The Impact of Self-employed on Productivity Measurement in the Netherlands

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This paper aims to discuss the several different estimates on labor income of self-employed, and present these estimates using (growth accounts) data on the Netherlands. Labor inputs of self-employed are an often overlooked part of productivity measurement. The reason is that explicit labor income is not measured in national accounts. What's more, their share of the economy was largely stable over time in developed countries, consisting of professions like medical professionals, retail shop owners and farmers. Over time, many developed countries including the Netherlands have seen a rise in numbers and in share of the work force. Their rise was largely attributable to the increasing flexibility of the economy. In the context of analysis of the labor share the subject does receive more attention, recent examples are Cette et al. (2020) and Mendieta-Munoz et. al (2021). In a more distant past Kravis (Kravis 1959) discussed the issue. In the context of productivity measurement ABS (ABS 2015) and OECD (OECD 2001) and Diewert (2008) discuss the issue of their labor inputs.

A proposal is made to classify the calculation of the labor income into three separate "families": direct calculation, imputation based on employee compensation and mixed-income based. Next to the labor income, a separate dataset on the background characteristics (industry, sex, age and level of education) of self-employed in the Netherlands is used to calculate the volume of their labor input. By using a growth-accounting framework, the impact on productivity measurement can be shown, through the contribution to output. Starting off with commonly used assumptions on their (imputed) labor income and volume worked, it is possible to show the impact of diverging estimates.

The labor income of self-employed not only impacts the contribution to output directly, but also impacts the contribution of capital to output when using an endogenous (ex-post) rate of return. The residual nature of the ex-post rate of return implies using labor income to establish the residual. I show and discuss the rates of return and capital shares when using the different results from the first part of this paper.

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