

Consumption Taxes

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Overview of Consumption Tax Topics

General sales taxes

- Retail sales tax: Common in the United States
- Value-added tax: Common in the European Union

Excise tax: Tax on specific goods

- Selective, sumptuary (also known as sin taxes), benefit-based, or regulatory and environmental

Sales tax structures

- Defining the tax base
- Tax rates ([Federation of Tax Administrators: Tax Rates](#))

Sales tax evaluation

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Definition of Consumption Tax

Relationship between consumption, income, and savings

- Consumption equals individual income minus personal savings

Ideal (theoretical) consumption tax

- Broad and on all consumption
- Very difficult to identify, collect, and enforce
- Not practicable from financial administration perspective

Consumption taxes in reality

- Narrower in scope than ideal tax

Potential collection at various production stages

- Resource supply (e.g., mining/farming), manufacturing, wholesale, or retail

Types of Consumption Taxes

Single-stage tax: Application to one stage in the production process

- Retail sales tax
- Manufacturers tax: Discouragement of production and/or movement to other states for production

Multi-stage tax: Application to multiple stages in the production process

- Turnover or gross receipts tax: Tax application on sales at each stage
- Value-added tax (VAT): Multi-stage tax based on the value added at each stage but non-cascading (i.e., non-increasing from one stage to another)

Excise tax

- Tax on single commodity (usually single stage)

Tax Foundation: [History of Taxes](#)

Retail versus Wholesale Tax

Setup

- Wholesale price: \$10
- Retail price: \$20
- Markup of retail price over wholesale price: 100%

Retail sales tax (10%)

- Price to consumer: \$22 (\$20 for item and \$2 of sales tax)
- Government revenue: \$2

Wholesale tax (10%)

- Price at wholesale level: \$11 (\$10 for item and \$1 of wholesale tax)
- Price to consumer: \$22 (100% markup over wholesale price)
- Government revenue: \$1

Tax Base of Consumption Taxes

Introduction

General Sales Tax

General sales tax

- Tax all personal consumption at the same rate
- Usually reduced or eliminated for several types of goods (e.g., food, energy) due to equity concerns

Retail Sales Tax

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Sales Tax Evaluation

Excise tax on single commodity

- Variations in amount depending on good (e.g., federal and state fuel taxes versus plastic bag tax)

Supreme Court Ruling on 21 June 2018: [South Dakota v. Wayfair, Inc., et al.](#) regarding sales tax collection by online retailers

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General Sales Tax

Overview

- Alternative to income and other taxes to finance government operation

Advantages

- Broad base and thus, large revenue generation capacity
- Tax revenue implicitly covering wealth in addition to income
- Potential to promote economic growth by discouraging consumption and encouraging savings

Collection of a General Sales Tax

Retail sales tax

- Levied only at the last stage of production/distribution
- Used by U.S. state and local governments as well as Canadian provinces

Value-added tax

- Applies to each transaction, but every purchaser except the final has tax refunded through credits
- Membership requirement of EU
- Used in China, Russia, and Latin American countries

Additional information: [Why is the VAT administratively superior to a retail sales tax?](#)

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Retail Sales Tax

Retail Sales Taxes in the U.S.

Exclusion of goods used for production

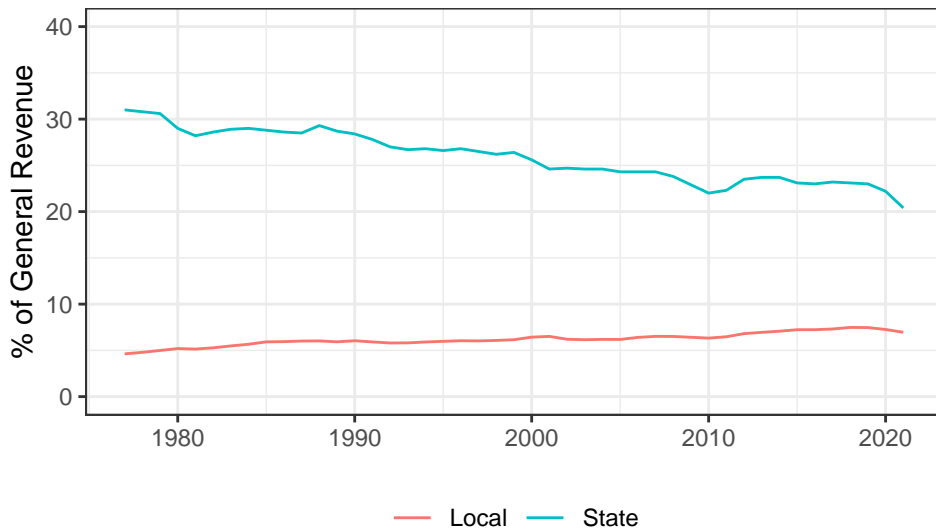
- Excluded for economic efficiency, equity, and to avoid hindering economic growth
- Standards for exclusions: (1) Component-part or physical ingredient and (2) direct-Use

Sales tax composed of state, local, and special rates

- Tax Foundation: “State and Local Sales Tax Rates” ([Data Portal](#))
- Example about various components for NYC: 4% state + 4.5% city + 0.375% Metropolitan Commuter Transportation District surcharge ([Source](#))

Not levied in AK, DE, MT, NH, and OR

Sales Tax



Structural Distinctions

Coverage: Items subject to the retail sales tax are either general or selective

- General: Applies to all transactions except for exemptions
- Selective: Applies only to enumerated transactions (e.g., lodging tax)

Rates: Specific vs. Ad Valorem

- Specific (also known as unit tax): Application to number of physical units bought or sold (e.g., \$0.20 per gallon of gasoline)
- Ad Valorem (according to value): Application to value of the transaction (e.g., lodging tax of 10% of hotel bill)

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Value-Added Taxes (VAT)

Mechanism

- Application to value added at each production and distribution stage
- Charge of VAT on sales by businesses and subtraction of VAT on purchases by businesses during tax remittance to tax authority
- Elimination of cascading taxes which occur if businesses pay sales tax on items they do not resell but use in their business (e.g., equipment)

Types of VAT

- Credit invoice method
- Subtraction method
- Addition method

Credit Invoice vs. Subtraction Method

	Farmer	Miller	Baker	Total tax
<i>Prices charged</i>				
No tax	300	700	1000	0
Sales tax	300	700	1100	100
VAT	330	770	1100	
<i>Credit invoice method</i>				
Tax liability	30	70	100	200
Tax credit	0	30	70	100
<i>Subtraction method</i>				
Tax liability	30	40	30	100

Source: [Tax Policy Center: How would a VAT be collected?](#)

Credit Invoice Approach

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Computation by charging VAT on all taxable purchases by the business and consumers

- Sales invoices showing VAT collected
- Purchase invoices from other businesses showing VAT paid

End of the reporting period

- Submission of excess VAT collected or VAT refund

Two types of records: Sales invoices and purchase invoices

Subtraction and Addition Method

Subtraction method

- Tracking of VAT paid and collected on a sale-by-sale and purchase-by-purchase basis
- All sales are totaled and reduced by the aggregate of taxable purchases for the period
- End result is the value added by the business and pays VAT on this

Addition method

- Tax base: Value added by business (e.g. wages paid, certain taxes paid, owner profit)

Application of tax rate on taxpayer's input and not purchases.

- Identical tax revenue compared to all other methods

Example:

- Sales: \$200,000
- Materials: \$125,000
- Wages: \$50,000

Addition method:

- VAT paid on \$75,000 ($\$200,000 - \$125,000$)

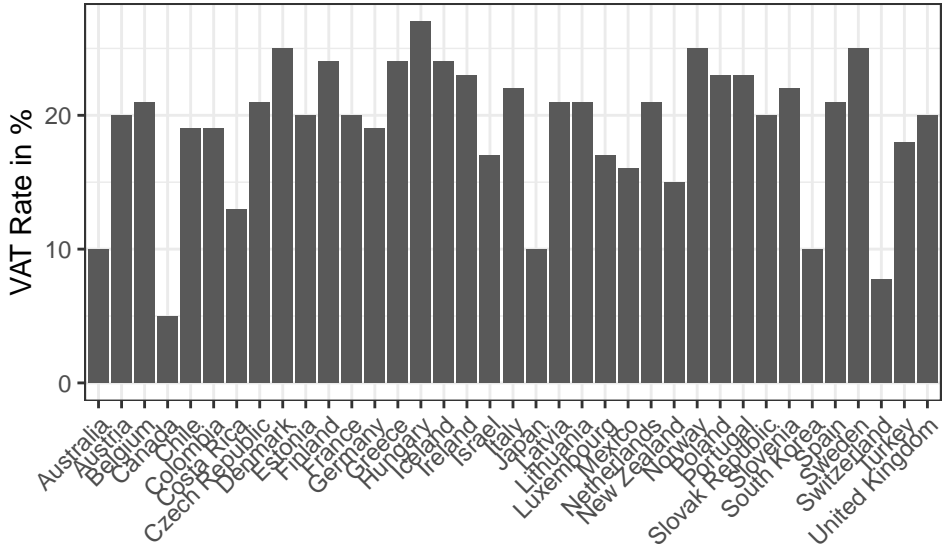
Addition method:

- VAT paid on \$75,000 ($\$50,000 + \$25,000$ in profits)

Comparison of Sales Taxes

Stage	Sales	Value added	Sales Tax	VAT	Turnover Tax	Manufacturer Tax
Tax Rates			5%	5%	2.11%	4.44%
Farmer	100	100		5.00	2.11	
Miller	150	50		2.50	3.16	6.67
Baker	300	150		7.50	6.32	13.33
Retailer	400	100	20.00	5.00	8.42	
Total Tax			20.00	20.00	20.00	20.00

International 2022 VAT Rates in OECD Countries



Advantages of the Value-Added Tax

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Avoidance of tax evasion and lack of vendor cooperation

- Self-enforcing tax
- Necessity of documenting receipts at each production stage
- Incentive for cheating with retail sales taxes (unsuccessful implementation at rates higher than 10%)

Level the tax between foreign and domestic products

- Some countries choose to remove domestic taxes from international sales

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Excise Taxes

Rationale for excise taxes

- Discouragement of consumption (e.g., sin taxes)
- Internalization of externalities (e.g, pollution with a gas guzzler's tax)
- Approximation for benefit charges
- Increase in vertical equity by luxury goods taxation
- Export of tax burden to non-residents

Types of excise taxes

- Selective
- Sumptuary (also known as sin taxes)
- Benefit-based
- Regulatory and environmental

Tax Policy Center: [What are the major federal excise taxes, and how much money do they raise?](#)

Selective Excise Taxes

Luxury tax

- Redistribution of government cost to high-income individuals and households

Example: [Luxury and Fuel-Inefficient Vehicle Surcharge](#) in New Jersey

- *“The NJ Motor Vehicle Commission (MVC) imposes a one-time 0.4% Luxury and Fuel-Inefficient Vehicle Surcharge on ownership of new passenger automobiles with a sales price or lease price of at least \$45,000, or a fuel efficiency rating of less than 19 miles per gallon. The NJ Division of Taxation does not administer this fee. Dealers are to file and pay the fee to MVC on a quarterly basis through the Division of Revenue and Enterprise Services.”*

Federal level: Omnibus Budget Reconciliation Act of 1990 (since repealed)

- Luxury tax on planes, yachts, furs, and jewelry

Sumptuary Excise Taxes (Sin Taxes)

Discourages excess consumption of items thought to be unhealthy or unsafe for consumers and/or the public

- Most common: Taxes on tobacco and alcohol

Inelastic demand (in general)

- New York Times: [To Reduce the Cost of Teenage Temptation, Why Not Just Raise the Price of Sin?](#)

Tax Foundation: [How Hard Do Distilled Spirits Taxes Bite in Your State?](#)

Benefit-Based Excise Taxes

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Definition

- Charge associated with public good to finance and maintain that public good
- Price of a public good

Example: Fuel taxes

- Highway Trust Fund and federal gasoline and diesel tax
- More usage of the good by individual \Rightarrow More tax revenue
- Low cost of tax administration and collection compared to toll

Issues with fuel taxes

- Specific dollar amount per gallon and not indexed to inflation

Regulatory or Environmental Excises

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Objective

- Internalizing externalities imposed on society
- Increase awareness in buyers and sellers of social cost

Example

- Tax on pollution, e.g., gas guzzler tax
- Improvement of resource-use efficiency

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Efficiency

- What economic decisions will be changed (distorted) by the tax?
- Magnitude of distortions

Equity

- Horizontal versus vertical equity

Adequacy

- Revenue raising capacity: How much revenue can be raised at reasonable rates?

Distortion of relative prices

- Incentive to produce low- or no-tax items depending on the availability of substitutes
- Restoration of efficiency in the the case of negative externality

General sales tax

- Tax incidence on consumers and producer depending on demand and supply elasticity

Excise taxes

- Low (high) availability of substitutes \Rightarrow High (low) burden on consumers

General Sales Tax

- Low-income households spend higher share of their income on consumption items
- Consequence: Sales tax is regressive but exemptions can address the issue

Excise taxes

- Issues of vertical equity since low-income households spend a higher percentage of income on energy, cigarettes, and alcohol
- Possible justification of gasoline tax with benefits principle

Tax Policy Center

- Who bears the burden of federal excise taxes?

General sales tax

- Exemptions undermine revenue raising capacity

Excise tax

- Potentially narrow base and poor revenue raising capacity (e.g., luxury tax)
- Inflation issues with per-unit taxes such as gasoline and diesel tax