TaxDev

Session 3: Estimating Revenue Foregone

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Introduction

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- Estimations and Uncertainty

- Focus on modelling / estimating revenue foregone under the **Income Tax**

  - Examples from Uganda (numerical exposition of issues)

  - Zoom in on three important issues (faced in Ugandan context):
    1. Counterfactual scenarios
    2. A firm's profitability
    3. Timing effects

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Introduction

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- Important to remember that revenue foregone is an **estimate**.

- Many of the calculations bring together data from different parts of government etc., and at times we must rely on assumptions
  - This is the case wherever TE reporting is carried out

- For some, the requisite data does not exist, or it is not captured in an appropriate manner.
- Or modelling might suffer from some limitations
  - Again, this is commonplace.

But can be communicated to readers:

Estimations under uncertainty

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- From United Kingdom Tax Reliefs report:

Uncertainty	Data and modelling approach
Low	High quality, targeted and comprehensive data from administrative or external sources. Assumptions have strong underlying rationale and can be verified using good quality independent data.
Medium	Basic data, incomplete in a few instances, which may be from external sources. Some assumptions are used and can be verified only to a limited extent.
High	Very little, incomplete or poor quality data. Largely assumption-based and difficult to verify.

Estimating TE under the Income Tax

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- Calculation methods differ from provision to provision
  - No one-size-fits-all model for calculating revenue foregone
  - But some basic principles are useful and can be applied in most cases

Revenue foregone under the Corporate Income Tax (CIT)

Utilizing data from CIT administrative returns; broadly:

- Step 1: Estimate the size of the base on which to estimate revenue foregone **[difficult]**
- Step 2: Multiply by Statutory CIT rate **[easy]**

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Income Tax: CIT Holiday

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E.g. (i) a tax holiday:

- Assume TaxDev Industries received a tax holiday as a strategic investor (under 21(1)(af) of the Ugandan Income Tax Act).
- Data required: CIT returns
- For example, CIT return shows that **Chargeable income in FY21/22 was Ushs. 100m.**
  - Revenue foregone = Ushs. 30m. [100m * 30% CIT rate]

CIT: Initial Capital Allowances

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- Accelerated depreciation (or initial capital allowances as in 27A UG ITA) constitute tax deferrals. Thus, for calculating revenue foregone **issues of timing very important.**

- **E.g. Section 27A Uganda Income Tax Act**

  - *A person who places an item of eligible property into service for the first time outside a radius of fifty kilometres from the boundaries of Kampala, during a year of income is **allowed a deduction for that year of an amount equal to fifty percent of the cost base** of the property at the time it was placed into service.*

- There's a few ways of thinking about estimating revenue foregone here, increasing in complexity.

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CIT: Initial Capital Allowances

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- E.g., allows for a tax deduction of 50% of the value of Plant / Machinery.
- How to account for this in TE report?

- Not just CIT Rate * 50% of the value deducted.
  - Need to think about the **counterfactual scenario**!

- Plant and machinery is otherwise depreciable according to the Income Tax Act's depreciation schedule.

- So, if a firm wasn't claiming the initial allowance (*or it wasn't in place*), they would be claiming depreciation allowance (considered here as the 'benchmark' deduction)
  - Numerical example…

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Initial allowance calculations

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- Plant and Machinery investment (**V**) Ushs. 200m.
- Initial allowance (**IA**) at 50%.
- CIT (**R**) Rate at 30%

Very basic approach:

$$R \times (V \times IA)$$

$$30\% \times (200 \times 0.5) = \mathbf{UShs.\,30m}$$

But this neglects to consider *what would have been deducted had the provision not been in place*

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Initial allowance calculations

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Plant and Machinery investment (**V**) Ushs. 200m.

Initial allowance (**IA**) at 50%.

Depreciation allowance (**D**) at 25%.

CIT (**R**) Rate at 30%

$$R \times \{(V \times IA) - (V \times D)\}$$

$$0.3 \times \{(200 \times 0.5) - (200 \times 0.25)\}$$

$$0.3 \times \{(100) - (50)\}$$

$$0.3 \times (50) = \mathbf{UShs.\,15m}$$

- Remember: Revenue foregone is the **difference between what is deducted under a provision and what *would have been deducted (if anything)* had that provision not been in place.**

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Initial allowance calculations: Loss-making firms

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- If Firm in a positive taxable income position (including the deduction) of (e.g.) UShs. +50m, then the removal of the deduction would bring the firm's chargeable inc to UShs. +100m.
  - **The revenue foregone = difference btwn (100m*30%) and (50m*30%), = UShs. 15m**

- If Firm in a tax loss position (including the deduction) of (e.g.) Ushs. -200m, then the removal of the deduction would bring the firm's chargeable income to Ushs. -150m.
  - **There would be no revenue foregone.**

- If Firm in a tax loss position (including the deduction) of (e.g.) Ushs. -20m, then the removal of the deduction would bring the firm's chargeable income to Ushs. +30m.
  - **The revenue foregone would be UShs. 9m (30m * 30%).**

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Timing issues and loss carried forward

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- The ability to carry forward losses is a fairly standard feature of income tax systems and not normally considered as a TE.
- But when calculating the revenue foregone from *other* provisions (deductions) under the income tax, then an understanding of a firms' loss position is crucial.
- Consider a simple four-period set-up:
- TaxDev Industries invests UShs. 200m into new machinery in the year FY18/19 and receives a 50% deduction on the cost, equal to UShs. 100m.
- For this, and each of the subsequent years, it makes a taxable profit of +25m, but makes no further investments in plant and machinery.

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Timing issues and loss carried forward

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- TaxDev Industries invests UShs. 200m into new machinery in the year FY18/19 and receives a 50% deduction on the cost, equal to UShs. 100m.
- For this, and each of the subsequent years, it makes a taxable profit of +25m, but makes no further investments in plant and machinery.

[1] Financial Year	[2] Loss from previous year	[3] Plant and Machinery Deduction	[4] Taxable profit	[5] Taxable income after deduction	[6] CIT paid	[7] Taxable income if no deduction in FY18/19	[8] Revenue Foregone (30% of Taxable Y)	[9] Loss carried forward
FY18/19		-100m	+25m	-75m	0	+25m	7.5m	-75m
FY19/20	-75m	0	+25m	-50m	0	+25m	7.5m	-50m
FY20/21	-50m	0	+25m	-25m	0	+25m	7.5m	-25m
FY21/22	-25m	0	+25m	0	0	+25m	7.5m	/

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Timing issues and loss carried forward

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- In this scenario, revenue foregone from a deduction taken in FY18/19 is spread across four financial years.
- The net amount is still UGX30m, **but only 7.5m in each year.**

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FY18/19	/	-100m	+25m	-75m	0	+25m	7.5	-75m
FY19/20	-75m	0	+25m	-50m	0	+25m	7.5	-50m
FY20/21	-50m	0	+25m	-25m	0	+25m	7.5	-25m
FY21/22	-25m	0	+25m	0	0	+25m	7.5	/

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Conclusion

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- **Illustrative examples from Uganda highlight a number of key issues faced**
  - Model the counterfactual scenario
  - Account for a firm's income position
  - Consider issues of timing
- It might not be possible to do all 3!
  - In Uganda, for example, we are still not up to speed on the timing issue.

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