

FAIR APPORTIONMENT OF VOTING DISTRICTS IN HUNGARY

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One of the aims of the new electoral law of Hungary has been to apportion voters to voting districts more fairly. This is ensured by a set of rules rather more permissive than those put forward in the Code of Good Practice in Electoral Matters issued by the Venice Commission. These rules fix the size of the voting districts, and require voting districts not to split smaller towns and villages and not to cross county borders. The article shows that such an apportionment is mathematically impossible, and makes suggestions for a theoretical approach to resolving this problem: determine the optimal apportionment by studying the properties of their approach, and use the authors' efficient algorithm on the data for the 2010 national elections. The article also examines the expected effect of demographic changes and formulates recommendations for adhering to the rules over the long term: increase the number of voting districts to about 130, allow the number of voting districts to change flexibly at each revision of the districts, and base the districts on regions rather than counties.

THE ROLE INTANGIBLE INVESTMENTS AND NON-PRODUCTION WORKERS PLAY IN ECONOMIC CATCHING UP – RESULTS OF A SURVEY

Andrea Szalavetz

The paper summarizes the international literature on the competitiveness impact of intangible capital (IC), then measures on the basis of automotive and electronics subsidiaries in Hungary the trend in the number of workers who can be linked with the IC. From this indicator is drawn conclusions on the growth in the role of intangible investments (IIs) based on own staff and on the importance of these to the growth of the subsidiaries. The employment conclusions are then complemented by examination of the sizes and types of these firms' intangible investments in 2008–10, through notes attached to their financial statements. To reveal the global value chain-specific features, the results of the industry examined are compared with those of domestically owned firms competing with their own products and with those of foreign-owned firms that target local markets.

FISCAL AND PRIVATE RATES OF RETURN TO TERTIARY EDUCATION AS AN INVESTMENT IN HUMAN CAPITAL IN HUNGARY, BETWEEN 1999 AND 2010

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Systems of education funding differ partly in the scale of funding the state provides for education, and partly in how it distributes them among the various levels of education. The degree of support for education may appear to the state on the one hand as costs and on the other as future realizable revenues. The fiscal revenue increases for every extra year of educational attainment by individuals, as the income earned from work by those with a higher educational attainment and the scale of the income tax and other levies on that income will be greater than for those with an educational attainment one year less. The purpose of the study is to measure over time the rates of individual and state-budget return on tertiary education as investment in human capital in Hungary in the period 1999–2010. Education is an investment with a high rate of return for the individual and society, and for the state. The analysis shows that although expenditure per tertiary student is higher than at other levels of the education system, the rate of return on tertiary education is higher for the state than for the individual, since graduates make a substantially greater fiscal contribution in taxes and levies than do those who have only completed secondary schooling.

25 YEARS OF INNOVATION SYSTEMS. A LITERATURE REVIEW FROM THE ANGLE OF EVOLUTIONARY ECONOMICS

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The concept of an innovation system was launched two and a half decades ago, and since then has exercised great influence on relevant academic literature and on policy-making. This paper reviews four of today's most influential innovation system concepts, and places them back in the framework of their original evolutionary concept: national, sectoral, technological and regional systems of innovation. It is argued that the four concepts, developing separately, may serve as a joint framework for analysis and policy-making, if they are interpreted as complex adaptive systems. Furthermore, this complex system approach may allow new research directions to emerge.