Principles of Macroeconomics: Fiscal Policy

Class 19

Alex Houtz

November 10, 2025

University of Notre Dame

Overview

- Announcements:
  - LC 13/15, GH 13/15 due 11/21 at 11:59pm
- Topics:
  - AD-AS Recap
  - Government spending
  - Some details on fiscal policy
- Readings:
  - Chapters 13.1-13.2; chapter 13.3-13.4

Aggregate Demand is:

$$GDP = \frac{1}{1 - MPC}\left(A + MPC \times [TR - T] + I(r) + G\right)$$

We shift AD to the right if:

- TR (transfers) increases
- T (taxes) decreases
- G (spending on goods and services) increases

Change in GDP

The change in GDP from fiscal policy:

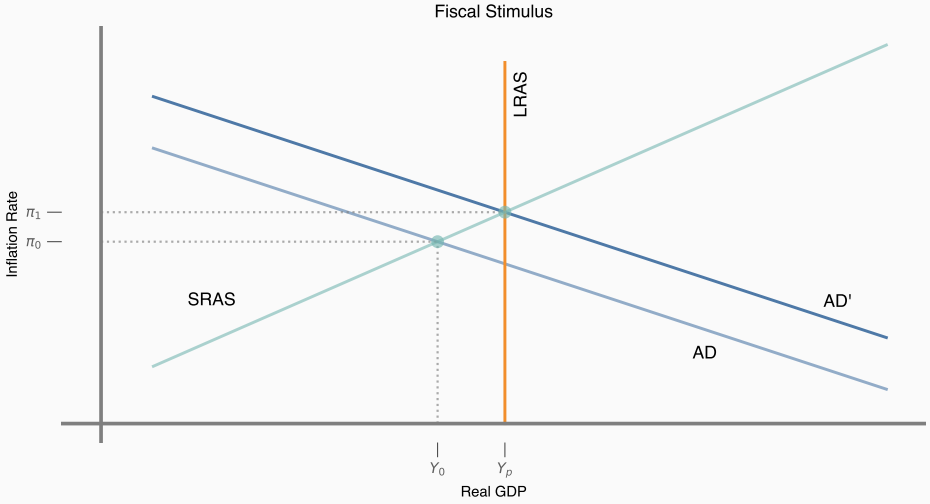
$$\Delta GDP = \frac{1}{1 - MPC} \left(MPC \times [\Delta TR - \Delta T] + \Delta G \right)$$

- $\Delta G = 1 \longrightarrow \Delta GDP = \frac{1}{1-MPC}$
- $\Delta TR = 1 \longrightarrow \Delta GDP = \frac{MPC}{1-MPC}$
- $\Delta T = 1 \longrightarrow \Delta GDP = -\frac{MPC}{1-MPC}$

Given that $0 < MPC < 1$, then G causes the largest increase in GDP

- Note: this is only a shift in AD, not the resulting shift in GDP. Why?

Graphically



Will this Actually Work?

The textbook lists three main criticisms of fiscal stimulus

(1) Government spending crowds out private spending

(2) Government borrowing crowds out private investment

(3) Government budget deficits reduce private spending

Government spending crowds out private spending

Idea: If the government consumes an apple, I cannot consume that apple

- Maybe true when the economy is operating at full capacity – we are eating all the apples we can efficiently produce
- But what about when we are below what we can produce? There are apples that could be produced that simply aren't – the government thus eats apples that otherwise wouldn't be produced

Government borrowing crowds out private investment

Idea: If the government borrows to fund its consumption, that increases the demand for loanable funds, crowding out private investment

- Again, true if the economy was operating at full capacity
- But when we are below potential, there are investments would be made that are not currently being made. So government crowds out less than we normally worry about

Government budget deficits reduce private spending

Idea: If the government borrows, it will need to raise taxes in the future. I know this and do not change my behavior today

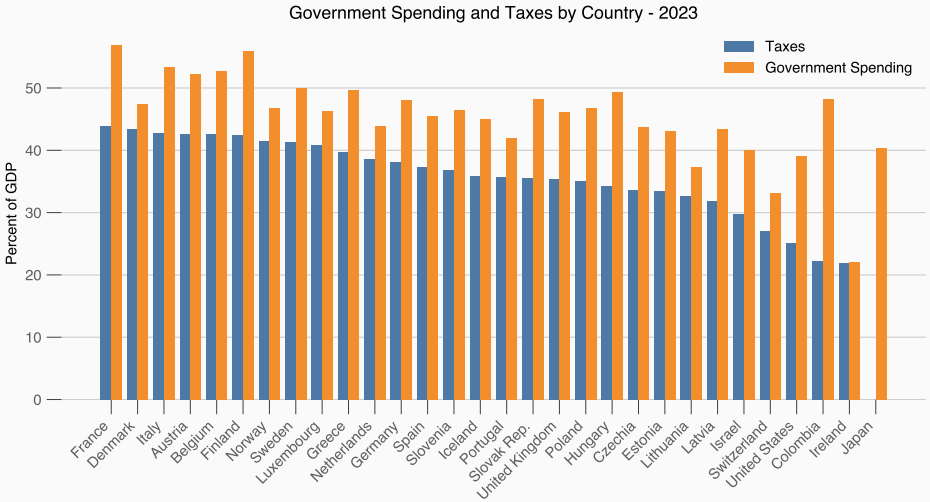
- This is known as *Ricardian equivalence* – basically, whether the government borrows or taxes is irrelevant
- The criticism is misguided though – Ricardian equivalence is actually about financing government spending, not spending itself

Beyond the Textbook

Some legitimate worries about government spending:

- Maybe some sectors of the economy are operating at potential – pushing them further just increases prices
- The economy is open in practice – government stimulus could just leak internationally
- It takes time to pass legislation – could we miss the optimal stimulative period?
- Misallocation – maybe the government is propping up businesses that make poor use of resources so that we are perpetually below potential
- Taxes in practice are distortionary (on labor, on consumption) – this creates deadweight loss
- Where does G go – maybe to those with connections to the government rather than those that need it most?
- Debt: does Ricardian equivalence actually hold in the short-run? What about long-run fiscal sustainability?

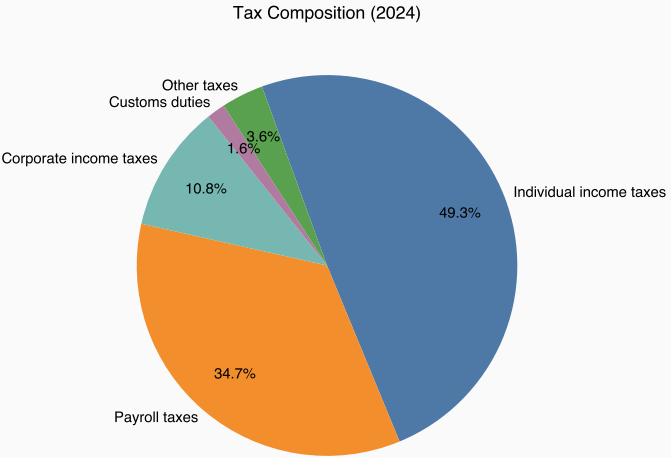
From Theory to Data – OECD Data



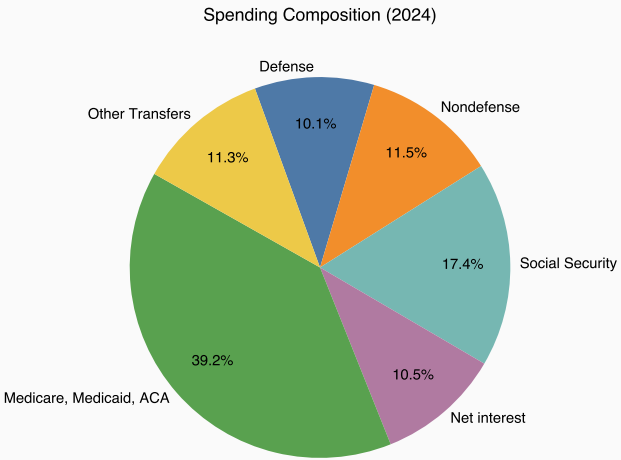
Key Takeaways

- Modern economies generally spend more than they take-in
- Countries in Europe in particular have a large government presence in the economy
- Any change in government expenditure will matter a lot for AD

American Taxes - CBO (2025)



American Spending



Some Accounting Terms

- Medicare, Medicaid, ACA, Social Security are all mandatory spending items
  - "Primarily payments for benefit programs whose eligibility rules and benefit formulas are set by law"
  - Economists will call these types of programs transfer programs – the government is taking money from one group and giving it to another group
- Defense and Nondefense spending (think spending on education, for example) are called discretionary spending
  - "Spending that lawmakers control annually through appropriation acts"
  - Economists will call this government consumption/investment spending – where the government is "eating" resources

A Note on Automatic Stabilizers

Automatic stabilizers are budget mechanisms that automatically counteract economic fluctuations

- Think about the tax code for example
  - If you don't make that much, your average tax rate is low.
  - If you make a lot, your average tax rate is high
- When the economy is running hot (think AD shifts right), income increases
  - If income increases, more people make more money
  - If more people make more money, then people generally pay a higher average tax rate
  - A higher average tax rate shifts AD left

Empirical Evidence on the Multiplier

Government Spending

- Blanchard & Perotti (2002): 0.6–1.0 in normal times.
- Ramey & Zubairy (2018): 0.6–1.0.
- Nakamura & Steinsson (2014): local multipliers > 1.

Taxes

- Romer & Romer (2010): ≈ 2 over several years
- Mertens & Ravn (2013): ≈ 2.5 after 3 quarters for income tax cut
- Barro & Redlick (2011): ≈ 1.1, change in income tax rates

Public Investment

- Chodorow-Reich (2019): ≈ 1.7
- Leduc & Wilson (2013): ≈ 3 6-8 years after highway investment, but only during a recession

Why?

Why would taxes potentially give greater boosts than government spending?

- Taxes in practice are distortionary – income, payroll, etc. So cutting taxes may shift behavior (more hours worked for example)
- If taxes target high MPC households (think households that don't have enough cash), then payoffs can be large
- Perhaps agents believe tax cuts are permanent, but don't believe government borrowing can last forever $\longrightarrow$ Failure of Ricardian equivalence helps tax cuts
- Monetary policy will push back against inflation – if tax cuts help supply, then monetary policy will be more accommodative to the increase in GDP

Summary

- Fiscal policy
- Some Fiscal Data
- Read chapter 13.3-13.4