Outline

1 Course Overview
   • What is public economics?
   • Course outline, schedule, logistics, goals of course

2 Fiscal Policy in the US
   • Federal Tax Revenue and Progressivity
   • Federal Government Spending

3 Government Intervention in the Economy
What is public economics?

Public Economics (or public finance) = study of the Role of the Government in the Economy

Government is instrumental in most aspects of economic life:

- **Taxes**: governments in advanced economies collect 35-50% of National Income in taxes
- **Expenditures**: taxes fund **public goods** (infrastructure, public order and safety, defense) and **welfare state** (Education, Retirement benefits, Health care, Income support)
- Government in charge of huge **regulatory** structure
- Macro-economic **stabilization** through central bank (interest rate, inflation control), fiscal stimulus, bailout policies

⇒ We pool a large share of our incomes through government
Three questions of public finance

- When should the government intervene in the economy? (Normative question)
- What is the effect of those interventions on economic outcomes? (Positive question)
- Why do governments choose to intervene in the way that they do? (Political economy)
Normative vs. Positive Public Economics

- **Normative Public Economics:** Analysis of How Things Should be (e.g., should the government intervene in health insurance market? how high should taxes be?, etc.)

- **Positive Public Economics:** Analysis of How Things Really Are (e.g., Does govt provided health care crowd out private health care insurance? Do higher taxes reduce labor supply?)

Positive Public Economics is a required 1st step before we can complete Normative Public Economics
What Are the Effects of Alternative Interventions?

- **Direct Effects**: The effects of government interventions that would be predicted if individuals did not change their behavior in response to the interventions.

  Direct effects are relatively easy to compute

- **Indirect Effects**: The effects of government interventions that arise only because individuals change their behavior in response to the interventions (sometimes called unintended effects)

  Empirical public economics analysis tries to estimate indirect effects to inform the policy debate.

**Example**: increasing top income tax rates mechanically raises tax revenue, but top earners might find ways to evade/avoid taxes, work less hard, etc, and thus pay less tax revenue relative to mechanical calculation.
Introductions: who am I/ who are you?

1 My background
- Ph.D. from UC Berkeley, BA from Dartmouth
- Staff Economist at Council of Economic Advisers
- Formerly an Assistant Professor at Chicago Booth
- Co-chair NBER business tax group

2 Research fiscal policy topics
- Incidence and efficiency costs of corporate taxation
- Economic impacts of taxing high-income earners
- Effect of state tax system on U.S. economy
- The structure of state corporate taxation
- Business taxation and ownership in the U.S.
- Who profits from patents? Rent sharing at innovative firms
- Business Income and U.S. income inequality
- Wealth concentration and capital income in America
- Evaluating state and local business tax incentives
Logistics and Goals

Logistics:
1. Class schedule
2. Precepts
3. Midterm and exam

Goals:
1. An institutional understanding of how fiscal policy actually works in the U.S.
2. A theoretical framework to think about how it should work
3. An appreciation for empirical concepts and evidence
4. An ability to connect applied economic models and evidence to assess policies
Example problem

EITC: Eissa Liebman 1996

1. Please describe what the EITC is and how the policy works
2. Please describe the empirical approach and identification assumptions of Eissa Liebman 1996
3. Please describe and evaluate the main results of Eissa Liebman 1996
Course Outline

1. OZ: Overview of US fiscal policy, general framework
2. HK: Low-Income Support: EITC and Welfare
3. HK: Taxing the Rich: Inequality and Behavioral Responses
4. HK: Tax Evasion & Tax Avoidance
5. HK: Optimal Taxation and Redistribution
6. HK: Gender Inequality and Family Policies
7. HK: Social Insurance
8. OZ: US Health Insurance: Medicare and Medicaid
9. OZ: The distribution and taxation of wealth and capital income
10. OZ: Firms and tax policy
11. OZ: Public Goods and Externalities
12. OZ: State and Local Fiscal Policy and Place-based Policies
13. OZ: Social Security and Retirement
Key facts on the growth of government

1. **Government Growth**: Size of government relative to National Income grows dramatically over the process of development from less than 10% in less developed economies to 30-50% in most advanced economies.


3. **Government Growth** is due to the expansion of the welfare state: (a) public education, (b) public retirement benefits, (c) public health insurance, (d) income support programs.

4. **Govt spending > Taxes**: Most rich countries run deficits and have significant public debt (relative to GDP), particularly during Great Recession of 2008-10.
Growth of government in rich countries

**Figure 10.14. The rise of the fiscal State in rich countries 1870-2015**

Interpretation. Total fiscal revenues (all taxes and social contributions included) made less than 10% of national income in rich countries during the 19th century and until World War 1, before rising strongly from the 1910s-1920s until the 1970s-1980s and then stabilizing at different levels across countries: around 30% in the U.S., 40% in Britain and 45%-55% in Germany, France and Sweden.

Sources and series: see piketty.pse.ens.fr/ideology.

Source: Piketty (2020)
Evolution of Government Expenditures

Figure 10.15. The rise of the social State in Europe, 1870-2015

- Other social spending: 47%
- Social transfers (family, unemployment, etc.): 6%
- Health (health insurance, hospitals, etc.): 5%
- Retirement and disability pensions: 9%
- Education (primary, secondary, tertiary): 11%
- Army, police, justice, administration, etc.: 6%

Interpretation: In 2015, fiscal revenues represented 47% of national income on average in Western Europe and were used as follows: 10% of national income for regalian expenditure (army, police, justice, general administration, basic infrastructure: roads, etc.); 6% for education; 11% for pensions; 8% for health; 5% for social transfers (other than pensions); 6% for other social spending (housing, etc.). Before 1914, regalian expenditure absorbed almost all fiscal revenues. Note: The evolution depicted here is the average of Germany, France, Britain and Sweden (see figure 10.14). Sources and series: see piketty.pse.ens.fr/ideology.

Source: Piketty (2020)
Fiscal Policy in the US
Fiscal Policy in the US

Outline:

1. Fiscal Overview
2. Tax Revenue
3. Government Spending
Federal Revenue, Spending, and Deficits: 1980-2018

![Graph showing Federal Revenue, Spending, and Deficits: 1980-2018](image-url)

- Spending: $4.1T
- Revenues: $3.3T
- Deficit: $0.8T

Source: White House Office of Management and Budget

Undergraduate Public Economics (Econ 341)
Overview of Public Economics and US Fiscal Policy
Lecture 1
Government Budgeting

In 2019: US Federal debt (held outside govt) is $16Tr around 80% of GDP ($20Tr), US deficit is large 5.0% ($1Tr) of GDP

- **Debt**: The amount borrowed by government through bonds to individuals, firms, or foreign governments. Debt is a **stock**

- **Deficit**: government’s spending + interest payments on debt minus government revenues in a given year. A negative deficit is called a surplus. Deficit is a **flow**

- Evolution of debt from year to year:

\[
\text{Debt}_{t+1} = \text{Debt}_t + \text{Deficit}_t = \text{Debt}_t \cdot (1 + r_t) + \text{Spending}_t - \text{Revenue}_t
\]

with \( r_t \) interest paid on government debt

- Primary Deficit = Spending - Revenue
Debt and interest payments

Data: FRED, CBO
Federal Revenue Projections: Pre and Post 2017 Tax Cuts Jobs Act

[Graph showing Federal Revenue Share of GDP (% from 1965 to 2025 with projections for 2016-2026 and 2018-2028]

Source: CBO Budget and Economic Outlook

Undergraduate Public Economics (Econ 341) Overview of Public Economics and US Fiscal Policy Lecture 1 19 / 69
Total Federal Revenue by Source, 2018 ($T)

- Individual income tax: 1.7
- Social insurance taxes: 1.2
- Corporate income tax: 0.2
- Other: 0.3

Source: White House Office of Management and Budget
Credit to Heathcote Storesletten Violante (QJE, forthcoming) for the quote.

The hardest thing in the world to understand is income taxes.

(Albert Einstein)
Federal Revenue: Individual Income Tax

- **Revenue:** Accounted for $1.7T (8% of GDP) in 2018
- **Base:** Applied to wages, salaries, some investment earnings, profits of pass-through businesses
- **Structure:** Progressive. $24K standard deduction, additional income taxed at rates from 10-37%. High income households pay 3.8% surtax on income from interest, dividends, capital gains, and other passive income
Federal US Income tax schedule (pre-TCJA)

T(z) is continuous in z

slope 10%
slope 15%
slope 39.6%

T(z) vs. taxable income z

Source: Saez.
Federal US Income marginal tax schedule (pre-TCJA)

Marginal Income Tax

T'(z) is a step function

Source: Saez.
TCJA change in top marginal rates

FIGURE 1
Marginal Tax Rate by Taxable Income

Prior Law, 2018
TCJA
Changes in income tax schedule since late 1990s

Federal US top income tax rate
Tax Expenditures

- Include tax credits, deductions, lower tax rates for certain types of income
- Cost in 2018 was 6.3% of GDP, or $1.3T (80% as large as revenue from individual income tax)
- Largest tax expenditures, FY 2019:
  - Exclusion for employer-provided health insurance ($173B)
  - Reduced tax rate for capital gains ($127B)
  - Child/other dependent tax credit ($122B)
  - Tax benefit for employer defined contribution plans ($122B)
  - Tax benefit for defined benefit plans ($91B)
  - Earned income credit ($73B)
- Refundability: some tax credits (e.g. child credit, EITC) provide cash refunds to people with no tax liability
Calculating Federal US Income tax liabilities

- US income tax assessed on **annual family** income (not individual) [most other OECD countries have shifted to individual assessment]
- Sum all cash income sources from family members (both from labor and capital income sources) = called **Adjusted Gross Income (AGI)**
- Main exclusions: fringe benefits (health insurance, pension contributions), imputed rent of homeowners, unrealized capital gains
Federal US Income tax (pre-TCJA)

- Taxable income = AGI - personal exemptions - deduction
- personal exemptions = $4K \times \# \text{ family members (in 2016)}
- deduction is max of standard deduction or itemized deductions
- Standard deduction is a fixed amount depending on family structure ($12.6K for couple, $6.3K for single in 2016)
- Itemized deductions: (a) state and local taxes paid, (b) mortgage interest payments, (c) charitable giving, various small other items
- About 10% of AGI lost through itemized deductions, called tax expenditures
### Table 4. Conventional distributional measures, 2022

<table>
<thead>
<tr>
<th>Income group</th>
<th>Baseline</th>
<th>Proposal</th>
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<th></th>
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<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Average</td>
<td>Share</td>
<td>Percent</td>
<td>Share</td>
<td>Share</td>
<td>Change</td>
<td></td>
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<tr>
<td></td>
<td>expanded</td>
<td>federal</td>
<td>with tax</td>
<td>change in after tax</td>
<td>of federal</td>
<td>of federal</td>
<td>in share of</td>
<td></td>
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<tr>
<td></td>
<td>income</td>
<td>liability</td>
<td>increase</td>
<td>income</td>
<td>taxes paid</td>
<td>taxes paid</td>
<td>federal taxes</td>
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<tr>
<td>Bottom quintile</td>
<td>$3,150</td>
<td>$-155</td>
<td>$3,305</td>
<td>$-145</td>
<td>1%</td>
<td>4.4%</td>
<td>-1%</td>
<td>0%</td>
</tr>
<tr>
<td>Second quintile</td>
<td>$26,395</td>
<td>$230</td>
<td>$26,625</td>
<td>$-775</td>
<td>8%</td>
<td>3.1%</td>
<td>-5%</td>
<td>0%</td>
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<tr>
<td>Middle quintile</td>
<td>$53,415</td>
<td>$5,370</td>
<td>$48,785</td>
<td>$-110</td>
<td>46%</td>
<td>0.2%</td>
<td>-1%</td>
<td>6%</td>
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<tr>
<td>Fourth quintile</td>
<td>$98,395</td>
<td>$13,040</td>
<td>$85,355</td>
<td>$2,120</td>
<td>81%</td>
<td>-2.5%</td>
<td>11%</td>
<td>16%</td>
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<tr>
<td>80-90%</td>
<td>$160,910</td>
<td>$26,590</td>
<td>$134,320</td>
<td>$5,770</td>
<td>100%</td>
<td>-3.3%</td>
<td>13%</td>
<td>14%</td>
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<tr>
<td>90-95%</td>
<td>$234,445</td>
<td>$43,760</td>
<td>$190,685</td>
<td>$12,810</td>
<td>100%</td>
<td>-6.7%</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>95-99%</td>
<td>$405,360</td>
<td>$88,535</td>
<td>$316,825</td>
<td>$29,930</td>
<td>100%</td>
<td>-9.5%</td>
<td>24%</td>
<td>19%</td>
</tr>
<tr>
<td>99-99.9%</td>
<td>$1,222,415</td>
<td>$340,825</td>
<td>$881,585</td>
<td>$128,295</td>
<td>100%</td>
<td>-14.6%</td>
<td>23%</td>
<td>17%</td>
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<tr>
<td>Top 0.1%</td>
<td>$10,389,425</td>
<td>$2,916,660</td>
<td>$7,472,765</td>
<td>$1,054,650</td>
<td>100%</td>
<td>-14.2%</td>
<td>23%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: Zidar Zwick (2020).
## TCJA Distributional Table

**TABLE 4**

Conference Agreement for H.R. 1, The Tax Cuts and Jobs Act
Distribution of Federal Tax Change by Expanded Cash Income Percentile
2018; Summary Table; Baseline: Current Law

<table>
<thead>
<tr>
<th>Expanded cash income percentile</th>
<th>Tax Units</th>
<th>Percent change in after-tax income</th>
<th>Share of total federal tax change</th>
<th>Average federal tax change ($)</th>
<th>Average Federal Tax Rate (%)</th>
<th>Change under the proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quintile</td>
<td>48,780</td>
<td>27.7</td>
<td>0.4</td>
<td>1.0</td>
<td>-60</td>
<td>-0.4</td>
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<tr>
<td>Second quintile</td>
<td>38,760</td>
<td>22.0</td>
<td>1.2</td>
<td>5.2</td>
<td>-380</td>
<td>-1.1</td>
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<tr>
<td>Middle quintile</td>
<td>34,290</td>
<td>19.5</td>
<td>1.6</td>
<td>11.2</td>
<td>-930</td>
<td>-1.4</td>
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<tr>
<td>Fourth quintile</td>
<td>28,870</td>
<td>16.4</td>
<td>1.9</td>
<td>18.4</td>
<td>-1,810</td>
<td>-1.6</td>
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<tr>
<td>Top quintile</td>
<td>24,300</td>
<td>13.8</td>
<td>2.9</td>
<td>65.3</td>
<td>-7,640</td>
<td>-2.2</td>
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<tr>
<td>All</td>
<td>176,100</td>
<td>100.0</td>
<td>2.2</td>
<td>100.0</td>
<td>-1,610</td>
<td>-1.8</td>
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</table>

**Addendum**

<p>| | | | | | | |</p>
<table>
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<tr>
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<tr>
<td>80-90</td>
<td>12,490</td>
<td>7.1</td>
<td>2.0</td>
<td>13.1</td>
<td>-2,970</td>
<td>-1.6</td>
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<tr>
<td>90-95</td>
<td>6,020</td>
<td>3.4</td>
<td>2.2</td>
<td>9.6</td>
<td>-4,550</td>
<td>-1.8</td>
</tr>
<tr>
<td>95-99</td>
<td>4,650</td>
<td>2.6</td>
<td>4.1</td>
<td>22.1</td>
<td>-13,480</td>
<td>-3.1</td>
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<tr>
<td>Top 1 percent</td>
<td>1,140</td>
<td>0.7</td>
<td>3.4</td>
<td>20.5</td>
<td>-51,140</td>
<td>-2.3</td>
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<tr>
<td>Top 0.1 percent</td>
<td>120</td>
<td>0.1</td>
<td>2.7</td>
<td>7.9</td>
<td>-193,380</td>
<td>-1.8</td>
</tr>
</tbody>
</table>

**Source:** Urban-Brookings Tax Policy Center Microsimulation Model (version 0217.1).

**Notes:** Calendar year. Baseline is current law. Excludes effects of reduction in ACA Individual Shared Responsibility Payment to zero.

http://www.taxpolicycenter.org/taxtopics/Baseline-Definitions.cfm

Number of AMT Taxpayers (millions): Baseline: 5.2; Proposal: 0.2

(a) Includes both filing and nonfiling units but excludes those that are dependents of other tax units. Tax units with negative adjusted gross income are excluded from their respective income class but are included in the totals. For a description of expanded cash income, see http://www.taxpolicycenter.org/TaxModel/income.cfm

(b) The income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2017 dollars): 20% $25,000; 40% $48,600; 60% $86,100; 80% $149,400; 90% $216,800; 95% $307,900; 99% $732,800; 99.9% $3,439,900.

(c) After-tax income is expanded cash income less: individual income tax net of refundable credits; corporate income tax; payroll taxes (Social Security and Medicare); estate tax; and excise taxes.

(d) Average federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, the estate tax, and excise taxes) as a percentage of average expanded cash income.
Federal Revenue: Social Insurance Taxes

- **Revenue**: $1.2T in 2018
- **Payroll taxes**: 1/2 paid by employer, 1/2 by employee
  - Social Security: Taxes 12.4% of wages up to $128K cap. Cap increases with average national wages
  - Medicare: Taxes 2.9% of wages. High income households pay added 0.9% surtax
- **Other**: e.g. employer-paid tax funding unemployment insurance
How payroll taxes differ from income taxes:
- Revenue enters trust fund
- Apply only to wages
- Flat rate tax
- Few exemptions
- Applies from the first $ of earnings

Payroll taxes exceed income taxes among the bottom 80% of income distribution on average.
- **Revenue**: $242B in 2018
- Return to this later in the course
Federal Revenue: Other Taxes

- **Revenue**: $278B
- **Examples**:
  - Gas tax: 18.4 ¢/gallon unleaded, 24.4 ¢/gallon diesel
  - Alcohol and tobacco ("sin") taxes
  - Estate tax: First $22.4M exempt for married couple, so paid by fewer than 1/1000 people who die
  - Gift tax

Source: William Gale

Source: William Gale
State Income Tax Progressivity

Source: Fajgelbaum et al, 2019
Progressivity over Time

Total Tax rates, 1962 (by pre-tax national income)

Source: Saez Zucman (2019)
Progressivity over Time

Total Tax rates, 2018 (by pre-tax national income)

Source: Saez Zucman (2019)
Simulated Progressivity of Presidential Candidates Tax Plans

Proposed tax plans (as of January 20, 2020)
(including private health insurance as tax)

Source: Saez Zucman (2020). See here for details: https://eml.berkeley.edu/~saez/taxsimsummary_v2.pdf
Federal Government Spending
Total Federal Spending by Function (% of GDP)

Fiscal Year

Share of GDP (%)


Other Social Security Defense Medicare Health Net interest

Source: White House Office of Management and Budget

Undergraduate Public Economics (Econ 341) Overview of Public Economics and US Fiscal Policy Lecture 1 46 / 69
Total Federal Spending by Function, 2018 ($T)

- Social Security: 1.19
- Medicare: 0.99
- Medicaid: 0.59
- Defense: 0.38
- Net interest: 0.32
- Other: 0.63

Source: White House Office of Management and Budget

Undergraduate Public Economics (Econ 341)
Overview of Public Economics and US Fiscal Policy
$967B in 2018

Composed of Old-Age and Survivors Insurance (1935) and Disability Insurance (1956)

60M Americans (≈ 1/5 of pop) get benefits each year, mostly through retirement program

In 2016, Social Security helped 26M people avoid poverty

Program provides majority of retirement income for most elderly households
Federal Spending: Medicare

- $583B in 2018
- Began 1965 to provide elderly with basic health insurance
- George W. Bush added prescription drug coverage (Medicare Part D) in 2003
- Covers 60M beneficiaries in a given year
- Financed through combination of payroll taxes, insurance premiums, and general tax revenue
Federal Spending: Medicaid

- $583B in 2018
- Began 1965 to provide medical coverage to some low-income families (\(\frac{1}{3}\) of spending), disabled people, and the elderly
- Covered 74M beneficiaries in 2018
- Funded jointly by federal and state governments, administered by states
- Separate but related programs:
  - Subsidies to buy private insurance
  - Children's Health Insurance Program (CHIP)
Federal Spending: Defense

- $622B in 2018
- 20% of core Defense Dep’t budget (excludes cost of overseas operations) goes to procurement
- Rest of core budget: operations, maintenance, personnel, R&D
Federal Spending: Interest

- $316B in 2018
- Size of payments depends on debt and interest rate
- Interest rates have been low in recent years (2018 averaged 2.2%)
Federal Spending: Everything Else

- **Safety net programs**: \( \approx 10\% \) of total spending in 2018, lifted as many as 18M people out of poverty in 2016
- **Other domestic programs**: \( \approx 16\% \) of total spending in 2018. Many of these programs are investments such as education, training, social services, and infrastructure.
- **Core functions**: includes running executive departments (e.g. Justice, Homeland Security) and agencies (e.g. EPA, National Park Service)
## Federal Spending: Everything Else

### Select safety net programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Monthly Beneficiaries</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterans' benefits</td>
<td>5.0M</td>
<td>$81.6B</td>
</tr>
<tr>
<td>SNAP</td>
<td>40.9M</td>
<td>$69.2B</td>
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<tr>
<td>Suppl. Security Income (SSI)</td>
<td>8.3M</td>
<td>$54.7B</td>
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<tr>
<td>Unemployment insurance (UI)</td>
<td>10M</td>
<td>$46.5B</td>
</tr>
<tr>
<td>Housing assistance</td>
<td>5.4M</td>
<td>$28.7B</td>
</tr>
<tr>
<td>TANF</td>
<td>3.6M</td>
<td>$16.5B</td>
</tr>
</tbody>
</table>

### Select investment programs

- **Education, training, social services:** state and local grants, Department of Labor training programs, Pell Grants
- **Science, medical, and tech research:** NASA, NIH, NSF
- **Transportation and infrastructure:** grants to states for highway maintenance
Federal Spending

- Mandatory spending
  - Net interest payments (8% of spending)
  - Mandatory programs, AKA entitlements (61% of spending)
    - Law determines a person’s eligibility, and then all eligible people receive benefits
    - Continue under terms set in law until laws are changed
    - Examples: Social Security, Medicare, Medicaid, TANF, farm subsidies

- Discretionary spending
  - Authorized only for set period, usually one year
    - $1/2$ is on defense
    - $1/4$ is on investments (education, training, science, infrastructure)
    - $1/4$ is on housing, environmental protection, food safety, government operations (e.g. enforcement, tax collection), etc.
International Comparison: Government Spending (2013)

Source: William Gale
Government Intervention
Government Intervention in the Economy

- Organizing framework: “When is government intervention necessary in a market economy?”
  - Market first, government second approach
  - Why? Private market outcome is efficient under a broad set of conditions (1st welfare theorem)
- This section can be split into two parts
  - How can govt. improve efficiency when private market is inefficient?
  - What can govt. do if private market outcome is undesirable due to distributional concerns?
Efficient Private Market Allocation of Goods

Amy’s Consumption

Bob’s Consumption
First Role for Government: Improve Efficiency

Amy’s Consumption

Bob’s Consumption
Second Role for Government: Improve Distribution

Amy's Consumption

Bob's Consumption
First Welfare Theorem

Private market provides Pareto efficient outcome under three conditions:

1. No externalities
2. Perfect information
3. Perfect competition

This theorem tells us when government should intervene.
Markets may be incomplete due to lack of prices (e.g. pollution)
- Achieving an efficient solution requires an organization to coordinate individuals – that is, a government
- This is why govt. funds public goods (highways, education, defense)
- Questions: What public goods to provide and how to correct externalities?
Failure 2: Asymmetric Information and Incomplete Markets

When some agents have more information than others, markets fail

1. Adverse selection in health insurance
   - Healthy people drop out of private market → unraveling
   - Mandated coverage could make everyone better off

2. Capital markets (credit constraints) and subsidies for education

3. Markets for intergenerational goods
   - Future generation’s interests may not be fully reflected in market outcomes
Failure 3: Imperfect Competition

- When markets are not competitive, there is role for govt. regulation
  - Ex: natural monopolies such as electricity and telephones
- We will discuss monopolies later in the course (in the innovation policy discussion)
Individual Failures

- If agents do not optimize, government intervention (e.g. by forcing saving via social security) may be desirable
  - This is an “individual” failure rather than a market failure
- Conceptual challenge: how to avoid paternalism
  - Why does government know what is desirable for you (e.g. wearing a seatbelt, not smoking, saving more)
- Difficult but central issues for optimal policy design
Redistribution Concerns

- Even when the private market outcome is efficient, may not have good distributional properties
- Efficient markets generally seem to deliver very large rewards to a small set of people (top incomes)
- Government can redistribute income through tax and transfer system
One solution to these issues would be for the government to oversee all production and allocation in the economy (socialism).

Serious problems with this solution:

1. Information: how does government aggregate preferences and technology to choose optimal production and allocation?
2. Government policies distort incentives (behavioral responses in private sector)

In practice, there are sharp tradeoffs between the costs and benefits of government intervention.
Equity-Efficiency Tradeoff