

Indirect tax expenditures: VAT and import taxes

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Presentation outline

- Focus on VAT expenditures and import tax expenditures
 - Methodology and common challenges
 - Data requirements
- Practical session

VAT EXPENDITURES

VAT basics

- VAT is a tax on business **value added**
 - Value added = value of outputs – value of inputs (excluding labour inputs)
- It is typically collected through an **invoice credit system**
 - Suppliers subtract VAT from their invoices from their output VAT and remit the net liability to the tax authority
 - This generates third-party paper trails, which helps improve compliance
- In the dominant ‘destination-based’ VAT system:
 - Exports are ‘zero-rated’ (no output VAT, but input VAT is creditable)
 - Imports are fully taxable
 - Then, VAT is (roughly) a tax on **domestic final consumption**

The comprehensive VAT System

- In a comprehensive VAT system:
 - All goods and services at the standard rate (specific to each country)
 - There are no exemptions
- Then:
 - No distortionary effect on production decisions
 - No distortion of consumer choices between different products

Mechanics of VAT in the supply chain

Simple supply chain in a comprehensive VAT system with a standard rate of 15%



Farmer

produces wheat
and sells it to the
mill



Mill

purchases the
wheat and
produces flour



Bakery

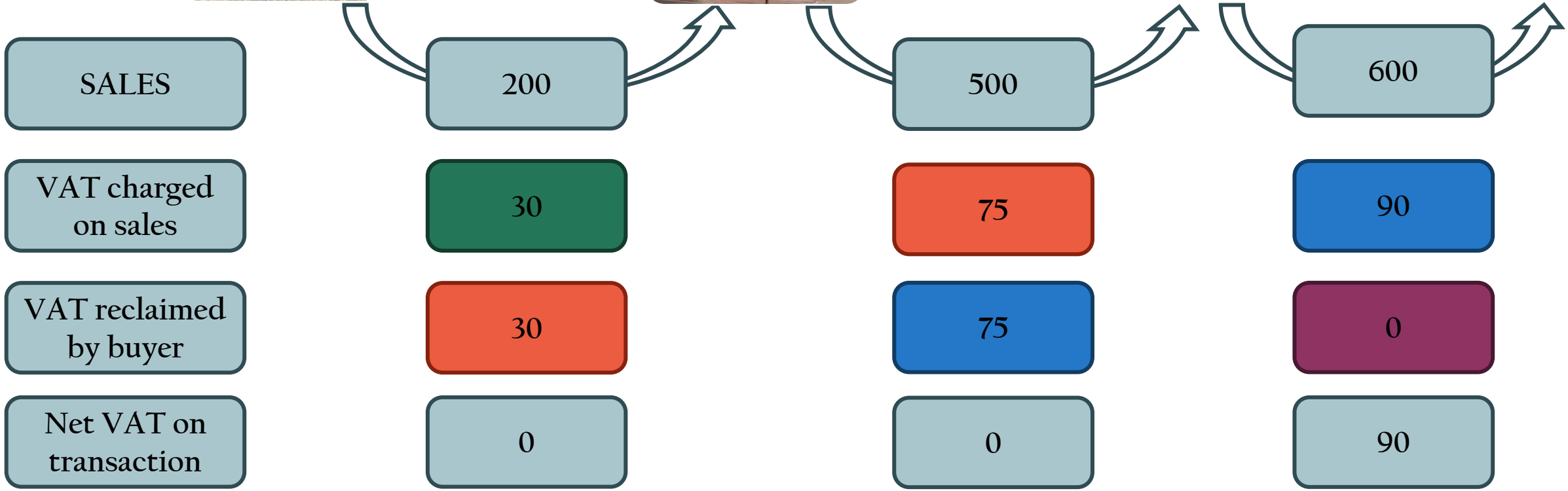
purchases the
flour and
produces bread



Consumer

buys the bread
from the bakery

Mechanics of VAT in the supply chain



Departures from the comprehensive VAT System

- In practice, there are departures from the comprehensive VAT system in various forms:

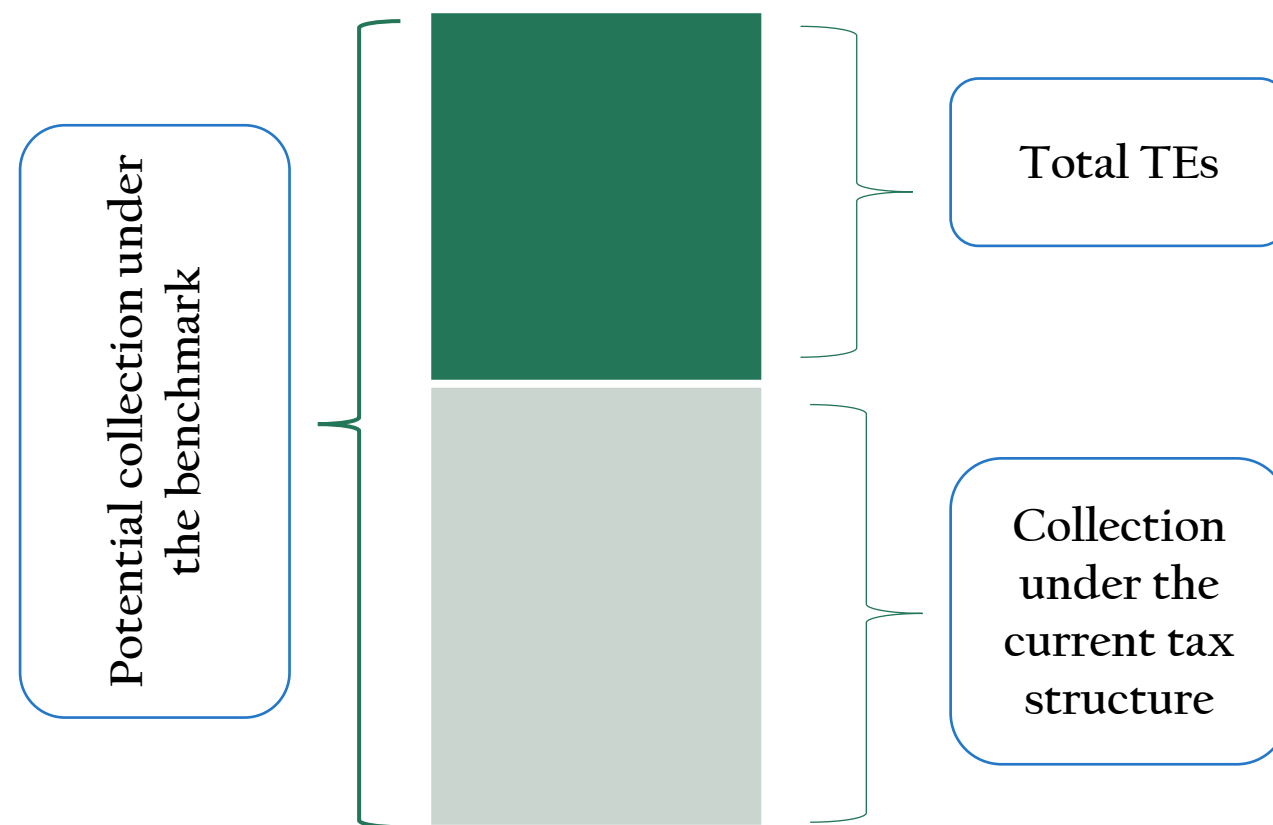
- Exempt supplies → *financial services, basic food items*

- Reduced-rate supplies → *'merit goods' such as books, food items*

- Size-based registration threshold → *small firms are exempt*

- Such departures from the comprehensive system give rise to tax expenditures...
 - ...unless they are exempt under the benchmark tax system

Measuring VAT tax expenditures (TEs)

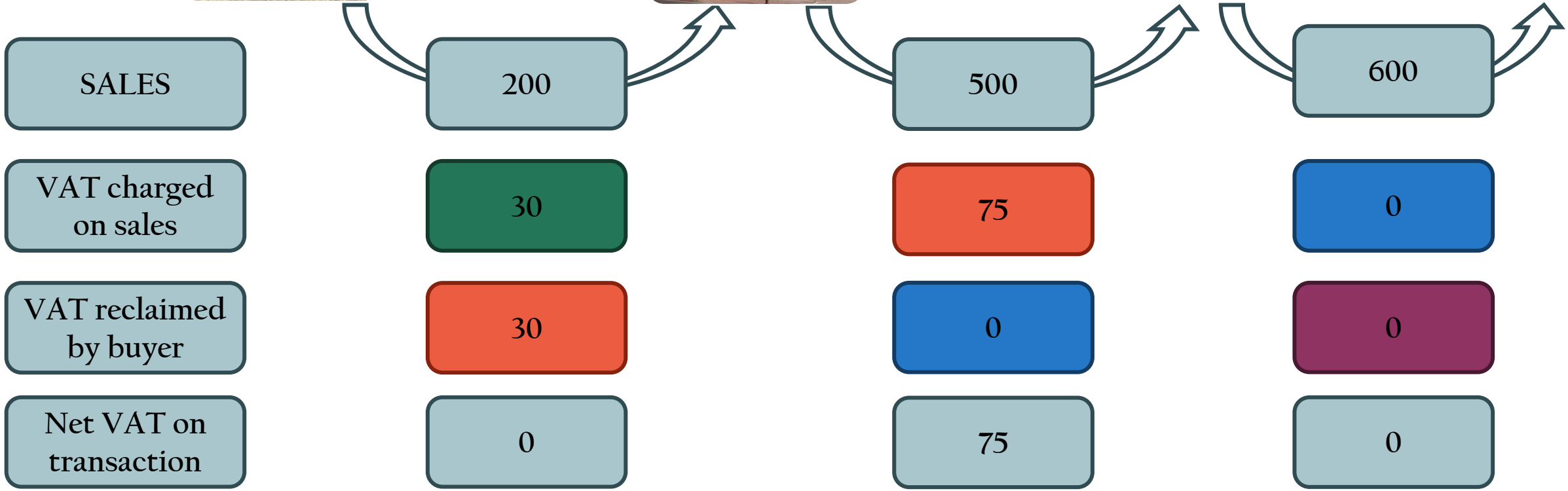


Estimating VAT TEs

Need a VAT model

- Can't we just look at VAT returns?
 - Not all firms file returns, either because they are below the registration threshold or because of evasion
 - Some firms under-report the value of their outputs
- Can't we just multiply consumption data by product by the VAT rate under the benchmark and current policy structure?
 - Adjusting the tax base would still take serious effort (excluding VAT paid, capturing government spending, etc.)
 - This would be missing non-deductible VAT on intermediate purchases
 - Capturing VAT accruing along the supply chain is the most difficult part of estimating VAT expenditures

Example: the bakery is not registered for VAT



Steps for modelling VAT expenditures

Step 1: Decide on a modelling approach

- Most common approach is a 'top-down' VAT model based on Supply and Use Tables
- Within that there are production-based and consumption-based models

Step 2: Determine the benchmark tax system

- This can be the comprehensive VAT system
- But it is also common to exclude supplies that are very hard to tax, such as margin-based financial services

Steps for modelling VAT expenditures

Step 3: Decide whether to report tax expenditures at full compliance or actual compliance

- Actual compliance will be closer to true revenue foregone
- Can be hard to communicate when compliance changes

Step 4: Decide whether to use the actual or benchmark system as the starting point when reporting VAT expenditures

The starting point: actual or benchmark?

- Starting from the actual system. Then revenue forgone due to each tax expenditure is:
 - Revenue under the actual system with the tax expenditure removed *minus* revenue under the actual system (with the tax expenditure)
- Starting from the benchmark system. Then revenue foregone due to each tax expenditure is:
 - Revenue under the benchmark system *minus* revenue under the benchmark system with the tax expenditure added
- These two options generally give different estimates
 - reason: interactions between tax expenditures

The starting point: actual or benchmark?

- For example, suppose there is a high VAT registration threshold and an exemption for agricultural products
 - Then, if the actual system is the starting point, the agricultural products exemption might look quite cheap, as most farmers are below the threshold
 - If the benchmark system without the VAT threshold was the starting point, the agricultural products exemption might look quite expensive
- For both options, the sum of costs of all individual provisions does not add up to the cost of all VAT expenditures together
 - Again, this is because of interactions between provisions
 - Best practice is to show ‘all interaction effects’ when reporting

Data requirements

- The fundamental building block are usually the Supply and Use Tables from the National Accounts
- Other data that can be useful:
 - VAT returns data for ‘splitting’ categories in the Supply and Use Tables when these are not detailed enough to capture the VAT law
 - Income tax data to determine the share of firms below the VAT registration threshold
 - External data from the statistical authority, e.g. on the distribution of capital spending across businesses, households, and government

IMPORT TAX EXPENDITURES

Estimating import tax expenditures

- Estimating import tax expenditures is easier than estimating VAT expenditures:
 - No need to worry about supply chains
 - Shipment-level trade data is typically comprehensive and readily available

- One challenge: defining the benchmark tax system:
 - For import taxes, the benchmark tax system usually includes:
 - International agreements, e.g. exempting diplomatic imports
 - Regional and bilateral trade agreements
 - The benchmark customs duty could be based on the ‘tariff book’.

Challenges specific to import tax expenditures

- A large proportion of VAT collected at the border is typically deductible from domestic VAT
 - If estimating VAT expenditures separately, should disregard import VAT to avoid double counting
 - However: Import VAT can be part of the tax base for non-standard trade taxes (e.g. surtax in Ethiopia), which should be accounted for
- Provisions often affect multiple taxes due to interactions *between* import taxes

Interactions between import taxes

- Customs duty and other import taxes are charged sequentially
 - The typical order is: customs duty → excise duty → VAT
 - Customs duty is part of the tax base for excise duty
 - Customs and excise duties are part of the tax base for VAT

- **Consequence:** tax expenditures on a given tax will *indirectly* affect the collection of taxes later in the sequence
 - **Example:** A customs duty exemption for fuel will reduce the tax base for fuel excise

Interactions between import taxes

How do we account for these indirect effects in import TE estimates?

- No 'correct' way of doing but different approaches have advantages and disadvantages
- Two broad approaches to account for these effects
 - Counting tax expenditures where they accrue
 - Counting tax expenditures where they originate

Approaches to estimating import tax expenditures

Approach I

TEs are counted where they **ACCRUE**, not where they **ORIGINATE**

- Customs TE captures only TEs accruing to customs.
- TEs arising from exemptions or reductions in customs duties but accruing to excise are reported as excise TE.

Approach II

TEs are counted where they **ORIGINATE**, not where they **ACCRUE**.

- **Direct TE**: resulting from the targeted tax itself.
- **Indirect TE**: arising indirectly in other taxes (through their impact on the tax base)

Approach I

Example: **Country A** has customs duty (on CIF value) and excise on imports (on the sum of CIF value and customs duty payable).

CIF Value	Benchmark duty rate	Applied duty rate	Benchmark excise rate	Applied excise rate
2,000	0.10	Exempt	0.20	0.20

- Under Approach I: the TE is reported as:

$$\begin{aligned} \text{Customs duty TE} &= (\text{Benchmark duty rate} - \text{Applied duty rate}) * \text{CIF Value} \\ &= \underline{200} \end{aligned}$$

Approach I

Example: **Country A** has customs duty (on CIF value) and excise on imports (on the sum of CIF value and customs duty payable).

CIF Value	Benchmark duty rate	Applied duty rate	Benchmark excise rate	Applied excise rate
2,000	0.10	Exempt	0.20	0.20

- Under Approach I: the TE is reported as:

$$\begin{aligned}
 \text{Excise TE} &= \text{Benchmark excise rate (CIF+CIF*Benchmark duty rate)} \text{ less } \leftarrow \text{Collections under the Benchmark} \\
 &\quad \text{Applied excise rate (CIF+CIF*Applied duty rate)} \leftarrow \text{Actual collections} \\
 &= \underline{440 - 400 = 40}
 \end{aligned}$$

Approach II

Example: **Country A** has customs duty (on CIF value) and excise on imports (on the sum of CIF value and customs duty payable).

CIF Value	Benchmark duty rate	Applied duty rate	Benchmark excise rate	Applied excise rate
2,000	0.10	Exempt	0.20	0.20

- Under Approach II: We report TEs as direct effect and indirect effects

$$\begin{aligned} \text{Direct Customs duty TE} &= (\text{Benchmark duty rate} - \text{applied duty rate}) * \text{CIF Value} \\ &= \underline{200} \end{aligned}$$

Approach II

Indirect Customs duty TE (through excise)=

$$\begin{aligned} & (\text{Benchmark Excise Rate}) (\text{Direct customs duty TE}) \\ & = \underline{0.20 * 200 = 40} \end{aligned}$$

Excise TE=

$$\begin{aligned} & (\text{Benchmark Excise Rate} - \text{Applied Excise Rate}) (1 + \text{Applied Customs Duty Rate}) (\text{CIF}) \\ & = 0 \end{aligned}$$

Data requirements

- The data for customs & import tax expenditure comes from the Customs Commissions/Authority
- Other useful 'data':
 - The country's tariff book
 - list of provisions from global, regional and bilateral trade agreements

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