

The Dutch Growth Accounts – Measuring Productivity With Non-Zero Profits

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Although the usefulness of the neoclassical model is generally recognized, its assumptions are sometimes at odds with economic reality, especially in times of rapid technological progress. To avoid some of these assumptions, the Dutch growth accounts (official growth accounts of Statistics Netherlands) employ an exogenous rate of return to determine capital services. The neoclassical model is based on the assumptions of constant returns to scale and perfect competition. Both imply that businesses do not gain incomes in excess of production costs. In accounting terms this means that the operating surplus or mixed income must be fully allocated to either the user costs of capital or labour income of the self-employed. Since the labour income of the self-employed is usually estimated exogenously, an endogenous interest rate is required to balance the equation.

In contrast with the standard neoclassical model, the Dutch growth accounts employ an exogenous rate of return which is unrelated to operating surplus. As a result business revenues do not necessarily equal total cost. This inequality also holds for any aggregate of industries. For the calculation of aggregate figures, volume changes of inputs per industry are not weighted on the basis of output shares, which would imply a return to the neoclassical model, but instead by cost-shares. This deviation from the standard neoclassical model creates a new balancing item in the national accounts which is addressed as “net profit”. This balancing item is not found in the SNA. It is defined as the gross operating surplus less the user costs of capital. The paper illustrates the usefulness of the new net profit balancing item in productivity analyses, for example by investigating the effects of competition on the performance of different industries. Furthermore, analyzing developments in profitability on their own is equally informative.

Net profits represent to some extent the returns to those intangible capital categories not (yet) covered by the SNA framework. The Dutch growth accounts framework contains a so-called knowledge satellite account in which the SNA asset boundary is stretched to include the coverage of additional assets such as R&D, organisational structures and firm-specific human capital. The effects of expanding the asset boundary in the direction of additional forms of knowledge capital on net profits are illustrated in the paper.

This paper further describes the conceptual underpinnings of the Dutch growth accounts and provides an empirical analysis of productivity and profitability outcomes for the Netherlands. A

comparison will be made between the outcomes of the Dutch growth accounts and the neoclassical model. In the analysis we focus on the development of profits as an explanation for differences between the outcomes of the models. Furthermore, we will show how the outcomes of different productivity models may sometimes lead to different conclusions.