What Should We Teach in Intermediate Macroeconomics?

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Teaching Intermediate Macro

• My perspective comes from
  • Instructor of Intermediate Macro courses at
    • Penn State Univ. (UG) [1984-1989]
    • Univ. of Richmond (UG and MBA) [2003-present]
    • Columbia Univ. (EMBA) [2013-present]
  • Head of Macro section at Federal Reserve Bank of Philadelphia [1989-2003]
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• Ideas that follow are on my website:
  https://facultystaff.richmond.edu/~dcrousho/online_macro.html
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• Concepts
  • Building and understanding macroeconomic models and how they work
    • Most analytical course in the curriculum
    • Leads to deep thinking about models and equilibrium
    • Models: students learn essentials and concepts of simplifying model to understand key concepts, then adding realism
    • General Equilibrium: students learn to go beyond initial effects to determine adjustments that lead to long-run equilibrium
      • IS/LM?
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- Core set of concepts
  - Big picture
    - Models
    - Equilibrium
    - Classical vs. Keynesian theories
    - Policy
  - Growth and cycles
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• Core set of concepts
  • Sectoral breakdown and driving forces of each sector
    • Labor
    • Consumption
    • Investment
    • Net exports
    • Government
    • Money and financial assets
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• Relating theory to data
  • Extensive use of FRED or Bloomberg
  • Here the instructor can have substantial value added
• Many options for structure
  • Students present data in class
  • Professor shows data in class
  • Teams set up by sector
  • Students work with data during class
  • Students work with data out of class
Students present data in class

- Second day of class
  - Assign each student (or team) a variable to follow during the semester, see list on my web site

- Assignment 1: find release dates

- They do two-minute presentation each time after their variable is released; must include one or two plots in Excel
  - Presentation 1: basics of variable and latest numbers, simple plot
  - Presentation 2: more advanced plot of variable
  - Presentation 3: multi-variable plot
An example: dollar vs international investment
Professor shows data in class

- Present recent data
- Especially if data illustrate concept related to theory
An example: tariffs

Trump’s administration accuses the EU of charging higher tariffs and of unfair trade practices.

Tariff charged by the U.S. on EU imports
Tariff charged by the EU on U.S. imports

Car imports
Trucks and pick-ups
Average tariff charged

Source: European Commission
An example: tariffs

Average estimated net effect on U.S. nonfarm employment under three scenarios

- Steel and aluminum tariffs
- Tariffs plus retaliation
- Escalation into trade war

Note: Survey conducted March 9-13, 2018
Source: WSJ Survey of Economists
An example: women LFPR

Female working age participation rate, %

- Japan
- United States
- Australia
- Canada
- Germany

Source: Haver, IIF
Teams set up by sector

- Assign each team a sector
  - Household (consumption, housing, confidence)
  - Business (industrial production, corp. profits, durables)
  - Government (spending, deficit, taxes, debt)
  - International (exchange rates, current account)
  - Labor Markets (employment, wages)
  - Inflation (consumer prices, expectations)
  - Financial sector (stock prices, interest rates)

- Produce newsletter three times during semester
  - Useful for student-managed investment fund
  - Competition for best graph (Daily Shot)
An example: Daily Shot (WSJ)
Students work with data during class

• Students bring laptops and work on data project in class (20 minutes, one session each week)
• Monitor and note that results will be on exams
• First session: introduction to FRED and how to do simple things
• Topics can be tailored to your class
Students work with data during class

- Nominal versus real variables
- Noise versus signal
- Understanding data revisions
- Seasonal adjustment
- Cross-country comparisons
- Gains from looking at disaggregated data
- Current state of economy
- Engaging in monetary policy in practice
An example: real vs nominal
An example: noise versus signal
An example: noise versus signal
An example: seasonal adjustment
An example: disaggregated data
Students work with data outside of class

• Working with Macroeconomic Data section in textbook

• Many ideas to illustrate theory and relate it to data
  • Calculate real interest rates and show how they have changed over time
  • Calculate the openness index as the sum of imports as a share of GDP and exports as a share of GDP
  • Test the rationality of forecasts of interest rates or inflation rates by creating a scatter plot of forecasts versus actuals
An example: steady state?
An example: monetization of debt
An example: TFP growth in cycles
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• Summary
  • Relate data to theory for great instructor value-added
  • Many options for structure
    • Students present data in class
    • Professor shows data in class
    • Teams set up by sector
    • Students work with data during class
    • Students work with data out of class

• See my web site for details and lists of variables
  facultystaff.richmond.edu/~dcrousho/online_macro.html