How incentives for skilled-workers stimulate economic performance and employment level. Evidence from a CGE analysis.

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Over the last twenty years, industrial production in developed countries has experienced a profound transformation with a strong move towards higher digitalization and automation. Although with different magnitudes across countries and sectors, this process had a considerable impact on the sectoral capital-labour ratio and on the skill composition of labour demand (OECD, 2010). While the demand for low-skilled labour shrank (lowering low-skilled wages) high-skilled labour demand more than offset skilled labour supply causing the increase in skilled workers wages (Oesch, 2010). Empirical evidence seems to confirm the complementary between skilled labour demand and capital, and a substitutability between low-skilled labour demand and capital, however the determinants of low-skilled unemployment reduction should be investigated at national and sectoral level.

In this perspective, this article provides a model-based assessment of a specific employment policy for Italy, aiming at reducing the labour cost across sectors according to skills level. The employed model envisages an integrated structure combining a Computable General Equilibrium (CGE) model with a micro-simulation model. The CGE model is calibrated on the Social Accounting Matrix (SAM) for Italy and is the MAC18-CGE Model (Department of Economics and Law - University of Macerata), in which the market of labour is disaggregated according to the types of occupations, formal educational attainment, digital competences and gender and is not competitive. In other words, the rigidity of the market in wages formation contributes to generate involuntary unemployment among the different labour categories. The micro-simulation module allows accounting households€™ behaviour, which is differentiated according to the personal income tax breaks currently applied in Italy. The CGE model evaluates how the macroeconomic sectoral shock reverberates on the labour demand and ahead on the employment level. Then, the micro-simulation model shows how the changes in macroeconomic variables affect households€™ behaviour in terms of labour supply and consumption demand.