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2 American Professors Awarded Nobel in Economic Science

By CATHERINE RAMPELL

The Nobel in economic science was awarded on Monday to Thomas J. Sargent of New York University and Christopher A. Sims of Princeton University for their research on the cause and effect of government policies on the broader economy, a major concern of countries still struggling to address the aftermath of the recent financial crisis.

Back in the 1970s, Dr. Sargent and Dr. Sims were interested in figuring out how a new policy, like a tax cut or an interest rate increase, might affect the economy. But economists cannot run controlled experiments in real life to see what happens when a policy is executed and compare the results to when it is not. Instead, they have to study whatever history is available to them, with all the complicated conditions that happened to coincide with the policy change.

Dr. Sargent and Dr. Sims developed statistical methods to organize historical data and disentangle the many variables.

Their new methodologies are used to figure out whether a policy change that happened in the past affected the economy or whether it was made in anticipation of events that policy makers thought would happen later. The methods also help decipher how regular people's expectations for government policies can affect their behavior.

"For both Sims and Sargent, their research is fundamental," said Mark W. Watson, an economics professor at Princeton. "They figured out what it is you need to know to answer this cause and effect question, and then they developed methods for actually measuring the effects of causes."

Dr. Sims said that his research was relevant for helping countries decide how to respond to the economic stagnation and decimated budgets left by the financial crisis.

"The methods that I've used and that Tom has developed are central for finding our way out of this mess," he said. But asked for specific policy conclusions of his research, he responded, "If I had a simple answer, I would have been spreading it around the world."

Dr. Sims, who is president-elect of the American Economic Association, has primarily looked at temporary policy changes, like a surprise in government finances or a change in interest rates. For example, his methods have been used to determine whether a central bank's decision to raise rates affected inflation, or whether bank officials raised the interest rate precisely because they expected inflation to change later.

His research that was honored on Monday led to a systematic method for distinguishing between unexpected shocks to the economy, like a change in oil prices or government finances, and expected changes, the prize committee of the Royal Swedish Academy of Sciences said in a statement.

His methodology, developed in the 1970s, has been influential in subsequent decades among economists in many fields and of different political leanings. Research using his methodology, for example, has helped lend credence to New Keynesianism, the theory that says that an economy can go into recession because there is not enough demand.

"The idea that there could be an aggregate demand failure is a very old idea, but it had been completely banished in the '70s, '80s and '90s," said Lawrence J. Christiano, a professor at Northwestern University. "Really the center of gravity of macro was very much in places like Chicago and Minneapolis. That was bumped away in part by results of applying this new methodology, and Sims is the one who originated that."

Dr. Sims's work has also been the basis of important papers by Ben S. Bernanke, the Federal Reserve chairman, and Olivier Blanchard, the chief economist at the International Monetary Fund.

Dr. Sargent, on the other hand, focused on longer-run structural changes in the economy, like setting a new inflation target. He has analyzed historical data to understand better how these types of policy changes affect the economy over time. He has also conducted experiments in a sort of laboratory setting to examine how new policies might alter the economy.

Dr. Sargent's body of work is somewhat eclectic. For example, he spent the early part of his career building up the "rational expectations theory" — the idea that people make choices based on what they rationally expect to happen, and so expectations can affect outcomes — and then spent subsequent decades criticizing it.

"He's an amazing character in that sense," said Dr. Christiano, who wrote his dissertation under Dr. Sargent. "He contributed a revolution, and then tried to develop a revolution against that one."

While the prize committee chiefly cited Dr. Sargent's contributions to modeling and methodology, he has also done a number of influential empirical studies. He has studied historical episodes of hyperinflation, for example, and helped show how expectations for monetary policy can affect price changes.

"He looked at countries that were having inflation of hundreds of percent for months, like the European countries after world wars," said Robert Lucas, a Nobel laureate and economics professor at the University of Chicago. "He wanted to know how you get out of inflation like that without causing a big recession. It's a mix of economics and historical analysis."

A more controversial line of Dr. Sargent's research has examined how the generous welfare state in many European countries might be causing higher unemployment rates.

The two economists were awarded for work that they did independently of each other but that the prize committee said was complementary. They did collaborate once, in 1977, when they were colleagues at the University of Minnesota.

Their academic pedigrees have other similarities: Both received their Ph.D.'s from Harvard University in 1968, and both spent time studying at the University of California, Berkeley, before receiving their doctorates. Dr. Sargent received his bachelor's from Berkeley, and Dr. Sims did postgraduate work at Berkeley after receiving a bachelor's from Harvard College.

Coincidentally, the two winners, both 68, are jointly teaching a graduate course in macroeconomics at Princeton this semester.

The Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel is not one of the original Nobel prizes. It was created in 1968 and is awarded annually “according to the same principles as for the Nobel Prizes,” first begun in 1901.