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Edited by David Leonhardt

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NOBEL WINNER

Jean Tirole's Nobel Prize Is Also a Win for Modern Microeconomic Theory

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Justin Wolfers

"It's complicated." No, that's not Jean Tirole's relationship status. Rather, it's the conclusion of his research program into how best to regulate market competition. It earned him this year's Nobel in economics.

Mr. Tirole is a French economic theorist whose work is central to the work of the Federal Trade Commission and similar regulators around the world who have been given the task of ensuring that commerce is not overly distorted by the exercise of market power. The issues are complex and subtle, as competition policy affects not only the prices that are set, but also the incentives to produce more, to invest (or overinvest), to merge and to innovate.

The online chatter among my economist friends today has been entirely enthusiastic about Mr. Tirole's prize. The consensus is that he represents the very best of economics. He tackles big problems, he develops new tools when they're needed, and his research is always grounded in the real world.

While Mr. Tirole's work is abstract, in the sense that it involves mathematical modeling of the likely responses of firms, suppliers, customers and regulators to one another, it is also very much grounded in a subtle understanding of the specific markets he has studied. Mr. Tirole's scholarship is not about extolling the elegant simplicity of an all-knowing, omnipotent invisible hand that always finds the best possible outcome. Rather, his research explores the messier reality in which markets are populated by monopolists seeking to exploit their market power, entrepreneurs trying to fool regulators, and regulators whose choices are constrained by imperfect information, political constraints and their own human foibles.

This is a research program that has both won enormous acclaim within the academy — Mr. Tirole has long been a favorite among academic economists to one day win the Nobel — and has had a profound impact on public policy. As Joshua Gans, a University of Toronto economist, wrote this morning, Mr. Tirole's "work on regulation has influenced virtually all price and nonprice regulation of firms with market power for two decades."

While the previous generation of economists had been engaged in the search for very simple rules that could apply to the regulation of all markets, Mr. Tirole has shown that the right rule for protecting the public interest depends critically on the details of a market.

For instance, when regulators link the prices that firms are allowed to charge to their costs, it may be harmful because it limits their incentive to find innovative ways to cut costs. But there may be an offsetting benefit if it blunts the incentives for those firms to cut costs by reducing quality. This offsetting quality effect is an important consideration when customers can't judge quality for themselves, but should be ignored when customers can figure out the quality of a good before buying it.

In another example, regulators had historically not been overly worried about monopolists embedded in a production chain. Their view was that competition among such monopolists' suppliers or customers would prevent them from further exploiting their monopoly power in the next link of the production chain. But in some cases, a monopolist may actually disrupt competition at the next stage. For instance, the inventor of a cost-saving innovation might garner a bigger profit by selling the new idea to just one firm rather than 10. Effectively, that single customer is buying the right to monopolize the next stage of the market, and so is willing to pay more than 10 times the competitive price for the innovation. Of course, it's willing to do this only if it can be guaranteed that it will be the only buyer given access to that innovation.

To take another case, an earlier rule of thumb had suggested that regulators should always be suspicious of firms that set their price below their marginal cost, because they're probably just trying to drive competitors out of the market. But many newspapers are given away for free, and none of them seem like future media monopolists. Rather, the newspapers are given away in an effort to increase circulation, which in turn increases advertising revenue.

The new economy has also provided fertile territory for Mr. Tirole. The development of new platforms, such as video game platforms like the Xbox or Sony PlayStation, provide a layer of complexity not present in most markets, because gamers need games, and game developers need gamers. Similar issues arise whenever the behavior of buyers depends on that of sellers, and vice versa, such as in the markets for credit cards, social media and search engines.

Given his interests in understanding linkages within and between markets, it's little surprise that Mr. Tirole has turned his attention to understanding the appropriate regulatory response to the interconnectedness of the financial system.

The conclusions of Mr. Tirole's style of analysis defy easy political characterization. In some cases they may call for a more vigorous regulatory response from government policy makers than is currently the norm, while in others, they call for greater restraint. In each case, the recommended policy depends on the details of the particular market, and in particular on what information is available; what contracts can be written; and how competitors, suppliers and customers are likely to respond.

In turn, this shows just how much Mr. Tirole's work is a sophisticated mash-up of the three recent Nobel-winning themes that have revolutionized microeconomic theory. His research extends and applies the tools of game theory, which is used to analyze strategic interactions between firms and their competitors, suppliers, customers and regulators. It takes seriously the problem of imperfect information, analyzing how these interactions are shaped by what each of these players knows about the others. And he has been a pioneer within contract theory, assessing the consequences of the difficulty of writing contracts that fully specify the consequences of commercial transactions. This prize represents a vote of confidence in the direction of modern microeconomic theory.

While we economists applaud Mr. Tirole for having pushed back the frontiers of knowledge, all of us should also be grateful that we live somewhat better lives in part because of his role in creating policies that better direct market forces toward serving the public good. And that's not so complicated a desire.

Justin Wolfers is a senior fellow at the Peterson Institute for International Economics and professor of economics and public policy at the University of Michigan. Follow him on Twitter at @justinwolfers.

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