



## **EconoMag**

**The Show that demystifies Economics**

**Nobel Prize for Economics – part 3**

**Jan Tinbergen**

*by Max Farrington and Michael Hirsch*

Jan Tinbergen was a Dutch economist born in The Hague on April 12<sup>th</sup> 1903. He was the co-recipient of the Nobel Prize in Economic Sciences when it was first awarded in 1969. He shared the award with Ragnar Frisch, a Norwegian economist, for their development and application of dynamic models for the analysis of economic processes. He was also a member of the NGO Economists for Peace and Security.

Tinbergen was the first of five children born to Dirk Cornelis Tinbergen and Jeannette van Eek. Funnily enough he is not the only one in the family to have been awarded a Nobel Prize, as his younger brother, Nikolaas, was the laureate in 1973 for Physiology.

Like many economists he began by studying mathematics at the University of Leiden under Paul Ehrenfest, a famous theoretical physicist. At the university he met people who would later become famous for their scientific contributions, such as Albert Einstein, Hendrik Lorentz and Pieter Zeeman. After a short time fulfilling his community service requirement in the administration of a prison, he wrote his PhD thesis entitled “Minimization Problems in Physics and Economics”. This thesis regrouped mathematics, physics, and more importantly economics. He then became a teacher at The Netherlands School of Economics in Rotterdam. He stayed there until 1973, and during his tenure he spent one year as a visiting professor at Harvard University.

His work includes what is known as the Tinbergen Norm, which is the principle that if the ratio between the lowest income and the highest income in a company is over 5, it will not help the company and could, in fact, be counterproductive. He is also the first economist to develop a national comprehensive macroeconomic model, which he developed in 1936 for The Netherlands, and which was later applied in the United States and the United Kingdom. A macroeconomic model is an analytical tool designed to describe operations of the economy of a country, a city or a region. The first global macroeconomic model was developed by Lawrence Klein, who from 1966 to 1975, presided over the Committee of the United Nations for the planning and economic development of emerging countries such as Turkey, Surinam and Indonesia.

Today, his work is still very influential. He has classified some economic quantities as targets and others as instruments, and he has emphasized the fact that achieving the desired values of a certain number or targets requires the policy maker to control an equal number of instruments. For example, today, central banks regard the inflation rate as their target and the instrument they use to control inflation is the short-term interest rate.

Tinbergen's econometric modeling led to many debates with other famous economists such as Ragnar Frisch, and more notably with John Maynard Keynes, who is considered the most influential economist of the twentieth century.

Finally, the economist with whom Tinbergen had perhaps the most debates is Milton Friedman, who won the Nobel Prize in 1976.