

Course Introduction

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Macro Questions

We want to study questions such as:

- ▶ Does **government spending** crowd out private investment?
 - ▶ How about government deficits?
- ▶ How does **monetary policy** work?
 - ▶ Why hasn't it worked so well lately?
 - ▶ Should we worry about inflation?
- ▶ Why does the U.S. have a **trade deficit**?
 - ▶ What could be done about it?
- ▶ Why is there so much inequality these days?
 - ▶ Should we tax the rich?

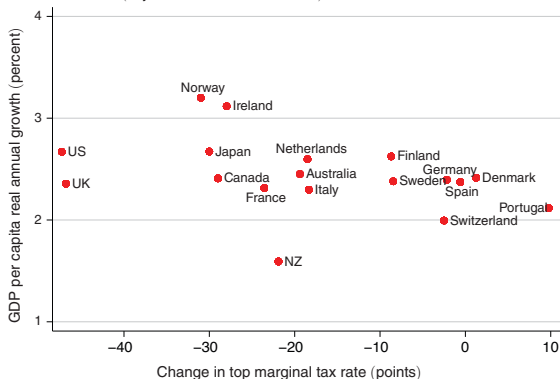
How Can We Answer such Questions?

Example: Do higher income taxes reduce growth?

What **methods** could we use to answer this question?

Growth vs. Taxes

Panel B. Growth (adjusted for initial 1960 GDP)



Source: Piketty et al. (2014)

Are you convinced? – What else could we do?

Experiments

This is what “hard sciences” would do:

- ▶ Divide the world into treatment and control countries.
- ▶ Randomly assign each country a tax rate.
- ▶ Wait 50 years.
- ▶ Compare growth rates between high and low tax countries.

“Randomized controlled trial”

- ▶ the gold standard for establishing cause-effect
- ▶ required for drug approvals

Not feasible for macro questions. – So what can we do?

Models

This is why economists use models:

- ▶ We can perform thought experiments (*ceteris paribus*)
- ▶ “What are the effects of government debt holding everything else constant?”

Models help us to keep track of complex cause-effect chains

- ▶ Government spending \Rightarrow interest rates \Rightarrow private investment ...

Drawbacks?

Why Are There so Many Models?

You have probably seen

- ▶ growth models (Solow, Romer, ...)
- ▶ short-run IS/LM models
- ▶ medium-run AS/AD models

Why isn't there one model?

Why Isn't There One Model?

Think of the set of models as one complicated **super-model** with several special cases.

In the **short run**: price adjustment **frictions**

- ▶ give rise to unemployment, business cycles, ...
- ▶ imply that monetary policy matters

In the **long run**: prices adjust

- ▶ money becomes “neutral”
- ▶ monetary policy only affects prices; not the real economy
- ▶ aggregate demand becomes less and less important

The AS/AD model that we study later spells out the details.
But for now, we start simple and focus on the short run only.

The Short Run and the Long Run

Now we see why macro analysis is divided into:

- ▶ long-run topics
 - ▶ economic growth
 - ▶ cross-country income differences
- ▶ short-run topics
 - ▶ business cycles
 - ▶ inflation and unemployment

Short-run and Long-run Models

The models used to study short-run vs long-run topics are very different.

For **long-run** questions, we don't have to worry about price adjustments

- ▶ economic growth, cross-country income differences, ...

That means (as we will see) that we also don't have to worry about

- ▶ monetary policy
- ▶ inflation

But we need to worry about aggregate supply

- ▶ productivity, capital accumulation

Short-run Models

For short-run questions, it's the other way around

- ▶ business cycles, unemployment, inflation

We need to worry about aggregate demand and supply.

- ▶ monetary and fiscal policy
- ▶ labor supply

But we don't have to worry about trend growth

- ▶ productivity, capital accumulation
- ▶ or perhaps we do...?

Structure of the Course

We start with a very short-run model: IS/LM

- ▶ it takes the idea of price adjustment frictions to the extreme
- ▶ prices are fixed
- ▶ there is no supply side at all
- ▶ mostly (but not only) useful as a building block for the next model

Then we study a medium-run AS/AD model

- ▶ prices adjust, but not right away
- ▶ there is a supply side
- ▶ but no capital accumulation, productivity growth

Finally, we study long-run questions

- ▶ economic growth, cross-country income differences

References I

Piketty, T., E. Saez, and S. Stantcheva (2014): “Optimal taxation of top labor incomes: A tale of three elasticities,” *American economic journal: economic policy*, 6, 230–271.