# Why education matters for an economy?

**Economics of education**

Education is a fundamental key to development and sustainable growth. Human capital is positively correlated to economic growth since investment tends to boost productivity. The process of educating a workforce is a type of investment, but instead of capital investment such as equipment, the investment is in human capital. Numerous studies in the field of labour economics have attempted to measure the relationship between a worker's education and its productivity, called the private return to education and the findings have been incredibly positive. The precursor to all such studies is the equation developed by Jacob Mincer in 1974, known as the Mincer Equation. This relates worker's earnings (seen as a way of measuring their productivity) with their years of schooling and work experience. Such studies must be dealt with caution since they have many underlying assumptions. In addition to education's direct effect on a worker's productivity, numerous economists also point to important education externalities for growth, larger than private returns. Paul Romer, for instance, suggests that societies with many highly skilled workers generate more ideas and consequently grow more. In a recent work, Aghion et al presents a theoretical model and some empirical evidence that shows more advanced economies benefit from workers with a university education since this promotes technological innovation, augmenting the productivity of both physical capital and the workforce. An analysis by the OECD secretariat of the causes of economic growth shows that rising labour productivity accounted for at least half of GDP per capita growth in most OECD countries from 1994 to 2004.

**The case for Cyprus**

The role of governments is key to expanding the skillsets and education levels of a country's population. In the last years, government expenditure on education in Cyprus, has been amongst the highest in the EU as a percentage of its GDP (5.8% in 2019). However, this is not reflected in the labour productivity of the country, since Cyprus ranks very low in labour productivity index tables amongst the EU countries. There is a significant gap in productivity between Cyprus and other countries with similar government expenditure on education as a percentage of their GDP, for example Denmark (6.3%). This highlights the inefficiencies that exist in the educational system. Research by Mr. G. Panteli and Mr. E. Mallis in 2015 regarding the government expenditure on the two state universities in Cyprus, has shown that cost for the government per student studying in these universities was unjustifiably high (especially for the Cyprus University of Technology). This is mainly due to the high salaries of academic and administrative staff with respect to the number of students in the university. According to this research, one possible measure to tackle this without sacrifising the quality of teaching, is to increase the admission of international students by offering more undergraduate and postgraduate programmes in English. The fees paid from international students will increase the revenues, which can be used on research or additional capital assets. In addition, more international standards should be followed, such as accepting students based on GMAT scores and A-levels. This will further improve the position and reputation of Cypriot universities in world university rankings and thus make Cyprus a more desirable destination for studies in the long run.

**The importance of diversity and inclusion in the educational system**

Countries need to improve quality, strive for excellence, and expand opportunities, based on efficiency and equity. This means ensuring that disadvantaged youth enrol and succeed. Diverse

schools and universities feature differences in ethnicity, socioeconomic class, religion, reading level, athletic ability, background, gender, personality, and much more. As noted by an article in Scientific American, exposure to diversity alters the way individuals think by promoting creativity and innovation, as well as decision-making and problem-solving skills. Currently, there are many large organizations around the world that embrace diversity actively in their recruiting processes, aiming to enjoy these benefits.

**Meeting labour market needs**

In 2020, the unemployment rate in Cyprus was approximately 7.21 percent. Today, Cyprus has the third-highest unemployment rate of all EU states. In addition, youth unemployment was 18.7 percent. These indicators show that there is a significant skills mismatch in the market, defined as the gap between an individual's job skills and the demands of the job market, given the fact that most of young people get into tertiary education, but end up being unemployed. According to a recent report by the Economy and Competitiveness council, there is a particular mismatch between qualifications and work in key areas such as Education, Health, Humanities and Technology. It also refers to a low interest in science studies by young people in Cyprus, resulting in high-tech applications lagging. This signals the need for educational reforms with a focus on STEM education. STEM is a curriculum based on the idea of educating students in four specific disciplines-science, technology, engineering and mathematics- in an interdisciplinary and applied approach. As industry and technology develop, so does our curriculum, ensuring that students learn the most relevant concepts and technologies. Recently, many countries have been introducing policies to promote STEM education. In the UK, according to statistics published last year by UCAS, more young people are taking STEM subjects than ever before. This is a result of the policies undertaken by the UK government to raise the public's awareness of science issues and inspire students to study STEM subjects. This includes the organisation of events such as the British Science Festival and the National Science and Engineering Week as well as funding the work of 4 independent national academies.

**Taking a step ahead by spending more on Research and Development**

New growth models emphasise the key role of R&D for increased productivity and growth. The level of government funding of R&D as percentage of GDP is quite substantial in many highly innovative economies such as the three Nordic states, Austria, Germany and France. In other countries like Cyprus, Lithuania, the Czech Republic or Hungary, public spending on R&D has been growing very fast, indicating increasing efforts to gradually build up their science base. Greece's Konstantinos Daskalakis, a world-leading scientist who has also been named one of the world's smartest people after solving Nash's "riddle" has announced he is setting up a research centre in Greece. It will be a privately funded charity and will focus on artificial intelligence. Such actions should be followed by Cyprus because research and development activities allow scientists and researchers to develop new knowledge, techniques, and technologies. As technology changes, people can produce more with either the same amount or fewer resources, thereby increasing productivity. In the long run, this can be proved to be a more effective way to achieve sustainable growth, instead of directly funding public schools and universities.

**Education as a human right**

Beyond the relevance of education in economic growth and in fostering democracy, in the words of the United Nations: «education is a fundamental human right and essential for the exercise of all other human rights»