



European
Research Area

EUROPEAN POLICY BRIEF

SPINTAN – Policy Brief No. 15



Fiscal consolidation and crisis in the EU: exploring long-run supply-side effects through education*

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SUMMARY

Objectives of the research

The aim of this paper is to analyse the possibility of supply-side effects of fiscal consolidation on output in the long run through its effect on education choices and human capital accumulation, while taking into account that these measures are adopted within an economic crisis and a high youth unemployment scenario.

Scientific approach / methodology

We examine the effect of the crisis and fiscal consolidation on European dropout rates and analyse the effects of educational attainment on labour market participation, employability and labour productivity using EU-LFS and EU-SILC microdata and probit models.

New knowledge and/or European added value

Estimates of long-run impacts on output are provided for different scenarios for the EU as a whole, as well as for those countries especially affected by fiscal consolidation.

Key messages for policy-makers, businesses, trade unions and civil society actors

The results show that the positive effect of lower opportunity costs of studying due to higher youth unemployment rates would dominate any negative long-run supply-side effect caused by a lower level of real public spending on education, especially in those countries most affected by fiscal consolidation.

* This Policy Brief is based on the SPINTAN Working Paper No. 10: Serrano, L., Á. Soler and L. Hernández (2016): "Fiscal consolidation and crisis in the EU: exploring long-run supply-side effects through education", available on the SPINTAN website: <http://www.spintan.net/c/working-papers/>.

Objectives of the research

Education is essential for European Union (EU) countries if they want to be able to consolidate a new era of sustainable growth after recovering from the last economic and financial crisis. As a result of the crisis, public budgets have been under great pressure. Although the education sector is indeed considered one of the foundations of sustainable growth, some EU Governments have reduced their public spending on that area. If fiscal consolidation reduced spending on education and that reduction in turn slowed down training choices, a part of the population would be characterized by lower participation, more employability problems and lower productivity for a long time. These effects would persist until those population cohorts reached retirement age.

However, we should keep in mind that fiscal consolidation is linked precisely to the deep economic crisis experienced. One of the determining factors in the decision to continue studying is precisely the labour market situation. During periods of very high unemployment, especially youth unemployment, the opportunity cost of studying falls because the probability of finding a job, even an unsatisfactory one, drops dramatically.

The aim of this paper is to analyse the impact of budgetary measures on economic growth through its effect on education choices and human capital accumulation, while taking into account that these measures are adopted within an economic crisis and a high youth unemployment scenario. Without those conditions, there would have been no substantial fiscal consolidation to begin with.

Scientific approach / methodology

The paper has focused on analysing: i) the impact of fiscal consolidation on public expenditure on education; ii) the effects of the crisis (youth unemployment) and fiscal consolidation (real public spending on education) on human capital accumulation (dropout rates); and iii) the effects of educational attainment on participation, employability and labour productivity.

The analysis is carried out for the EU as a whole and those countries especially affected by fiscal consolidation.

In order to analyse the determinants of the probability of dropping out of education, we use probit models of an individual's probability of dropping out of education using EU-LFS microdata for all EU-28 countries over period 2004-2013. Both dropping out after compulsory education and after post-secondary education are considered. The effects of education on labour productivity are estimated through the wage premium on education

within a standard Mincer wage equation framework which makes it possible to control for other personal characteristics which can also affect wages apart from education. EU-SILC microdata for EU-countries over period 2004-2013 are used.

We also estimate the effect of educational attainment on employment probability through probit models using EU-LFS microdata.

Based on all those results, the long-run effects of the crisis and fiscal consolidation are estimated for different scenarios as the final results of changes in employment rates and labour productivity assuming that the changes in dropout rates linked to real public expenditure on education and crisis are permanent. We evaluate the final effects on output per capita in the long run, after all cohorts in the working age population had been affected by the new education choices.

New knowledge and European added value

European countries allocate a significant amount of public resources to the educational system. This effort makes more sense inasmuch as it is expected that the sacrifice made in the present will allow society as a whole to reap a number of benefits in the future. From the point of view of economics, therefore, education can be considered an investment whose profitability will depend heavily on the economic effects of education in terms of a better and more intense employment career for graduates.

This piece of research analyses the impact of EU fiscal consolidation on output in the long run through its effect on the education sector and human capital accumulation. However, it does so analysing fiscal consolidation within its proper economic context. It takes into account that fiscal consolidation measures are adopted within an economic crisis and a high youth unemployment scenario without which there would have been no substantial fiscal consolidation to begin with.

The analysis takes into account the effects of educational attainment on both labour market performance and labour productivity. It permits to obtain estimates of impacts on output in the long run for different scenarios.

Those estimates are provided not only for the EU as a whole, but also for those countries especially affected by fiscal consolidation. In particular, Greece, Portugal, Ireland, Spain, Italy, France, UK, Romania and Bulgaria are considered.

**Key messages for
policy-makers,
businesses,
trade unions and
civil society actors**

The results show that fiscal consolidation has been negative for the levels of public spending on education in real terms, especially for the EU countries most affected by it. Nevertheless, it is relevant that the decreases in most countries come after significant increments during the first years of the crisis (with the final levels of real public expenditure on education similar to the 2007 levels and higher than the 2000 levels in almost all the countries considered).

The fiscal consolidation countries have also experienced a higher increase in their youth unemployment rates while also improving their dropout rates.

The estimates from econometric models on the determinants of dropout rates indicate that public expenditure, *ceteris paribus*, might reduce dropping-out. However, they also show that dropout rates are rather sensitive to youth unemployment, especially in those countries most affected by fiscal consolidation and the economic crisis. The empirical analysis has also shown that educational attainment has significant positive effects on labour market participation, employability and labour productivity.

Some estimates of the impact on output per capita in the long run under different assumptions have been obtained based on these results. Since fiscal consolidation in the EU has been caused by the economic crisis, any effect of fiscal consolidation should also consider the impact of youth unemployment. From that point of view, our estimates do not show any negative impact on the long-term perspectives for GDP in the EU as a whole or, especially, in the countries most affected by the need of fiscal consolidation. On the contrary, the estimated effect is positive especially in the fiscal consolidation countries. The substantial fall in the opportunity cost of studying seems to dominate any negative effect from a lower level of public spending on education in the case of the EU.

SPINTAN – Smart public intangibles

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