

# TEACHING THE PRINCIPLES OF ECONOMICS

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When I arrived at Harvard as an assistant professor in 1985, my first teaching assignment was one of the sections of Ec 10, the introductory economics course taken each year by about 1,000 Harvard undergraduates. The experience was wonderful. After years of graduate school, nothing reminds an economist of what is truly important and exciting about his field better than teaching the principles course. It is there that we distill our profession's accumulated knowledge and teach our fellow citizens how to better understand the world in which they live.

In 1992 my commitment to the principles course ascended to a new level when I agreed to write a textbook for the course. During the subsequent five years I thought hard about what we should teach introductory students and — just as important — what we should not. The result was my own *Principles of Economics*, published by the Dryden Press in 1997.

In this brief essay, I describe my approach to the principles course. I emphasize three themes. First, in teaching microeconomics, the tools of welfare economics should play a larger role than they have in the past. Second, in teaching macroeconomics, classical ideas should play a larger role than they have in the past. Third, in teaching all parts of the course, we instructors should be sure to stress the important principles and be careful not to overwhelm students with an excess of detail.

## TEACHING MICROECONOMICS: SUPPLY, DEMAND, AND WELFARE

Supply and demand are at the heart of how market economies work. When teaching the principles course, therefore, it is important to develop and apply the tools of supply and demand as fully and consistently as possible. This tenet was my guiding beacon as I drafted my principles text.

But doesn't everyone agree? Haven't supply and demand always been at the center of the principles course? Surprisingly, no. The first edition of Paul Samuelson's great text, published in 1948, did not introduce supply and demand curves until page 447 of a 608-page book. Of course, as the book was revised, the tools of supply and demand became more prominent. But even today, in many principles courses, supply and demand curves are often not developed as fully as I think they should be.

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This paper is based on remarks given at the Eastern Economic Association Conference, February 1998, at a session titled "What Should Be Taught in the Principles Course?"

In particular, the ideas of welfare economics are often left out of the principles course, or are mentioned only in passing. The basic tools of welfare economics are consumer surplus and producer surplus, which are natural extensions of the framework of supply and demand. Consumer surplus is merely the area between the demand curve and the product's price, and producer surplus is the area between the supply curve and the product's price, so these concepts are best taught immediately after supply and demand.

Giving welfare economics prominent coverage in the principles course has three main advantages. First, it gives students a deeper understanding of where supply and demand curves come from and how they are similar. When developing the concept of consumer surplus, it is natural to develop the idea of a consumer's willingness to pay and to show how this determines the demand curve. Similarly, when developing the concept of producer surplus, it is natural to draw the link between a producer's costs and its supply curve. If these ideas are taught together, the student sees that producer surplus and consumer surplus, like supply and demand curves, are parallel constructs.

Second, the tools of welfare economics give students the ability to understand the concept of market efficiency. If one thing separates economists from mere mortals, it is an appreciation of the power of markets as a mechanism for allocating scarce resources. Economists have known this lesson at least since Adam Smith introduced the metaphor of the invisible hand, and it should be one of the key topics in any principles course. After all, it explains the biggest economic event of the 20th century--the victory of capitalism over communism. The best way to teach market efficiency is with the tools of welfare economics. Using not much more than supply and demand curves, students can learn that the market equilibrium maximizes the size of the economic pie as measured by the sum of producer and consumer surplus.

Third, after introducing the basic concepts of welfare economics, supply and demand curves can be used to address a greater range of policy questions. How do taxes affect market efficiency, and which kinds of taxes impose the smallest deadweight losses? Who wins and who loses when a country opens itself to international trade, and how do the gains of the winners compare to the losses of the losers? How do externalities, such as pollution, affect the efficiency of market outcomes, and how can government policy remedy the market failure? These questions are easy to motivate with students, and they are well addressed using the tools of supply, demand, producer surplus, and consumer surplus.

When my principles text came out, some instructors told me that my extensive and early coverage of welfare economics was innovative. As I was writing the book, I never thought of it that way, for we had long been doing it this way at Harvard. If the approach is at all innovative, credit goes not to me but to Martin Feldstein, who has been in charge of the Harvard principles course for many years, including when I first taught a section in 1985. My pedagogical views about the importance of welfare economics are largely derived from his, which in turn are derived from his interest in practical issues of public policy.

## TEACHING MACROECONOMICS: BALANCING KEYNES AND THE CLASSICS

I got into the textbook-writing business in 1988, shortly after getting tenure, when I realized that the Harvard department needed someone to teach intermediate macroeconomics on a regular basis. (This course attracts between two and three hundred Harvard students every year.) As I started thinking about how I would teach the course, I decided that I might as well write the textbook to go with it. I figured that once I had done all the work of preparing lecture notes, turning those notes into a book wouldn't take much extra effort. That youthfully optimistic assumption was ridiculous, as any textbook author can attest, but it led me down a path I have not regretted.

As I started thinking about how I wanted to teach intermediate macroeconomics, I decided that the leading texts of the time were too Keynesian for my taste. (The exception was Robert Barro's book, which was relentlessly classical.) Although my training as a student of Alan Blinder, Stanley Fischer, and Larry Summers was heavily Keynesian and my own research is often dubbed "new Keynesian," I thought that many ideas of classical macroeconomics were often given inadequate attention. My goal was to teach macroeconomics with a better balance of classical and Keynesian ideas.

When my intermediate text came out in 1991, it found a ready audience. Many instructors apparently shared my views about the right mix of topics. (At about the same time, Andrew Abel and Ben Bernanke published their own intermediate macro text, which also gave greater prominence to classical models.) Shortly after my book came out, publishers started approaching me to ask whether the organizational ideas that were transforming the intermediate macro course might be applied to the principles level. I said they could and, after some initial hesitation about taking on another big project, decided to try to do it myself.

What does it mean to give a greater role to classical macroeconomics? Put simply, it means giving more attention to the forces that shape the economy in the long run. On the real side of the economy, this means spending more time on the theory of economic growth, the role of financial markets in equilibrating saving and investment, and the determinants of the natural rate of unemployment. On the nominal side, it means spending more time on classical monetary theory, such as the quantity theory of money, the Fisher effect, the causes of hyperinflation, and purchasing-power parity. Both my intermediate macro text and the macro portion of my principles text follow the organizational strategy of teaching these long-run classical ideas before introducing short-run Keynesian ideas.

This approach has several advantages. First, notwithstanding Keynes's famous quip about asymptotic morbidity, long-run issues are extraordinarily important for human welfare. Consider: a century ago, Japan had one-third the income per person of the United States. Now the two countries have comparable income. Why is that? What does it mean for the future? What can poor countries do to replicate the Japanese experience? These are the kinds of questions that get students excited about studying economics. And they are questions best addressed in the context of long-run, classical models.

Second, classical macroeconomics is more closely linked to the basic lessons of microeconomics. After students have learned about how market economies are governed by the forces of supply and demand, it is natural for them to apply these tools to the questions of macroeconomics. This is precisely what the classical model does. The classical model is built on the foundations of supply and demand — for labor, for loanable funds, and for money.

Third, the theory of short-run fluctuations is more easily understood after a grounding in the economy's long-run equilibrium. According to standard theories, the business cycle represents a transitory deviation of the economy from its trend growth path. From this perspective, it is natural to study the determinants of trend growth before studying what pushes the economy temporarily away from that trend.

Fourth, short-run fluctuations are more complicated than long-run growth. This follows simply from the classical dichotomy — the theoretical tenet that nominal variables (such as the money supply and the price level) do not influence real variables (such as real GDP and unemployment). The classical dichotomy allows macroeconomics to be broken up into smaller, more easily digested pieces. Once students have swallowed each of these pieces, they are more ready to study the short-run business cycle, to which the classical dichotomy is usually thought not to apply.

Fifth, the macroeconomic theory of the short run is more controversial than the macroeconomic theory of the long run. Although I believe that the traditional model of aggregate supply and aggregate demand remains the best framework for understanding the business cycle, not all economists agree with that assessment. By contrast, few economists today dispute the ideas of classical economics, at least as a description of the economy's long-run equilibrium. In my view, beginning the study of macroeconomics on the firm ground of consensus is pedagogically superior.

This change in teaching strategy toward early and more extensive coverage of classical economics is now well entrenched. The clearest place to see this change is in the textbooks for higher level courses. At the intermediate level, my text and the text by Abel and Bernanke reflected this in their first editions. In addition, many of the older intermediate texts, such as those by Rudiger Dornbusch and Stanley Fischer (now with co-author Richard Startz) and Robert Hall and John Taylor have rearranged their books to follow the trend. At the graduate level, David Romer's superb text *Advanced Macroeconomics*, which is becoming the standard book for first-year PhD students, teaches the theory of growth before the theory of the business cycle. It is no surprise that principles texts are now starting to do the same.

Some critics of this teaching strategy claim that it does not take Keynesian economics seriously enough. I find this comment ironic, for much of my own research has been aimed at putting Keynesian economics on a firmer theoretical foundation to ensure that it is taken seriously. But despite my admiration for Keynes and his ideas, I think it is important to keep them in perspective. If a single lesson can be learned from the macroeconomic research of the past three decades, it is that there is more to macroeconomics than Keynes' *General Theory*.

As a sign of how times have changed, imagine asking a group of principles students the following question: If Americans decided to save a larger fraction of their

income, how would this change affect the economy? The answer I learned as a freshman in 1976 was based on the Keynesian cross and the paradox of thrift: Higher saving rates would depress aggregate demand, lead to lower national income, and in the end fail to result in higher quantities of saving. By contrast, the first answer I teach as an instructor today is based on classical growth theory: Higher saving means more investment, a larger future capital stock, and a higher level of national income. Both answers have some degree of truth, depending on the circumstances, but I have no doubt that the classical answer is more central to current discussions of practical public policy.

### RESPECTING THE SCARCITY OF STUDENT TIME

When I tell my noneconomist friends about my principles text, I often mention that it is a short book--it's only 775 pages. They think I am joking, of course, but I am not. The typical principles text is closer to 1000 pages, and many use a double-column format to cram more words on each page. The amount of material I have left out would be enough in itself to make a normal-length book.

It is easy to understand why textbooks are so long. A publisher incurs large fixed costs when producing a textbook, as it hires people to prepare everything from workbooks to websites. To protect this investment, the publisher sends a textbook manuscript to numerous reviewers, who offer important feedback to the publisher and author. At the same time, however, each reviewer also makes a plug for his or her own pet topic. Reviewer A wants the author to add a discussion of the Herfindahl index, reviewer B wants a presentation of the kinked demand curve model, reviewer C wants a definition of the Gini coefficient, and so on. The editor, whose training in economics is usually slight, then recommends adding the Herfindahl index, kinked demand curves, the Gini coefficient, and the rest of the long list. The easiest course for the beleaguered author is to do as advised. When the book comes out, professors A, B, C, etc. — and especially their students — all agree that the book is too long.

As economists, we teach our students about scarcity. As principles instructors and textbook authors, we must constantly remind ourselves that student time is one of those scarce resources. We must try to avoid making our courses encyclopedic. That means taking out all of the easily ignored details and stressing the big ideas.

When I was writing my text, I made a lot of hard decisions about what to leave out and, sometimes, had to battle my editors over these choices. The biggest battle was over my decision to leave out the Keynesian cross (sometimes called the income-expenditure model), which has been at the center of teaching macroeconomics since Samuelson introduced it into the principles course in 1948. I am not opposed to the substance of this model, and I include it in my intermediate text, but I felt that it was not worth covering in a principles course. The model is often hard for students to understand. Moreover, the big ideas of Keynesian economics can be presented more simply using only the model of aggregate demand and aggregate supply.

Have I overdone it? Have I taken out too much material in my attempt to make the principles course student-friendly? Perhaps, but I don't think so. My book is still

775 pages, which is short only by the standard of economics textbooks. I am confident that no student will pick up my book and say, "This should be a quick and easy read."

We instructors often forget what it's like to be a student. My goal in writing my principles text was to try to remember and to write a book that I would like to have read. I like to think I succeeded, but the ultimate judgment will come not from me but from the market, which (as we teach our students) is the best judge in such matters.