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THE IMPACT OF THE EUROPEAN SOCIAL FUND: THE RHOMOLO ASSESSMENT

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- The ESF is Europe's main instrument for supporting jobs, helping people get better jobs and ensuring fairer job opportunities for all EU citizens.
- The ESF includes 4 different thematic objectives aimed at promoting sustainable employment, social inclusion, education and the efficiency of the public administration.
- Policy simulations using the RHOMOLO dynamic CGE model show positive aggregate macro-economic effects of the ESF policy intervention.
- The ESF stimulates GDP and employment via increases in labour productivity, education and training, and additional demand-side effects.
- RHOMOLO is able to quantify the impact of the ESF in the EU as a whole as well as in each one of the 267 NUTS 2 EU regions. Less developed regions reap most of the benefits of ESF policy intervention.
- By 2030, the cumulative GDP impact of the ESF is larger than its cost, that is the ESF generates more than one euro for each euro spent in it.

1. Policy context

The objective of the EU's Cohesion Policy (ECP) is to reduce the differences in the level of development of the European regions in order to strengthen economic, social and territorial cohesion. Rather than being solely focused on inter-regional income distribution, the ECP aims at promoting smart, inclusive, and sustainable economic growth in all EU regions through a number of coordinated policies.

In this context, the European Social Fund (ESF) plays a crucial role. For the 2014-2020 programming period, the ESF resources amount to 89 billion euros, almost 25% of the 350 billion euros allocated for the ECP.

Among the 11 Thematic Objectives (TOs) of the latter, the ESF aims at enhancing human capital and social cohesion through the following ones:

- TO 8: Promoting sustainable, equitable employment and supporting labour mobility.
- TO 9: Promoting social inclusion, combating poverty and discrimination.
- TO 10: Investing in education, training and lifelong learning.
- TO 11: Improving the efficiency of the public administration.

Most of the funds (71%) are allocated to TOs 8 and 10, 24% goes to TO 9, and 5% to TO 11.

2. The RHOMOLO simulations

We perform policy simulations related to the ESF intervention using the RHOMOLO dynamic spatial Computable General Equilibrium model developed by the JRC (Lecca *et al.,* 2018). Modern macroeconomic models such as RHOMOLO provide coherent and internally consistent frameworks to analyse the channels through which macroeconomic policies affect national and regional economies. In particular, RHOMOLO provides sector-, region- and time-specific results to support EU policy making and investment programs. The current version of RHOMOLO covers all EU NUTS2 regions, each regional economy being disaggregated into ten economic sectors.

We use a combination of labour productivity shocks and government consumption shocks to simulate ESF policies. The aim is to capture both structural and long-lasting effects stemming from changes in labour productivity as well as short-run demand side effects stemming from government consumption shocks.
The model simulations estimate the policy's potential effects in a controlled environment; simulations are carried out assuming that there are no ex-post implementation inefficiencies (such as low absorption rates, rent seeking, etc.). Also, we use provisional commitments data (not actual payments) for the period 2014-2023. The model is calibrated with 2014 as its baseline year. Starting from that benchmark, we simulate both the short-run to medium and long-run effects of the ESF.

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3. Main results

The ESF yields a permanent increase in the aggregate EU GDP for the on-going programming period and beyond, with long lasting effects generated by the structural policies and the associated changes in productivity. Figure 1 shows that by the end of the programming period, in 2023, GDP will be 0.1% higher than in the base year, which will get to almost 0.15% in 2030. This amounts to around 13 and 20 billion of euros, respectively, for the whole EU. The vertical bars in Figure 1 show the contribution of the ESF initiatives categorized per TO. The highest contribution is due to TO8 which represents the highest expenditure category of the ESF.

Figure 1: GDP impact per ESF Thematic Objective

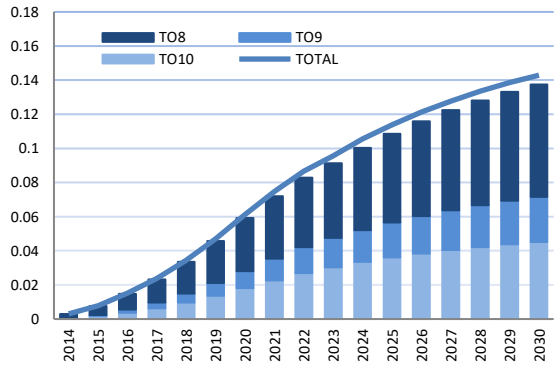


Figure 2 plots the ESF effects on employment while Figure 3 shows the impact on the following macroeconomic variables: exports, imports, the consumer price index (CPI), and private consumption. We observe that during the whole programming period the effects on employment are positive and increasing over time. However, as ESF spending diminishes (after 2020), demand effects fade away and the long-lasting labour productivity effects take over.

Looking at Figures 2 and 3 together, we infer that the results on employment are driven mainly by competitiveness effects on the one hand, and by demand effects on the other hand. Positive demand effects are due to government consumption on social expenditures which, in turn, affect positively employment during the programming period. The changes in the CPI are a mirror of those in imports and exports, highlighting the crucial effects on competitiveness. Imports increase in the short-run due to direct demand effects, while exports initially decrease but, as soon as the productivity effects materialize, start to increase.

Figure 2: Employment impact per ESF Thematic Objective

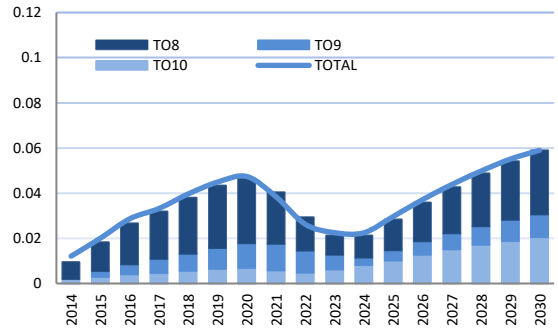
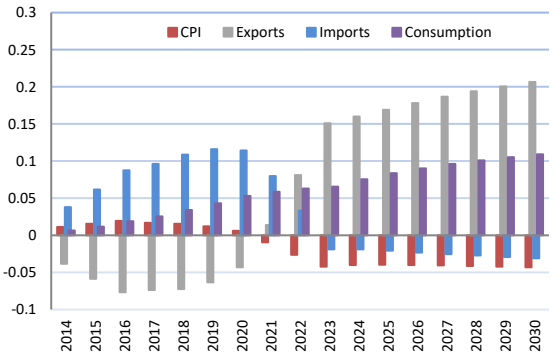


Figure 3: Impact on selected macroeconomic variables (% deviations from baseline)



The policy impact of this research

The results of this analysis are featured in the Impact Assessment of the ESF published on the 30th of May 2018 by the European Commission (2018) and accompanying the proposals for a regulation of the European Parliament and the Council on the European Social Fund Plus, ESF+, and on the European Globalisation Adjustment Fund, EGF (COM(2018) 380, COM(2018) 382, and SEC(2018) 273).

From a policy point of view it is important to quantify the multiplier of the ESF, namely its positive impact on GDP relative to its cost. The vertical bars in Figure 4 show the annual ESF expenditures (in millions of euro) relative to the annual GDP increase (in millions of euro) shown by the blue line. Our simulations suggest that by the end of the programming period the impact of the ESF is higher than its expenditure, giving thus a sign of a positive multiplicative effect. For instance by 2022, GDP will be higher by 10 billion euro relative to the baseline year, whereas ESF spending will be around 6 billion euro.

Looking at the immediate impact of a policy can be misleading as it ignores the cumulated impact on the economy over time. Thus we also report the cumulative spending multiplier which is defined as the discounted cumulative change of output relative to the discounted cumulative change in ESF receipts. In our simulation exercise the reported cumulative multiplier in 2023 is around 0.6 and increases further, even though ESF investment is discontinued, and becomes larger than 1 in 2030. The main reason behind this result is that ESF is human capital oriented and as such it takes time for its effect to diffuse in the economy, a common feature of supply-side policy interventions.

Figure 4: GDP impact (in millions of euro) relative to ESF commitments (in millions of euro)

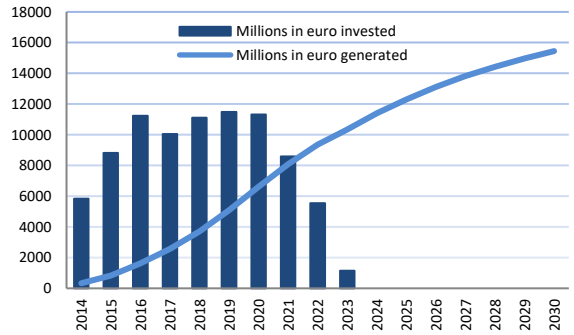
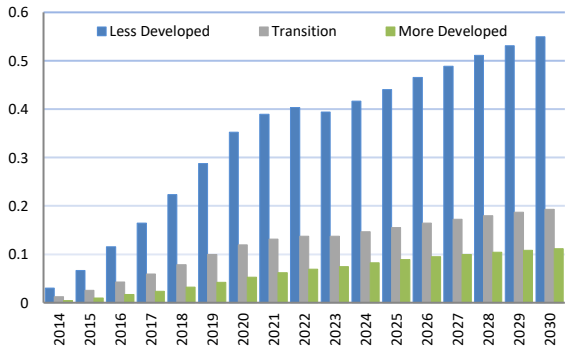


Figure 5 shows the average impact on GDP in terms of percentage deviations from its baseline value by regrouping all regions according to their level of the economic development: less developed, transition, and more developed regions. According to our simulations, less developed regions enjoy the highest increase in GDP (about 0.4% with respect to the base year value) by 2023, the end of the programming period. The impact is significantly lower for the other two groups of regions: 0.14% for regions in transition and 0.09% for more developed regions respectively.

Figure 5: GDP Impact per region group



4. Conclusions

The RHOMOLO analysis summed up in this Policy Insight concludes that the ESF exerts positive effects in terms of EU GDP growth and employment. The full analysis is available in Sakkas (2018).

However, this is not the sole issue of interest of such policy: the distributional effects of ESF also deserve to be considered. Future research could explore how ESF interventions could improve the economic outcomes for the lower parts of the income and skills distribution building on the existing evidence on economic inequality and its relationship with labour market outcomes.

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Read more

European Commission (2018). Impact Assessment accompanying the document Proposal for a Regulation of the European Parliament and the Council on the European Social Fund Plus (ESF+). SWD(2018) 289 final. Brussels, 30.5.2018.

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