THE ACADEMY OF ECONOMIC STUDIES IN BUCHAREST

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STATISTICAL ANALYSIS OF GROSS DOMESTIC PRODUCT: STRUCTURE, DYNAMICS AND TRENDS

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Summary

The paper titled "Statistical Analysis of Gross Domestic Product: Structure, Dynamics, and Trends" aims to highlight the importance of this essential indicator in understanding a nation's economic situation, as it is often used to compare economic productivity and living standards across different countries.

The first part of the paper presents a unified approach to the system of national accounts, integrating them into a matrix format that encompasses all economic transactions.

This structure is explained for each account within the matrix, with the aim of highlighting the formation and distribution of income across institutional sectors and between the domestic and external economies. In this regard, the element of originality is the estimation of income transfers between foreign countries and each institutional sector of the national economy. Currently, such information is available in national statistics only at the aggregate level.

In the second part of the paper, the foundational elements for calculating GDP using the production approach are examined and analyzed. These elements include intermediate production and consumption across different economic sectors. In this context, a comprehensive analysis of economic activities highlights sectors vulnerable to economic shocks—such as price crises and fluctuations in external demand—that are characterized by diminished cost competitiveness and explores potential scenarios to assess their ability to remain competitive in the market.

Concurrently, a forecast of Gross Domestic Product across key sectors for the period 2024–2026 was conducted, based on the objective hypothesis of reducing the disparity between production and intermediate consumption. Along with this, the monthly GDP estimation method is applied using as auxiliary variables the monthly series of the sectoral indicators that correlate with its quarterly components.

The results of the analyzed data indicate a weakening of competitiveness in certain industrial and construction sectors during the post-COVID period, due to the confluence of current crises such as price volatility, the energy crisis, and the Russian-Ukrainian conflict. However, a gradual recovery is anticipated, supported by investments funded through the National Recovery and Resilience Program as well as structural and cohesion funds.

Keywords: gross domestic product, national accounts, social accounting matrix, statistical analysis, competitiveness