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CZECH POSITION IN INTERNATIONAL COMPARISON OF R&D SECTOR PERFORMANCE

Abstract: The aim of this analysis is to identify position of the Czech Republic in international comparison of resources and effects of research, development and innovation. Methodology of the analysis is based on five analytical blocks of indicators covering financial resources, human capital, quality of environment supporting R&D&I advancement, R&D&I outputs and, macroeconomic impacts. The country position in international comparison is identified not only based on individual indicators but also on a composite indicator for each analytical block. In most of scientific and technology development indicators, the Czech Republic is lagging behind the advanced EU countries. The greatest weaknesses of the Czech Republic in comparison with European innovation leaders (Sweden, Germany, Denmark, and Finland) occur in the field of availability of risk capital, cooperation between universities and business sector, patent intensity and, the number of scientific publications per million inhabitants. Current debt and economic crisis hinders progress in Czech research and innovation sector and slows down the processes of real convergence.

Keywords: research sector, financial expenditure, human capital, economic environment, research performance, patent intensity, international comparison, innovation leaders

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Introduction

The aim of this article is to contribute to the analysis of international comparison of sources and performance of research, development and innovation. From the methodological point of view, the analysis is built on five groups of indicators covering financial resources, human capital, quality of environment supporting R&D&I advancement, R&D&I outputs, and macroeconomic impacts. Altogether, the indicators serve to render a picture of effectiveness of the R&D&I process. To increase the explanatory power, composite (aggregated) indices are constructed for each separate group of indicators.