

EIN seminar:

“Investing in Education and Innovation”

1. Thank you for your invitation to participate in this round table and congratulations for organising this interesting seminar about education and innovation.
2. Nowadays, in a knowledge society, education is the key issue for the future of the human race and for our societies. This strategic position was highlighted by the Lisbon strategy in 2010 and now by the European Objectives 2020 and particularly ET2020. In fact, two of the main objectives directly concerned education: reduction of early school leavers and increasing higher education graduates. These objectives have been connected with the larger 2030 Agenda. Sustainable Development Goals (SDGs). Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. In this brief presentation about investment in education, I would like to talk about these four points... (3)

1. How much is spent (invested) in education?

- **(5)** In 2015, OECD countries spent an average of 5% of their gross domestic product (GDP) on educational institutions from primary to tertiary levels, with large variations across OECD and partner countries.
- **(5)** Across OECD countries, the share of national resources devoted to educational institutions in non-tertiary education (primary, secondary and post-secondary non-tertiary levels) is 3.5% of GDP, much larger than the share devoted to tertiary education (1.5% of GDP). However, private sources play a crucial role in financing tertiary education, accounting on average for around 25% of expenditure on educational institutions (0.4% of GDP).
- **(6)** Between 2010 and 2015, total expenditure on educational institutions from primary to tertiary levels as a share of GDP decreased in more than two thirds of OECD and partner countries, mainly due to the slower increase of public expenditure on educational institutions compared to GDP.
- **(6)** But, most countries were spending more per student in 2015 than they did in 2010, with the exception of the United States and some European countries that were hit hard by the economic crisis of 2008: Estonia, France, Ireland, Slovenia and Spain. Falling enrollment together with increasing expenditure resulted in greater expenditure per student at non tertiary levels, about 5% higher in 2015 than in 2010.
- **(7)** In 2016, the EU average percentage of public spending on education as share of GDP was 4.7% which has been decreasing from 2012 (8)

- **(9)** In 2015, the EU average public expenditure on education registered an annual increase of 1 % in real terms which refers to year-on-year change of total expenditure of general government on education consolidating the increase of the year before.
- **What makes an influence in educational expenditure? (9) (10)**
- The level of expenditure on educational institutions is affected by the size of a country's school age population, enrolment rates, levels of teachers' salaries, and the organization and delivery of instruction
- Demographic change also influences the ratio of education expenditure to total public spending: indirectly, due to the increase in pensions and healthcare and, more directly, via the number of students.
- **(10)** To sum up, education's share in public expenditure is an indication of a government's commitment to the sector in comparison to other policy areas. In almost two-thirds of Member States, this share is greater than the EU average.
- Countries invest in educational institutions to help foster economic growth, enhance productivity, contribute to personal and social development, and reduce social inequality, among other reasons.

2. Sources of investment in education: private and public

- **(12)** The majority of investment in non-tertiary education comes from the public sector. As we said before, from 2010 to 2015, expenditure on non-tertiary educational institutions increased by 4% on average across OECD countries, while the number of students decreased by 1%, resulting in an increase of 5% in expenditure per student over the same period.
- **(13)** In contrast, the amount of private expenditure is much greater at the tertiary level. On average, private sources in OECD countries spend more than 4 600 dollars per student in tertiary levels of education. This share represents around 40% of the investment per student made by governments at the same level (USD 11 100).
- **(14)** Tuition fees are very different particularly between USA, UK and EU
- **(15)** There are also different ways to finance tuition fees, such as loans, scholarships, or grants. Some countries like the US and UK, which have high tuition fees, face an increase in debt due to the high volume of loans taken out each year and not paid back.

3. Where is education funding spent? On what resources and services?

- **(17)** On average, OECD countries spend 10 500 US dollars a year on educational institutions to educate each student from primary to tertiary education. This represents about USD 8 600 per student at primary level, USD 10 000 at secondary level, and USD 15 700 at tertiary level.
- **(18)** The majority of expenditure on education by level corresponds to compulsory education, which is in light blue and orange.
- **(19)** In non-tertiary education, 94% of institutions' expenditure per student is devoted to core educational services (such as teaching costs), and the remaining is devoted to ancillary services (such as student welfare).
- **(20)** At the tertiary level, a much lower share of institutional expenditure goes to core services (68%), while roughly 30% of total educational expenditure per student is on research and development.
- **(21)** The investment in R&D varies from country to country and it reflects their economic development. For the future R&D+I is critical to transform the productive system

4. Outputs and outcomes of investment in education: educational attainments and labour market employment.

- Although increasing resources does not, on its own, significantly improve education systems' performance, the level of spending on education does affect educational outcomes, in particular of children and young people from disadvantaged backgrounds as it can reduce socio-economic differences between pupils from poorer and more affluent families (Hanushek, E. A. and Woessmann, L., 2015).
- In the last decade, expenditure on primary and secondary education in OCDE countries increased 20%, but academic results did not increase. Therefore, it is crucial how resources are distributed and the educational policies and programs that attend to the quality of education, based in evidence and efficient practices.
- This situation is reflected in the objectives of ET 2020 which are:
(23) Early school leavers: The EU objective is less than 10% but there are some countries far from this goal.

(24) Population with tertiary studies: the EU objective is 40% and on average is nearly achieved.

(25) Participate in lifelong learning. The EU objective is 15 % and the majority of the countries are far below this goal.

And finally the objective to reduce low achievers in PISA results to below 15% is far from being achieved. Right now we are at 21%.

- **(26)** The countries with a cumulative expenditure on individual students aged 6 to 15 less than 50,000 dollars (18 countries) are strongly associated with an increase in the results of the PISA assessment. But in countries that spend more, other factors are better predictors of educational performance, such as teaching quality, pedagogical autonomy, and quality of preschool.
- **(27)** Difficult transitions from education to work can have long-term negative effects both for the individual and for the welfare system. People with higher education level have a higher rate of employability. According to the OECD average, those below upper secondary have an employment rate of 58%, upper- secondary 76% and tertiary 85%.
- **(28)** For many countries, helping recent graduates find the right job after graduation is a policy priority. Along this line, the EU adopted in 2011 a benchmark on graduate employability: 82% of recent graduates from upper secondary to tertiary education, aged 20-34, who are no longer in education and training, should be in employment by 2020. Although progress has been made, the employment rate of recent graduates in the EU still falls short of the target: from 75.4 % in 2013, it has risen to 78.2 % in 2016.
- **(28)** The employment rate of recent graduates from tertiary education grew from 80.7 % in 2013 to 82.8 % in 2016, and therefore surpassed the overall benchmark value for the first time.
- By contrast, the employment rate of recent graduates completing a medium level of education is still well below the target, despite increasing from 69.4 % in 2013 to 72.6 % in 2016, with a number of countries displaying employment rates above the 82 % benchmark, (Malta, the Netherlands, Germany, Sweden, Hungary, Austria, the Czech Republic and Estonia), and some countries with rates below 70 % (Cyprus, Romania, Bulgaria, France, Ireland, Portugal and Belgium). Only two countries (Italy and Greece) have rates below 50 %, following their overall very low employment rates.

Final Remarks

- The economic crisis in Europe has affected the level of investment in education to a different extent in each country. In particular, the Mediterranean countries have experienced this decrease most significantly. However, **a decrease in investment does not necessarily indicate worsened educational performance**, as seen in Spain.
- A greater level of investment in education does not always equate to an increase in educational results. For example, only one of the ten countries that spend the most in education, Singapore, is among the seven nations with less than 20% of its students performing poorly, according to PISA. **How resources are allocated is just as important as the amount of resources available to be allocated.**
- The priorities of educational investment are centered on pre-school, reducing the number of poor performers, and attaining higher levels of educational performance. **Beyond the level of education, the qualifications and skills of the workforce should adapt to the demands of the knowledge society.**
- **The lack of investment in research and development in universities has had negative effects on economic and social development.** The level of investment from the private sector is much lower than the public sector if we compare Europe with the United States. It is necessary, therefore, to incentivize private investment with new tax measures and promote greater commitment and support from alumni.
- **The employment rates of recent graduates have improved in most of the EU. A higher level of education offers the best employability.** In countries with productive and advanced systems of education, such as Germany, Denmark, France, and the Netherlands, the distinction is greater, as the labor market is particularly harsh towards those lacking educational qualifications and rewards those with higher qualifications.