STRUCTURAL DECOMPOSITION ANALYSIS IN THE BRAZILIAN ECONOMY: AN INPUT-OUTPUT APPROACH

Topic: Structural change, SDA and dynamics
Author: Thiago Moraes Moreira
Co-Authors: Luiz Carlos Santana Ribeiro

The present study aims at using the structural decomposition analysis (SDA) methodology, whose original theoretical reference is found in the works by Leontief (1941, 1953) with relevant contributions by Chenery et al (1960, 1962) and Carter (1970). Being a development of the input-output analysis, this technique allows investigating structural changes between two distinct periods starting from the identification of the causes which motivated the variations of sectoral output and employment of a determined economy. These causes basically assume two main forms, which are (i) changes in the final and intermediate goods demand by domestic production or (ii) changes in the technical coefficients. It is then possible to infer about the competitiveness of the economy sectors under analysis, in the sense in which it allows to map the situation of the technological advancements (associated to cause ii), as well as the penetration of imports instead of local production (associated to cause i). The idea of the study is to apply this technique for one of the main emerging economies, Brazilian economy. Thereto, the two last official Brazilian input-output sets of tables, elaborated and made available by the National Geography and Statistics Institute of Brazil (IBGE) referring to 2000 and 2005, disaggregated into to 55 sectors. Further to the wish in using official data (and not from matrices updates to more recent periods), the suggested timeframe for the study becomes very interesting in the sense that at the end of the 1990s Brazilian economy was affected by an foreign exchange crisis, which strongly devaluated the national currency and led to significant changes in the driving of the macroeconomic policy. From the identification of the causes if the variations if the output and employment in different sectors, it will be possible to carry out an assessment of the reaction of the Brazilian productive structure and of its competitiveness to this new context.