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CONTENT ARTICLES IN ECONOMICS

How Should the Financial Crisis Change How We Teach Economics?

Robert J. Shiller

Student dissatisfaction with teaching of economics—particularly with macroeconomics—during the current financial crisis mirrors dissatisfaction that was expressed during the last big crisis, the Great Depression. Then and now, a good number of students have felt that their lectures bear little relation to the economic crisis raging outside the halls of academe. The economics profession seems unusual, when compared with some other professions, in complaints that the teaching is irrelevant to practical lives. There appear to be few complaints among physics students that their education does not prepare them for practical pursuits, such as engineering. But economics, particularly macroeconomics, is different from physics not because of the mode of teaching but because the subject matter is harder to conceptualize. Models have to be frequently discarded and fundamentally new ones have to be brought to bear to make them relevant to changed circumstances. Student dissatisfaction with economics, however, is, despite some vocal complaints, not intense overall, and enrollments are growing. Students mostly recognize that their teachers are struggling with the conceptual difficulties that are inherent in the field. Teachers can encourage such recognition and best serve their students if they refer regularly and respectfully to the history of economic thought, conveying the reasons for the theoretical constructs of other times and the tentativeness of current theories.

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To ask about the teaching of economics is, in many ways, to ask about the process of research in economics. We teach what we think we have learned. The differences between our research and our teaching have primarily to do with the divergence of the interests and needs of our students from those of researchers. This is an important topic, but not one that goes beyond, and is not particularly linked to, the financial crisis. Thus, in this article, first I will address the state of academic research on the financial crisis and popular dissatisfactions with that research; then I will turn to issues of teaching.

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THE CRISIS IN ECONOMIC RESEARCH

We are going through the greatest economic crisis since the Great Depression, so that is a good place to look for ideas about how the crisis will affect teaching. My initial belief was that in the Great Depression people were very dissatisfied with the economics profession (especially in what we now call the macroeconomics profession) for failing to predict that depression, and for ignoring it in their teaching. When I tried to confirm the belief that there was such dissatisfaction in the media with the teaching, I found it difficult to do so. Maybe the dissatisfaction was not as strong as I had thought, or maybe it took milder forms, or maybe it was not reported in the news media.

I thought I had heard some recollections of dissatisfaction with the economic profession when I interviewed my colleague and mentor James Tobin in 1998 (Tobin 1999), four years before he passed away at the age of 84 years. But, when I reread the interview, the dissatisfaction was not there; he did not express any dissatisfaction explicitly. Instead, he spoke of inspiration. He reminisced about his undergraduate days at Harvard during the Great Depression. He said that thinking about the depression was "an obsession" for people then, given all the dire predictions that were being made. He described the belief that the depression might never end and that "market capitalism was a flawed way of organizing society." But he did not openly criticize his instructors. Instead, he praised one, "some crazy graduate student," who was his principles instructor and also his tutor. The tutor was supposed to ask his students to do something extra that was not graded, and he told young Tobin to read the new book by Keynes (1936) called *The General Theory of Employment Interest and Money*. Tobin did this, and it was a revelation to him; it changed his thinking about all these dire predictions about the end of capitalism. He saw in Keynes's book a model, which could be represented by simultaneous equations, of how an economic system might work and might be stabilized.

Just as in the Great Depression, we are seeing some concern about the status of the market system today, with extensive government bailouts. But these concerns are much less than in the 1930s; I do not think we are in an environment in which dire predictions about the end of capitalism are taken at all seriously. That suggests to me that there is likely to be even less dissatisfaction with the economics profession today than there was in the 1930s.

I did find some expression of dissatisfaction with the economics profession during the Great Depression. For example, one 1935 editorial in the *New York Times* noted the proliferation of amateur economists with solutions to the depression (Amateur Economists 1935, E8). It stated, "Almost invariably he opens his pamphlet or his book by telling us that the professional economists have failed. To him this is obvious; for how otherwise could the world have got into this mess?"[1] That editorial (which concluded largely in favor of academic economists) prompted a number of letters to the editor. One of them said, "Can the *Times* name any issue outside of the Smoot-Hawley tariff which 1,000 economists are willing to support?"[2] The writer went on to say that "The fact that professional economists never agree is sufficient proof that theirs is no true science, and this explains the existence of amateur economists. ... It is certainly not true that most amateur economists do not take the trouble to read the opinions of their professional brethren. At least the amateur economist of the engineering type reads so much of the inconsistent professional output that he becomes disgusted before he turns amateur" (Bjoerndal 1935, 14).

Despite the lack of popular complaints about teaching, as suggested by these letters, there was significant debate among economists in the 1930s about the nature and cause of the crisis,

and the policies to deal with it. That is natural. It is also natural that there is significant debate today about the causes of the current crisis and what we should do about it as well. In thinking about the debate then, and now, one sees a parallelism in the dominant views. In the 1930s a classical laissez faire view of macro policy predominated. By the 1960s that view was almost extinct; it was replaced by an activist Keynesian view. Since that time, however, the pendulum has swung the other way. Keynesian economics has been largely abandoned and replaced by a highly abstract dynamic stochastic general equilibrium model that is much closer to the classical laissez faire model economists held in the 1930s.

MY VIEW OF THE CRISIS IN RESEARCH

From my perspective, this latest swing away from a Keynesian view seems to be far too much of a swing. I have spelled out my view in my 2009 book, *Animal Spirits,* with George Akerlof (Akerlof and Shiller). In it we explore what caused the current crisis and why this crisis was unpredicted: the economic crisis was initially caused by speculative bubbles; the attendant rise of corruption and bad-faith dealings; and, after the crash, anger and disillusionment. Our story told of the causes of the crisis coming from people's minds—from social epidemics and contagion of ideas. We wrote, "The public, the government, and most economists had been reassured by an economic theory that said we were safe. It was all OK. Nothing dangerous could happen. But that theory was deficient. It had ignored the importance of ideas in the conduct of the economy. It had ignored the role of animal spirits" (Akerlof and Shiller 2009, 1).

Our view is, of course, only one of many. As can be expected during times of transitions, there are many views out there. For example, the title of John Taylor's 2009 book, *Getting Off Track: How Government Actions and Interventions Caused, Prolonged and Worsened the Financial Crisis*, summarizes what he thinks about the crisis. Richard A. Posner, in his 2009 book, *A Failure of Capitalism: The Crisis of '08 and the Descent into Depression*, explained the crisis in these terms: "The flaw in this classical economic theory of the self-correcting business cycle is that not all prices are flexible; wages are especially not." Casey Mulligan, in a 2009 article, chooses to emphasize the "labor supply residual" and ties that to increases in the minimum wage and federal policy regarding mortgages that created marginal income tax rates in excess of 100 percent for some people (Mulligan 2009). So you can see that there is as much debate within economics now as there was in the 1930s.

Despite the debate, I stand by the importance of animal spirits and believe that it should be an important part of what we teach. To understand my argument, it is necessary to understand what I mean by animal spirits. The term *animal spirits* comes from Keynes, and it means that there is an unpredictable element in the economy that should be part of our teaching. Currently, it is not. So an important reason for the crisis was that failure in teaching. It is my hope that the crisis causes that to change. The research and the teaching of macroeconomics both need to focus much more on what we do not know and less on what we do know. This is true for both Keynesians and classicals. Nicholas Kaldor has been quoted as saying, "Macroeconomics is the part of the subject in which everything you learned in school is wrong"[3] (Solow 1983). By making this statement he was pointing out a lack of sense of progress in macroeconomic science, a lack of progress that has continued through today. The Keynesian revolution was viewed as a complete rejection of classical macroeconomics, and the Keynesian revolution was completely

rejected once the rational-expectations revolution took hold. Now, the pendulum is swinging the other way. For example, Paul Krugman said that "As I see it, the economics profession went astray because economists, as a group, mistook beauty, clad in impressive-looking mathematics, for truth. ... Unfortunately, this romanticized and sanitized vision of the economy led most economists to ignore all the things that can go wrong" (Krugman 2009).

The reason there are such strong views about the profession going astray is that we do not have good scientific macroeconomic theories; we do not even have good ways of developing them. The reality is that macroeconomic theory has never arrived at a genuine accounting of the ultimate sources of macroeconomic fluctuations. It remains a field in which sensibility must outweigh theory, and we should be more willing to admit that. In the early days of business cycle theory, A. C. Pigou (1927) said that he could only guess what were the ultimate drivers of the economy: he thought 25-percent real causes (such as harvest variations), 50-percent monetary causes (such as fluctuations in the gold supply), and 50-percent psychological causes. That division seems reasonable today, even if it might add up to more than 100% (because of reinforcing interactions among the drivers). More recently, John Cochrane (1994) concluded that the obvious candidates of money, oil price, and credit shocks do not account for the bulk of economic fluctuations and hypothesized that "consumption shocks" may account for fluctuations. He said, arguing from his perspective that economics is about rational behavior, "If this view is correct, we will forever remain ignorant of the fundamental causes of economic fluctuations." The question is: Should economics only be about rational behavior? If psychological causes are such an important part of the macro economy, then they should be part of what economists study. Should macroeconomics not explore realistic behavioral foundations and not concentrate on behavior of a representative rational agent that is only relevant in a rarified model?

It is not enough to attribute problems to exogenous shocks. What economic variable, really, is completely exogenous to the economic system? We need to be asking more fundamental questions about exogeneity or near exogeneity. For example, government policy is often routinely called an "exogenous shock," but it is certainly not just that. Government policy makers are normally trying to stabilize the economy, and, if not that, at least are responding to the economy in whatever they do. So, their policy changes are only partly exogenous, and even that part that might be considered exogenous (reflecting changes in policy theories or changes in political parties) is not clearly exogenous to economic events either. Consider the premise of this session: an economic event, the financial crisis, is spurring a major reevaluation of economic theory and its teaching. That premise is based on the view that the future theory is not exogenous, but is endogenous to a larger system.

PRACTICAL RELEVANCE OF ECONOMIC TEACHING

The problems in macroeconomic research discussed above make it hard to teach macroeconomics. It is much easier to teach ideas about which there is consensus at the level of research than it is to teach ideas about which there is debate at the level of research. Thus, it is not surprising that the crisis is renewing a longstanding concern about the practical relevance of economics as it is taught. Some of this concern is quite independent of the crisis and involves a criticism of economics that goes beyond just macroeconomics and relates to what is expected from economics teaching. For example, a 1917 report by the Harvard Division of Education on the teaching of

economics at Harvard noted that "The predominantly practical purposes of a large majority of students should be recognized in the organization of the curricula. ... Instruction should be more closely adapted to the purposes and needs of the students" (Harvard University 1917, 226). This call for change in economics teaching gets at the tension that often exists between teaching practical economics and teaching theoretical economics. It should be noted that there is not a similar tension between physics and engineering, or, more narrowly, between electromagnetics and electrical engineering. If there were, one could easily imagine that some students taking a course in electricity and magnetism might complain that the field does not prepare them for the real world of electronics. But there does not seem to be evidence of such complaints. Browsing the two major physics education journals, *Physics Education* and *Physics Education Research*, I see little questioning of the practical relevance of physics education. I could not find any such question elsewhere on the Web either. While there are some critics of advanced fields, like string theory, there seems to be zero criticism of the basic field as it informs general physics education.

One of the reasons is that advances in physics research tend to be built on past research; we do not see a similar history of rejection of older traditions in the field of physics that we see in economics. For example, Einstein's theory of relativity did not make Newtonian mechanics irrelevant. Indeed, Newton's theory is still a good enough approximation to be used to calculate the trajectories of modern interplanetary rockets. Basic education in physics clearly details an edifice of knowledge that has been built on and augmented over centuries. So, I think that part of student dissatisfaction with macroeconomic teaching is due to the (correct) sense that the economic models that they are being taught are ephemeral and hence will not serve them in their practical lives a few years down the road.

The ephemeral nature of macroeconomic models is, I feel, an essential problem with the subject matter. Macroeconomics seeks simple ways of thinking about highly complex phenomena that cannot really be taken apart and studied in a systematic way. The models will always be being discarded and reformulated for that reason, as economic events make it seem urgent to change the assumptions of the models to reflect elementary reality. As teachers of macroeconomics, we have to live with that reality. I think that means that we have to respect alternative ways of understanding macroeconomics and that we keep a long historical perspective on the history of economic thought.

For me, alternative views that must be incorporated into our teaching include those promoted by the other social sciences: psychology, sociology, political science, and anthropology. For me, maintaining a proper perspective on alternative views means also incorporating historical analysis, real historical analysis such as that which proceeds in our history departments, into our teaching about economics. For me, too, we also must keep in view the fundamental importance of institutions—our established organizations, practices, and laws—and remind our students that these must be taken into account before judging any economic model.

These are my views about how a broader, more integrated course of instruction in economics should proceed. Other instructors will have different views and different teaching styles. But, regardless of which choices of subject matter are made, our integrity as teachers dictates that we tell the truth about the weaknesses of our theories to our students. Ultimately, their appreciation of their macroeconomics education can survive the ephemerality problem if they feel that they have been treated in an honest fashion by their instructors.

In viewing the complaints about the economics profession that we do have, we must always consider that the existing dissatisfaction often has more mundane explanations. Those students who are unhappy may not be unhappy with the state of knowledge about modern economics. More likely, they are unhappy with such things as the degree of individual attention that they are getting or the nature of classroom interaction.

In this vein, student dissatisfaction with economics teaching is probably at least partly related to the tendency of universities to hire fewer economics professors per economics major student as reported by William R. Johnson and Sarah Turner (2009). They consider various reasons for this tendency, among them that people in academic fields with relatively unsatisfactory labor markets rationally devote more of their time to internal university politicking, to offset their disadvantage. They say anecdotal evidence finds that more of such people serve on major university committees. Apparently part of the reason for the decline in the ratio of students to economic faculty is a rise in the enrollment of students in economics majors and a resistance to making the offsetting cuts in declining departments, departments that may have a justifiable intellectual reason for being apart from student enrollment trends.

CONCLUSION

Despite its problems, macroeconomics education is not in crisis—the rise in enrollment is a sign that this is so. That does not mean that we should not be making changes. We need to reflect on the instability of received wisdom in macroeconomics and the tendency for macroeconomists of a single persuasion to oversell their own view to the profession and to the general public; we need to reduce the pendulum of theoretical swings, especially in macro. But we do not need to think that the teaching of economics is in anything like the crisis that the economy has been in.

NOTES

1. Three years later, the *Times* remarked that "In hundreds of filing cases and desks of Washington officialdom lies the evidence of a new American indoor sport—evolution of plans 'to end the depression.' . . . . The submission of such plans by unidentified citizens reached fair proportions in the years 1933 to 1935, but the mass of them which poured into Washington in that time apparently has been dwarfed by the new barrage, which began to arrive as soon as the recession started last fall" (The Nation Takes Its Pen in Hand 1938, 69).
2. In May 1930, 1,038 economists signed a petition against the proposed new tariff, a measure that tried to export unemployment to other countries in the Great Depression, against all received wisdom about the importance of free trade. They were unsuccessful in stopping this legislation, and a wave of retaliatory tariffs from other countries was the result, just as they had predicted.
3. The text was quoted from a recollection of a conversation.

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