

# Double Dividends and Mixed Blessings: Structural Transformation, Income Inequality and Employment Dynamics

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# Double Dividends and Mixed Blessings: Structural Transformation, Income Inequality and Employment Dynamics

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 **ABSTRACT** *This paper provides an introduction to a special section on structural transformation, income inequality and employment dynamics. The set of papers in the special section in different ways revisit the seminal works of Lewis, Kuznets and Kaldor in a contemporary context.*

 This special section focuses on structural transformation, employment, and inequality dynamics. The set of papers revisit in different ways the seminal works of the pioneers of what can be referred to as the ‘classical school’ of development economics. First, the work of W. Arthur Lewis, depicting the labour transition from ‘traditional’ or low-productivity sectors to ‘modern’ and high-productivity sectors (Lewis, 1954, 1955, 1979). Second, the work of Simon Kuznets, describing the inequality dynamics associated with the labour transition (Kuznets, 1955). Finally, the work of Nicholas Kaldor on the role of manufacturing as the engine of growth (Kaldor, 1957, 1966, 1967).

The papers in this special section address these issues in a rather different and contemporary context of economic development, characterised in different parts of the developing world by tertiarisation rather than industrialisation, by urbanisation without economic growth, and within a world economy where production is fragmented into global value chains. It is a context that changes the very meaning of economic development, from the ‘deep’ industrialisation of building entire domestic industries to a ‘shallow’ industrialisation without the building of major domestic industries and instead the development of domestic supplier firms to slot into global value chains (GVCs).

The papers in this special section were written for an Economic and Social Research Council (ESRC) Strategic Research Network workshop and presented in spring 2018. Our interest was driven by a sense that structural transformation (ST), in the classical sense of Lewis, Kuznets, and Kaldor, amongst many other pioneers of development economics, had been neglected in recent years in the development economics literature. We felt that echoing Lewis big ideas on major economic transformation needed far greater discussion in the contemporary context.

Although the importance of higher productivity is not disputed in neoclassical economics, the dominant one-sector model of economic growth (Solow, 1956), that focuses on incentives to save, to accumulate physical and human capital, and to innovate, takes no account of other policy-relevant dynamics such as intersectoral movements or changes in income inequality (Herrendorf, Rogerson, &

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Valentinyi, 2013). Further, we argue that a renewed focus on ST can give a fresh perspective on the growth–inequality–employment nexus and the dilemmas and trade-offs that emerge between these and which many developing countries still contend with at various levels of economic development many years after Lewis, Kaldor, and Kuznets were writing.

The papers in this special section revisit ST in the spirit of these pioneers of development economics, all of whom we think would appreciate the selection, and would probably raise an eyebrow at the contemporary phenomena this section highlights. That is, tertiarisation rather than the dominance of industrialisation, urbanisation without economic growth, and in the seeking of industrialisation without building major domestic industries and the fragmentation of global production into what Mayer and Phillips (2017) refer to as the ‘global value chain world’.

Lewis, Kaldor, and Kuznets illustrate, even at the time they were writing, the potential different approaches to thinking about ST. For instance, Lewis envisaged capital accumulation through the transfer of labour from the ‘traditional’ to the ‘modern’ sector, and how this process would sustain economic growth. Although the seminal work of Lewis is 60 years old, the model retains its relevance even today (see discussion of Gollin, 2014), not least as a heuristic device or even an ‘ideal type’ to compare to reality. Further, empirical support for the relevance of the ST-economic growth link is abundant (see, for example, Duarte & Restuccia, 2010; Herrendorf et al., 2013; McMillan, Rodrik, & Verduzco-Gallo, 2014), although different varieties of ST are evident, and can be progressive or regressive. McMillan and Rodrik (2011) for illustration find that ST can be growth-enhancing or growth-reducing, depending on the direction of the reallocation of labour echoing Lewis.

Kuznets too (1971, p. 1), writing almost fifty years ago, listed ST as one of the six features of ‘modern economic growth.’ Many of these aspects of Kuznets’ ‘modern economic growth’ suggest a broader conceptualisation of ST, including not only shifts between economic sectors and activities, but shifts between rural and urban ‘sectors’ in urbanisation, and changes in the level of integration into global production, all of which imply relative winners and losers within and between countries.

Even today, after rapid growth in East Asia and elsewhere in the developing world since the end of the Cold War, ST remains weak or elusive for some developing countries. For the poorest countries, ST has meant de-agrarianisation with tertiarisation, and even in many middle-income developing countries, industrialisation has stalled, and there are signs of ‘premature deindustrialisation’ and tertiarisation (see discussion of Felipe, Mehta, & Rhee, 2014; Palma, 2005; Rodrik, 2016), or Kaldor’s (1966) concept of ‘premature maturity’.

In light of the historical debates, and given the contemporary patterns of ST, we present this special section. The papers all focus on ST, although each takes a different lens. As a set, the papers here cover different dimensions of ST: movements between economic sectors, between different geographical areas, and consequences for income inequality, economic growth and employment in developing countries.

The first paper in the set, by Baymul and Sen, focuses on ST through movements of labour between economic sectors and the income inequality consequences of this. In doing so, the paper revisits the Kuznets hypothesis using economic sectors and datasets closer in some ways to what Kuznets (1955, p. 1) called his ‘pipe dream’. The Kuznetsian argument is that inequality is composed of between- and within-sector components, and in the early stage of economic development, inequality rises as labour moves from a low average income sector, with lower within-sector inequality – i.e. agriculture – to a higher average income with higher within-sector inequality; i.e. manufacturing.

Kuznets made use of time-series data for the US, the UK, and two German states, and point estimates for India, Puerto Rico and Ceylon for his ‘upswing’ in inequality, using urban and rural as ‘sectors’. His ‘downswing’ was based on an abstract arithmetic model and driven by politics (though this is often missed in interpretations of Kuznets which get reduced to the inverted-U curve as discussed in Kanbur, 2017). Baymul and Sen explore Kuznets’ thinking with the kind of data sets that Kuznets could only dream about. They use the economic sectors data from the latest version of the GGDC 10-Sector database (of Timmer, de Vries, & de Vries, 2015) and income inequality data from the latest UNU-WIDER World Income Inequality Database (WIID). Heterogeneity plays a novel role in their approach in that they differentiate between three types of countries – structurally

underdeveloped (where most people are employed in agriculture, typically low-income countries (LICs)), structurally developing (where the proportion of workers in services is higher than that in agriculture, though the share of workers in agriculture is still higher than that in manufacturing, typically middle-income countries (MICs)), and structurally developed (where the proportion of workers in manufacturing is higher than that in agriculture, typically high-income countries (HICs)).

It would be a surprise to Kuznets (and Lewis and Kaldor) that Baymul and Sen find that ST has been a labour transition from agriculture to services for many poor countries, rather than from agriculture to manufacturing. It would be particularly surprising to Kuznets that Baymul and Sen find that in the countries that have had a labour transition to manufacturing, it has been income-equalising, irrespective of the type of country Baymul and Sen specify. In short, manufacturing-led ST unambiguously reduces inequality.

In contrast, the labour transition to services is unequalising in structurally developing countries and equalising for structurally developed countries, which is closer to Kuznets' arguments because the inverted-U is evident for the services employment share and inequality. Lewis too may have been surprised, given that the Lewis model is predicated on a non-declining capital share which implies rising income inequality by empirical association (see Dao, Das, Koczan, & Weicheng, 2017) at least until the Lewis turning point is reached. Baymul and Sen conclude that this implies a 'double dividend' for manufacturing-led ST (something no doubt Lewis and Kaldor would celebrate), given that manufacturing is associated with not only sustained economic growth and job creation but also with falling overall inequality. Baymul and Sen (and no doubt the ghosts of Lewis, Kaldor, and Kuznets too) lament that the vast majority of LICs are on a different pathway of an unequalising labour transition from agriculture to services.

The second paper in this special section, by Castells-Quintana and Wenban-Smith, focuses on a different angle on ST, studying geographical 'sectors': urban versus rural. By doing so, the paper deals with the spatial aspects of ST, including urbanisation and urban concentration. In particular, the paper studies the link between urbanisation and economic growth, again resonating with Kuznets and Lewis. The paper is concerned with the phenomena of 'urbanisation without (economic) growth', which has been recently highlighted in the literature. The focus in the analysis is on the role of demography as a driver of urbanisation. The paper makes two new contributions to the debate. First, it provides a new theoretical model of urbanisation without growth based on population dynamics. Second, the paper connects the phenomenon of urbanisation without growth with other empirical findings, notably the rise of poor megacities and the recent slowdown of the speed of urbanisation alongside – paradoxically – the continued growth of the largest cities in sub-Saharan Africa. The model proposed by Castells-Quintana and Wenban-Smith describes internal migration, the evolution of the urbanisation rate, and that of total productivity, and how these are affected by population growth and investments in urban infrastructure. The model accurately predicts trends in the data, in particular, the phenomenon of urbanisation without growth and the rise of poor megacities. The authors note that in developing countries today, and in sub-Saharan Africa in particular, ST from rural to urban areas may not necessarily be associated with economic development; countries with a high population growth can instead face rapid urbanisation with falling productivity – urbanisation without growth.

Finally, the third paper in this special section looks at ST through a Lewisian lens and focuses on developments in manufacturing activities that are integrated into the GVC world. Pahl and Timmer's contribution is to assess whether a country's participation in GVCs is associated with employment creation and productivity growth in the formal (that is, the Lewisian 'modern') manufacturing sector.

GVCs have transformed the economic development options open to developing countries. An optimistic view (for example, Baldwin, 2016) is that it is no longer necessary to develop entire industries. Instead, countries may specialise in particular stages of production and simply slot into GVCs where they have developed, or can develop, domestic suppliers. The pursuit of exporting by way of GVCs has been very much promoted by international agencies (such as the World Bank, 2017) as the panacea for weak industrialisation in developing countries for the reason that information and communication technologies make exporting 'easy'.

The less optimistic perspective for developing countries is well illustrated in Shih's (1996) 'smile curve' which describes how higher value-added tasks are located at the beginning and end stages of GVCs, whereas much developing country activity is in lower-value added assembly tasks in the middle of GVCs (Mudambi, 2008; Shin, Kraemer, & Dedrick, 2012). Functional upgrading from assembly to product design or marketing, for example, is far from guaranteed (Gereffi, 1999). GVC participation may help initially with productivity growth and export growth, but long-run development may be stunted, especially so if technology reduces the demand for abundant unskilled labour in developing countries. In short, GVC participation may benefit a small group of firms who have the capabilities to enter global markets but with limited job creation or a skills-bias. GVC participation, as Pahl and Timmer refer to, thus may be a 'mixed blessing'.

Pahl and Timmer compile a new long-run data set of input–output tables in the vein of Chenery et al. (1986) for 1970–2008 and find support for the 'mixed blessing' hypothesis. They make use of novel measures of domestic value added and employment generated by exporting, and relate them to GVC participation. They find strong evidence of the positive impacts of GVC participation on productivity growth in formal manufacturing but no evidence for a positive impact on employment generation. Pahl and Timmer hypothesise that this is because of an unskilled labour bias in modern technologies that is diffused through modern manufacturing firms who participate in GVCs. They further note that at the productivity levels that are characteristic of MICs, employment growth turns significantly negative.

In short, Pahl and Timmer conclude that on average, GVC participation is a mixed blessing for long-term development of poor countries. This finding does not preclude the possibility that GVC participation has been growth-enhancing for some countries in particular periods. However, it does point to the fact that there are many cases in which GVC participation may have engendered a modern sector expansion with little job creation (leading Lewis to turn in his grave, one would think).

In sum, as a set of papers, the authors in our special section point towards three conclusions. First, there is heterogeneity in pathways of ST or *varieties* of structural transformation, rather than simply the classical movement of economic activity from agriculture to manufacturing and in due course, at maturity (ideally), to services. Second, those varieties can take progressive and regressive forms: ST with or without employment growth, and ST with rising or falling inequality. Finally, the less progressive forms of ST are clearly evident empirically in many contemporary developing countries, including unequalising tertiarisation, urbanisation without growth, and the expansion of the modern sector without job creation.

What would Lewis, Kaldor, and Kuznets make of these findings if they were alive today? They would have been surprised at the persistence of economic dualism some fifty to sixty years after their writings; baffled that tertiarisation had become the default pathway for many developing countries; and taken aback by the fact that the very idea of deep industrialisation had shrunk to specialisation in a limited set of production tasks in a GVC world. In addition, it is certain that they would advocate further development of new models and theories that can explain these new findings. We hope that this special section serves as a new impulse on the study of structural transformation, the different paths of economic development that developing countries experience today, and on the implications of these different paths for economic growth, inequality, and employment.

#### Disclosure statement

No potential conflict of interest was reported by the authors.

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