Improving the Link Between Economics Lectures and "the Real World"

TLHE Project

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Motivation

- Frequent claim in the popular economics debate, especially after 2008:

  "*The material taught in economics courses in most universities is out of touch with reality*"

- This view is not only promoted in popular debates, but also in academic discussions.
- Key issue: Does a closer "link to reality" require an entire new economics curriculum, or is it possible to embed this link into existing course setups?

Backdrop

- Front cover of *The Economist*, July 2009:

Project

- The aim of my project is to demonstrate that the goal of a closer connection between theory and practice in economics can be reached *without* making drastic changes to the curriculum.
- Instead, I have supplemented the existing curriculum in my mandatory undergraduate macroeconomics course with real-world applications or tests of the theories covered in the textbook.
  - Usually, these realistic examples have relied on recent research papers –> more research-based teaching is a by-product of my approach.
  - Examples have been combined with student involvement (in-class polls, small assignments) to reap the benefits of students' interest in these examples.
  - Incentives are (constructively) aligned: Questions related to real-world examples are featured in the final exam, and students were informed of this in the first lecture.
- Students have responded positively: 77 percent of students agree that the use of real-world examples enhance their desire to learn the textbook material in order to apply it in other contexts.

Outline of this Presentation

- Introduction to the debate.
- Is a "link to reality" important for student learning? Why?
- Outline of my project and "examples of examples".
- Evaluation and student reactions.
- Conclusion.

Teaching Economics in the Post-Crisis Environment

- In the aftermath of the onset of the financial and economic crisis in 2008, mainstream economics courses and curricula have been criticized:
  - Some critics have claimed that mainstream economics suffers from a political bias;
  - Others have blasted the lack of consideration of important topics such as income inequality;
  - Others still have ridiculed the fact that (mainstream) economics did not predict the crisis.

Teaching Economics in the Post-Crisis Environment

- One particular line of criticism, and the topic of my project, is the lack of realism in the material taught in, especially, undergraduate courses in micro- and macroeconomics:
  - Here, students are taught economic models that assume well-functioning markets with perfect competition and information; perfectly rational consumers with infinite planning horizons, etc.
  - While the link between such models and real-world issues is admittedly weak, the idea is of course that students need to know how such simple models work before they can analyze more complex settings.
- Nevertheless, many critics have argued that this approach is flawed, e.g., because it requires students to learn material that is not useful, or because many students never "make it" to the more realistic cases.

Teaching Economics in the Post-Crisis Environment

- A non-exhaustive list of examples of this criticism includes:
  - The *CORE Project* by the *Institute for New Economic Thinking*: international project to reform the undergraduate economics curriculum.
  - The *International Student Initiative for Pluralism in Economics*: A student network with members in 31 countries.
    - Including its Danish branch, *Kritiske Politter* (Critical Econ students) at the University of Copenhagen.
  - The *Post-Crash Economics Society*, another student network founded by economics students at the University of Manchester.
  - The November 2011 student walkout from Professor Greg Mankiw's introductory undergraduate economics course at Harvard, protesting against "the specific and limited view of economics" they claimed to find in the course.

The Need for Realism

- From a learning viewpoint, the use of real-world examples is related to the nexus between *inductive* and *deductive* learning, cf. Prince and Felder (2006).
  - Deductive: Start from a general concept (e.g., a theorem), and *deduce* what this concept has to say about specific questions/examples.
  - Inductive: Start from specifics, develop an answer to the question at hand, *induce* the general implications of this answer.
- In economics, the vast majority of teaching can be characterized as deductive, in contrast to the recommendations of, e.g., Prince and Felder (2006).

The Need for Realism

- A more explicit use of realistic examples does not in itself constitute an inductive teaching approach.
- Instead, the purpose of this project is to go from what I call *solitary deductive teaching* to *assisted deductive teaching*:
  - *Solitary deductive teaching*: Students are taught a theoretical model, and then have to figure out the potential applications and/or relevance of this model themselves (i.e., no or very few examples are given in class).
  - *Assisted deductive teaching*: Students are taught a theoretical model, and shown how to apply it to specific real-world issues (i.e., real-world examples are actively discussed in class).
- As discussed by Prince and Felder (2006), more inductive teaching methods (e.g., by relying more on examples) may facilitate "deep learning" by students, as opposed to "strategic" or "superficial" learning approaches, by spurring their interest in the topic.

The Need for Realism

- Under solitary deductive teaching, examples are often merely used as an "add-on" that is discussed at the end of the lecture if time permits.
- Instead, my project seeks to implement the examples as an integrated part of the curriculum.
- Naturally, this involves putting questions related to real-world phenomena on the final exam, and informing students of this in advance.
- In this sense, the project is inspired by (and in line with) the concept of "constructive alignment", as discussed, e.g., by Biggs and Tang (2011).

The Project: Outline

- In the spring of 2015, I taught the course *Macroeconomics B*; the second in a sequence of three mandatory courses in macroeconomics in the undergraduate programme in economics at UCPH.
- The course covers topics such as business cycles, monetary policy, inflation, and the choice of fixed or flexible exchange rates.
- Roughly 200 second-year economics students.
- I "inherited" the course from previous lecturers.
- In general, very difficult to make major changes to the curriculum in the mandatory courses - I took the curriculum as given.
- Course is taught in Danish.

The Project: Outline

- Given the course contents, the course lends itself naturally to discussions of a range of current real-world economic topics, including:
  - What are the effects of stimulative fiscal policies? How is the economy affected by the zero lower bound on nominal interest rates? Should a country (e.g., Denmark) adopt a fixed or a flexible exchange rate regime, or join a monetary union?
- Many of these questions are discussed at a more general level in the textbook.
- My approach was to apply the textbook models more directly to practical examples, and use these examples to showcase the workings (or shortcomings) of the theoretical models.

Example: The Special Pension (SP) Payout

- In the following, I describe one of the practical examples used in class.
- In March 2009, the Danish government unexpectedly announced that during a 7-month window, Danish households would be able to access and withdraw their (otherwise locked-in) Special Pension (SP) savings.
- This reform was aimed at stimulating private consumption in the midst of the economic crisis, without compromising the government's budget.
- The stimulative effects of this reform have been studied by Kreiner *et al.* (2014) using a combination of household-level data on, e.g., income and savings, and a survey questionnaire.

Example: The Special Pension (SP) Payout

- The study of Kreiner *et al.* (2014) is well-suited for my purposes for a range of reasons:
  - It covers a (relatively) recent economic reform implemented in Denmark, meaning that many students have heard of the reform in advance (spurs interest, background knowledge).
  - The theoretical model used by Kreiner *et al.* (2014) is very closely related to the baseline model of consumption used in the textbook for Macro B (students observe that the textbook material is useful).
  - The study essentially seeks to answer a fundamental question in economic theory that is discussed in Macro B: Does the permanent income hypothesis of Milton Friedman hold, or do we need to combine it with Keynesian features? (students are allowed to assess different theories using empirical studies).
  - The study is very recent and of very high quality (research-based teaching).

Example: The Special Pension (SP) Payout

- The week before the lecture, I uploaded the research paper along with a small "reader's guide".
- In class, I then went through the baseline model of Kreiner *et al.* (2014), stressing the differences and similarities with respect to the textbook model.
- I then covered their empirical findings, and related them to our earlier discussions about different theories of consumption (In short, Friedman's theory does not hold due to the presence of credit constraints).
    - Inductive teaching element: Students learn that credit constraints played a role in the present context, and may therefore induce that credit market imperfections may generally have important implications.
- Finally, the students' learning from this study and from the textbook chapter in combination were assessed using in-class polls (i.e., Socrative).

Evaluation

- All in all, I dedicated approximately 1/4 of a 90-minute lecture to this example.
- Other examples were mostly shorter.
- Some examples featured different teaching and learning activities:
  - On one occasion, students were asked to download data from the course webpage, compute the interest rate prescribed by an "interest rate rule-of-thumb" widely used in the textbook, and compare it to the actual interest rate level in Denmark.
  - On other occasions, students were asked to discuss an example in buzz-groups, or their understanding of an example was tested using Socrative.

Evaluation

- In my own experience, practical examples such as the one above greatly enhanced students' interest and engagement in class.
- Moreover, the examples helped me illustrate certain important points that would otherwise have been more difficult to explain.
- Personally, I believe that my use of handpicked examples helps create better economists, even if they do not fare better on their Macro B exam.

Evaluation

- What did the students say?
- Halfway through the semester, I carried out a survey evaluation using Socrative, asking students to what extent they agreed with 4 statements about the use of practical examples.
- 118 students answered the survey.

Evaluation

- Statement 1: "*The practical examples contribute in making the course more interesting*".
  - 48% "totally agree", 42% "agree", 6% "neutral", 4% "disagree" or "totally disagree".

- Statement 2: "*There is a close connection between the textbook material and the practical examples we have seen*".
  - 15% "totally agree", 60% "agree", 21% "neutral", 5% "disagree" or "totally disagree".

Evaluation

- Statement 3: "*The real-world examples make me want to understand the textbook material better, so that I can use it in other contexts*".
  - 48% "totally agree", 42% "agree", 6% "neutral", 4% "disagree".

- Statement 4: "*I think the number of practical examples, and the amount of time allocated to these, is appropriate*".
  - 75% "agree", 21% "disagree - would prefer *more* time allocated to examples", 4% "disagree - would prefer *less* time allocated to examples".

Evaluation

- In general, real-world examples were well-received by students.
  - Some room for improvement regarding the link between the examples and the textbook, but overall quite satisfactory.
- Admittedly, I would have been surprised if students generally did *not* like the use of practical examples.
- However, remember that the examples were added to the curriculum *on top of* the textbook material; not *instead of* it.
  - The more examples I use, the larger is the total curriculum the students must master, i.e., there is an associated cost.
  - Also, 4-5 % of students were in fact unhappy with the use of examples.

Evaluation

- Important caveat: The intended learning outcomes (ILOs) for my course are no explicit regarding students' understanding of the link between the textbook material and the real world.
- This leaves two options:
  - *Either* the practical examples should be helpful for the students in understanding the curriculum as is (survey suggests this may be the case),
  - *Or* a good understanding of the link between theory and practice should be added to the ILOs (could be considered in the future).

Conclusion

- Making use of real-world examples as an integrated part of an undergraduate macroeconomics course:
  - addresses current criticisms without the need for major changes to the curriculum (or "rewriting the textbooks"),
  - allows for inductive elements in an otherwise deductive teaching and learning environment,
  - can be constructively aligned, e.g., by including real-world questions on the exam,
  - facilitates research-based teaching,
  - is well-received by students.
- Based on these observations, I definitely recommend this approach, and will use it again in future courses.

References

Biggs, John, and Catherine Tang, 2011: *Teaching for Quality Learning at University*. 4th edition, Buckingham: Open University Press/McGraw-Hill.

Kreiner, Claus T., David D. Lassen, and Søren Leth-Petersen, 2014: Liquidity Constraint Tightness and Consumer Responses to Fiscal Stimulus Policy. Working paper, University of Copenhagen.

Prince, Michael J., and Richard M. Felder, 2006: Inductive Teaching and Learning Methods: Definitions, Comparisons, and Research Bases. *Journal of Engineering Education*, vol. 95(2), p. 123-138.

Appendix: Student responses (downloaded from Socrative)