

How should the collapse of the world financial system affect economics?

Part II

Mad, bad, and dangerous to know

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The most important thing that global financial crisis has done for economic theory is to show that neoclassical economics is not merely wrong, but dangerous.

Neoclassical economics contributed directly to this crisis by promoting a faith in the innate stability of a market economy, in a manner which in fact increased the tendency to instability of the financial system. With its false belief that all instability in the system can be traced to interventions in the market, rather than the market itself, it championed the deregulation of finance and a dramatic increase in income inequality. Its equilibrium vision of the functioning of finance markets led to the development of the very financial products that are now threatening the continued existence of capitalism itself.

Simultaneously it distracted economists from the obvious signs of an impending crisis—the asset market bubbles, and above all the rising private debt that was financing them. Paradoxically, as capitalism's “perfect storm” approached, neoclassical macroeconomists were absorbed in smug self-congratulation over their apparent success in taming inflation and the trade cycle, in what they termed “The Great Moderation”. Ben Bernanke's contribution to this is worth quoting at length:

... the low-inflation era of the past two decades has seen not only significant improvements in economic growth and productivity but also a marked reduction in economic volatility..., a phenomenon that has been dubbed “the Great Moderation”. Recessions have become less frequent and milder, and ... volatility in output and employment has declined significantly... The sources of the Great Moderation remain somewhat controversial, but ... there is evidence for the view that improved control of inflation has contributed in important measure to this welcome change in the economy ... Bernanke, 2004 (<http://www.federalreserve.gov/boarddocs/speeches/2004/20041008/default.htm>)

It is all very well to have economic theory dominated by a school of thought with an innate faith in the stability of markets when those markets are forever gaining—whether by growth in the physical economy, or via rising prices in the asset markets. In those circumstances, academic economists aligned to PAECON can rail about the logical inconsistencies in mainstream economics all they want: they will be, and were, ignored by government, the business community, and most of the public, because their concerns don't appear to matter.

They can even be put down as critics of capitalism—worse still, as proponents of socialism—because it seems to those outside academia, and to neoclassical economists as well, that what they are attacking is not economic theory, but capitalism itself: “You think markets are unstable? Shame on you!”

The story is entirely different when asset markets crash beneath a mountain of debt, and the ensuing fallout threatens to take the physical economy with it. Now it should be possible to have the critics of neoclassical economics appreciated for what we really are:

critics of a fundamentally false theory of the operations of a market economy, and tentative developers of a new, realistic analysis of the nature of capitalism, warts and all.

Changing pedagogy

Given how severe this crisis has already proven to be, the reform of economic theory and education should be an easy and urgent task. But that is not how things will pan out. Though the “irresistible force” of the Global Financial Crisis is indeed immense, so to is the inertia of the “immovable object” of economic belief.

Despite the severity of the crisis in the real world, academic neoclassical economists will continue to teach from the same textbooks in 2009 and 2010 that they used in 2008 and earlier (laziness will be as influential a factor here as ideological commitment). Rebel economists will be emboldened to proclaim “I told you so” in their non-core subjects, but in the core micro, macro and finance units, it will be business as usual virtually everywhere. Many undergraduate economics students in the coming years will sit gobsmacked. as their lecturers recite textbook theory as if there is nothing extraordinarily different taking place in the real economy.

The same will happen in the academic journals. The editors of the *American Economic Review* and the *Economic Journal* are unlikely to convert to Post-Keynesian or Evolutionary Economics or Econophysics any time soon—let alone to be replaced by editors who are already practitioners of non-orthodox thought. The battle against neoclassical economic orthodoxy within universities will be long and hard, even though its failure will be apparent to those in the non-academic world.

Much of this will be because neoclassical economists are genuinely naïve about their role in causing this crisis. From their perspective, they will interpret the crisis as due to poor regulation, and to government intervention in areas that should have been left to the market. Aspects of the crisis that cannot be solely attributed to those causes will be covered by appealing to embellishments to basic neoclassical theory. Thus, for example, the Subprimes Scam will be portrayed as something easily explained by the theory of asymmetric information.

They will seriously believe that the crisis calls not for the abolition of neoclassical economics, but for its teachings to be more widely known. The very thought that this financial crisis should require any change in what they do, let alone necessitate the rejection of neoclassical theory completely, will strike them as incredible.

In this sense, they are like the Maxwellian physicists about whom Max Planck remarked that “A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it” (Kuhn 1970, p. 150).

But physics is charmed in comparison to economics, since it is inherently an empirical discipline, and quantum mechanics gave the only explanation to the empirically quantifiable black body problem. Planck's confidence that a new generation would take the place of the old was therefore well-founded. But in economics, not only will the neoclassical old guard resist change, they could, if economic circumstances stabilise, give rise to a new generation

that accepts their interpretation of the crisis. This is how the success of the Keynesian counter-revolution came about, and it is why we have entered this crisis with an even more rabid neoclassicism than confronted Keynes in the 1930s.

The first thing that the global financial crisis should therefore do to economics is to galvanise student protest about the lack of debate within academic economics itself, because dissident academic economists will be unable to shift the tuition of economics themselves without massive pressure from the student body.

I speak from my own experience, when I was one of many students who agitated against neoclassical economics in the early 1970s at Sydney University, and campaigned for the establishment of a Political Economy Department. Were it not for the protests by the students against what we then rightly saw as a deluded approach to economics, the non-neoclassical staff at Sydney University would have been unable to affect change themselves.

Though we won that battle at Sydney University, we lost the war. The economic downturn of the mid-1970s allowed for the defeat of what Joan Robinson aptly called the Bastard Keynesianism of that era, and its replacement by Friedman's "monetarism". Our protests were also wrongly characterised as being essentially anti-capitalist. Though there were indeed many who were anti-capitalist within the Political Economy movement, the real target of student protest was a poor theory of how capitalism operates, and not capitalism itself.

Similar observations can be made about the PAECON movement today, where student dissatisfaction with neoclassical economics in France spilled over into a worldwide movement. Though the initial impact of the movement was substantial, neoclassical dominance of economic pedagogy continued unabated. The movement persisted, but its relevance to the real economy was not appreciated because that economy appeared to be booming. Now that the global economy is in crisis, student pressure is needed once more to ensure that, this time, real change to economic pedagogy occurs.

Business pressure is also essential. Business groups to some degree naively believed that those who proclaimed the virtues of the market system, and who argued on their side in disputes over income distribution, were their allies in the academy, while critics of the market were their enemies. I hope that this financial catastrophe will convince the business community that its true friends in the academy are those who understand the market system, whether they criticise or praise it. As much as we need students to revolt over the teaching of economics, we need business to bring pressure on academic economics departments to revise their curricula because of the financial crisis.

Changing economics

The pedagogic pressure from students and the wider community has to be matched by the accelerated development of alternatives to neoclassical economics. Though we know much more today about the innate flaws in neoclassical thought than was known at the time of the Great Depression (Keen 2001), the development of a fully-fledged alternative to it is still a long way off. There are multiple alternative schools of thought extant—from Post Keynesian to Evolutionary and Behavioural Economics, and Econophysics—but these are not developed enough to provide a fully fledged alternative to neoclassical economics.

This should not dissuade us from dispensing completely with the neoclassical approach. For some substantial period, and especially while the actual economy remains in turmoil, we have to accept a period of turmoil in the teaching of and research into economics. Hanging on to parts of a failed paradigm simply because it has components that other schools lack would be a tragic mistake, because it is from precisely such relics that a neoclassical vision could once again become dominant when—or rather if—the market economy emerges from this crisis.

Key here should be a rejection of neoclassical microeconomics in its entirety. This was the missing component of Keynes's revolution. While he tried to overthrow macroeconomics shibboleths like Say's Law, he continued to accept not merely the microeconomic concepts such as perfect competition, but also their unjustified projection into macroeconomic areas—as with his belief that the marginal productivity theory of income distribution, which is fundamentally a micro concept, applied at the macro level of wage determination.

From this failure to expunge the microeconomic foundations of neoclassical economics from post-Great Depression economics arose the “microfoundations of macroeconomics” debate that led ultimately to rational expectations representative agent macroeconomics, in which the economy is modelled as a single utility maximising individual who is blessed with perfect knowledge of the future.

Fortunately, behavioural economics provides the beginnings of an alternative vision as to how individuals operate in a market environment, while multi-agent modelling and network theory give us foundations for understanding group dynamics in a complex society. They explicitly emphasise what neoclassical economics has evaded: that aggregation of heterogeneous individuals results in emergent properties of the group which cannot be reduced to the behaviour of any “representative individual” amongst them. These approaches should replace neoclassical microeconomics completely.

The changes to economic theory beyond the micro level involve a complete recanting of the neoclassical vision. The vital first step here is to abandon the obsession with equilibrium.

The fallacy that dynamic processes must be modelled as if the system is in continuous equilibrium through time is probably the most important reason for the intellectual failure of neoclassical economics. Mathematics, sciences and engineering long ago developed tools to model out of equilibrium processes, and this dynamic approach to thinking about the economy should become second nature to economists.

An essential pedagogic step here is to hand the teaching of mathematical methods in economics over to mathematics departments. Any mathematical training in economics, if it occurs at all, should come *after* students have done at least basic calculus, algebra and differential equations—the last area being one about which most economists of all persuasions are woefully ignorant. This simultaneously explains why neoclassical economists obsess too much about proofs, and why non-neoclassical economists like those in the Circuit School (Graziani 1989) have had such difficulties in translating excellent verbal ideas about credit creation into coherent dynamic models of a monetary production economy (c.f. Keen 2009).

Neoclassical economics has effectively insulated itself from the great advances made in these genuine sciences and engineering in the last forty years, so that while its concepts appear difficult, they are quaint in comparison to the sophistication evident today in mathematics, engineering, computing, evolutionary biology and physics. This isolation must end, and for a substantial while economics must eat humble pie and learn from these disciplines that it has for so long studiously ignored. Some researchers from those fields have called for the wholesale replacement of standard economics curricula with at least the building blocks of modern thought in these disciplines, and in the light of the catastrophe economists have visited upon the real world, their arguments carry substantial weight.

For example, in response to a paper critical of trends in econophysics (Gallegatti et al. 2006), the physicist Joe McCauley responded that, though some of the objections were valid, the problems in economics proper were far worse. He therefore suggested that:

the economists revise their curriculum and require that the following topics be taught: calculus through the advanced level, ordinary differential equations (including advanced), partial differential equations (including Green functions), classical mechanics through modern nonlinear dynamics, statistical physics, stochastic processes (including solving Smoluchowski–Fokker–Planck equations), computer programming (C, Pascal, etc.) and, for complexity, cell biology. *Time for such classes can be obtained in part by eliminating micro- and macro-economics classes from the curriculum.* The students will then face a much harder curriculum, and those who survive will come out ahead. So might society as a whole. (McCauley 2006, p. 608; emphasis added)

The economic theory that should eventually emerge from the rejection of neoclassical economics and the basic adoption of dynamic methods will come much closer than neoclassical economics could ever do to meeting Marshall's dictum that "The Mecca of the economist lies in economic biology rather than in economic dynamics" (Marshall 1920: xiv). As Veblen correctly surmised over a century ago (Veblen 1898), the failure of economics to become an evolutionary science is the product of the optimising framework of the underlying paradigm, which is inherently antithetical to the process of evolutionary change. This reason, above all others, is why the neoclassical mantra that the economy must be perceived as the outcome of the decisions of utility maximising individuals must be rejected.

Economics also has to become fundamentally a monetary discipline, right from the consideration of how individuals make market decisions through to our understanding of macroeconomics. The myth of "the money illusion" (which can only be true in a world without debt) has to be dispelled from day one, while our macroeconomics has to be that of a monetary economy in which nominal magnitudes matter—precisely because they are the link between the value of current output and the financing of accumulated debt. The dangers of excessive debt and deflation simply cannot be comprehended from a neoclassical perspective, which—along with the inability to reason outside the confines of equilibrium—explains the profession's failure to assimilate Fisher's prescient warnings (Fisher 1933; few people realise that Friedman's preferred rate of inflation in his "Optimum Quantity of Money" paper was "a *decline* in prices at the rate of at least 5 per cent per year, and perhaps decidedly more"; Friedman 1969, p. 46, emphasis added).

The discipline must also become fundamentally empirical, in contrast to the faux empiricism of econometrics. By this I mean basing itself on the economic and financial data first and foremost—the collection and interpretation of which has been the hallmark of

contributions by econophysicists—and by respecting economic history, a topic that has been expunged from economics departments around the world. It, along with a non-Whig approach to the history of economic thought, should be restored to the economics curriculum. Names that currently are absent from modern economics courses (Marx, Veblen, Keynes, Fisher, Kalecki, Schumpeter, Minsky, Sraffa, Goodwin, to name a few) should abound in such courses.

Ironically, one of the best calls for a focus on the empirical data *sans* a preceding economic model came from two of the most committed neoclassical authors, 2004 Nobel Prize winners Finn Kydland and Edward Prescott, when they noted that “the reporting of facts—without assuming the data are generated by some probability model—is an important scientific activity. We see no reason for economics to be an exception” (Kydland & Prescott 1990, p. 3). The failure of these authors to live up to their own standards¹ should not be replicated in post-neoclassical economics.

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¹ See Prescott 1999, in which he blamed the Great Depression on “a great decline in steady-state market hours” which was “the unintended consequence of labor market institutions and industrial policies designed to improve the performance of the economy”, though he was unable to specify what these were: “Exactly what changes in market institutions and industrial policies gave rise to the large decline in normal market hours is not clear.” (Prescott 1999, p. 29)