Tax 101

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Overview

1. You need to pay your bills someday
2. Taxes here and elsewhere
3. How much do people really respond to tax changes?
4. Taxes and economic performance:

   The muddled data

Ricardian Equivalence, or,

You need to pay your bills someday

- **Key fact:**
  The government faces a budget constraint:
  It pays for things through taxes or borrowing
  (Source, Barro, “Are Government Bonds Net Wealth?”)
- Illustration:
  - If your government spends $20 this year and $20 next year, and then time ends, what’s the best way to pay for that?
  - Note: being “realistic” by adding in more time periods and interest doesn’t change anything of substance.
- **Option 1:** $20 each year.
- **Option 2:** $10 this year, $30 next year
- *Not an option: $5 this year, $20 next year*

Ricardian Equivalence II:

Milton Friedman’s Permanent Income Hypothesis

- So, how do reasonable consumers behave if government switches from Option 1 to Option 2?
    - **Option 1:** Pay $20 each year
        - **“Tax Smoothing”**
    - **Option 2:** Pay $10 this year, $30 next year
        - **“Tax Roughening” or “Tax Shifting”**

- Answer: Oh, the government is giving me $10 more today and making me pay $10 more next year? I guess I’ll save this year’s tax cut!

- *Gross oversimplification:* **The Timing of Taxes doesn’t Matter** for **consumer** decisions–only the lifetime tax burden matters, not which day the bill shows up.

Ricardian Equivalence III: Any evidence?

- A story:

  Bush '41 temporary payroll tax cuts

- Statistical tests from US:

  60-70% true: They save *most* of a temporary windfall (Source; Deaton, *Understanding Consumption*)

People are mostly "choosers," not "objects."

Taxes here and elsewhere

	1965	1980	1990	1997
US	25%	28%	28%	30%
Japan	18%	25%	31%	29%
Germany	32%	38%	37%	37%
France	35%	42%	43%	45%
UK	30%	35%	36%	35%
OECD	26%	33%	36%	37%

All taxation, Federal, State, and Local as % of GDP.
Source: Salanie, Economics of Taxation

Where do taxes come from?

Big story: Variety across countries–and sales taxes more popular outside the US *(Source: Salanie)*

	Personal	Corporate	Payroll (Soc. Sec)
US	39%	9%	24%
Japan	21%	15%	37%
Germany	24%	4%	42%
France	14%	6%	41%
UK	25%	12%	17%
OECD	27%	9%	25%

US in Recent years at Federal Level (Source: Economic Report of President)

- 45% Personal Income Tax
- 10% Corporate Income Tax
- 38% Payroll (SS and Medicare) Tax
- 7% Miscellaneous

Who responds to tax changes?

- Consensus: Married women respond more than men
  (Source; Poterba, Fuchs, Krueger, “Economists’ Views about Parameters…”)
  - MW:10% rise in take-home pay→6% more work
  - Men:10% rise in take-home pay →2% more work
- Low-earners respond more:
  (Source: CBO, “Effect of Tax Changes on Labor Supply”)
  - about 2X these numbers
  - and high-earners respond *less*.
- *Note: Nobel Laureate Edward Prescott argues we’re off by factor of **10***
  Social forces at work?
  (Source: Prescott, “Why do Americans work so much more than Europeans?”)

Other harder-to-measure but important things

- Tax evasion–less tempting at lower rates?
- Tax avoidance–legal shelters less tempting, as well.

Taxes on Capital

- 2/3 of US income: Wages/Salaries

- 1/3: Capital income/Interest/Rent/Profit
- True across time and countries
    - A surprise! (Source: Gollin, “Getting Income Shares Right.”)

Taxing Capital Income in Theory

- A shockingly robust result: Taxing capital income is generally a bad idea. (Chamley/Judd)

  (In general, "capital taxes" include corporate income taxes, interest and profit taxes, and capital gains taxes.)

- *IRAs and 401K's get us closer to this world*

- Key point: In long run, the revenue raised by a capital tax isn't enough to make up for the lower wages it causes

Really? How?

- Higher tax on capital → Lower long-term saving
  → fewer machines to tax
  (An obvious point)

- The subtle point: Fewer machines → workers produce less→ Lower wages

- Even if you take all capital tax revenue and gave it to workers, workers would vote against capital tax.
  (Source: Chamley, "Optimal Taxation of Capital Income…")

When capital can move, the “long run” is right now…

- **Tax Competition**
  Michael Devereux, Oxford: More “open” economies have lower corporate tax *rates*, but not lower corporate tax *revenue*…
  (Source: Devereaux, “What do we know about Tax Competition?”)

- In low-tax countries: A broad tax base or a free lunch? Work is ongoing…

Taxes and Growth: An empirical muddle

- Cross-country statistical studies: Only a weak relationship between tax rates and long-run performance. (Source: Hindriks and Myles, *Intermediate Public Economics*)
  – Unlike: K-6 education, price of capital goods, investment rates, absence of malaria, # of government employees, coastal location (Source: Sala-i-Martin et al., “Determinants of Long-Term Growth.”)
  – Possible reasons:
    - “tax rate” is hard to measure
    - taxes don’t matter that much

Taxes, Capital, and Growth

- Survey of top tax economists:
  - Shift to pure consumption tax
  - Examples: National sales tax, USA tax, or full expensing income tax
  - avg. answer: 0.2% faster growth→ unnoticeable
    - 10% richer in long run
  - optimists: 0.5% faster growth→
    - Probably noticeable→ 25% richer in long run

(Source: Fuchs, Poterba, Kreuger, “Economists’ Views about Parameters…”)

Dynamic Scoring?

- "I've never said all tax cuts pay for themselves. I never even said Reagan's tax cuts would pay for themselves."
  –Arthur Laffer, on Time Magazine's blog.

- More important for capital than labor

- Mankiw (Bush CEA) and Weinzierl:
  - A capital gains tax cut costs 1/3 less than advertised–if offset with spending cuts. Source: Mankiw and Weinzierl, "Dynamic Scoring: A Back-of-the-envelope Guide."

- Brad DeLong, Clinton Treasury Economist, on his blog 12/8/07:
  "As I read the evidence, Arthur Laffer is probably right at the top end: reducing the top tax rate from 70% to 50% is probably a revenue gainer and surely not much of a loser. From 50% to 28% is, I think, very different: a big revenue loser."

Conclusion

- Tax systems differ across the rich countries– more than one way to get the job done
- Consumers don't respond much to one-time "tax shifts"
- Men respond a little to tax rates
  - Married women a bit more
- Savers respond the most–IRAs and 401K's take advantage of that

Wednesday: The past and future of tax reform

- The Tax Reform Act of 1986
- How did a divided Congress pass a tax bill that only a tax economist could love?
    - Eliminated Loopholes (aka “tax incentives”)
    - Lowered most rates
    - Raised the same amount of money as before
- Lessons for 2010?