Does Output Influence Productivity? - A Meta-Regression Analysis

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April 12, 2017

Abstract

The goal of this paper is to conduct a meta-regression analysis (called MRA hereafter) regarding the effects of the 'Kaldor-Verdoorn effect' – the relation between output/demand and productivity. The Kaldor-Verdoorn effect was subject of many econometric studies and while the overwhelming majority finds a positive overall effect, there is no consensus on its size – the results are "all over the place".

MRA tries to shed light into this debate by treating results of past regression studies as individual entries which enables researchers to pool the analytical power of said studies in order to get a more detailed understanding of the mechanisms at work while also filtering for potential explanations of estimation results outside of the specified models.

MRA estimates a "true value' of the Kaldor-Verdoorn effect without interference from potential publication bias (also known as the "filedrawer problem") via the use of multivariate MRA. It is argued that "moderator variables" can be used to get a deeper understanding of the "political economy of publication", as there might be specific factors which influence the direction and overall strength of potential publication bias. A series of moderator variables is being used to check for their effect of excess variation, including amongst others the year of publication, academic journal, sources of funding, estimation method and the sectors and the countries studied.

This MRA study uses available data from 13 published studies with 118 estimations of the Kaldor-Verdoorn effect. While the literature regarding the Kaldor-Verdoorn effect covers well more than 120 publications the biggest part of them which was published between the 1950s and 1970s fails to present key statistical variables and could thus not be incorporated into this work. A key reason for this is the missing of econometric standards in said time period and the absence of powerful hard- and software that enabled researchers to create standardised regressions.