

Human Capital and Finland's economic growth in 1945–2000

– Assessing education-based human capital accumulation inside the national accounts framework

Abstract

The role of human capital in economic growth, in national production of goods and services and in the incomes generated in the production process has been constantly discussed in economics, especially since the 1950's. Human capital can be seen as an asset of a nation (or of a person), which can be used in production and income generation. A country's ability to technological progress in production by using human capital has been emphasised in the new theoretical models of economic growth after the 1980's. Briefly said, the importance of human capital in economic growth has been duly noted and approved in economic theory.

This paper explores empirically the impacts of investing in and accumulation of human capital attained by formal education on Finland's fast GDP growth in 1945–2000. Human capital is to be treated in the same national accounts framework as the other variables examined in it, such as GDP, investments in physical capital and accumulation of physical capital stock. Along the core lines of John Kendrick's accumulated costs approach in the late 1970's (also discussed thoroughly by Aulin-Ahmavaara in the early 2000's) education expenditure per year is separated from final consumption and treated as investments in human capital in Finland in 1945–2000. The resource-cost approach is chosen due to the fact that in Finland practically all formal education services are provided by the public sector and hence valued in the national accounts through their costs. Human capital stock by formal education is accumulated through investments in a similar way to physical capital, i.e. through invested monetary flows in education. As a result investments in and stock of human capital are valued in monetary terms, in current and fixed prices, as GDP and physical capital. After this the impact of annual human capital investments on GDP can be analysed and the long run connection between human capital accumulation and GDP growth can be evaluated.

Before World War II and right after it, the average educational level of the population in Finland was low. Annual investments in education have increased substantially over time: the total expenditures on education per year by government have gone up ten times the level 50 years ago. At the same time the volume of GDP has risen to a 7.8 times higher level in 2000 than in 1945.

Has there been a relationship between human capital attained by education and economic growth in Finland? According to the first estimations the annual investments in human capital in the form of formal education have contributed directly to GDP volume in Finland by 2% - 6% per year in 1960–2000. The aim of the paper is also to analyse the possible long-run relation of accumulated education human capital stock to GDP.

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