

Session 1: Summary of Discussion on “The Leverage Cycle”

John Geanakoplos began by responding to two of the issues that the discussants raised. The first is that it is unclear how the leverage cycle in the financial sector would be linked to the rest of the economy. He reiterated his story of the existence of a small group of optimistic investors that make the markets work in every area. If there is a crisis in the subprime market, they not only lose money there, but also withdraw their money from other areas to put into subprime. Thus, all markets will be affected. The second issue that the discussants raised is that intermediation plays a much larger role than the model allows. Geanakoplos claimed that it actually does show up in his analysis.

Ken Rogoff commented that the starkness of the model, though appealing, makes it difficult to relate to other models. He would like perspective on how the model fits in with other strands of the literature, particularly the Bernanke-Gertler analysis and the Diamond-Dybvig bank run model.

David Laibson took issue with the no short-selling constraint. Geanakoplos later justified the assumption by claiming that the short-selling of complicated assets was actually quite difficult and rarely done. Laibson also wondered about Geanakoplos's story of optimists running the world. In his understanding, the leading hypothesis is that it is the optimists who are responsible for the bubbles that ultimately lead to the misallocation of capital and a possible crash. He was skeptical of their treatment as “white knights” in the model. Geanakoplos responded that his point is that the optimists are generating all of the activity in the economy; therefore, it is important for everyone that the optimists be protected in some way. He also stressed that the interpretation does not have to be that the activity comes from differences in optimism. For example, it could be differences in risk tolerance, so that the “optimists” are, instead, thought of as the entrepreneurial class.

Woodford pointed out that although the paper suggested otherwise, there do exist optimal contracting models in which the leverage ratio is endogenously derived. He claimed that the distinguishing feature of this model is the focus on how shocks in the economy ultimately filter through to determine equilibrium leverage. In this model, the key determinant of endogenous leverage is the variation in the level of assets held by intermediaries, whereas in, for example, the Bernanke, Gertler, Gilchrist model, leverage is determined by exogenous returns to risky projects. He suggested that it would be useful to see some direct evidence on the reason that leverage varies.

Mishkin addressed Geanakoplos's policy recommendation that the Federal Reserve should focus on dampening the leverage cycle. Mishkin wanted to understand whether the implications of the model suggested tightening in response to high leverage or, instead, regulating before crisis times to prevent leverage from getting out of hand initially. Geanakoplos said that he believed that the government should keep track of and publish the leverage cycle. Secondly, they should limit leverage; he claimed that hedge funds would actually welcome the regulation. Finally, in crisis times, the central bank should concentrate on reducing long-term interest rates.

Greg Mankiw remarked that differences in preferences and differences in risk tolerance are not equivalent when considering welfare. In particular, he stated that the Arrow-Debreu welfare theorems do not allow for a difference in beliefs, though they do allow for differences over preferences. To be convinced that the market is not achieving the efficient outcome, he would need to see the market failure. Geanakoplos pointed out that there are incomplete markets in his model since he ruled out credit default swaps, so that the welfare theorems don't hold anyway.

Julio Rotemberg commented that he would like clarification on the narrative of the change of beliefs

rather than the change of leverage. He thought that the belief structure during the de-leveraging of the economy makes perfect sense, but would like to better understand the role of beliefs in explaining the increase of leverage during a boom.

Philippe Aghion remarked on the connection between the real and financial sectors. Specifically, he mentioned the common coincidence between growth in the technological sector and growth in the financial sector. He suggested that this might be a way to endogenize the existence of optimistic beliefs; with new innovation opportunities comes hope for the future. In a boom time, it is possible that the financiers are less concerned about getting a bad project and more concerned about getting invested in the expanding sectors. In this way, there may be an imbalance not only in the size of the sector, but also in the monitoring. The technological revolution and deregulation may actually amplify the leverage cycle.

Daron Acemoglu liked the emphasis in the model on heterogeneous beliefs. He wondered, however, about the exogeneity of the beliefs. He thought there might be a role for learning and remarked that it is an empirical issue as to whether beliefs are actually structured as they are in the model. He also commented that it would be important to close the model in order to get welfare implications.