Opinion

In Praise of Theory

BY KARTIK B. ATHREYA

Here is an interesting story: The pace of personal bankruptcies rose quickly during the 1990s, even as the overall economy fared well. What might we conclude from these facts? One possibility is that improvements in financial intermediation have made credit-granting decisions easier and have led to greater borrowing by risky groups previously denied credit. Another is that nothing has changed in the lending industry, yet households anticipated rapid future income growth. This led them to borrow, but for those whose income failed to grow as expected, default proved useful, leading overall bankruptcy rates to rise. Still another explanation is that neither lender behavior nor income expectations have changed, but instead that there is no longer any "shame" in defaulting on debts.

Each of these explanations may partially account for the facts, and some may fail altogether. But interpreting historical behavior and predicting future patterns first requires a theory about how consumers make financial decisions. What are people considering when they choose how much to spend, how much to borrow, and how much to save? By themselves, the data tell us little.

Modern economics develops theories in the form of mathematical models of household and firm decision-making in which their collective behavior is required to be consistent with the feasibility requirements imposed by the model. This is known as an "equilibrium" approach.

Equilibrium analysis may be clearly contrasted with an alternative still prevalent in consumer finance, one that places far less emphasis on modeling explicit decisionmaking. The latter approach instead relies on summarizing observed features of the data, usually using regression analysis, and treating the correlations as being informative for the effects of policy.

Why should we not simply stare at data, perform a purely statistical analysis, and hope to learn from the results? Ever since the publication of Robert Lucas' seminal work in the 1970s, economists have become sensitive to the pitfalls of using history to learn about the effects of future policies, especially those that are novel and far-reaching. The so-called "Lucas critique" pointed out that many relationships between economic variables which appeared structural, or immutable, actually were the products of past policies and thus subject to change as policies changed. Lucas' work forced economists to push expectations to the forefront of consumption research.

The argument is simple and powerful. If what we see in the data is to be usefully interpreted as the outcome of purposeful decisionmaking by the principal actors in the economy, then both current policies and expectations about future policies will influence those actors' decisions.

Consider a football game. If painstaking data analysis from, say, the 1990s reveals that the instances in which teams gained the most yardage were on passing plays, would it make sense for teams to drastically increase their number of passing plays? A little reflection suggests that it probably wouldn't. Most opponents would alter their behavior to defend against this change in strategy.

While seemingly unrelated to economic policy analysis, this analogy teaches us that, one, the data are an outcome of optimization under a given policy regime, and, two, when policies change, so might behavior. This is a potentially serious problem for empirical work in macroeconomics. After all, in most cases we do not have the luxury of running highly controlled experiments on citizens to learn how they would respond. Instead, we must be clever and insist that our models match observed behavior under current policy. Consequently, to predict how policies would alter outcomes, we must explicitly reanalyze household decisionmaking under a proposed policy, and then compare the results. The outcome of this process thereby overcomes the thorny problem of using data to learn about the effects of proposed, but historically novel, policy changes.

In contrast to a purely statistical analysis, an equilibrium model is advantageous because it will deliver the full range of decisionmaking for all conceivable situations that may face households and firms. In turn, we can learn more precisely what drives people to borrow, or save, or file for bankruptcy. We can also have a clearer view of how they might change their behavior if we changed policy.

So we return to the initial question: Why have consumer default rates risen? Though the data alone may point to other culprits, equilibrium analysis suggests that improvements in lending technologies are a promising candidate for explaining both borrowing and default behavior over the past two decades, while mere reductions in "stigma" are not able to match the data. In other words, it's not shame that drove the rise of bankruptcies, as neat of an explanation as that would have been. Before you can understand the facts, you first need a good theory. **RF**

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