

Developing Students' Ability to Connect Economic Modeling to Real World Issues

The Lesson: Challenge students to think about economic current events in the context of graphical economic models.

Challenge - Disconnect Between Modeling and Intuition

1. Even successful use of graphical economic models often fails to translate to consistent explanations to economic events
2. Sound economic reasoning but inability to use graphical economic models
3. Uncommon for students to use graphical models when not prompted

Learning Goals

1. Choose an appropriate graphical economic model for a given real world economic issue.
2. Use general-audience economic intuition to analyze an economic issue, but consistent with or in context of a graphical model.
3. Be able to think in terms of a graphical model without being prompted.

Course: ECO 120 - Global Macroeconomics

- General education
- Core requirement for all business majors and minors

Focus of Analysis - End of the semester

- Students recently learned aggregate supply / aggregate demand model of business cycles
- Labor supply / demand model for unemployment

Lesson Plan

- Two iterations current news stories that each describe an economic problem
 1. High unemployment in Spain
 2. U.S. millennial generation has a negative savings rate
- Each story comes with two sets of questions
 1. Without prompted use of a graphical model
 - a. Describe the economic problem
 - b. Describe causes of the problem
 - c. Prescribe policy solutions to the problem
 2. Same questions with explicit instructions to choose and apply a graphical economic model
- Students challenged to compare / reconcile differences
- Students challenged to describe answers in plain English. Use the intuition of the models but explained to a general audience

Logistics

- Class split into groups of 3-4 students
- Given 10-15 minutes to read news story discuss follow up questions (without prompts for models)
- Given 15 minutes to discuss remaining questions
- All students wrote their answers and all student work was collected
- Low stakes - submitted work would not be counted toward students' grades

Classroom Observation Guide

1. Describe students' thinking process when answering the questions immediately after reading the article.
 - Did students explicitly discuss an economic model?
 - Without being explicit about an economic model, was the discussion consistent with one?
 - Was the discussion logically consistent?
2. Describe students' thinking process when answering problem solving questions explicitly requiring an economic model.
 - Did students struggle with picking the correct model?
 - Did students apply the model appropriately?
3. Describe students' thinking process when challenged to integrate modeling with their everyday thinking on economics topics.
 - Are they willing to reconcile differences with previous thinking?
 - Are they capable of describing implications of a model in plain English?

Findings

Student successes:

- One group used graphical models successfully when not prompted
- Frequently graphical models entered discussion, but usually students were uncertain whether or how to apply them
- When prompted, students confidently chose appropriate models
- When prompted, appropriate justifications for shifts in models' functions
- When prompted, successfully illustrated economy in recession / high employment

Student difficulties:

- When not prompted to use a model, most students settled on final answers so general a model application was not clear
- Students retained a cognitive separation between models and intuition - *even suggesting the first and second set of questions were different*
- Prompted for policy solutions, it was popular to prescribe policies we happened to have covered 2 days before rather than policies suggested in the articles
- Some students struggled with using the model to illustrate initial situation in a state of recession and unemployment
- Some students fixated on related modeling issues that are frequently discussed in class, but not relevant to the particular exercise

Ideas for Pedagogical Improvements

- More practice using models and challenging students to give model-consistent economic explanations to a general audience
- On quizzes, in-class exercises, and exams - challenge students to explain intuition and conclusions of graphical models in plain English