The state of economics after the Lehman collapse

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Review of

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The 2008 financial crisis has seriously damaged the reputation of economics as a discipline. Although some have correctly warned for the fragility of the financial system, for example, Raghuram Rajan in his famous 2005 Jackson Hole speech, the discipline as a whole had not foreseen that such a crisis could happen. Countries like Spain were said to have followed all the standard policy recipes of the Washington consensus. Nevertheless, it was hard hit by the crisis. The world was in a dire state. Was the discipline failing when its advice was most needed?

This question prompted the World Bank to organize a conference on the state of the world and the state of economics in its ability to help shaping its future. The conference took place in June 2016. The organizers invited the greatest minds in the discipline to reflect on the state of economics, with particular focus on its role in policy making. It added to its dramatic setting that Kenneth Arrow delivered a speech, but died just before the completion of his write-up. His unfinished contribution is the opening chapter of the book, dealing with equilibrium, welfare, and information, followed by Amartya Sen's related chapter on social choice. Both contributions took a long view, discussing the evolution of the discipline over the past 150 years or so. I learned a lot by reading them, in particular Sen's extensive discussion of Arrow's impossibility theorem and its implication for modern welfare economics, but this might be merely a reflection of my ignorance on the subject. Each chapter is followed by two comments from other specialists in these fields. These comments are particularly useful, as I show below.

I shall focus this review on the subsequent chapters by Joseph Stiglitz, Guillermo Calvo, Hyun Song Shin, and Philippe Aghion, which arguably reflect most directly on the implications of the financial crisis for the evolution of the discipline. By this choice, I do not discuss chapters on climate change, behavioral economics, morality, and randomized control trials, which are important topics, but which have progressed largely independently of the financial crisis.

Stiglitz' chapter deals with the information revolution in economics. Before this revolution, institutional economics was a largely disjoint branch of economics, being descriptive and using no economic theory or mathematics. Institutions were seen by economists mainly as distortions of the free market, prohibiting the Walrasian auctioneer to bring the market towards its competitive equilibrium. When Doeringer and Piore published their famous book on internal labor markets in 1971, it was an attack on the dominant Walrasian view of labor markets. The information revolution allowed analyzing institutions like internal labor markets

as a solution to informational restrictions. It opened up the field to economic theory. Nowadays internal labor markets are natural ingredient of a labor economics textbook. Similarly, economists entered fields like accountancy, finance, and corporate governance, using the same type of economic methodology and game theory for understanding a wide variety of institutions.

Most of the seminal papers in this literature have been published in the 1970s. Where the methods applied were not that different from what has been used in economics during the previous decades, the conclusions deviated fundamentally. Though the information revolution greatly reduced the applicability of Arrow and Debreu's first theorem of welfare economics, Stiglitz stresses that their work led foundations for this revolution. Only the idea that one could develop an “economics of information” similar to, for example, the “economics of agriculture” (an idea which Stiglitz attributes to the Chicago School) was orthogonal to the information revolution. Information is a public good, with all the free riding problems associated to it. Hence, it is not a standard commodity.

Stiglitz goes at great length explaining the implications of this revolution. It was central to understanding the causes of the financial crisis. Moral hazard caused rating agencies to lie in the run up to the crisis, while adverse selection caused liquidity to dry up in the fall of 2008. Both commentators on Stiglitz's contribution make two important observations on the role of the information revolution. Ravi Kanbur notes that the information revolution is deeply rooted in the classical economic model of rationality and expected utility and applies the Knightian concept of risk rather than fundamental uncertainty. Whether the incorporation of the behavioral revolution will to change the conclusions of the information revolution is still an open question. As for now, Hamid Rashid observes that the information revolution was key in understanding the financial crisis. Hence, it seems that this crisis can be understood within the confines of the classical model of the homo economicus. This conclusion is orthogonal to the laymen's perception that the failure of economics to foresee the financial crisis is due to its reliance on a model of rationality. Indeed, the homo economicus model has proven to be an inadequate model, but this inadequacy is not be the root cause for the discipline's failure to foresee the financial crisis. This failure was due to lack of comprehension of the importance of information economics for the regulation of financial markets.

In his chapter, Calvo discusses the most acute problem in today's macro-economics, the regime change from chronic inflation to chronic deflation. His contributions starts with an echo of the observations of Kanbur and Rashid on the role of rationality in the economic discipline: he glorifies the rational expectations (RE) revolution of the 1970s. “Whether or not one endorses its relevance for positive theory, RE has proven to be immensely useful to sort out analytical issues and offer us useful insights on applications.” Again, this conclusion is orthogonal to the laymen's view that it is the presumed rationality of the homo economicus that led to the discipline's failure. Calvo gives several examples of the value of rational expectations for policy advice. For example, emerging market countries had difficulty in bringing down inflation, since nominal interest rates remained high due to a lack of credibility of their disinflation policy. This lack of credibility is then self-enforcing, since it forces the government to run a larger nominal deficit to pay for the higher interest bill.

Calvo discusses the value of staggered prices (or equivalently: price inflexibility) in providing a stable output anchor to fiat money. People want to hold money in their portfolio since they “know” that they can always swap it for real commodities at “fixed” prices, since these prices are inflexible in the short run. From this perspective, one cannot understand the hype around

price-flexibility, as noted by Luis Servén in his comment. Calvo attributes this insight to Keynes' General Theory; he refers to it as the Price Theory of Money (PTM). Interestingly, this theory applies alike in a modern cashless economy, see Woodford (2003). We might be able to get rid of quantity theory of money and Clower's “cash in advance constraint”. Servén notes that the fear for a flight away from money into real commodities is increasingly irrelevant. If anything, the opposite has happened during recent crises. This leads Servén to questioning the relevance of PMT: not price stickiness, but a monetary policy based on the Taylor rule is the basis for the public's trust in the value of money, and the observed price stickiness is its consequence rather than its cause.

This relates to the notion of liquidity and the flight to safety in times of crisis, see Caballero and Farhi (2018). Calvo goes at great length in discussing the phenomenon, as does Gita Gopinath in her comment on Calvo's contribution and Chin in his subsequent chapter that is devoted entirely to the role of global liquidity. Remarkably, the ultimate form of safety is always some form of fiat money, not real commodities. Liquidity is therefore endogenous to the system. In times of crisis almost any claim comes under scrutiny of the market: is the backing of that claim credible? People run away from all claims except for the “safest” money, which till so far has always been the US dollar. The financial crisis originated in the United States. When it gathered steam, one would therefore expect the dollar to depreciate. In fact the opposite happened. Investors considered the dollar the least reliable, except for all other currencies. In the first decade of this century, the euro gained market share as a global reserve currency, but at the onset of the Euro crisis, its market share collapsed. All authors talk about the incredible success of the Draghi put, “whatever it takes,” which restored the emerging role of the euro as a reserve currency. It suggests that the Merkel/Macron agreement on strengthening the euro and the issuance of some form of Eurobonds might have a major impact on the role of the euro as a global reserve currency and the future of the global financial system, to the benefit of Europe.

In his contribution, Shin elaborates on the theme of global liquidity. He focusses on the widespread failure of the Covered Interest Parity (CIP) during the onset of the financial crisis. The CIP imposes a restriction on interest rate differentials between countries and their future exchange rates that is almost an identity. Though the theme of his contribution is highly relevant and the information in the chapter is interesting, the reader is left a bit with empty hands after reading it.

In his chapter, Aghion discusses the new Schumpeterian approach to growth and technological progress that Peter Howitt and he started and which has revolutionized our thinking about these issues. R&D is critical for technological progress. However, recouping its cost requires firms to have at least some monopoly power. New technologies come at the expense of the old and at the ability of the owners of these old technologies to recoup their cost. Hence, incumbents can be expected to lag technological progress as it undermines the rents from their own technology. This reveals a deep tension uncoverd by the research program of Aghion and Howitt: some form of future monopoly power is indispensable for firms to invest in R&D in the first place, but at the same time, the new R&D undermines the monopoly power of previous technologies. Incumbents can respond in two different ways to the threat of new technologies: either they milk their own technology as long as possible and then go out of business or they try to keep up by inventing their own new technology. By and large, competition is found empirically to foster technological progress, see Blundell et al. (1999).

Aghion applies his model to the debate on secular stagnation. He distinguishes two strands in the debate: Summers' idea that demand is so weak that negative real interest rates are a prerequisite for full employment and Gordon's view that the next 50 years will not bring a similar degree of technological progress as has been facilitated by rolling out of the networks of telephone, television, electricity, drinking water and the sewage system in the first half of the 20th century, see Baldwin and Teulings (2014) for an overview of both strands. Aghion's argument only reflects on Gordon's view. He argues that new technologies change quality rather than quantity. This is much harder to measure and leads to an underestimation of technological progress. He is confident that Schumpeterian competition will continue to foster growth, a view that I share.

Aghion and Howitt's research program offers a wealth of policy insights, for example, on the role of firm turn over and private equity in recouping the rents from firms using old technologies for investment in new start ups, the importance of education to foster R&D, the role of a nation's openness to trade for its future growth. From that perspective, one might be worried about the consequences of the anti-globalization agenda of the political platforms of Brexit and America First.

Reading the book confirmed my confidence in the future of our discipline. Economics is alive and kicking, attracting new students who add fresh insights to our knowledge base that help to understand the world we live in. This view is completely out of tune with that of the wider public, who sees our discipline as being in deep crisis after its failure during the financial crisis. The book shows that it is fair to say that not economics failed, but economists: the main ingredients for an analysis of the crisis have been developed before its outbreak, but economists have failed to adequately reflect upon them and communicate these insights to the wider public. In the aftermath of the fall of the Berlin Wall economists have fallen into the trap of easy pro-market policy advice derived from simple Walrasian models, while the information revolution should have warned us for their limitations.

A critical problem in the public perception of the discipline is the confusion between three concepts: efficiency, predictability, and rationality. These are viewed as equivalent. “Economists failed to foresee the crisis, since they view men as rational beings that can predict the future. In reality, they are irrational. Look at the volatility of financial markets, clear evidence of their irrationality. Hence, the efficiency of markets is a mirage produced by unjustified believe in the homo economicus.” I dressed up this quote myself, but every economist encounters this type of reasoning from well-informed people from outside and even inside our discipline.

In fact, the three concepts have nothing in common. The prisoners’ dilemma is the prime example of a game where full blown rationality leads to inefficiency. Cole and Kehoe (2000) discuss the role of sunspot equilibria in sovereign default crises: a crisis must be unpredictable by nature, because if a crisis were predictable yesterday, the financial market would have stopped funding the country by then and the crisis would have started yesterday, an argument that can be reiterated backward to the day of creation. Unpredictability is therefore a prerequisite for rationality in this case. While behavioral economics has eliminated the unconditional trust in the homo economicus, I expect this model to continue serving as a useful first-order approximation in many applications, just as physicists use Newton as an approximation to Einstein. Indeed, as the book shows, the rational model has been extremely fruitful in analyzing the causes of the financial crisis.

The confusion between efficiency, predictability, and efficiency might be clear to insiders, it is not to outsiders. A recovery of the reputation of the discipline among the wider public requires that we clear up this ambiguity. We might be in need of a new Milton Friedman, not for his strive to glorify the blessings of the free market, but for his ability to communicate complicated concepts to a wider public.

References

Blundell, Richard, Rachel Griffith, and John Van Reenen. "Market share, market value and innovation in a panel of British manufacturing firms." *The review of economic studies* 66.3 (1999): 529-554.

J Caballero, Ricardo, and Emmanuel Farhi. "The safety trap." *The Review of Economic Studies* 85.1 (2018): 223-274.

Cole, Harold L., and Timothy J. Kehoe. "Self-fulfilling debt crises." *The Review of Economic Studies* 67.1 (2000): 91-116.

Doeringer, Peter, and Michael J. Piore. " *Internal labor markets and manpower analysis*, Harvard University Press (1971).

Baldwin, Richard, and Coen Teulings. "Secular stagnation: facts, causes and cures." *London: Centre for Economic Policy Research-CEPR* (2014).

Woodford, Michael. "*Interest and Prices: Foundations of a Theory of Monetary Policy.*", (2003) Princeton University Press.