequality in the country.

Methodology and data

This study investigates the impact of the indirect tax burden on household poverty levels in Bangladesh, addressing limitations in previous research by employing both pseudo-panel analysis and cross-country panel analysis. Recognising the challenges of using macro time series and regional country-level panel data, the study constructs a pseudo-panel from four rounds of Household Income and Expenditure Surveys (HIES) in Bangladesh. The pseudo-panel considers household-level time-invariant characteristics, such as the gender of the household head, location, and income percentile, to explore the relationship between indirect taxation and poverty incidence. The study also conducts cross-country panel analysis covering 266 countries from 2010 to 2019, using variables like the Gini Index and Poverty Headcount Ratio to measure inequality. Both pseudo and cross-country panel analyses employ fixed effects and random effects models, with VCE-robust standard error adjustment to enhance the robustness of the findings. They provide a comprehensive examination of the impact of indirect taxation on poverty and inequality at both household and national levels.

Findings

This study on Bangladesh's tax system reveals critical insights. Over a decade, poverty decreased by an average of 2.8% per year, from 50% in 2000 to 18.7% in 2022. However, income inequality persists, with a 2-7% rise in the indirect tax burden for low-income households. The pseudo-panel regression underscores this, showing a significant positive correlation – each 1% increase in the indirect tax burden leads to a 0.42% rise in poverty. Cross-country analysis strengthens these findings, indicating a 0.1% increase in income inequality for each 1% surge in the indirect tax burden. Furthermore, a 1% rise in income correlates with a substantial 0.084% decrease in poverty. The study emphasises the imperative to reduce reliance on indirect taxes globally. Interestingly, the analysis suggests a potential but weak association between higher indirect tax shares and slower GDP growth, underlining the intricate connections between fiscal policies, economic development, and inequality dynamics.

Policy recommendations

Increasing direct taxation requires a systematic and sustained approach. This brief recommends a phased tax reform initiative spanning 10-15 years, prioritising broadening the tax base and modernising tax administration. This approach aligns with successful models, such as Tanzania's, which include early phases to enhance the tax base and later stages to address corruption and reorganise exceptions systematically. A well-structured plan, incorporating short-, medium-, and long-term strategies, will be instrumental in gradually achieving this objective. Moreover, to ensure transparency and fairness, a comprehensive cost-benefit analysis should precede any decision to grant tax exemptions. This would help eliminate random and unexamined exemptions, ensuring that fiscal incentives align with job creation and economic growth.

To enhance tax compliance, a shift from traditional policing and threats to more user-friendly and automated technology is imperative. The government should invest in advanced systems that not only notify taxpayers but also provide regular reminders for return filing. The automation of the tax notification process reduces human involvement, making it more efficient and less prone to errors. Additionally, adopting a service-providing attitude in tax administration can foster voluntary compliance. The focus should be on educating and assisting taxpayers rather than relying solely on enforcement measures.

An expansion of the tax net is crucial to collect more revenue from direct sources. The adoption of innovative technologies can facilitate this expansion, making it easier for individuals and businesses to comply with tax regulations. These measures collectively contribute to building a fair, transparent, and efficient tax system that aligns with economic growth objectives while mitigating income inequality. The strategic use of indirect taxes, such as VAT, in sectors associated with higher consumption can also be explored to boost overall tax revenues.