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A Quality Adjusted Labour Input Index of the European Union for a Better Understanding of Productivity Developments

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The paper describes the Quality Adjusted Labour Input (QALI) as implemented in a harmonised way for the EU, euro area and its countries. QALI is an index that measures the rate at which labour use in the economy changes over time considering two effects: the amount of labour (hours worked) and the composition of the workforce (in terms of educational attainment skills, age or skills-and-age).

The purpose of QALI is to provide a better estimation of the Labour Input that will help to improve our understanding of the developments of productivity. For instance, it is likely to overestimate the productivity of technological activities if underestimating the labour input by not considering the difference made by high skilled workers. Indeed, if not properly assessed, the misclassification of the high productivity of those workers as capital productivity is possible.

Data availability varies in every country. To compile a harmonised QALI, we combined macro-data from National Accounts (as a benchmark) and micro-data from the EU statistics of the Labour Force Survey, Structural Earnings Survey and the Survey on Income and Living Conditions, which is available for most countries (2002-2016). We had to convert some survey-based data of hours worked and earnings from NACE Rev.1.1 to NACE Rev.2. The industry breakdown varies depending on reliability/confidentiality constraints of the survey data from Totals of the Economy to A*21 industries.

Current developments include considering digital skills of the labour force to assess the feasibility of such indicators. The paper concludes on the relevance of indicators and the work ahead to transform the experimental results into quality assured official statistics.