

# The Prize in Economic Sciences 2011

The Royal Swedish Academy of Sciences has decided to award the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel for 2011 to

**Thomas J. Sargent**

and

**Christopher A. Sims**

New York University, New York, NY, USA

Princeton University, Princeton, NJ, USA

*“for their empirical research on cause and effect in the macroeconomy”.*

## Cause and effect in the macroeconomy

How are GDP and inflation affected by a temporary increase in the interest rate or a tax cut? What happens if a central bank makes a permanent change in its inflation target or a government modifies its objective for budgetary balance? This year's Laureates in economic sciences have developed methods for answering these and many of other questions regarding the causal relationship between economic policy and different macroeconomic variables such as GDP, inflation, employment and investments.

These occurrences are usually two-way relationships – policy affects the economy, but the economy also affects policy. Expectations regarding the future are primary aspects of this interplay. The expectations of the private sector regarding future economic activity and policy influence decisions about wages, saving and investments. Concurrently, economic-policy decisions are influenced by expectations about developments in the private sector. The Laureates' methods can be applied to identify these causal relationships and explain the role of expectations. This makes it possible to ascertain the effects of unexpected policy measures as well as systematic policy shifts.

Thomas Sargent has shown how *structural macroeconometrics* can be used to analyze permanent changes in economic policy. This method can be applied to study macroeconomic relationships when households and firms adjust their expectations concurrently with economic developments. Sargent has examined, for instance, the post-World War II era, when many countries initially tended to implement a high-inflation policy, but eventually introduced systematic changes in economic policy and reverted to a lower inflation rate.

**Prize amount:** SEK 10 million, to be shared equally between the Laureates.

**Further information:** <http://kva.se> and <http://nobelprize.org>

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Christopher Sims has developed a method based on so-called *vector autoregression* to analyze how the economy is affected by temporary changes in economic policy and other factors. Sims and other researchers have applied this method to examine, for instance, the effects of an increase in the interest rate set by a central bank. It usually takes one or two years for the inflation rate to decrease, whereas economic growth declines gradually already in the short run and does not revert to its normal development until after a couple of years.

Although Sargent and Sims carried out their research independently, their contributions are complementary in several ways. The laureates' seminal work during the 1970s and 1980s has been adopted by both researchers and policymakers throughout the world. Today, the methods developed by Sargent and Sims are essential tools in macroeconomic analysis.

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**Thomas J. Sargent**, U.S. citizen. Born 1943 in Pasadena, CA, USA. Ph.D. 1968 from Harvard University, Cambridge, MA, USA. William R. Berkley Professor of Economics and Business at New York University, New York, NY, USA.

<http://files.nyu.edu/ts43/public>

**Christopher A. Sims**, U.S. citizen. Born 1942 in Washington, DC, USA. Ph.D. 1968 from Harvard University, Cambridge, MA, USA. Harold H. Helm '20 Professor of Economics and Banking at Princeton University, Princeton, NJ, USA.

[www.princeton.edu/~sims/](http://www.princeton.edu/~sims/)

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