Medium Term Growth prospects for the Turkish Economy: Simulations with the Model Turina

Topic: Econometric IO models
Author: Hüseyin Gazi Özhan

Gazi Özhan (Emeritus Prof. Dr., Ankara University)
Wang Yinchu (China Economic Information Network of the State Information Center)
Meral Özhan (Emeritus Prof. Dr., Hacettepe University)

Medium Term Growth Prospects for the Turkish Economy: Simulations with the Model TURINA

20th International IO Conference
Bratislava
June 26-29, 2012

Abstract
The first part of the contribution is devoted to a description of the dynamic interindustry model for Turkey. TURINA is a Turkish Interindustry Analysis model which is based on the philosophy of INFORUM family models. In the current version of the model the sample period covers 11 years from 1998 to 2008 and based on the 59-sector Input-output table of 2002. The structure of the model and its construction process is fully explained. Data consistency is secured using bridge matrices mapping national accounts statistics (SNA or ESA for some years) to I-O framework. Two basic input-output (I-O) vector equations, one for prices and one for production, are the pillars of the analysis. A set of 10-category household consumption functions, in the form of simplified PADS forms the main endogenous component of the model. Lack of data for the personal disposable income is a formidable obstacle and a theoretical deficiency of the model in general. To overcome this deficiency, per capita household consumption is chosen as convergence variable instead of per capita disposable income. Historical simulation of the model TURINA over the period 1998-2008 demonstrates a high degree of accuracy: About 72.65% of the 1740 results showed less than 3% error, and only 1.55% showed more than 10% error.

The second part of the paper deals with the use of the model for arriving at scenarios, up to 2023: For the baseline scenario, the upside scenario, the downside scenario, and the most desirable (perhaps less likely one) would be a higher level upside scenario in which we can assume the full accession of Turkey into the European Union before 2023.