

## ESRC GPID Research Network Briefing Paper 9

# WHAT IS PREMATURE DEINDUSTRIALISATION AND DOES IT MATTER?

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### SUMMARY

This brief gives an overview of premature deindustrialisation: that fact that manufacturing or industry shares of employment or GDP have reached a peak at lower levels of per capita income today than used to be the case historically. This brief explores causes and implications of the phenomenon and questions that arise from it.

## About the GPID research network:

The ESRC Global Poverty and Inequality Dynamics (GPID) research network is an international network of academics, civil society organisations, and policymakers. It was launched in 2017 and is funded by the ESRC's Global Challenges Research Fund.

The objective of the ESRC GPID Research Network is to build a new research programme that focuses on the relationship between structural change and inclusive growth.

See: [www.gpidnetwork.org](http://www.gpidnetwork.org)

### THE DEVELOPER'S DILEMMA

The ESRC Global Poverty and Inequality Dynamics (GPID) research network is concerned with what we have called 'the developer's dilemma'.

This dilemma is a trade-off between two objectives that developing countries are pursuing. Specifically:

1. Economic development via structural transformation and productivity growth based on the intra- and inter-sectoral reallocation of economic activity.
2. Inclusive growth which is typically defined as broad-based economic growth benefiting the poorer in society in particular.

Structural transformation, the former has been thought to push up inequality. Whereas the latter, inclusive growth implies a need for steady or even falling inequality to spread the benefits of growth widely. The 'developer's dilemma' is thus a distribution tension at the heart of economic development.

## What is 'premature deindustrialisation'?

Structural change has long been associated with deindustrialization in advanced countries. This typically means that there is a focus on the shrinking proportion of industrial or manufacturing activity in GDP, employment, or exports. A key question is what drives such processes and if it matters. Kaldor in his detailed empirical investigation on the relationship between manufacturing and growth concluded the UK was experiencing 'premature maturity'. This concept referred to an experience whereby manufacturing has 'exhausted its growth potential before attaining particularly high levels of productivity or of average per capita income' (Kaldor, 1966, p. 102).

Such discussions were extended to developing countries in Palma (2005) and Rodrik (2015). This phenomenon, UNCTAD (2003), Palma (2005) and Rodrik (2015) have labelled as 'premature deindustrialization' with reference to developing countries, is that developing countries have reached 'peak manufacturing' in employment and value-added shares at a much earlier point than the advanced nations in terms of income per person.

## Two components

Premature deindustrialization is thus typically defined by two components: The first component is that 'peak manufacturing', or peak industry in employment or GDP shares (or export shares) has been reached and the inverted-U curve is now on the plateau or even the downswing of the curve. The second component is that that inverted-U curve is moving leftward over time. This means the point at which the inverted-U turns is, on average, lower in per capita income terms now than in the 1990s, which was already lower than in the 1980s (see Palma 2005).

## What are the causes?

There are differing views on the causes of premature deindustrialisation. Rodrik (2015) links

the phenomenon to trade liberalization over time and the impact of China's entry into manufacturing. One could also potentially add automation and technological change. Felipe et al. (2015) argue that premature deindustrialization is caused by the fact that large national increases in labour productivity have been counteracted by a shift of manufacturing jobs to lower productivity economies. So, the average employment share in manufacturing that could be achieved has fallen over time, and countries have experienced deindustrialization earlier than they used to. In short, the changes in supply chains and shift to lower productivity economies has spread manufacturing jobs more thinly, making it harder for individual countries to sustain high levels of manufacturing employment. They note that globally, employment in manufacturing shares as a proportion of GDP have changed very little in the last forty years. What has happened is that international competition has spread what manufacturing there is across more countries.

Palma (2005) argues that there are several other potential hypotheses (which are not mutually exclusive) that could explain the phenomenon observed: (i) it is due to a statistical illusion caused by contracting out of manufacturing jobs to services (for example, cleaning or catering); (ii) it is due to a fall in the income elasticity of manufactures; (iii) it is due to higher productivity growth in manufacturing; or (iv) it is due to outsourcing globally whereby manufacturing employment has fallen in Organisation for Economic Co-operation and Development (OECD) countries; (v) it is due to the change in policy regimes in OECD countries away from Keynesianism; or (vi) it is due to technological progress.<sup>1</sup>

## Does it matter?

The process of deindustrialisation begs the question is manufacturing 'special'? The importance of manufacturing is predicated on the work of Kaldor (1967) who sought to explain the economic development of Western Europe through

<sup>1</sup> Palma goes on to argue countries that have a commodity export surge or policy shift away from

Keynesianism have an 'additional degree' of deindustrialization.

the development of manufacturing, which he argued was the engine of growth for every country at every stage of economic development.<sup>2</sup> Kaldor posited that: economic development requires industrialization because increasing returns in the manufacturing sector mean faster growth of manufacturing output which is associated with faster economic growth. This is because backward and forward input–output linkages are strongest in manufacturing, and the scope for capital accumulation, technological progress, economies of scale, and knowledge spill-over is strong. Further, there is a strong causal relationship between manufacturing output growth and labour productivity because of a deepening division of labour, specialization and learning-by-doing, and the scope for productivity gains is large due to economies of scale. Rodrik (2013) shows that unconditional convergence is evident in manufacturing, meaning faster productivity growth the further away from the labour productivity frontier. Furthermore, returns to scale imply that as costs fall, demand rises for manufacturing goods (high-income elasticities of demand), triggering more manufacturing and higher incomes, more demand, and cost reductions. Rodrik (2015) further argues that most services are (i) non-tradable, and (ii) not technologically dynamic, and that (iii) some sectors are tradable and dynamic, but they do not have the capacity to absorb labour. Similar shortcomings can be observed about the manufacturing sector. A significant share of manufacturing is (i) non-traded (even though it is tradable) and (ii) much of manufacturing in developing countries is not technologically advanced (at least in relative terms to other modern sectors), and (iii) where some manufacturing sectors are technologically dynamic, they may not create much employment, as some service sectors do. This is especially true now that it is robots and machines that perform more factory work in the electronics sector. To achieve the goal of upgrading the economy and creating jobs, one should not overlook opportunities in other sectors. In short, there is a need to go beyond blue-collar jobs and manufacturing investment, and a need for

policies that boost and improve the quality of jobs and investment in the service sector.

## Questions arising

Whatever the causes of premature deindustrialization, it is empirically visible though a question remains as how or why it matters and if the service sector really is inferior to manufacturing output, employment, and exports. That said, in light of its visibility alone the dynamics of premature deindustrialisation warrant further exploration.

## References

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<sup>2</sup> In terms of empirical support for the importance of manufacturing see Duarte and Restuccia (2010).