

Evidence-based policies: Economic models, data and research institutions to tackle future challenges

This is a very ambitious title indeed, one of the most ambitious in a quarter of a century, so I guess that my task today is to explain you why we thought that Tom Hertel would have been able to face such a tall order

Let me start with a fable... once upon a time, global simulations were very (very) rare, so rare that the fingers of a single hand would have been more than enough to count the few (mostly) international institutions that had the data and computing power to perform this type of analysis.

Then Tom Hertel appeared, and everything changed... today, thousands (literally: it is not a figure of speech) of scholars are able to run complex simulations on their laptops: today, already at the master level, students at Roma Tre use these models as a learning tool.

Such a dramatic change has certainly been made possible by technological innovation, i.e., the PC hardware, but institutional innovation has also played a major role: 1) the decision to make model and data as club goods accessible with a reasonable fee, 2) the intuition about the power of networking in the incoming digital age ("if you don't like/miss something, fix/integrate it").

Looking at the results obtained by the Global Trade Analysis Project Center created by Tom Hertel in Purdue, I'm tempted to use a famous quote: "Never was so much owed by so many to so few"...it may sound a bit bombastic but what has been done is an apparent example of ingenuity: it may seem trivial today but it was hardly thinkable before it happened.

We like to think that the speaker for the annual Lecture shares some of the peculiar features of the Rossi-Doria approach.

The name of Tom Hertel is inextricably associated with the Global Trade Analysis Project, a research endeavour that has combined a sound theoretical basis with thorough empirical analysis using new data.

The Project has been instrumental in improving, if not the quality of policy-making, at least the quality of the policy debate providing evidence-based results, improving the human capital of scores of practitioners, and allowing more effective participation (especially by developing countries) in international negotiations.

As many of you may have already noted, these are the same features at the core of the Rossi-Doria 'revolution' taking place in Italy after the second world war and represented the mission of the Centro di Specializzazione that Rossi-Doria created in Portici.

Since 1996, the Associazione per studi e ricerche and then the Centro Ricerche Economiche e Sociali have relentlessly worked to keep the dream of scientifically rigorous and socially relevant economic analysis alive, and the numerous accomplishments of Tom Hertel are very much in line with this vision...by the way, let me assure you that I'm not going to list all his achievements since such a reading would take the place of the Lecture itself: for your information, Tom's CV is 51 (fifty-one) pages long... and the one I downloaded may be the short version!

Where There is Light, There is Shadow: someone could be worried about the consequences of lowering the barriers to access models and data.

A colleague once told me that allowing everyone to run simulations by simply pushing a button was "as dangerous as putting loaded guns in the hands of children".

Indeed, it is well-known that a wealth of information may mean a dearth of something else, and we are familiar with the happened during the recent pandemic when the scientific evidence was at times overwhelmed by fake news on the net.

However, there is no point in being nostalgic about the good old times: economics is a science not because it provides a single (supposedly perfect) solution to problems but because it is able to explain what are the sources of the differences in the results obtained by models based on different assumptions and using different data.

Tom Hertel greatly contributed to this end: thanks to his work, together with the general improvements in software and programming, the transparency of the simulation models has greatly improved.

You may not trust the results you get from the simulation, but if you are competent (and sometimes stubborn) enough, it is always possible to find out where they come from: in other terms, today isn't true any more the traditional allegation that "CGE models are 'black boxes'".

This is possibly the most relevant among the many achievements of Tom Hertel. I remember a presentation offered at Purdue by David Hummels, a colleague of Tom from the Economics Department. He compared the evolution over time of Tom's impact factor with those of a bunch of famous economists from the NBER (National Bureau of Economic Research).

In the graph, all the lines moved following parallel trends; then, the scores obtained by Tom start to rise exponentially. Such a change is not explained by the publication in top-notch economics journals such as the American Economic Review but rather by the publishing of articles in high(er)-impact journals such as Science.

There is an important lesson here: other scientific fields cherish the replicability of the results obtained using models validated by a large community of researchers; economics, on the other hand, apparently puts more emphasis on ‘originality’ and appreciates the work of scholars that claim to have used new data and/or new methodologies. This may lead to ‘reinventing the wheel’ just to convince the referees about the author’s ability to perform alone all the stages of the scientific project (development of the theoretical model, data collection, estimation, simulation...): David Hummels rightly called this attitude ‘peacocking’.

Here is another deep analogy with the Rossi-Doria approach: economics has much to learn from other sciences, both social and experimental, and the multidisciplinary organization of the Centro di Portici (offering curricula in Agricultural economics, Economics and Statistics) was a pioneering example. A more recent example of the positive influence of experimental sciences is provided by the counterfactual ex-post evaluation techniques: not by chance, this is another focus of the Centro Rossi-Doria activities.

I’ve praised the achievements of today’s speaker but don’t be mistaken. The most exciting part of Lecture that is going to be delivered does not celebrate the past but rather looks at the future and describes the new projects Tom is presently working on. Let me finish on a personal note. I’m an ordinary economist, but even average guys can accomplish a lot if they climb on the shoulders of (intellectual) giants.

I was lucky to meet several such giants in my professional life: some of them are in this room today, including Tom Hertel.

I’ve never been one of his students, and I never co-authored a paper with him, but I started using the GTAP model with my PhD dissertation, and it is still one of my favourite tools.

It was instrumental in some of what I consider to be my best papers, and the GTAP community has been a source of inspiration and cooperation for several research projects over the years.

Today I’m glad to have the opportunity to acknowledge my intellectual debt to Tom and wish to thank all the people attending this event in person or virtually: it’s been a true privilege to introduce the XXV Rossi-Doria Lecture that is going to be presented by Thomas W. Hertel.