



## Youth, innovation and productivity in Europe

### Closing Remarks by Governor Carlos da Silva Costa<sup>1</sup>

ISEG, 26 June 2017

Speaking points,

It is with great pleasure and satisfaction that Banco de Portugal worked with the ECB and the Lisbon School of Economics and Management (ISEG) to organize the first ECB Youth Dialogue in Lisbon. This seminar provided an important opportunity for economics students to put questions to the ECB President, Mr. Mario Draghi, on issues that concern them. This initiative clearly demonstrates the ECB's endeavor to be an open institution that is close to society, in particular to the European youth.

Turning now to the topic of this dialogue, "Youth, Innovation and Productivity in Europe", I would like to start by pointing out that we live in a challenging world, both in social and economic terms, but that this should not be seen as a negative because, if prepared for and overcome, challenges lead to progress.

The very fast pace of technological progress permanently challenges countries' productive structures and firms. Indeed, products with high demand at one point in time may become outdated after a couple of years, as new goods offer new functionalities and higher quality. The Schumpeterian notion of "*creative destruction*" is nowadays more relevant than ever. Therefore, flexibility in the allocation of resources is key to minimizing the inevitable adjustment costs faced by the economies. Moreover, international competition is also very strong as firms struggle to offer cheaper and improved versions of recent innovations. Therefore, continuing innovation is the only

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<sup>1</sup> Version prepared for presentation.



way to create and maintain high value-added in the economy, which, in turn, is the basis of productivity and social welfare.

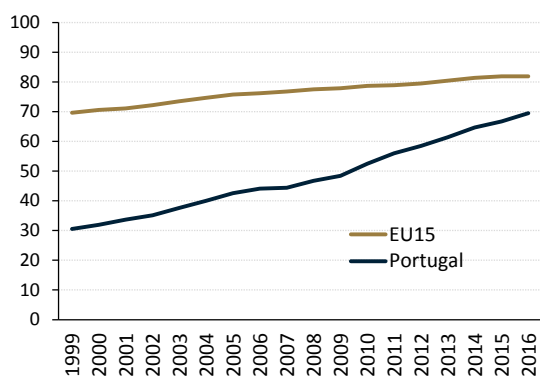
The common ingredient to achieving flexibility and continuing innovation in the economy is human capital. That is why education and science policies have become a top policy priority in most countries. There is also a strong link between human capital, good management and entrepreneurship. The ability to restructure and sometimes reinvent a firm in the face of a negative shock asks for good management skills. Moreover, innovation in the production process is nourished by entrepreneurs and, in the event of radical innovation, they are the ones taking the risk of bringing new products or services to the test of the market.

It should be noted that human capital is a necessary but insufficient condition to achieve flexibility and innovation in the economy. Entrepreneurship is also a key condition, which depends on a complex combination of a risk-taking culture, an adequate private and public institutional setup and financial mechanisms that promote the sharing of the risk that is intrinsic to the innovation process. Moreover, the importance of entrepreneurship and the difficulty in putting in place its underlying prerequisites is stronger for more radical innovations.

Portugal has been catching up with EU levels in terms of human capital. Although it started from comparatively low education levels, the cohorts of Portuguese students that are now entering the labour market are perfectly comparable to those in other advanced economies. In addition, new Portuguese graduates have often had the chance to interact with foreign colleagues and institutions, which fosters a healthy critical attitude that also prompts entrepreneurship. In the cohort of 25- to 34-year-olds, the share of individuals that completed at least upper secondary education in Portugal increased from 30 per cent in 1995 to 70 per cent in 2016, while the shares in the EU are 70 per cent and 82 per cent, respectively. Moreover, the share of 25- to 34-year-old individuals with tertiary education in 2016 was 35 per cent in Portugal, against 39 per cent in the average for the EU countries (Chart 1 and 2).

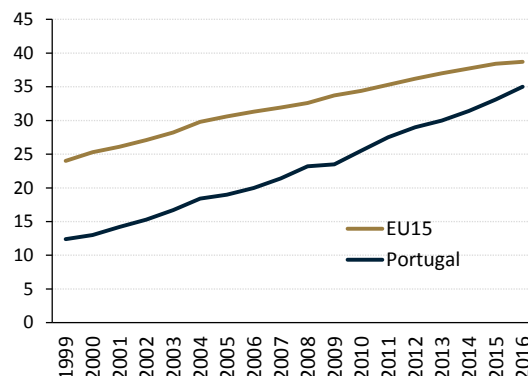


**CHART 1: POPULATION 25 TO 34 YEARS WITH AT LEAST UPPER SECONDARY EDUCATION**  
Percentage



Source: Eurostat

**CHART 2: POPULATION 25 TO 34 YEARS WITH TERTIARY EDUCATION**  
Percentage



Source: Eurostat

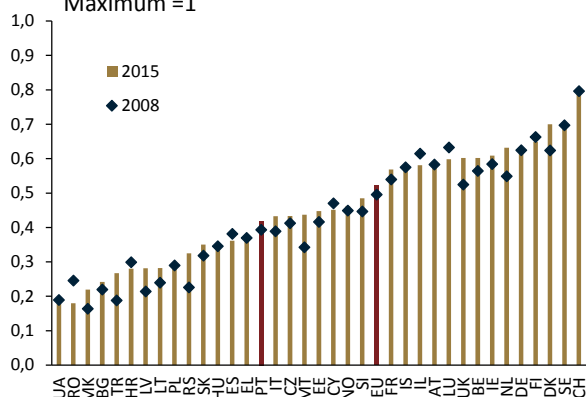
These very good developments are already bearing fruit in the economy and are part of the explanation for the good performance of Portuguese exports in the latest decade. There are many examples of new production processes being implemented by young managers in traditional sectors, for example, in textiles, clothing and agriculture, while radical innovation has been taking place in sectors like health and pharmaceuticals, engineering and software.

Recent success in no way precludes the need for renewed efforts. There is plenty of untapped potential in the Portuguese innovation system. For example, the number of doctorates per thousand individuals in the 25- to 34-year-old cohort in Portugal is 70 per cent above that of the EU average. However, the share of innovative SMEs that engage in collaborations represents only 6.8 per cent of the total pool of SMEs in Portugal, against a figure of 10.3 per cent in the EU. Therefore, it is necessary to strengthen bridges between research centers, universities and firms. This overall picture is visible in the results of the European Innovation Scoreboard for Portugal (Chart 3 and 4). The Portuguese policies for research and development have been taking this direction, notably by putting in place specific programs that link the scientific system and firms (e.g. *Programa Interface*), leading to the creation of collaborative labs and to a visible increase in the take-up rates of available EU funds for science.



CHART 3: SUMMARY INNOVATION INDEX

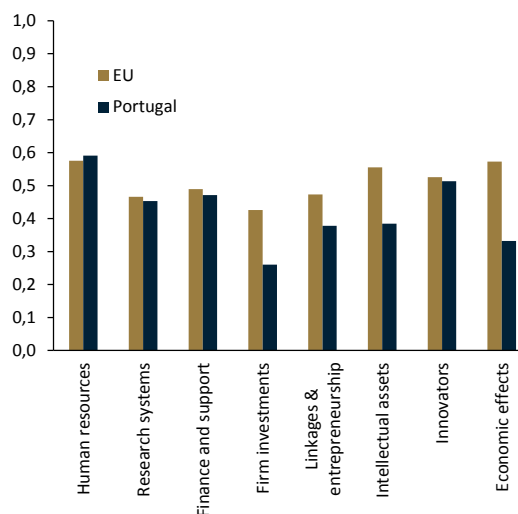
Maximum =1



Source: European Innovation Scoreboard

CHART 4: SUMMARY INNOVATION INDEX

COMPONENTS 2015, Maximum =1



Let me conclude with four ideas that run through much of what has been said.

Firstly, innovation is a continuing process or even a “*state of mind*”. It should not be forgotten that sometimes innovation requires long research periods, reaching up to 10 or 15 years. Support for long-term research is necessary, it can hardly be provided by firms and is now an important item in the European research policy discussion.

Secondly, the pool of startups is important because it constitutes the cradle of the successful firms of the future. Nevertheless, the early failure of most of these firms should not be taken as problematic. The high mortality rate of startups is, to a large extent, the result of a natural process of selection of good ideas and efficient firms by market forces. Therefore, public policies targeted at supporting startups that have not proven able to compete in the markets are expensive and clearly not efficient.

Thirdly, as a follow-up to the previous point, the financing of radical innovation or startups is not the primary role of the banking system. The high levels of risk involved call for the intervention of specialized operators (for example venture capital or business angels). Unfortunately, in Portugal these operators are still not sufficiently developed, and the possibility of ventures with larger foreign players is limited.



Fourthly, the challenge in Portugal is to speed up the pace of reform and further modernize its firms. Only high-performance firms can afford to pay the wages of those that make the difference in terms of innovation and entrepreneurship. Although foreign experience by young Portuguese highly skilled workers is beneficial, it should not turn into a mild form of “*brain drain*”. However, as initially said, challenges should be seen as opportunities to improve, not as problems.

Thank you very much.