

DAS PRODUKTIVITÄTS-PARADOXON -

Messung, Analyse, Erklärungsansätze

25. Wissenschaftliches Kolloquium

gemeinsam mit der Deutschen Statistischen Gesellschaft am 24. und 25. November 2016 in Wiesbaden

Kurzfassung / Abstract:

Productivity analysis from a European perspective

Isabelle Rémond-Tiedrez

born 1966, studied economics and statistics in Paris (ENSAE) and started her career as a statistician in the French National Statistical Institute (INSEE) in different departments of this organisation (Business Surveys, Statistical Training, Methodology, Producers Prices). She moved to Statistics Canada in 2001 working in the field of the Social Surveys Methodology and joined the European Commission in 2004 in the Short-Term Statistics Unit. Since 2009 she has been working in the National Accounts Unit and is now responsible for the team of Supply, Use and Input-Output tables and Integrated Global Accounts. She has developed the project for productivity measures in collaboration with the DG JRC.

Christine Gerstberger

born 1968, studied economics and computer science in Heidelberg and Frankfurt/Main and started her career as a bond market analyst in WGZ bank. She joined the European Commission in 2001 where she worked on the analysis of financial markets in the Directorate General for Economic and Financial Affairs (DG ECFIN). In 2009, she moved to Eurostat, the statistical office of the European Union, Unit C2: National Accounts Production. She is currently the leader of the main aggregates team that is mainly responsible for the regular estimations of European quarterly and annual main GDP aggregates (including employment), but also processes more detailed breakdowns of production, employment and capital data that are used for productivity analysis.

In collaboration with Directorate General Joint Research Centre (DG JRC) of the European Commission Eurostat has developed two datasets to assess productivity measures and developments in Europe:

- i. The first project developed a standardized methodology for a Quality Adjusted Labour Index (QALI) in the European Union to estimate time series from 2002 to 2014 for each Member State of the European Union and the European aggregates (euro area and European Union) weighted by skills, age and combinations of skill and age groups.
- ii. The second project developed a methodology to estimate capital indicators for the EU Member States from 1995 to 2014. The set includes (net) fixed capital stock (in current prices and in volume series) and gross fixed capital formation (in current prices and in volume series) presented for 7 asset categories (AN_F6) and 10 industries (NACE Rev. 2, A*10)

The elaboration of Quality-Adjusted Labour Input indicators combines macro-data from National Accounts (to which any data on employment is benchmarked) and micro-data from the EU statistics of the Labour Force Survey (LFS), the Structural Earnings Survey (SES) as well as the EU-Statistics on Income and Living Conditions (EU-SILC). The QALI indicator takes into account the skill and age of the workforce. Survey-based data of hours worked and earnings for 2002-2007 from NACE Rev.1.1 were mapped to NACE Rev.2 A*21 to enable the calculation of QALI for the whole time series (2002-2014). This indicator could possibly contribute to a better understanding of the "productivity paradox" since traditional measures of productivity might not be sufficient for capturing specific trends and therefore measures which reflect also the quality of the factors of production such as the quality adjusted labour input might provide deeper insight in the developments of productivity.

The estimation of capital indicators included a review of data availability by capital indicator and Member State based on Eurostat's collection of Annual National Accounts data received under the ESA 2010 Transmission Programme. While data are available from many Member States, there are also missing values and apparent inconsistencies that require the use of some estimation techniques, as an intermediary step, to complement the dataset until the full National Accounts Transmission Program is implemented by all European Member States.

Furthermore, Eurostat has produced experimental purchasing power parities (PPPs) for the production side of GDP that can be useful for industry-level productivity comparisons across countries.

Eurostat is examining the dissemination of the results of the projects as experimental datasets accompanied by information on the methodology and data used. This would enable both data users and producers to provide feedback on the data and methodology so that Eurostat can assess if the datasets could become part of a regular production and dissemination process.