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Are CIT Incentives Fit for Purpose?

Revisiting Economic Principles & Evidence from Low- and Middle-Income countries

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TaxDev

UKaid from the British people

Introduction

Corporate income tax (CIT) is a crucial source of tax revenue in LMICs

- CIT contribute ~15%/20% of total tax revenues
- Marginal returns to public spending are thought to be higher

Tax incentives are very common in LMICs, revenue is lost

Are these incentives fit for purpose? This presentation considers

- What are the potential motivations?
- What are the different types of CIT incentives?
- Revisit their economic rationale
- What are the likely costs and benefits?
- How do they look like in practice? The case of Ghana and Ethiopia
- What do we know about their benefit?
- How can we learn more about their impact?

A number of potential motivations exist

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Attract mobile business investments

- International tax competition
- Weak investment climate (infrastructure, skills, rule of law, etc.)

Industrial policy

- Incentivise the economic growth of priority sectors

Regional inequalities

- Attract economic activity to disadvantage regions

Market failures

- Social returns to certain activities (e.g. Research and Development)

What are the different types of CIT incentives?

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Cost-based

- Include investment allowances, tax credits and accelerated depreciation, which decrease the cost of capital
- Additional investment gained per unit of revenue forgone should be higher, only accrued if capital investments are made

Profit-based

- Reduce tax rates or tax holidays (100% exemption from paying tax)
- Better to attract footloose investments earning firm-specific rents
- Tax holidays benefit short-term projects (low upfront investment costs)

Targeting

- Firms' characteristics (e.g. size), industrial sectors, geographical areas, export-oriented activities

Revisit their economic rational

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The economic case for tax incentives is <u>stronger</u> for

- Most mobile investments (earn firm-specific rents, cost-sensitive like export oriented activities)
- Investments that have positive social returns (e.g. R&D)

The economic case for tax incentives is <u>ambiguous</u> for

- Investments that generate regional rents
- Investments that are located in disadvantaged areas

The economic case for tax incentives is <u>weak</u> for

- Investments that exploit location-specific rents such as natural resources (exogenous rents)
- Investments that exploit agglomeration benefits (endogenous rents)
- Any other investment not discussed above

Cost and benefit considerations

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Tax incentives have high costs beyond forgone revenues

- Non-neutralities, further distortions and complexities
- Put non-targeted firms at a disadvantage
- Induce rent-seeking behaviour associated with corruption
- Compliance, administration and enforcement costs

Benefits may include

- Additional investment, output, employment, and economic growth + revenues associated with higher economic activity in the longer term

Evidence is scarce, and governance can be improved

- IOs (e.g. IMF, WB, OECD, UN) provide technical assistance to quantify foregone revenues & improve cost-benefit analysis and governance
- Evidence on benefits is scarce, inconclusive and varies by context

Widespread prevalence despite scarce evidence (James, 2014)

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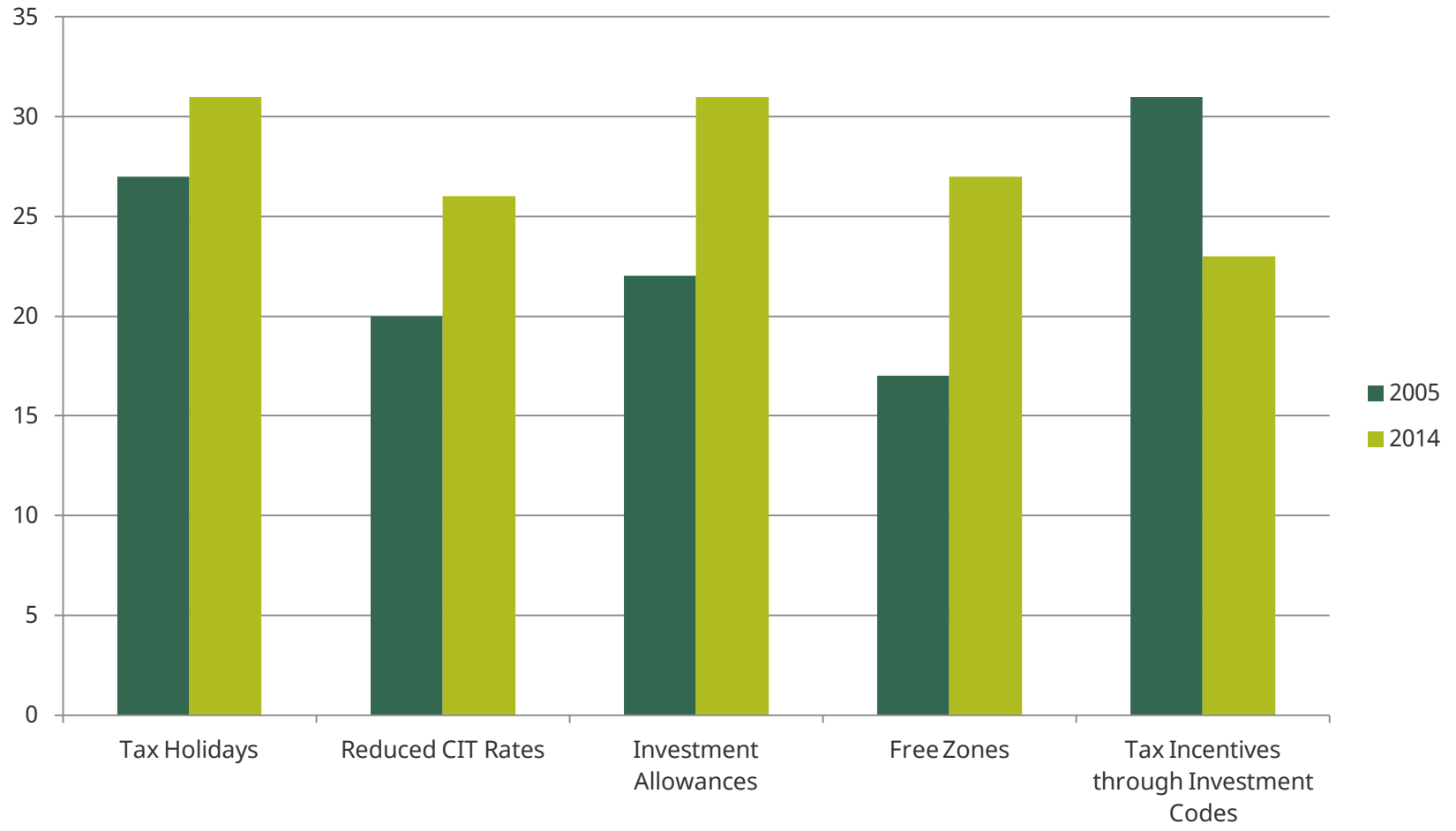
	Number of Countries Surveyed	Tax holiday/ Tax exemption	Redu-ced Tax Rate	Investment allowance/ Tax credit	R&D Tax Incentive	Super-dedu-ctions	SEZ / Free Zones/ EPZ / Freeport	Discretio-nary process
East Asia and Pacific	12	92%	75%	67%	83%	33%	92%	83%
Eastern Europe and Central Asia	17	82%	35%	24%	29%	0%	94%	35%
LAC	24	92%	33%	50%	8%	4%	71%	42%
MENA	15	80%	40%	13%	0%	0%	80%	40%
OECD	34	12%	32%	65%	76%	21%	68%	35%
South Asia	8	100%	38%	75%	25%	63%	63%	38%
Sub-Sahara Africa	44	78%	62%	78%	11%	18%	64%	82%

Increasing prevalence in 40 Sub-Saharan African countries (James, 2014)



Case studies: Ghana and Ethiopia (I)

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Profit-tax incentives granted through the tax code: Ghana → reduced rates; Ethiopia→ tax holidays

- Vary hugely according to firms' location, size, and economic sector
  - E.g. Ethiopia grants sugar production a 5-year (6-year outside Addis) exemption period from income tax, while chocolate cookies and other sweets have a 1-year (2-year) exemption period
  - Introduces non-neutralities, distortions, opaqueness and complexities
  - Re-labelling/abuse opportunities, difficult to administer & monitor
- Not always a clear economic rationale
  - Except for export-oriented investments?
- No supportive evidence of their costs and benefits
  - Actually evidence from Ethiopia (Gebrewolde and Rockey (2016)) suggests they are not cost-effective

Extractive industries in Ghana and Ethiopia (II)

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Ethiopia

- Reduced CIT rates (25% vs. 30% Standard rate) for mining and petroleum, which earn location specific rents→ consider levying additional taxes on profits and output? Maybe grant temporary investment allowance for exploration stages?

Ghana

- Tax rate applicable to the extractive sector is35%, higher than the standard CIT rate of 25%, which is in line with best practices for a well designed tax system
- However, fiscal concessions for large investments undermine the original objective

What do we know about the benefits of CIT incentives? Little, inconclusive results that vary by type of incentive and context

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Vast literature with descriptive evidence on tax incentives and their impact

- Calculations of effective tax rates (ETR)
- Correlations between outcomes and incentives
- Self-reported investor surveys (bias): around 70% of investors say useless!

Cross-country regression analysis

- Incentives (tax holidays) may increase FDI in some contexts but not overall private investment (crowding out effect)
- Cofounding factors, reverse causality

Recent firm-level econometric studies

- *Incentives for specific regions or sectors:* China positive (but cofounding factors due to bundle of policies), India positive, Ethiopia not cost effective
- *R&D:* positive impact on investment but smaller than that found for developed countries (elasticity less than 1 in middle income countries)

How can we learn more about the impact of tax incentives?

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Identify and model what firms' performance in the absence of incentives would have been by finding a good counterfactual

- Additional investment, employment, output, further tax payments (related to the concept of redundancy)
- Econometric strategies to tease apart the impact of tax incentives from other co-founding factors & data

Consider behaviour of firms not eligible but indirectly affected by the incentives

- Positive spillovers like technology transfer from multinationals
- Negative spillovers like displacement and crowding out effects

Economic modelling

- If possible, build models of investment to understand mechanisms by which tax incentives affect investments and estimate tax elasticities
- Can be used for policy simulations of hypothetical tax reforms

Identifying a counterfactual

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Key question

- Knowing what would have been the investment decision of the firm with and without the tax incentive → unobservable
- Build a valid counterfactual using "similar" firms or areas that have no access to tax incentives and compare them to firms or areas that have access

How to define similar firms not treated by the policy (control group)?

- Policy assignment is not random (self-selection)
  - E.g. Disadvantage areas, more connected investors, special sectors
- Use quasi-experimental techniques
  - Policy assignment rules (sector, area, type of asset) with detailed (firm-level) data
  - Detailed data to build groups of treated and untreated "similar" firms & account for observable and unobservable co-founding factors when comparing performance of key outcomes

Quasi-experimental techniques

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Choice of technique depends on type of incentive and data available

- Area-specific? Sector-specific? R&D or other investment? Multiple criteria?

Difference-in-difference (DD)

- Compare treatment and control groups of firms over time, before and after the introduction of the incentive
- Assume (check in data) that treated and control groups' outcome trends were similar before the introduction of the incentive
- Control for observable characteristics and time-invariant characteristics that can affect both eligibility and investment decisions

Boundary discontinuity (BD) & regression discontinuity (RD) design

- Compare firms across close geographical boundaries (BD) or eligibility threshold (RD) that generate "exogenous" tax differential treatment, but all else can be assumed equal

Example: Chaurey (2016)

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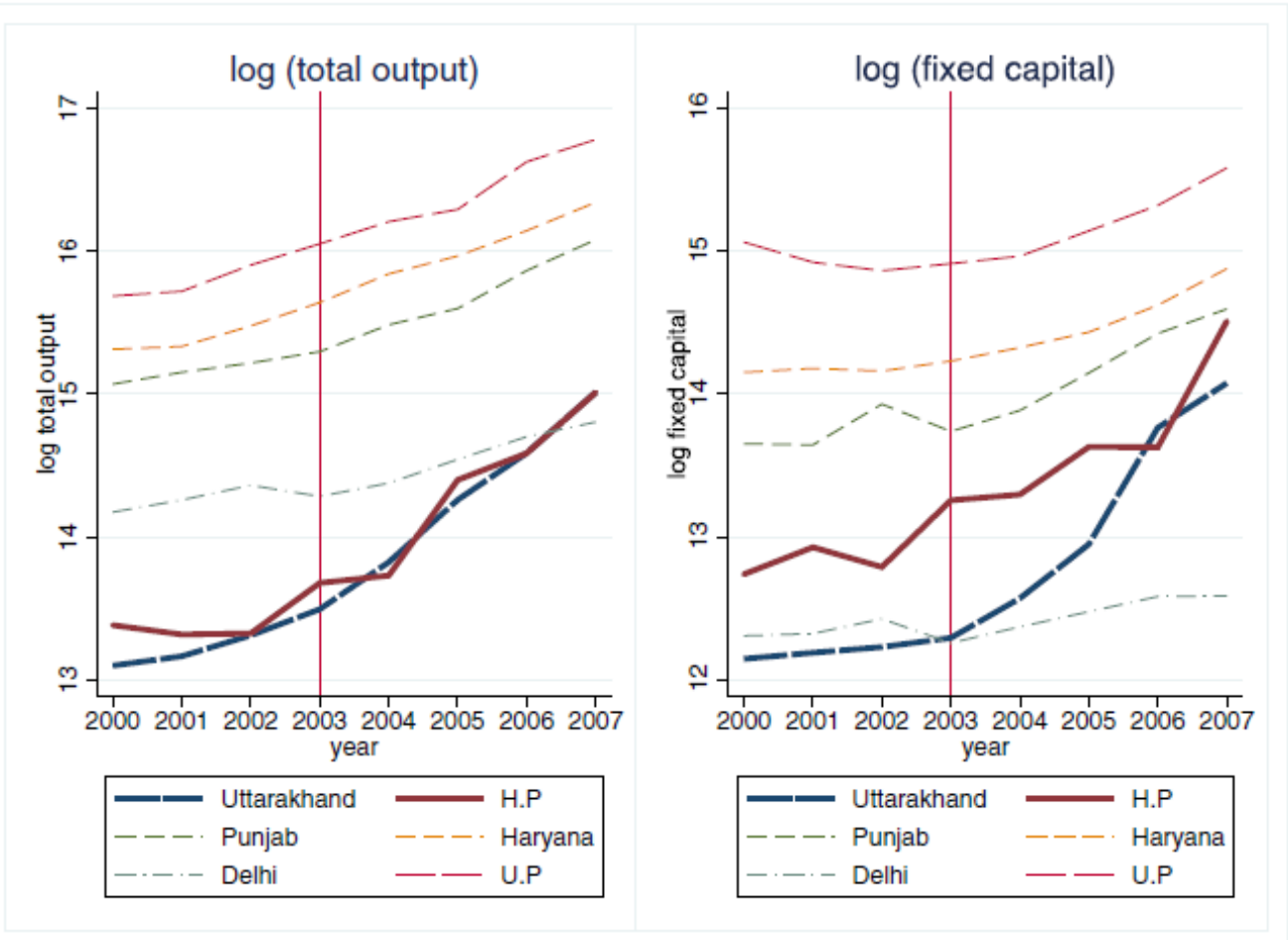
Causal impact of tax incentives across states in India

- Tax exemptions and capital subsidies in 2 poorer states
- DD using treated and control units (both firm-level and area aggregates)

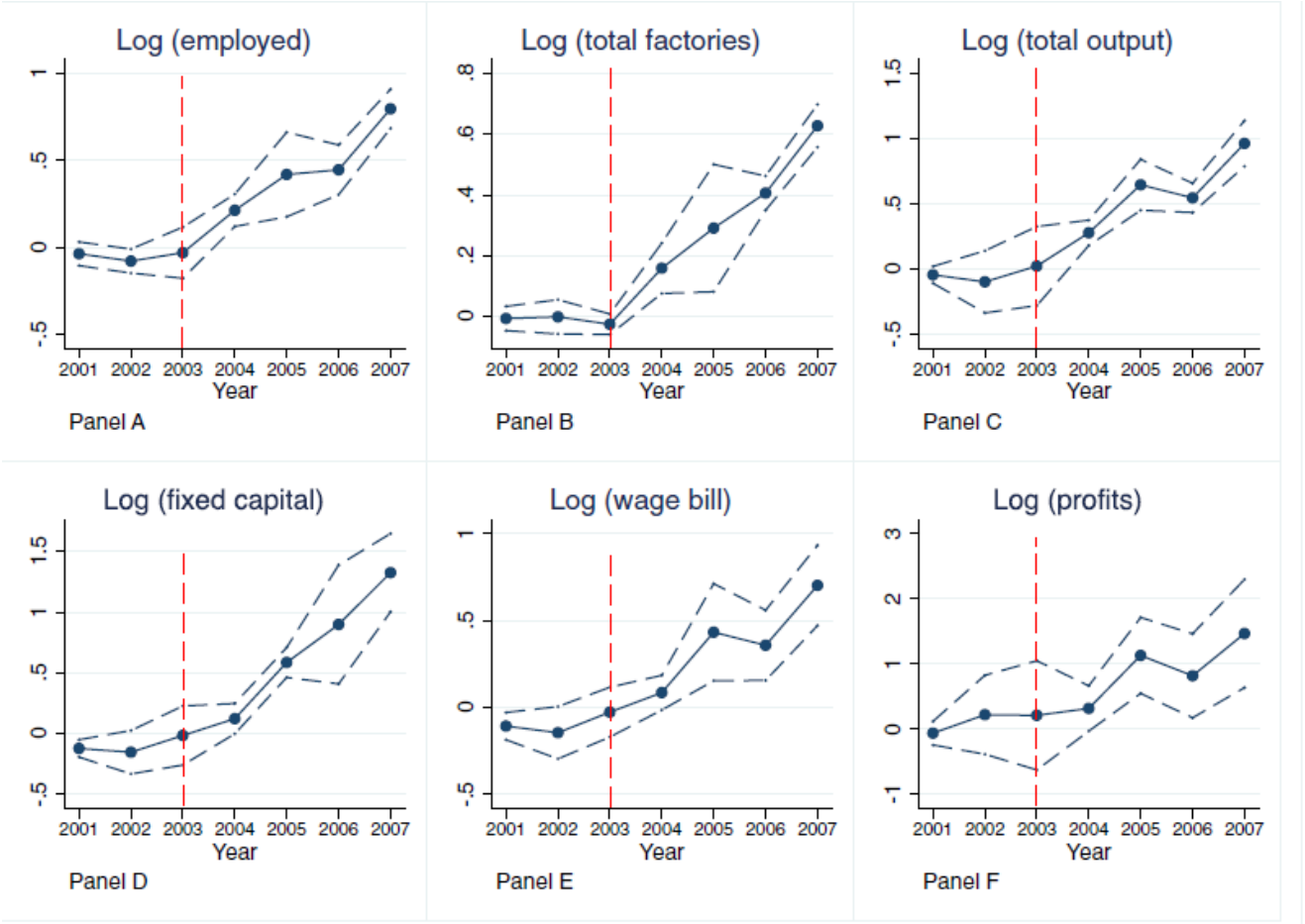
Significant (positive) impacts on economic outcomes

- (Too?) Large increases in employment, total output fixed capital, and the number of firms
- Increases due to both the growth of existing firms as well as the entry of new firms
- Evidence that new firms entering the treated regions are larger and more productive.
- No spillovers on industrial activity in control regions
- Increase in wages but no changes in housing rents or migration across regions

Example: Chaurey (2016)



Example: Chaurey (2016)



Example: Gebrewolde and Rockey (2016)

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Causal impact of tax incentives for firms in Ethiopia

- Place-based and sector-specific tax-breaks and subsidised loans for firms
- Uses product-level survey data on Ethiopian manufacturing firms
- DD using treated and control units (using policy variation across sector and geographical)

No improvement on economic outcomes

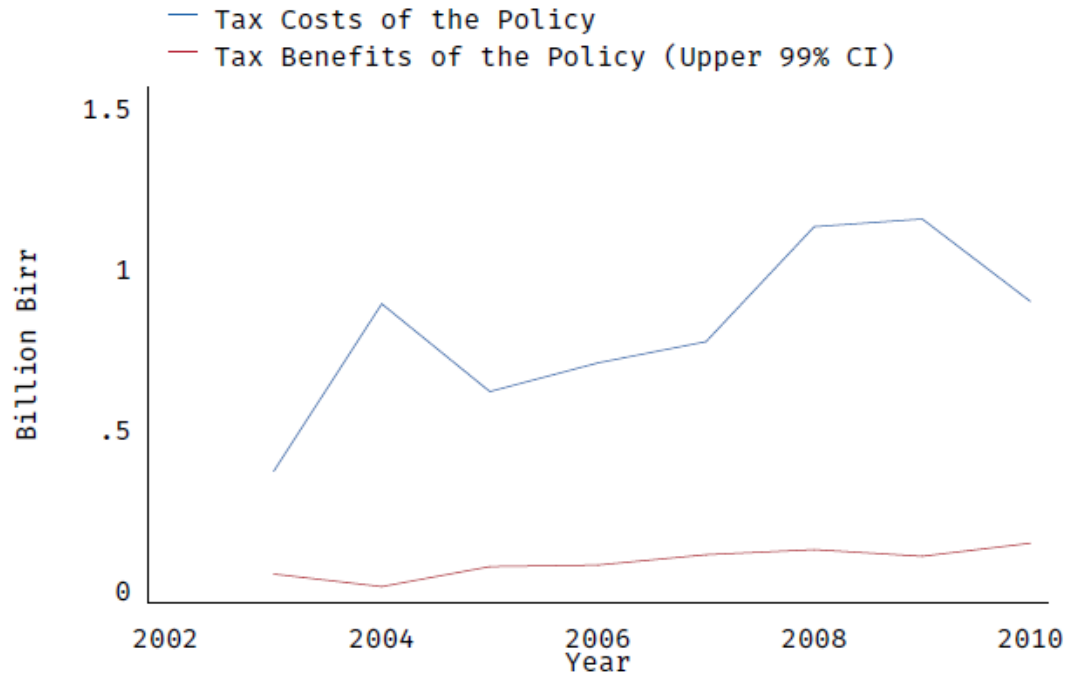
- Outcomes: productivity, productive assets, or employment
- Additional capital investments in stores of value (e.g. Property, vehicles) instead of productive machinery, reflecting the volatile economic environment faced by firms

Net foregone tax revenues are very high

- Estimated cost of policy (lower-bound) is very high, at 0.5% of GDP. Benefits (upper-bound) are less than 10% of costs

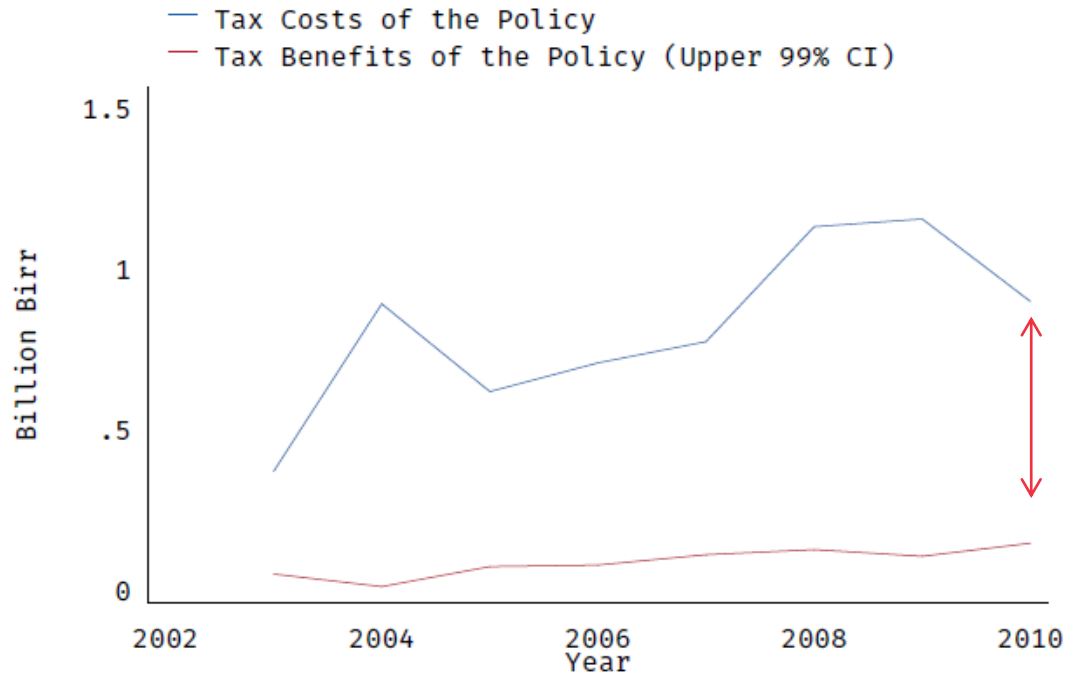
Example: Gebrewolde and Rockey (2016)

Figure 3: The Tax Costs of the Policy



Example: Gebrewolde and Rockey (2016)

Figure 3: The Tax Costs of the Policy



Summary and discussion

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Limited empirical evidence on the impact of tax incentives in developing countries

- Inconclusive results
- More robust evidence is needed
- Increasing availability of firm-level data and tax treatment information is promising

The cases of Ghana and Ethiopia illustrated that tax incentives are important part of their tax system

- Design, administration and monitoring can be improved using principles of best tax design
- Probably this is the case in other developing countries
- Given current evidence and economic principles, better to avoid tax incentives unless very strong economic case, no opportunities for abuse and low cost of implementing and monitoring

Further work in Ethiopia and Ghana

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- More data is becoming available and variation in tax incentives is good for designing impact evaluation (though not necessarily great for good policy design)
- TAXDEV researchers plan to
  - First calculate effective tax rates to understand variation in investment costs across sectors, areas and firms
  - Combine with firm-level data to understand actual impact on investment and other economic outcomes
  - Complement current efforts in both countries to quantify foregone revenues