

Manufacturing and Economic Development

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From the middle of the nineteenth century onwards, the very concept of development came to be associated with industrialization. Manufacturing was rightly seen as the main engine of growth and development. In recent years, however, this concept has been challenged and questions have been raised concerning the continued importance of the manufacturing sector for economic development and catch up in developing countries.

In a previous paper (Szirmai and Verspagen, 1999) we have empirically and theoretically re-examined the role of manufacturing as a driver of growth during the last half century. Using a newly constructed panel data set with information about the shares of manufacturing in GDP for a sample of 68 developing countries and 21 advanced economies for the period 1950-2005, we tested the engine of growth hypothesis for different time periods and different groups of countries. The approach was to regress five year average growth rates on sectoral shares at the beginning of the five year periods, along with a set of control variables. Though there was some support for the engine of growth hypothesis in the overall sample, our results were ambiguous, especially when the sample was broken down by subperiods and regions.

In this paper we continue this line of research and we extend the analysis in two ways. First, we study a model of the relationship between the growth rate of GDP per capita and the growth rate of manufacturing value added. Following Fagerberg and Verspagen (1999), we use the instrumental variable/two-stage least squares method to estimate this relationship and test whether the coefficient of manufacturing growth is positive and whether it is larger than the share of manufacturing in GDP. Based on Cornwall (1977) a coefficient that is larger than the manufacturing share in GDP is seen as evidence in favour of the Engine of Growth hypothesis. The Fagerberg and Verspagen paper was based on data for 1973 to 1989 for a sample of 67 countries. The present paper extends the analysis to a far longer period 1950-2010 and expands the sample to 100 countries. One of the key questions to be examined is whether the role of manufacturing is becoming less important over time in the context of catch up.

Next, the paper focuses on the relationships between manufactured exports and economic growth. In this analysis our explanatory variables include the shares of manufactured exports in GDP at current prices, and the share of manufactured exports in total commodity exports. Control variables include population size, years of education per adult population, climate and policy indicators. We expect the relationship between export shares and growth to be stronger than the relationship between manufacturing shares and growth of GDP per capita. Secondary data on export shares are easily available for recent years, but much less so for earlier years. One of the contributions of this paper is to develop a comprehensive dataset of manufacturing growth rates and manufacturing export shares for the whole period 1950-2010 for a large sample of countries, which will complement our existing dataset on sectoral shares in GDP.

The paper starts with a review of the recent theoretical debates on the role of manufacturing and other sectors in economic growth. It continues with a discussion of data issues and the construction of the dataset. Subsequently regression analysis is applied to analyse the relationships between manufacturing export shares, manufacturing growth rates and per capita GDP growth for different time periods and different groups of countries.

References:

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