

Labour analysis based on Time Input-Output Tables

Topic: Physical and Hybrid Input-Output Analysis

Author: Jaroslav Zbranek

Co-Authors: Eva Javorská

The paper is focused on the description of the methods and tools for the analysis of labour intensity. A model example is based on the figures for the Czech Republic covering period of 1990-2010. We applied the approach using Time Input-Output tables broken down by commodity. Besides the methods of the analysis, the paper briefly describes current compilation procedures of Time Input-Output Tables, as well. We compiled Time Input-Output Tables (TIOTs) for 1990-2010 with respect to available data sources. TIOTs combines published Supply and Use tables, data on hours worked and data on wages and salaries. The key results are expressed as indices of labour intensity and these indices are compared with volume indices of gross value added and also with the development of capital endowment of labour. Labour intensity is estimated as a ratio of index of hours worked and volume index of output. The development of capital endowment of labour describes the change of the amount of capital per one unit of labour. We used net stocks of fixed assets as capital indicator and the hours worked from the TIOTs as labour indicator. We transformed net stocks of fixed assets (obtained from Czech national accounts) from the industry classification to the commodity classification. One of the key advantages is that the results are not affected by changes in price level and it allows interesting comparisons in long period.