

SUBNATIONAL REVENUE ALTERNATIVES AND THEIR TRADEOFFS



JAY K. ROSENGARD
KENNEDY SCHOOL OF GOVERNMENT
HARVARD UNIVERSITY

International Trends in Tax Revenue: Size

- On average, the tax ratio (taxes/GDP) was $1/5^{\text{th}}$ of GDP (18.8%) w/o social insurance
- In general, taxes tend to rise as per capita income rises, from 17% (low income) to 22% (mid-income) to 27% (high income)
- At about \$35,000, the tax ratio declines
- Average tax buoyancy 1.04 ($\% \Delta \text{TR} / \% \Delta \text{GDP}$)
- Weak relationship between level of taxation & economic development or economic growth

International Trends in Tax Revenue: Structure

- Tax structure as different as tax revenue size
- For entire sample:
 - Consumption taxes and income taxes each accounted for about 40%
 - Within consumption category, value added and excise taxes each accounted for about 40%
 - Most of the remaining revenue from trade taxes
 - Global increase in VAT, decrease in trade taxes
- For lower-income countries:
 - Trade taxes more important
 - Direct taxes less important, especially income tax

Key Facts and Figures About the U.S.

- Federal system of government, not unitary
- Subsidiarity principle
- Approximately 88,000 subnational jurisdictions:
 - 50 states + District of Columbia
 - 3,000 counties
 - 36,000 municipalities/cities and towns/townships
 - 14,000 school districts
 - 35,000 special jurisdictions (utility, fire, police, etc.)

Economic Snapshot of the U.S. in 2005

- GDP (official exchange rate): \$12.5 trillion
- GDP growth rate (real): 3.5%
- GDP/capita (PPP): \$41,800
- GDP composition:
 - Agriculture: 1%
 - Industry: 21%
 - Services: 78%
- Inflation rate (consumer prices): 3.2%
- Population below poverty line: 12%

Fiscal Snapshot of the U.S. in 2004

- Nominal GDP: \$11.6 trillion
- Total expenditures: \$3.6 trillion (31% of GDP)
 - Federal (consolidated): \$2.3 tr (19.8% of GDP)
 - State & local (from OSR): \$1.3 tr (11.2% of GDP)
- Consolidated federal deficit: 3.6% of GDP
 - On budget: -4.9% of GDP
 - Off budget: +1.3% of GDP
- Gross federal debt: 63.7% of GDP

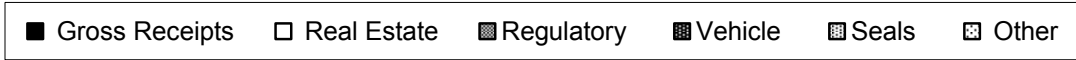
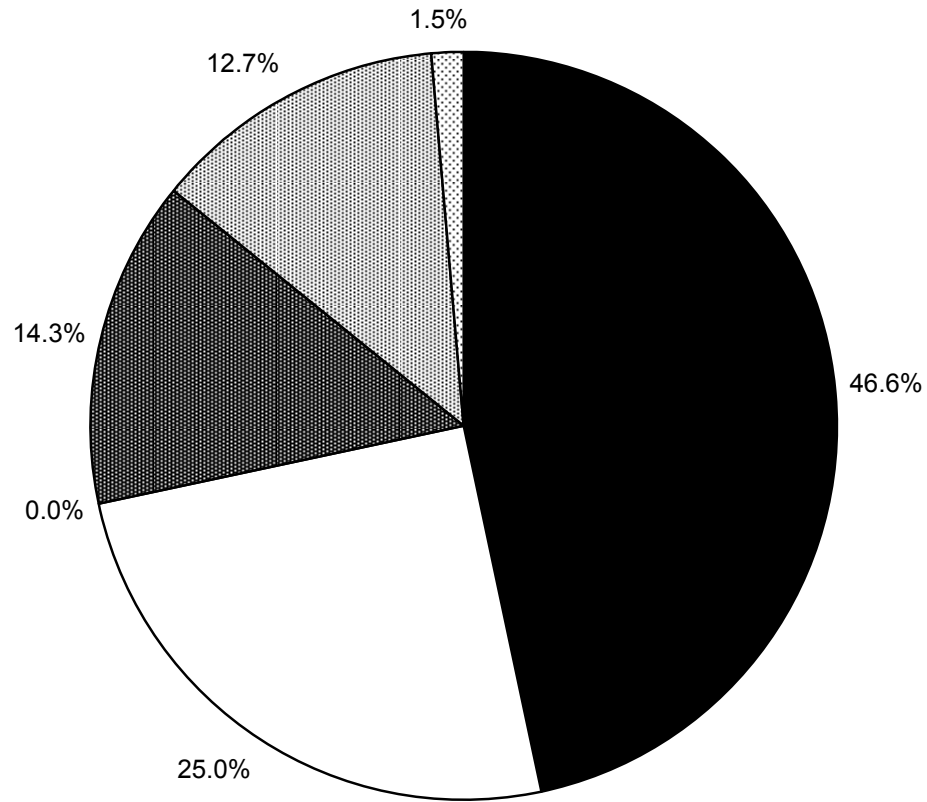
Federal Sources of Revenue in 2004 [Argentina 2005 in Brackets]

- Income Tax: 53.1% [19%]
 - Individual Income Tax: 43.0%
 - Corporate Income Tax: 10.1%
- Social Insurance and Retirement: 39.0% [17%]
- Excise Taxes: 3.7%
- Good and Services: [29%]
- Trade: [16%]
- Other Taxes and Charges: 4.2% [14%]
- Grants and Other Revenue: [5%]

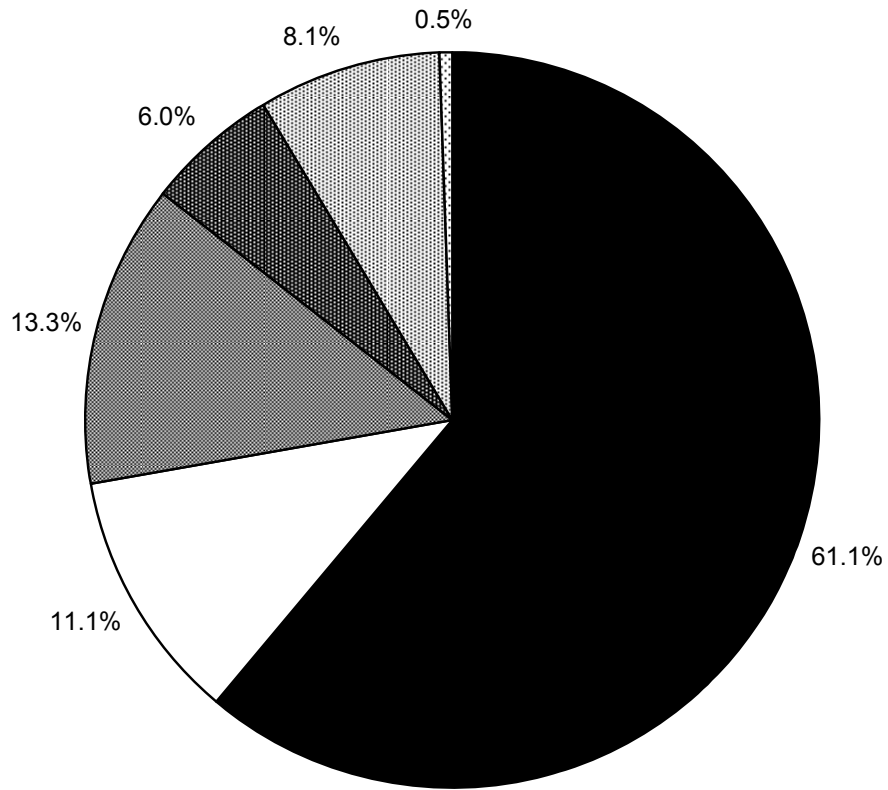
Main Sources of S & L General Revenue (2002)

- State Governments
 - Federal Aid (30%)
 - Sales and Excise Taxes (25%)
 - Individual (18%) and Corporate Income Taxes (2%)
 - Charges (9%)
 - Other (16%)
- Local Governments
 - State Aid (36%) and Federal Aid (4%)
 - Property Taxes (27%)
 - Charges (15%)
 - Sales Taxes (4%)
 - Income Taxes (2%)
 - Other (12%)
- Caution! Above data are national averages – there is substantial variation among S & L govts

Provincial Revenue Composition: 1991



Provincial Revenue Composition: 2005



■ Gross Receipts □ Real Estate ▨ Regulatory ▩ Vehicle ▪ Seals ▫ Other

State and Local General Sales Taxes

- Tax base smaller in practice than in theory
 - About 50-60% of total consumption
 - Services, groceries, prescription drugs, utilities commonly excluded
- Usually at retail stage with destination principle
- Generates significant revenue, but creates economic distortions and regressive
- Electronic commerce increasingly a concern
- No national value added tax

State Income Taxes

- All states have at least one major tax directly collected from businesses
- States often have a specific tax by business type or industry type
- 41 states collect a broad-based individual income tax
- Relationship to the federal income tax varies:
 - State tax is a percentage of federal tax; or
 - State tax base equals federal taxable income; or
 - State tax base equals federal adjusted gross income; or
 - State tax base is unrelated to the federal tax

Local Property Taxes

- Usually an annual tax on the capital market value of land and buildings
- Usually applied with a flat rate, but sometimes different rates are used for residential and commercial properties
- Escrow accounts tied to mortgages are commonly used for collection
- Generally a stable source of significant revenue, economically efficient, and socially equitable
- Tax revolts have placed limitations/ceilings on this revenue source

Federal Grants to State and Local Government in 2004

- Total grants (NIPA): \$349.3 billion
 - 15.2% of federal expenditures
 - 21.%% of S&L expenditures
- Use of grants:
 - 65% payments to individuals
 - 15% capital investment
 - 21% other

Local Government Debt Financing

- Usually for capital investment
- Commonly via municipal bonds
 - General obligation bonds
 - Revenue bonds
 - Double-barreled bonds
- No federal government guarantees
- Federal and own-state income tax exemption
- \$2.1 trillion outstanding in 2005
- \$210.4 billion issued in 2005 (Q2)
- \$15.5 billion daily trading volume in 2005 (Q2)

Income Tax: Basic Concepts

- The income tax is usually at the national level, but sometimes it is also at the state or local level
- It is a direct tax on personal and corporate income
- It is based on ability to pay > benefits received
- Income is used as a proxy for ability to pay
- Income should be defined as broadly as possible:
Haig-Simons Income =
Consumption (cash & in-kind) + Change in Net Wealth
- Exclusion of Income from Tax Base = Tax Expenditure
- Administration is very difficult because it is easy to move and hide income

Income Tax: Key Issues

- Economic efficiency: Cost of behavioral responses to tax (income and substitution effects)
 - Costs of compliance and distortions caused by tax avoidance and tax evasion
 - Disincentives to work, save, and invest
- Social equity: Fairness in allocation of tax burden
 - Definition of tax base (who and what)
 - Determination of tax rate(s) (how much)
 - Horizontal and vertical equity (equal treatment of equals and unequal treatment of unequals)
- Administrative feasibility: Potential to generate revenue
 - Targeting for precision and fairness
 - Simplicity for efficiency and fairness

Income Tax: Strengths and Weaknesses

Strengths

- Easy to administer for the formal non-service sector (salaried employees)
- Payroll withholding is a good tax handle
- Progressivity addresses political and social pressures to appear to tax the rich
- Relatively high buoyancy

Weaknesses

- Difficult to administer for the informal sector and professional services
- High transaction costs for both tax administrators and tax payers
- Paid in relatively large, visible increments
- Tax base eroded by income adjustments (exclusions, exemptions, deductions, credits)

Types of Indirect Taxation

- General sales and companion use taxes usually subnational
- Value added taxes usually national
- Excise taxes at both national and subnational levels

General Sales and Companion Use Taxes

- Seldom on total consumption
- Usually assessed at the retail stage
- Based on the destination principle
- Have income and price effects
- Significant equity considerations

Excise Taxes

- Extremely prevalent
 - Raise significant revenue, cause minimum economic distortion, administration relatively easy
 - Correct for negative externalities
 - Improve vertical equity
- Specific vs. ad valorem
- Revenue vs. regulation

Alternative Taxes on Businesses

- **Gross Receipts Tax:**
Tax on total revenue
- **Value Added Tax (VAT):**
Tax on the difference between sales and the cost of goods and services
 - Gross Income VAT
 - Net Income VAT
 - Consumption VAT

Retail Sales Tax vs. VAT

- Retail sales tax weaknesses in the United States
 - Low rate ceiling before it is not feasible
 - All revenue at risk at a single stage
 - Audit/invoice trail is not strong
 - Revenue is not secured at the easiest stage
 - Excludes much of the potential tax base
- VAT weaknesses in the United States
 - Local Government: Usurps state/local tax
 - Liberals: Regressive
 - Conservatives: Supports big government
 - Liberals & Conservatives: Inflationary
 - Federal & State: Administrative nightmare

LOCAL GOVERNMENT TAXES

<i>TYPE OF TAX</i>	<i>CHARACTERISTIC OF TAX</i>	<i>KEY DESIGN FACTORS</i>	<i>EFFICIENCY & EQUITY</i>	<i>ADMINISTRATION & COMPLIANCE</i>
SALES & EXCISE TAXES (General Sales Tax, Companion Use Tax, Excise Tax)	TAXES ON CONSUMPTION BY RESIDENTS	TAX BASE, STAGE OF PRODUCTION, LOCATION	LOWER DISPOSABLE INCOME, INCREASE RELATIVE PRICES; GENERALLY REGRESSIVE	EFFICIENT TO ADMINISTER, TRANSPARENT/SIMPLE, LITTLE JUDGEMENT, DISCRETION, OPPORTUNITY; MINIMAL COMPLIANCE COSTS, PART OF COMMERCIAL TRANSACTIONS, VERY SMALL INCREMENTS
INCOME TAXES (Individual)	TAXES ON INCOME AS PROXY FOR ABILITY TO PAY	EXCLUSIONS, EXEMPTIONS, DEDUCTIONS	LOWER DISPOSABLE INCOME; HORIZONTAL EQUITY KEY, USUALLY PROGRESSIVE	EASY TO ADMINISTER FOR FORMAL NON-SERVICE SECTOR, PAYROLL WITHHOLDING COMMON, COMPLEX MONITORING AND ENFORCEMENT FOR OTHERS; SELF-ASSESSMENT DIFFICULT, RELATIVELY LARGE INCREMENTS
BUSINESS TAXES (Corporate Income Tax, Gross Receipts Tax, Value Added Tax)	TAXES ON REVENUE	TAX BASE, STAGE OF PRODUCTION, LOCATION	LOWER RETURN TO CORPORATE CAPITAL OWNERS, TAX ON APPORTIONMENT FACTORS; GENERALLY REGRESSIVE IN LONG RUN	RELATIVELY EASY TO ADMINISTER COLLECTION FOR FORMAL FIRMS, COMPLEX MONITORING AND ENFORCEMENT; SOPHISTICATED TAXPAYERS, AVOIDANCE AND SHIFTING TO WORKERS AND CONSUMERS COMMON

Basic Concepts

- **Primary source of:**

Local

Discretionary

Revenue

- **Assessed on:**
 - **Capital value of land and improvements**
 - **Annual/rental value**
 - **Site value of land**
- **Tax rate can be:**
 - **Uniform or differentiated**
 - **Flat or progressive**

Strengths

- Hard to avoid legally
- Economically efficient
- Potential money machine
- Relatively stable
- Can be enforced
- Supports local autonomy
- Proxy for income tax
- Correlated with benefits
- Generally progressive

Weaknesses

- Large number of statutory taxpayers
- High visibility
- Subjective assessment
- No direct relationship with ability to pay
- Can worsen regional disparities in wealth
- Threat to the sanctity of private property

Primary Purpose of the Property Tax

→ Ensure the long-term generation of adequate local government discretionary resources

NOT

- Guide allocative decisions
- Achieve social goals
- Recover capital costs
- Price private goods

Guidelines for Revenue Assignment

- National
 - Redistributive/progressive taxes based on ability to pay
 - Taxes for macroeconomic stabilization
 - Taxes requiring international harmonization
 - Taxes on highly mobile production factors/tax bases
 - Taxes on tax bases distributed unequally between subnational jurisdictions
 - “Mega Revenue” taxes for national expenditures
 - User charges based on the benefit principle
- Subnational (State/Provincial & Local)
 - Taxes on production factors/tax bases with low/no mobility
 - Residence/location-based taxes
 - Surtaxes on national taxes
 - User charges based on the benefit principle

Criteria/Objective	Comment	Taxes that Satisfy the Objective	...And Those That Fail
Accountability: Local policymakers responsive to citizen preferences. Those taxed have political redress	Local officials determine “own” tax rates; tax burdens borne locally; transparency	Local Personal Income Taxes (may conform to higher level tax base with rate set locally). User Charges	General Business taxes Visitor (tourist) Natural resource taxes (petroleum, minerals)
Revenue Productivity: Taxes that promote “adequacy” in order to finance an agreed flow of public services.	As a system, recognizes a balance between a bases responsive to changes in economic conditions growth (elasticity or buoyancy) and stability (certainty)	<i>Ad valorem</i> property tax (distinguish between land and improvements) & or Area-base property tax Personal Income Tax General Broad Based Business Tax (e.g., gross receipts/turnover) Single stage sales taxes Some terminal taxes (e. g., octroi) and market taxes	Corporate profits Many user charges Low- effort Property taxation
Benefits-Received: To extent possible taxes should function as a “price” for flow of services that accrue to the taxpayer/citizen	Taxes perform tax price <i>quid-pro-quo</i> and may be tailored to local and regional variations and benefit areas. Service spillovers (+ or -) may call for (i) special districts; (inter-local cooperation); (ii) middle tier governments.	Whenever possible charge Visitor Taxes Business taxes (generalized benefits; e.g., value added)	Non-resident based income tax (assumes non-residents are subject to alternative taxes for services received: e.g., user charges, sales taxes, visitor taxes, general business tax)
Non-Distortion: taxes should not unintentionally interfere with private decisions of consumers, factor suppliers and producers; they should be “neutral”	Variability in tax rates possible; Immobile tax bases rate high as do taxes with relatively high price inelasticity of demand; case for uniform tax bases; certainty in taxation	Taxes on immoveable property Land value tax plus charges User Charges Resident based Personal Income Sumptuary Taxes Taxation of “bads” Poll and communal taxes	Non-resident based income tax Gross receipts taxes Severance Taxes (if high rate) Octroi
Tax Equity: Tax burden should be reasonable and fair	Vertical equity (differential treatment unequal as usually measured by income or wealth— “gresssivity”); Horizontal (equal treatment of those in equal circumstances as measured by income, consumption, or wealth)	Progressive Resident Personal Income Taxes Ad valorem property taxes Some local sales taxes; excises	Poll and communal taxes Area-based property taxes Gross receipts taxes
Simplicity: administration & compliance	Citizens should be able to understand and control the system; cash flow preferable to accruals; standardized tax bases	Piggyback Personal income Single stage sales and excise (market tax) Wage taxes Turnover/receipts taxes Some user charges Market taxes	Multi-rate taxes Potentially broad based taxes narrowed by exemptions, deductions & tax preferences Property tax

Annex Three: A Representative Assignment of Taxing Powers

Types of Tax	Determination of Coll		Comments
	Base	Adm	
Customs	F		International trade taxes.
Corporate income	F, U		Mobile factor, stabilization tool.
Resource taxes			
Resource rent (profits/income); Royalties, fees, charges; severance taxes; production	F		Highly unequally distributed tax bases.
output, and property taxes	S,L		Benefit taxes/charges for state-local services.
Conservation charges	S,L		To preserve local environment.
Personal income	F		Redistributive, mobile factor, stabilization tool.
Wealth taxes (taxes on capital wealth, wealth transfers, inheritances, and	F		Redistributive.
Payroll	F,S		Benefit charge, e.g., social security coverage.
Multi-stage sales taxes (value tax, [VAT])	F		Border tax adjustments possible under federal assignment; potential stabilization tool.
Single stage sales taxes (manufacturer/wholesale/retail)			
Option A	S		Higher compliance cost.
Option B	F		Harmonized, lower compliance cost.
"Sin" taxes			
Excises on alcohol and tobacco	F,S		Health care a shared responsibility.
Betting, gambling	S,L		State and local responsibility.
Lotteries	S,L		State and local responsibility.
Race tracks	S,L		State and local responsibility.
Taxation of "Bads"			
Carbon	F		To combat global/national pollution.
BTU taxes	F,S,L		Pollution impact may be national, regional, or local.
Motor fuels	F,S,L		Tolls on federal/provincial/local roads.
Effluent charges	F,S,L		To deal with interstate, intermunicipal or local pollution issues.
Congestion tolls	F,S,L		Tolls on federal/provincial/local roads.
Parking fees	L		To control local congestion.
Motor vehicles			
Registration, transfer taxes	S		State responsibility.
annual fees			
Driver's licenses and fees	S		State responsibility
Business taxes	S		Benefit tax.
Excises	S,L		Residence-based taxes.
Property	S		Completely immobile factor, benefit tax.
Land	S		Completely immobile factor, benefit tax.
Frontage, betterment	S,L		Cost recovery.
Poll	F,S,L		Payment for local services.
User charges	F,S,L		Payment for services received.

Note: U is supranational agency, F is federal, S is state or
L is municipal or local. Source: Shah (1994).

“Certainty? In this world nothing is certain but death and taxes.”

Benjamin Franklin, 1706-1790

American Scientist, Publisher, Diplomat

“The only difference between death and taxes is that death doesn’t get worse every time Congress meets.”

Will Rogers, 1879-1935

American Humorist, Actor