

## **The sources of structural change in Brazil from 2003 to 2008**

Topic: Mathematical analysis of input-output data

Author: Camila Unis Krepsky

Co-Authors: Esther Dweck

The years from 2003 to 2008 comprise a period of sustained growth after two decades of low dynamism in the Brazilian economy. This growth, however, did not take place in a homogeneous way among all industries being both cause and effect of changes in the productive structure of the country. This work seeks to investigate the sources of the structural change observed during the period by performing a structural decomposition analysis.

The structural decomposition performed in this work will be carried out in two stages: initially will be done a breakdown of the production growth of each industry into three components: (1) the change in the consumption pattern of the population (propensities to consume per product of workers in each industry), (2) change in the level and composition of the rest of total final demand, excluding final consumption and (3) change in the production technology, measured by the change in technical coefficients. In the next stage, to better understand the results obtained, the last two components will be further disaggregated, evidencing the effect of the change in the pattern of trade.

The novelty of this study is that the model used in the decomposition analysis considers the final consumption of households as an endogenous component, dependent on wages, and not exogenous, as in most models of decomposition in the literature.

The study will use the data of Brazilian Input-Output Matrices from 2003 to 2008 made available by WIOD (World Input-Output Database). It will also be used data related to the wages by industry from the Brazilian National Accounts, made available by IBGE (Brazilian National Institute of Geography and Statistics).