The Importance of Manufacturing in Economic Development: Has This Changed?

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Summary. — Manufacturing has traditionally played a key role in the economic development of developing countries. In recent years, it has been argued that the importance of manufacturing has diminished over the last 20–25 years, resulting in premature deindustrialization or non-industrialization in developing countries. This study explores whether the low levels of industrialization in developing countries are attributable to long-term changes in opportunities available to the sector around the globe. The study’s findings show that the manufacturing sector’s value added and employment contribution to world GDP and employment, respectively, have not changed significantly since 1970. The declining manufacturing value added and manufacturing employment share in many developing countries has not been caused by changes in the sector’s development potential but has instead resulted from a shift of manufacturing activities to a relatively small number of populous countries, thus resulting in a concentration of manufacturing activities in specific developing countries. As was the case in the last millennium, industrialization has continued to play a key role in the growth of developing countries, which have sustained rapid and long-term growth for the last 25 years. Achieving economic development by following the path of industrialization will likely remain important for low-income countries because they are able to take advantage of their backwardness relative to those countries which have already experienced rapid industrialization with a disproportionately large share of manufacturing activities, and could soon enter a mature stage of industrialization.

Key words — manufacturing, structural change, economic development, concentration

1. INTRODUCTION

The objective of this paper is to determine whether the importance of manufacturing in developing countries in terms of the sector’s development quality (manufacturing’s role as an engine of growth) and quantity (relative share of manufacturing value added and employment in GDP and total employment, respectively) has changed or not. Based on an assessment of these factors, the paper argues that the significance of manufacturing itself in economic development has not changed since 1970. Although the shares of world manufacturing value added and employment have not declined, a greater concentration of manufacturing activities in recent years has led to the decline of these shares in many developing countries.

With many developing countries experiencing premature deindustrialization, it has recently been argued that development through manufacturing growth has become a more difficult path for current developing countries to take (Eichengreen & Gupta, 2009; Ghani & O’Connell, 2014; Rodrik, 2016). This argument is largely based on the downward shifts of both manufacturing value added and employment share in GDP and total employment, respectively, across all income levels as confirmed in recent studies (Dasgupta & Singh, 2006; Ghani & O’Connell, 2014; Palma, 2007; Rodrik, 2016) and confirmed by this study (Figures 1 and 2).

It is not entirely clear, however, whether this trend is attributable to sector-specific, structural factors, which could have led to a decline in the manufacturing sector’s development quality, quantity or both, relative to other sectors. A decline of manufacturing value added and employment shares in many developing countries might also be caused by country-specific factors, such as the country’s policies and comparative advantages. If the relative importance of manufacturing in developing countries declined due to sector-specific factors or due to a long-term shift in world economic structure, developing countries should rebalance their development strategies and place less emphasis on manufacturing development than those countries that have industrialized in the past. In the case of the latter, i.e., when no change in the relative importance of manufacturing is recorded, the focus should be on policies to tackle opportunities and challenges—some of which may be new and specific to the currently developing countries due to a greater degree of globalization in the last 20 years. 2 Given recent discussions on premature deindustrialization and its implications for the sustained growth of developing countries, this paper contributes to a renewed understanding of the role of the manufacturing sector in economic development and in the economic policy of developing countries.

To achieve this objective, we evaluate whether the following two conditions hold or not.

A. Manufacturing is no longer the driver of economic growth in developing countries based on Kaldor’s formulation. 3

B. The share of manufacturing value added (MVA) relative to other sectors and employment has decreased significantly in developing countries.

The first condition (A) essentially examines whether the relationship between the share of manufacturing in the economy and economic growth is positive and stronger than the relationship between the share of other sectors and economic growth. The second condition (B) examines the relative size

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of MVA and manufacturing employment in the economy. For instance, even though manufacturing might be the main driver of economic growth (hence, the rejection of (A)), we can still consider a scenario in which manufacturing plays a less significant role in the economic development of developing countries than it previously has if its size decreased considerably. In fact, it is widely believed that manufacturing jobs are shrinking globally (Ghani & O’Connell, 2014). In turn, despite retaining the same size, manufacturing could be considered to play a less important role if it weakened the ability to boost economic growth.

If both (A) and (B) can be rejected, we may conclude that the importance of manufacturing in the growth of developing countries has not in fact changed. In that case, we could claim that premature deindustrialization is not caused by changes in the development characteristics of manufacturing—which might have diminished its role in economic development—but is attributable to the inabilities of some countries to develop their manufacturing sector relative to others.

Quite a number of studies have focused on the first condition (A). Hence, the relevant literature is reviewed to draw conclusions about Condition (A). In contrast, no studies have carried out a detailed comparison of the results between country average and world aggregate share of manufacturing employment. An econometric analysis will therefore be conducted to investigate the trends of country average and world aggregate share of MVA and manufacturing employment in order to draw conclusions about the second condition (B).

The paper is organized as follows. A theoretical discussion on manufacturing as the engine of growth is presented in Section 2. Section 3 reviews the literature to draw conclusion about Condition (A). In contrast, no studies have carried out a detailed comparison of the results between country average and world aggregate share of manufacturing employment. An econometric analysis will therefore be conducted to investigate the trends of country average and world aggregate share of MVA and manufacturing employment in order to draw conclusions about the second condition (B).

Figure 1. MVA share to GDP at constant prices (country average).

Figure 2. Manufacturing employment share to total employment (country average).

2. ARGUMENTS FOR ENGINE OF GROWTH

Almost no country has achieved and sustained a high standard of living without making significant developments in its manufacturing sector, except for a few oil rich countries and small financial havens (Chang, 2016). Kaldor (1967) empirically tested the manufacturing sector’s overriding influence on the rate of economic growth. He put forward various explanations on the special role of manufacturing for growth, including the sector’s high productivity (1967: 12), linkage effects (1967: 23) and demand effects (1967: 29). Various other authors have also emphasized these features and have linked them to manufacturing.

Manufacturing sector’s higher potential for productivity growth (Cornwall, 1977) benefits from the sector’s ability to achieve higher levels of capital accumulation, economies of scale and technological progress relative to agriculture and some services (Szirmai, 2013). Lewis (1954) asserts that while there is an unlimited supply of labor at subsistence wage levels, a capitalist sector can expand continuously by investing part of its profits until all the surplus labor has been absorbed. With each round of investment by the capitalist sector, more surplus labor is absorbed, thus increasing the sector’s total profits. As the capitalist sector expands with wages in the sector remaining at a subsistence level, the share of profits, savings, and investment in national income rises. Lewis argues that the class of industrialists plays a central role in expanding the capitalist sector because they are the ones who reinvest profits for productive use more than other classes; hence, expanding the capitalist nucleus—or industrial development—represents a path for capital accumulation and economic growth. In this process, capital accumulation in the capitalist sector may not necessarily increase labor productiv-
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