

PRODUCTIVITY AND MANUFACTURING: A TEST OF VERDOORN'S LAW

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INTRODUCTION

One of the most important factors to economic growth and lead to higher per capita income is that the industrialisation process. There is even evidence in most countries that manufacturing sector is an engine of growth. To what extent is the growth performance of South East Asian economies related to the industrial characteristics? More precisely, is there any discernible evidence that GDP growth and overall labour productivity growth of South East Asian countries is positively related to how fast their industrial sector is growing?

This paper aims to study and test the Verdoorn's law to South East Asian economic growth using the applied econometric technique of Seemingly Unrelated Regression Equations (SURE) technique. The purpose is to investigate whether the Kaldorian interpretation of the growth and development process is supported by data taken from the Asian Development Bank (ADB) on South East Asian economic growth. This should help us to understand whether the manufacturing sector has played a major role as an engine of growth as proposed by Kaldor. The study will cover the period of 1972 to 2002 for 5 countries, i.e., Indonesia, Malaysia, Philippines, Singapore, and Thailand.

VERDOORN'S LAW

Nicholas Kaldor is particularly recognised for his contribution to growth and development theory based on his challenge to the neo-classical theory of growth and distribution. In this sense, Kaldor forwarded more demand-orientated approaches, which recognises the endogeneity of factor supplies, and the openness of economies.

The second Kaldor growth law is also known as Verdoorn's law after the Dutch economist P.J. Verdoorn. The Verdoorn's formulation is

$$P_m = \alpha_4 + \beta_4 G_m + \varepsilon \quad (1)$$

where P_m is the rate of growth of labour productivity in the manufacturing sector.

Verdoorn's 1949 paper did not receive much attention until Kaldor presented his Inaugural Lecture in 1966. Kaldor ran two regressions on his data for 12 OECD countries. The first equation is (1) and the second is;

$$E_m = \alpha_5 + \beta_5 G_m + \varepsilon \quad (2)$$

since, $G_m = P_m + E_m$, where E_m is the rate of growth of employment in manufacturing².

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² This law can also be specified to include capital stock in order to reflect a production relation such as a form of technical progress function. This has been done in several studies such as Fingleton and McCombie (1998) and Leon-Ledesma (2000).