ESRC GPID Research Network Working Paper 1

THE DEVELOPER'S DILEMMA:

THE INEQUALITY DYNAMICS OF STRUCTURAL TRANSFORMATION

AND INCLUSIVE GROWTH

Author(s):   Andy Sumner

Date: 29 September 2017

Affiliation(s): King's College London

Email(s):   andrew.sumner@kcl.ac.uk

ABSTRACT

This paper outlines a distributional tension which we label as the 'developer's dilemma'. Specifically, the tension or dilemma is that developing countries are pursuing two potentially conflicting developmental objectives. The first is that of economic development which requires structural transformation and productivity growth via intra- and inter-sectoral reallocation of economic activity. The second is that developing countries are also seeking some form of broad-based or 'inclusive growth' which can be defined in various ways, typically in terms of who benefits from growth and by how much. The former, structural transformation, has historically been thought to have a tendency to push up inequality as Arthur Lewis and Simon Kuznets originally posited. The latter, inclusive growth, on the other hand implies a need for steady or even falling inequality to spread the benefits of growth as broadly as possible. The purpose of this paper is as follows: (i) to set out the components of the developer's dilemma in terms of the concepts of structural transformation and inclusive growth and their meanings; (ii) to situate those concepts in a model of economic development appropriate for the study of the developer's dilemma by revisiting the seminal works of Lewis and Kuznets; and (iii) to outline an indicative set of questions for a future research agenda on the inequality dynamics of structural transformation and inclusive growth and in doing so contextualise Lewis and Kuznets to contemporary times to take account of multiple forms and dimensions of structural change, not least 'premature deindustrialisation' and circular (back-and-forth) or 'commuting' labour movements; as well as non-farm rural income; the growth of inter-sectoral resource flows via remittances and the multiple dimensions of inclusive growth among other factors.

KEYWORDS

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

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.

1 INTRODUCTION

Developing countries have two broad objectives. First, developing countries are seeking economic development which requires structural transformation and productivity growth via intra- and inter-sectoral reallocation of economic activity. Second, at the same time, developing countries are also seeking some form of broad-based or 'inclusive growth' which can be defined in various ways, typically in terms of who benefits from growth and by how much. There is a 'developer's dilemma' in that structural transformation has historically been thought to have a tendency to push up inequality as Arthur Lewis and Simon Kuznets originally posited, though they differed to some extent on whether this is inevitable and what the counter-veiling forces are. On the other hand, inclusive growth implies a need for steady or even falling inequality to spread the benefits of growth as broadly as possible. In short, the developer's dilemma is a distribution dilemma or tension at the heart of economic development. Empirical support for this developer's dilemma was originally offered in Sumner (2016) and then unambiguously offered by Baymul and Sen (2017), based on thirty-two developing countries for the post-1950 period.[1] Given the empirical support for the developer's dilemma, how are countries to manage the tension and what are the experiences of countries who have managed the tension?

The purpose of this paper is three-fold. First, to outline the components of the developer's dilemma in terms of the conceptual points of departure of structural transformation (ST) and inclusive growth (IG). Second, to situate those concepts of ST and IG in a model of economic development appropriate for the study of the developer's dilemma. It is argued is the Lewis dual economy model of economic development suits this purpose and proposes its use as a heuristic device to connect ST and IG in the transition from a 'traditional' society to a 'modern' society. Third, to outline an indicative set of questions for a new research agenda and in doing so contextualise Lewis and Kuznets to contemporary times to take account of

---

[1] Baymul and Sen (2017) make use of the Groningen Growth and Development Centre (GGDC) 10-Sector dataset and the United Nations University World Institute for Development Economics Research (UNU-WIDER) World Income Inequality Database (WIID) (forthcoming) standardized dataset. They find that: (a) a movement of workers away from agriculture is unambiguously associated with rising income inequality. However, (b) in most cases, structural change of employment is from agriculture to services, not agriculture to manufacturing.

multiple forms and dimensions of structural change, not least 'premature deindustrialisation' and circular (back-and-forth) or 'commuting' labour movements; as well as non-farm rural income; the growth of inter-sectoral resource flows via remittances and the multiple dimensions of inclusive growth.

The core arguments of the paper are as follows: first, that both ST and IG have tended to be defined in a reductionist sense, in a way that disconnects the two concepts (in fact those who study one would, most likely, not study the other). It is posited that by defining ST solely by shares of gross domestic product (GDP) or employment, more important aspects of ST are neglected. In a similar vein, by defining IG as the reduction of absolute poverty (or the consumption or income of the poorest only) and—sometimes—by changes in individual income inequality, other aspects of IG, notably capabilities, inequality of opportunity and importantly, employment have been neglected. Second, that the work of pioneering development economist, W. Arthur Lewis and the Lewis dual economy model provide a useful heuristic device for thinking about the developer's dilemma and the relationship between ST and IG. Further, although Lewis did not ignore inequality, the seminal work of Simon Kuznets, and those writing in the Kuznetsian tradition, who have implicitly used a dual economy model, are useful to revisit in order to understand the inequality dynamics of the transition from a traditional to a modern economy though Kuznets and Lewis need to be contextualised to take account of multiple forms of contemporary structural change, not least 'premature deindustrialisation' and circular (back-and-forth) or 'commuting' labour movements; non-farm rural income; the growth of inter-sectoral resource flows via remittances and the multiple dimensions of inclusive growth.

The paper is structured as follows: Section 2 and 3 discuss the conceptual components of the developer's dilemma - the concepts of structural transformation and inclusive growth -, and their meaning. The thesis of this section is that important aspects have been neglected in the reductionist definitions of ST and IG. Further, ST and IG have been considered separately, rather than as interconnected phenomena. Section 4 situates the concepts within the transition as outlined by Arthur Lewis, and the application by Simon Kuznets of income inequality dynamics within the transition. The former, the Lewis model, postulates that the transfer of labour from low productivity to higher productivity activities and sectors as the key driver of

economic development.[2] The latter, the Kuznets hypothesis on rising inequality during structural transformation implies a pattern of growth that constrains income/consumption gains at the poorest end of the distribution. Empirically, the Kuznets hypothesis has been generally rejected in cross-sectional data, though it has seen an empirical resurgence in recent time-series data for fast-growing developing countries where growth and structural transformation are evident (see above references). Various contemporary authors writing in the Lewis/Kuznets tradition are discussed. Finally, Section 5 concludes and establishes a set of indicative questions for a future research agenda to generate new knowledge on the inequality dynamics of structural transformation and inclusive growth.

2 Structural transformation: conceptual points of departure

2.1 Overview

The purpose of this section is to discuss first, what might be called the dominant definitions of both core concepts, ST and IG. The thesis of this section is that such definitions neglect deeper aspects of ST and IG, and that, in doing so, they disconnect the concepts of ST and IG, thus delinking poverty, inequality, and capital accumulation. The sub-structure of this section is as follows: this overview is followed by a discussion of the meanings of ST and IG. This is succeeded by a proposal for alternative definitions of ST and IG which link the two conceptually. In short, the thesis of this section is that the two conceptual aspects of the 'developer's dilemma' have been historically approached in a more reductionist sense and treated as analytically separate. Consequentially, the relationship between ST and IG has not been teased out in greater depth.

2.2 Structural transformation: definitions

The purpose of this section is to critically discuss different definitions of ST. In considering the conceptualization of ST, one is pushed to consider ST from what, to what, and in what

---

[2] It is not given that structural change *will* always be growth-enhancing as Diao et al. (2016) note, and Baymul and Sen (2017) concur.

direction, and the possibility of multiple and co-existing/co-evolving transitions beyond that of a shift from the 'traditional' or agriculture or rural or informal sector to 'modern', manufacturing, urban or formal sector. The thesis of this section is that dominant approaches to defining ST have generated understandings based largely on sectoral shares of GDP and employment. Yet, the broader set of structures related to the factoral composition of growth, labour productivity, and international trade are as important in garnering a deeper understanding of ST. One could potentially draw the net even wider to include political and social institutional change.

First, we consider the neglect of ST in developing countries (relative to the attention to IG). It is reasonable to say that structural transformation—in the first instance meaning the reallocation of economic activity not only between, but also within, sectors towards higher productivity—has been neglected at least relative to the attention to IG with reference to developing countries. [3] Although the importance of the shift to higher productivity is not disputed in neoclassical economics, a one-sector model of economic growth has become standard in macroeconomics. In this one-sector model of economic growth one abstracts, meaning does not take account of, the process of inter-sectoral reallocation of economic activity or structural transformation. This is because in the neoclassical growth model (of Solow 1956) growth is driven by incentives to save, accumulate physical and human capital, and innovate. In contrast, for more heterodox economists, growth is due to reallocation of economic activity to more productive sectors or more productive sub-sectors.

In some ways, this debate is embedded in historic discussion on the need or not for 'balanced growth' across sectors. [4] Regardless of whether growth should be balanced or not, ST in itself is an important driver of growth because of (often dramatically) differing productivity levels between and even within sectors. Though whether productivity can be accurately measured is

---

[3] See Herrendorf et al., (2013), and earlier reviews of structural transformation, notably Matsuyama (2008); Ray (2010); Greenwood and Seshadri (2005). One can also note the works of Clark (1957), Chenery (1960), Kuznets (1966), and Syrquin (1988).

[4] On balanced growth, the key seminal (and first) promoter of this idea was Rosenstein-Rodan. Scholars are/were divided on the need to which growth should be balanced. For example, Singer and Hirschman both argued that growth need not take place in an inter-sectorally balanced way. In contrast, Kalecki (1954; 1955; 1967) argued 'balanced development' in the agriculture and industrial sectors is required. Kalecki argued the inter-sectoral terms of the trade between the agriculture and industrial sectors need managing so that the terms of trade do not undermine agriculture which provides food, and failure to do so would slow down industrialization as it would depress real wages in industry and profits. Lewis also noted that 'In unenlightened circles agriculture and industry are often considered as alternatives to each other. The truth is that industrialization for a home market can make little progress unless agriculture is progressing vigorously at the same time, to provide both the market for industry, and industry's labour supply. If agriculture is stagnant, industry cannot grow....' (Lewis 1953, cited in Kanbur 2016, p. 6).

contested by Fischer (2011) who refers to a 'fallacy of productivity reductionism' which is the assumption that productivity can be measured in a complex economy. Measuring productivity relies on value-added account data, but such data is a combination of output and prices/wages. So, most measurements for productivity show *price or wage differentials* not actual effort, output, or skill. This is an even bigger problem in the service sector as the comparability of services is more problematic because they are not physical goods that can be compared. Fischer (2014) also notes another problem that because transnational companies (TNCs) – who dominate production and its coordination in global value chains – conduct practices such as transfer pricing and the transferring of profits from Southern subsidiaries to Northern HQs (for example, low-interest loans from subsidiary to parent company) could make the subsidiary look less productive. These are clearly important issues that are not easily resolved but should not be forgotten.

If one assumes for the sake of continuing further that productivity can be measured albeit imperfectly, McMillan and Rodrik (2011, 1), taking sectoral and aggregate labour 'productivity' data empirically, show that the transfer of labour and other inputs to higher productive activity is a driver of economic development as Lewis hypothesized.[5] They note:

> *One of the earliest and most central insights of the literature on economic development is that development entails structural change. The countries that manage to pull out of poverty and get richer are those that are able to diversify away from agriculture and other traditional products. As labour and other resources move from agriculture into modern economic activities, overall productivity rises and incomes expand. The speed with which this structural transformation takes place is the key factor that differentiates successful countries from unsuccessful ones.*

They go on to note that ST can in fact be growth-enhancing or growth-reducing depending on the reallocation of labour.[6] This is an important point and relates to the multiple modes of ST

---

[5] For a contrarian view see Roy (1951). Specifically, the causality could run from growth to ST, meaning ST is an outcome of growth not a cause of growth; what appears to be sectoral differences in productivity are not necessarily due to sectors (but could be skills for example); further that inter-sectoral relocations may occur without changes in productivity gaps between sectors. One needs to show not that incomes are higher in urban than in rural areas (or different sectors) but that the income of the same individual would be higher in an urban area than in a rural area if they migrated. Importantly, if Roy (1951) is correct then the transition of labour from low productivity to higher productivity sectors will not reduce inequality; rather, it will increase it because the same person would earn less in the high productivity sector.

[6] McMillan and Rodrik (2011) find that countries with a large share of exports in natural resources tend to experience growth-reducing structural transformation and, even if they have higher productivity, cannot absorb surplus labour from agriculture. In a similar vein, Gollin et al. (2016) too argued that natural resource exports

and direction between sectors which may be regressive as well as progressive in the sense of productivity gains or losses. They show how ST had been growth-enhancing in Asia because labour has transferred from low to higher productivity sectors. However, the converse is the case for sub-Saharan Africa and Latin America because labour has been transferred from higher to lower productivity sectors and this has reduced growth rates.[7]

Is manufacturing 'special'? 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 foods (high-income elasticities of demand), triggering more manufacturing and higher incomes, more demand and cost reductions. Many such as Rodrik (2015) argue that most services are (i) non-tradable, and (ii) not technologically dynamic, and (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). (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 more factory work in electronics is done by robots and machines. Developing the manufacturing industry is important, but one should be careful of 'industrial fundamentalism'. 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 which boost and improve the quality of jobs and investment in the service sector.

Others, such as Herrendorf et al. (2013), concur empirically with the argument that the sectoral composition of economic activity is key to understanding not only economic development but also regional income convergence, productivity trends, business cycles, and

---

drive urbanization without structural transformation because natural resources generate considerable surplus which is spent on urban goods and services, and urban employment tends to be in non-traded services. McMillan and Rodrik also find that an undervalued (competitive) exchange rate, which operates effectively as a subsidy on industry and labour market flexibility (so labour can move across sectors and firms easily), leads to growth-enhancing structural transformation.

[7] In a similar vein, Daio et al. (2017) argue that the most recent growth accelerations in the developing world, unlike East Asia's historical experience have not been driven by industrialization but by within-sector productivity growth (in Latin America) and growth-increasing structural transformation, but this has been accompanied by negative labour productivity growth within non-agricultural sectors (in Ethiopia, Malawi, Senegal, and Tanzania).

inequality in wages. This echoes Kuznets (1971, 1), who, writing almost fifty years ago, listed a high rate of structural transformation as one of the six main features of 'modern economic growth' which he said included that,

> *[t]he rate of structural transformation of the economy is high… [and] [m]ajor aspects of structural change include the shift away from agriculture to non-agricultural pursuits and, recently, away from industry to services; a change in the scale of productive units, and a related shift from personal enterprise to impersonal organisation of economic firms, with a corresponding change in the occupational status of labor.*

Many of the other features of 'modern economic growth' outlined by Kuznets relate to a broader conceptualization of ST beyond GDP and employment shares alone. Changes in societal structures, many of which are related to ST, such as urbanization and technological progress were also included in Kuznets' conceptualization. This raises the question of definitional scope noted at the outset of this section, and the structural change *of what, between what and in what direction* which we turn to next.

Kuznets (1971, 348) made a case that ST was a much broader societal process as it was embedded in societal change beyond economic structure alone. ST could be extended to population, legal, political, and social institutions, social ideology, and beliefs, and such shifts were pre-requisites for the 'modern economic growth' he outlined. This argument also resonates with the 'special case' outlined by Dudley Seers (1963). Seers outlined the 'highly special case' of advanced countries. One could call such countries the 'arrived' cases of ST (with caveats for the socio-economic problems in advanced countries). Seers went beyond a definition of ST based solely on shares of GDP and employment. The characteristics set out by Seers of the 'special case' remain an enduring set of features that define an advanced economy or an 'arrived' case in terms of ST (and indeed, IG, given the aspects of poverty and inequality noted).

In terms of the structural transformation of the economy, foreign trade, and other matters, Seers (1963, 81–3) identified the following list (summarized here) to demonstrate how one might differentiate developed nations from developing nations: by factors of production (a literate and mobile labour force who are mostly in employment; substantial quantities of skilled labour; most available land cultivated; all sectors heavily capitalized, with spare capacity; comprehensive transport and power systems; a favourable climate for enterprise;

firm legal basis for companies); by sectors of the economy (for example, agriculture wholly commercial; mining of limited size; manufacturing diversified and much larger than either agriculture or mining); by public finance (for example, reliance on direct taxes; tax laws enforceable; big outlays on social security and agricultural subsidies); by foreign trade (exports that have a large internal market and are sold to many countries with high price and income elasticities; imports largely of primary products and income elasticity of demand not high); by household consumption (for example, very few people below subsistence level and a moderately equal distribution of income post-tax; food not the overwhelming majority of household expenditure); by savings and investment (for example, well-developed financial intermediaries; significant personal savings and high investment); and by 'dynamic influences' (no chronic tendency to deficits; slow population growth and high urbanization). In short, this resonates with Kuznets (and Polanyi) and an embedding of ST in broader societal social, political, and economic change. Seers, however, argued that the ST or development of the advanced countries was a special case and not a general one that could simply be reproduced.[8]

More recently, resonating with Kuznets and Seers thinking on ST, Pritchett et al. (2010, 3–4) conceptualized 'development' in a broader way, as follows:

> *When people speak of the 'development' of societies most people refer, implicitly or explicitly, to a cumulative historical process whereby economies grow through enhanced productivity, prevailing political systems represent the aggregate preferences of citizens, rights and opportunities are extended to all social groups, and organisations function according to meritocratic standards and professional norms (thereby becoming capable of administering larger numbers of more complex tasks). A given society undergoes a four-fold transformation in its functional capacity to manage its economy, polity, society and public administration, becoming, in time, developed.*

---

[8] Seers (1963, 79–80) noted the 'special case' of 'First World' or developed industrial economies as, 'by no means typical… [and] it is [an] extremely rare' and developing countries as 'largely unindustrialised economy, the foreign trade of which consists essentially in selling primary products for manufactures'. He argued that orthodox economics pays too little attention to the role of the export sector and that developing countries cannot be understood without reference to the global economy, and how the public sector automatically compensates for fluctuations in the private economy in industrial economies, which is much harder or impossible for developing countries he argued.

Of course, one cannot deny that ST is a much broader process and economic ST is interwoven into socio-political institutions. However, there is the usual trade-off of excessively broad definitions (everything is ST) versus narrower definitions (ST is economic in nature) which are manageable for analysis. Even if one decides to focus on economic ST alone, a set of methodological questions arise. Syrquin (2007) briefly identifies such questions and they include defining what is meant by 'sectors' and thus what ST means (inter- or intra- depends on the breadth of definitions of sectors) and the blurring between 'services' and 'manufacturing' due to technological advances and outsourcing (see earlier discussion on 'premature deindustrialization'). Furthermore, it is necessary to discuss the related changing nature of industrialization itself in developing countries and globally. Industrialization used to mean vertically integrated national economic development to be realized in domestic industry building, but over time industrialization has come to mean horizontal integration into global value chains via foreign direct investment. Thus, the meaning of what is to be achieved in industrialization has changed as has the actual ownership of capital which is not inconsequential. The changing nature of industrialization is of relevance as assessments of ST tend to overemphasize shares of GDP and employment and pay limited attention to the questions of ownership and the national capture of economic value added.

In sum, one could say that a conceptualisation of ST has three discernible dimensions framed around a shift towards higher productivity activities. These are sectoral, factoral, and integrative. The first is the sectoral aspects of ST and is about the inter- and intra-reallocation of sectoral activity towards higher productivity. This includes the common measures of ST, notably shares of GDP and employment. However, ST may not only be agriculture to industry or manufacturing, but agriculture to services or other sectors (see later on the modes of sectoral ST). The second is the factoral aspects of ST and is about the composition or drivers of economic growth in terms of a shift of factors of production towards higher productivity activities. Underlying this are questions of demography too with reference to labour. Third, there are the integrative aspects of ST. This is the extent of integration in terms of the global economy and a shift from adverse incorporation—trade deficits and capital inflows that come with liabilities (for example, profit repatriation or debt repayment)— towards trade surpluses and capital outflows. Here the changing nature of global capital accumulation is important.[9]

---

[9] Singh (1977) for one argued that one should look beyond the share of manufacturing in GDP or employment and towards shares of external trade. Singh (1977) notes, 'given the normal levels of the other components of the

3 Inclusive growth: conceptual points of departure

The purpose of this section is to critically assess different meanings of IG. The thesis of this section is that common approaches to defining IG have generated limited understandings to those based largely on absolute poverty lines and—sometimes—on reductions in inequality of outcomes. Instead, it is argued that a broader set of measures are important in garnering a deeper understanding of IG and to conceptually link IG to ST. The sub-structure of this section is as follows: we discuss first, in this section, the over-emphasis given to IG in developing countries, (relative to the neglect of ST), albeit defined in a narrow way. Research has tended to show almost all growth to be, at least minimally, inclusive, although there are emerging signs that some are empirically questioning this once again (for example, Shaffer 2016; Sen 2014). Second, we discuss the basic dimensions for conceptualizing IG in terms of who to include, how much, and in what way (though this latter dimension is implicitly material- or consumption-based now or at some point in the future). There is the further question of who decides who to 'include' and on what terms which relates to the social structure supporting and sustaining capital accumulation.

First, we discuss the substantial attention to IG in developing countries (certainly relative to ST) demonstrated by the sheer volume of literature, and how this has tended to show growth in general *is* inclusive at least in a minimal way. In contrast to ST, IG has received a considerable amount of attention in academic (and policy) literature, albeit among a different scholarly community (one who works on poverty and inequality issues rather than on economic development, ST, productivity, and growth per se). IG, like ST has a lengthy genealogy with an evolutionary path into the contemporary concept of IG. IG is a term which some associate with the World Bank, though the use of the term need not be, as we shall come to see shortly.

---

balance of payments, we may define an efficient manufacturing sector as one which (currently as well as potentially) not only satisfies the demands of consumers at home, but is also able to sell enough of its products abroad to pay for the nation's import requirements. This is, however, subject to the important restriction that an 'efficient' manufacturing sector must be able to achieve these objectives at socially acceptable levels of output, employment, and the exchange rate…. In operational terms, a structural problem can arise in this sense, if the manufacturing sector, without losing price or cost competitiveness, is unable to export enough to pay for the full-employment level of imports.'

GPiD Global Poverty & Inequality Dynamics *Research Network*

There has, without a doubt, been a substantial amount of attention given to IG in developing countries. Historically, the interest in the broad area—defined as who benefits from growth and by how much—grew from debates in the early 1970s that were critical of the then distribution of the benefits of growth (for example, Adelman and Morris 1973; Chenery et al. 1974). Such issues received a lot of attention in the late 1990s through to the mid-2000s under different but related terms. For example, 'growth with equity', drew on critical debates on East Asian development (see for example, Fei et al. 1979; Jomo 2006; World Bank 1993). Then 'growth with equity' was supplanted by the label of 'pro-poor' growth (see for example, Besley and Cord 2006; Grimm et al. 2007; Shorrocks and van der Hoeven 2004) that in turn was supplanted by the term 'inclusive growth' (see Ali and Zhang 2007; Klasen 2010; McKinley 2010; Rauniyar and Kanbur 2010) which became the umbrella term for considering who benefited from growth.[10]

The different labels entail some differences. For example, 'growth with equity' was typically defined as growth where inequality does not rise or may even fall (and is a term associated with World Bank 1993). In contrast, 'pro-poor growth' was taken to be absolute pro-poor growth if growth was accompanied by a falling poverty headcount (or rising incomes of the poor by a poverty line or fractile line), or relative pro-poor growth if that fall in poverty headcount was accompanied by falling inequality of outcome (see discussions in Kakwani and Pernia 2000; Ravallion 2004).

In contrast, 'inclusive growth' was framed as poverty reduction both in monetary and non-monetary terms. This entailed the participation of the poor or a broader group beyond just the poor in growth processes, via employment and the expansion of capabilities (in terms of public good access) which reduced poverty and potentially reduced the inequality of opportunity and/or inequality of outcomes.

The body of literature discusses above provides the empirical basis for a generally accepted notion that economic growth *is* inclusive in a general sense: on average, the poverty headcount falls and the incomes of the poorest rise in line with average income growth (see Dollar and Kraay 2002; Kraay 2006; Dollar et al. 2013). However, two recent contributions have reopened this debate. First, Shaffer (2016) notes that in 10–15 per cent of episodes of growth, absolute poverty actually rises with per capita growth and he connects this with

---

[10] The term 'shared prosperity', is one more label sitting under the umbrella of 'inclusive growth'. It is a term again is associated with the World Bank (for example, World Bank 2016) though it need not necessarily be.

historical debates on 'immiserizing growth' which is a term which was used (see Bhagwati, 1958) to demonstrate export-led growth could lead to a country being worse off due to changes in the terms of trade. Here it refers to growth accompanies by increasing poverty.

Second, Sen (2014) concurs with this, finding that there are a surprising number of growth episodes that are not inclusive based on 'traditional' interpretations of IG (that of falling poverty with or without non-rising inequality). Sen separates types of growth episodes between 'growth acceleration' and 'growth maintenance' and finds that the former is much less likely to benefit the poor than the latter. Sen argues that this is because the institutional factors that lead to growth accelerations are different from those that lead to growth maintenance.[11] This suggests that during periods of growth potentially when sectoral ST is most rapid—a growth acceleration episode—IG may suffer and only recover when or if that growth acceleration becomes a growth maintenance episode and institutional arrangements change. This points towards a well-noted argument, even in the traditional IG studies, that the average inclusivity of growth can be misleading as it is subject to enormous variation across countries and highly sensitive to where the poverty line is set (see also discussion of Edward and Sumner 2015; Sumner 2016). Much of the debate turns on whether inequality is high or rising, as high and rising inequality can hamper not only poverty reduction but also future growth prospects, which can impact future poverty reduction.[12] This brings us to our second question and a taxonomy of IG.

If we turn next to the basic dimensions for conceptualizing IG in terms of who to include, how much, and in what way (implicitly current or future consumption), it is immediately evident that the debate about the distributional pattern of growth raises a number of normative issues: should the poor (by whatever poverty line) see their standards of monetary and non-monetary living improve more than the non-poor? If so, where to draw the poverty line? Or should the line be at median consumption or even at $10 per day which is a line associated with permanent escape from the risk of falling back into poverty (see López-Calva and Ortiz-Juarez 2014)? That level of daily consumption would capture most of the population of many

[11] In fact, the average relationship during a growth acceleration episode was negative for the poorest quintile (and on average the Gini coefficient rises) and the poorest 20 per cent were worse off in a range of countries including Bangladesh, China, and Nigeria, each home to large populations of the world's poorest. In contrast, during a growth maintenance episode the income of the poorest quintile, on average, rises and the Gini falls.
[12] The debate in the literature on the relationship between inequality and growth received a detailed review in Cunha Neves and Tavares Silva (2014). Although numerous methodological issues remain, inequality may support growth at low levels of average income, but rising or high inequality can hamper growth at middle-income levels.

developing countries. Then once the line is taken and a normative decision is made to favour those below the line more so than above the line, what are the intra-poor weightings? Again, this is a normative question. If the poor are 90 per cent of the population, their incomes could rise at a faster rate than the top 10 per cent across the 90 per cent, but within the 90 per cent should there be progressive weighting with the strongest weighting on the poorest? These questions point towards the complexity of defining precisely what an 'inclusive growth' episode should look like. Further complicating matters is the relative simplicity of the relationship of growth to expenditure or monetary poverty versus the more complex relationship of growth to multidimensional poverty.[13]

One could say the contemporary concept of IG has several discernible dimensions. All of these IG types have something to say on who is 'included' and how much they are included. To recap, the assumption is that the 'in what way included' dimension is answered as consumption broadly defined now and/or in the near future. The first dimension or type of IG entails a focus on the benefits of growth to those under a poverty or population fractile line and their absolute or relative income or consumption. There are sub-types. This definition includes IG as poverty reduction or absolute pro-poor growth. This refers to growth whereby those under a specific poverty line or fractile of consumption (e.g. the poorest 40 per cent) benefit in absolute terms and the proportion of population under that line diminishes. The definition also includes poverty reduction with falling inequality of outcome or relative pro-poor growth. This refers to growth whereby those under a specific poverty line or fractile of consumption (that is, the poorest 40 per cent) benefit more than those above that line (meaning inequality falls).

In contrast, a further dimension or type of IG entails a focus on the benefits of growth to the entire population, or at least a much broader group than those under a specific poverty or population fractile line, and their *capabilities* in terms of the expansion of education levels or employment prospects. A type II IG is growth that focuses on 'equalizing opportunities' *ex*

---

[13] In this paper, the focus is on consumption/income/monetary poverty (though not exclusively). This is not to say poverty is not multidimensional. Clearly it is. The link, however, between monetary poverty and ST is clearer than that between multidimensional poverty and ST. The relationship between multidimensional poverty and growth is more complex than the mathematical identity for monetary poverty. Santos et al. (2016) find the relationship between multidimensional poverty and growth much weaker than monetary poverty and growth. Rising incomes among the monetary or multidimensional poor can lead to improved nutrition intake and outcomes, or improved access to education and health and outcomes, but public spending may be important in terms of the provision of free or subsidized public education and health. Social policy such as redistributive transfers can further support the reduction of both monetary and multidimensional poverty (see, for a discussion of countries with multidimensional poverty data over time, Alkire et al. 2015).

ante or redistributing opportunity in the future. This is more in keeping with the recent evolution of the field of enquiry. This refers to growth whereby the education attainment expansion is prioritized (and one could add health access policies and social protection access) and is configured to ensure an equalizing of opportunity across the whole population. In short, the divergence between skilled and unskilled workers is constrained by expanding the education levels of the lesser skilled. During growth, it is likely that skilled workers will benefit first if growth opportunities are focused in higher skilled employment or sectors. The expansion of education attainment thus provides for a means to constrain the divergence of the skilled–unskilled worker pay differentials by expanding the supply of skilled labour and reducing the supply of unskilled labour.

Finally, a third dimension or type III IG is full or fuller employment growth or employment-generating or labour-intensive growth or productivity growth that translates into employment growth. This refers to a situation whereby growth is accompanied by substantial employment generation as an outcome of productivity growth. This ensures that the opportunities presented by growth are broad-based and productivity gains are not entirely captured in real-wage increases but spread widely across a larger section of workers due to the extent of employment growth.

In sum, defining IG as a reduction in poverty by an absolute poverty line or the income of the poorest fractiles may miss important issues. Next, we consider the relationship between ST and IG. In the following section, we revisit the Lewis model and its distributional consequences for IG as outlined in Kuznets' seminal work and others since.

4 The relationship between structural transformation and inclusive growth

4.1 Overview

The discussion thus far has alluded to a relationship between ST and IG during the process of economic development without yet specifying a model. The purpose of this section is thus to situate ST and IG in a model of economic development. We do this to understand the relationship between ST and IG during economic development. We focus on the dual

economy of the Lewis model as a heuristic device or an 'ideal type'. The model, developed by W. Arthur Lewis, envisaged a capital accumulation through a transition driven by the labour movement from the traditional to the modern sector. The writing of Simon Kuznets and others following in the Kuznets tradition and using the Lewis model added the IG dimension by focusing on what happens to inequality during ST.

Why do we take the Lewis model of economic development? Why not another model of economic development? The answer to these questions is largely because the Lewis model of economic development is based on economic development by ST and thus ideally fits with the study of ST and further how IG interacts with ST. [14] The Lewis model is appealing for the study within this paper not only because of its focus on 'sectors' but because of its heterodox history and critique of neo-classical approaches which are indifferent to sectors and activities. It also covers the three dimensions of ST that are of interest (factoral, sectoral and integrative ST). Palma (2005) refers to three schools of economic development theory. The group within which Lewis sits is that which is premised on the notion that economic growth is both 'sector-specific' and 'activity-specific'. What binds this group together is that growth dynamics are dependent on the activities being developed and the capital accumulation effects of manufacturing. Thus, issues such as technology, externalities, balance of payment sustainability, and convergence with advanced countries are a function of the size, strength, and depth of manufacturing. The importance of manufacturing is predicated on the work of Kaldor (1967) who sought to explain the economic development of Western Europe through the development of manufacturing which he argued was the engine of growth for every country at every stage of economic development. In terms of empirical support for the importance of manufacturing see Duarte and Restuccia (2010). 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.[15]

---

[14] Palma (2005) identifies a first school as the neoclassical school which is indifferent to both sectors and to activities. The Solow convergence models (traditional and augmented), 'endogenous' models based on increasing returns, are examples of this school. Additionally, models based on market imperfections in technological change are a result of the production function. A second school is 'sector-indifferent' but 'activity-specific' which Palma associates with Roemer and the neo-Schumpeterians who argue that research and development matter but that there is nothing special about manufacturing in terms of Kaldor-effects. The third school is activity and sector specific and includes Lewis. Daio et al. (2017, 3–4) seek to link the structural dualism of Lewis with the neoclassical model by arguing that the neoclassical model shows the growth process within the modern sector and the dual model shows the relationship among sectors.

[15] 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 spillover are strong. Further,

The thesis of this section is as follows: first, that the vision of Lewis provides the model of economic development that brings together both ST and IG because other models of growth place little importance on sector analysis. Second, that the Lewis model is best utilised as a heuristic device or 'ideal type' on the transition within which Kuznets' work on distribution dynamics can sit.[16]

Whilst the Lewis model has faced criticisms, it is argued that the model remains useful as a heuristic device against which to compare the experiences of developing countries.

4.2 The Lewis model revisited

Arthur Lewis (see notably, 1954, 1958, 1969, 1972, 1976, 1979) provided one of the best-known and optimistic models of economic development in developing countries. The model, although sixty years old in its earliest iteration, remains relevant today to developing countries (see for contemporary discussion, Gollin 2014). Since Lewis' original work on the labour transition between sectors, much literature has been concerned with labour push-and-pull factors leading to various extensions of the model[17]. The dual model provides an ideal type in the Weberian sense for thinking about structural transformation and economic development with an emphasis on labour which is the factor of production that dominates most developing countries.

Lewis argued that the driver of capital accumulation was a sectoral movement of the factor of production abundant in developing countries, labour, from the 'traditional' or 'non-capitalist' sector (of low productivity, low wage, priced to average product not marginal product, and thus with widespread disguised unemployment) to the 'modern' or 'capitalist' sector (of higher productivity and where wages are set by productivity in the 'subsistence sector'). Crucial is the existence of surplus labour in the traditional or non-capitalist sector.[18] Because of this, wages are set just above subsistence across the whole economy, leading to the transfer of labour over time from traditional or non-capitalist to modern or capitalist sectors and the

---

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.

[16] Kirkpatrick and Barrientos (2004, p. 688) for example, referred to the Lewis model as, 'an illuminating framework within which to discuss the reality of the process of development, not taking the homogeneity of its sectors literally, but looking behind this to uncover their internal workings and heterogeneity'.

[17] See for discussion, Copestake 2003; Fei and Ranis 1964; Gollin et al. 2004; Harris and Todaro 1970; Kindleberger 1967; Ranis and Stewart 1999.

[18] Lewis believed in contrast to Asia that Africa had a labour shortage. The constraint to growth in Africa was low agriculture productivity rather than manufacturing growth and required government intervention in agriculture.

capture of labour productivity gains to capitalists as profits as these are the source of growth via reinvestment. The floor for wages is institutionally set at subsistence.

Lewis (1954, 151–2) posited that the transition of labour from the traditional to the modern sector was to be understood:

> *The key to the process is the use which is made of the capitalist surplus. In so far as this is reinvested in creating new capital, the capitalist sector expands, taking more people into capitalist employment out of the subsistence sector. The surplus is then larger still, capital formation is still greater, and so the process continues until the surplus labour disappears.*

When the surplus labour disappears an integrated labour market and economy emerge and wages will then start to rise.[19] Lewis (1979, 211) later noted the 'wide range of specifications' to which his dual economy model had been characterized which led him to reiterate the core elements as his saw them:

> *The version I am using here has three characteristics. First, there are two sectors, hereinafter called 'modern' and 'traditional', such that the modern sector grows by recruiting labour from the traditional. Second, unskilled labour is paid more in the modern sector than in the traditional sector for the same quantity and quality of work. And thirdly, unskilled labour is initially abundant in the sense that at the current wage much more labour is offered to the modern sector than that sector wishes to hire.*

The Lewis model (see Lewis 1958) was intended as a critique of the neoclassical approach in that labour is available to the modern or capitalist sector of an economy not in a perfectly elastic supply but upward sloping rather than flat, and with a distinction between surplus-producing labour and subsistence labour (the latter of which was a negligible source of net profits for reinvestment, which Lewis saw as the driver for growth). In contrast, the neoclassical position is that the supply of labour is inelastic.[20]

---

[19] Lewis later (1979, p. 211) dropped the term 'surplus labour' for fear of the 'emotional distress' it causes to some and reiterates that 'the idea intended to be conveyed is that of an infinitely elastic supply of labour to the modern sector at the current wage'.

[20] As Lewis (1984, p. 132) put it, '[A]ll one needed to do was to drop the assumption—then usually (but not necessarily) made by neoclassical macroeconomists—that the supply of labour was fixed. Assume instead that it was infinitely elastic, add that productivity was increasing in the capitalist sector, and one got a rising profits share'

Lewis also rejected the assumptions of neoclassical economists of perfect competition, market clearing and full employment and Lewis (see 1958, pp. 8, 18) made the distinction, noted above, between productive labour, which produced a surplus, and unproductive labour, which did not:

> *A transfer of workers from the latter [unproductive labour sector] to the former [productive labour sector] raises the national income, increases the total surplus over wages, and so makes possible further expansion… So long as unlimited labour is available at a fixed real wage, the share of profits in national income will increase. There are two reasons for this. First the share of profits in the capitalist sector may increase. And secondly the capitalist sector will expand relatively to national income.*

In sum, in the Lewis model, growth is thus sustained by sectoral ST and the transfer of the factor of production abundant in developing countries, labour from low productivity to higher productivity sectors.[21] There were two sectors: (i) a modern or capitalist sector which is not necessarily synonymous with urban or industrial or the private sector though these may be part of this sector and (ii) a traditional or non-capitalist sector which is not necessarily synonymous with agriculture or the non-capitalist or public sector, though these may be part of this sector.[22] The sectors are not necessarily unified geographically.[23]

Those two sectors are different in terms of the 'rules' that apply in each: The rules of the modern or capitalist sector are competition and profit maximisation and marginal productivity determines resource allocation. The rules of the subsistence sector are set by social conventions. The former is 'fructified' by capital or 'that part of the economy which uses reproducible capital, and pays capitalists for the use thereof' and the latter is 'all that part of the economy which is not using reproducible capital' (146). The former has higher wages and higher marginal productivity of labour than the latter and is capital intensive. The latter is

---

[21] Lewis' thinking was influenced by his predecessors, notably Rosenstein-Rodan (1943, 202) who was concerned with similar themes such as the agrarian 'excess population' or 'disguised unemployment' in agriculture and the transfer of this low- or zero-productivity population to the industrial sector, some twenty years prior to Lewis' own writing.

[22] Fields (2004) expresses a preference for the terms 'formal' and 'informal' sectors.

[23] As Lewis (1954, p. 147) puts it 'What we have is not one island of expanding capitalist employment, surrounded by a vast sea of subsistence workers, but rather a number of such tiny islands . . . We find a few industries highly capitalized, such as mining or electric power, side by side with the most primitive techniques; a few high class shops, surrounded by masses of old style traders; a few highly capitalized plantations, surrounded by a sea of peasants.

lower wage, labour intensive and has an over-supply of labour. Labour migrates and this migration sustains growth and economic development by raising productivity per worker. The capitalist surplus is reinvested in new capital and this expands the sector which provides more employment. This process continues until the surplus labour is used, or when capital accumulation is faster than population growth, or when the terms of trade between the sectors changes, or when new technology raises production in the subsistence sector. Wages in the subsistence sector start to rise as the Lewis 'turning point' is reached, at which point the supply of surplus labour is exhausted. This impacts on profits, the rate of reinvestment, and the capital stock.

Lewis did not ignore inequality. Indeed, Lewis (1954, p. 147) highlighted the high visibility of inequality, 'between the few highly westernized, trousered, natives, educated in western universities, speaking western languages, and glorying Beethoven, Mill, Marx, or Einstein, and the great mass of their countrymen who live in quite other worlds.' Inequality was of importance to Lewis to the extent it had an impact on output growth.[24] Lewis generally discussed rising inequality in terms of functional distribution rather than household income distribution, as that was central to the model, and a rise in the share of capital drives growth but does not necessarily imply a change in the within labour share. If there were a larger share of profits in national income this would mean more resources for capital formation but as Lewis noted (1954, p. 157, 158) '[t]he central fact of economic development is that the distribution of incomes is altered in favour of the saving class… All that the workers get out of the expansion is that more of them are employed at a wage above the subsistence earnings'. When the Lewis turning point is reached and surplus labour exhausted wages would rise and the functional distribution of income would move in favour of labour though this would slow or end the transition. At which point labour markets would be unified not dualistic.

Lewis posited that the state could substitute for a capitalist class (where no such class was of a significant size) in order to deal with what he referred to as 'the sociological problem of the emergence of a capitalist class' (1954, p. 159). Further, the state needs to play a strong role in disciplining the capitalist class when it does exist or guiding the emergence of such a class.[25]

---

[24] Lewis also wrote on horizontal inequality in terms of class, gender and ethnicity (see Mosley et al, 2004, p. 758-759 for discussion).

[25] Lewis (1955, p. 408) was a critique of the state too, listing nine ways in which the state can harm the process of economic development through excessive laissez-faire as well as excessive control or excessive spending and failing to maintain order, plundering citizens, exploiting one class over another, constraining trade, neglecting

The role of the state was also important because during the Lewis transition inequality may rise and public policy intervention is need because,

> the Gini coefficient may actually show a rise in inequality, since the share of national output accruing to the bottom 50 per cent may fall… To tax its developed sectors and subsidise its under-developed sectors is one of the most powerful ways that a government can use to ensure the benefits of development… The moral for policy makers is of course not to rely on trickle down to benefit the traditional sector, but to attack the problems of that sector directly (1979, 212, 216)

Lewis (1976) presents an explicit framework to consider this relationship between growth and distribution, noting a starting point that,

> growth takes place in enclaves, surrounded by traditional activities… Development must be inegalitarian because it does not start in every part of an economy at the same time. Somebody develops a mine, and employs a thousand people. Or farmers in one province start planting cocoa, which will grow only in 10% of the country. Or the Green Revolution arrives, to benefit those farmers who have plenty of rain or access to irrigation, while offering nothing to the other 50% in drier regions (p. 26).

Lewis (1976) discusses the relationship between economic development and distribution as one based on within *and* between sector inequality. He argued the growth of the modern or capitalist sector or the 'enclave sector' as he calls it in that paper has good and bad impacts on the traditional sector (p. 27). Notably, the enclave may enrich the traditional sector by buying commodities and services from it; providing employment to those in the traditional sector; remittances; selling goods and services cheaper; and by developing infrastructure, public goods and through an example of new ideas and institutions the enclave sector can modernise the traditional sector. Whether development leads to widening inequality depends, he argued on if the enclave is able to respond to the new economic opportunities (e.g. price changes or demand for labour). In short, inegalitarian development is not the failure of 'trickle down' vertically from rich to poor but the failure to trickle along or spread horizontally the benefits from enclave to traditional sectors.[26]

---

public goods, and expensive wars.

[26] Lewis (1979, 212–15) too drew attention to several possible ways the modern sector might benefit the traditional sector: provision of employment; sharing physical facilities; modernization of ideas and institutions (Lewis cites new technologies introduced, girls attending school, land tenure systems changing for example);

Again, the role of the state is highlighted by Lewis (p. 30-35) who posited that distribution in the enclave depends on the pattern of growth and a set of factors many of which are 'susceptible to public control' (p. 35): the initial distribution of property; economic structure, in terms of firm size and the capital intensivity of production and dependence on foreign resources (capital, skills, imports of food, raw materials, consumer goods or other manufactures) and the speed of growth meaning 'rapid growth alters the relative quantities of the factors of production, and the derived demands, and therefore the distribution of income'. Further, the traditional sector may see income stagnate because the enclave may be predatory (e.g. driving people off their land); products may compete with traditional trades; the wage rate in the enclave may be too high and raise the price of labour above its marginal productivity; because of geographical polarisation (the enclave attracts best brains and capital); because population growth accelerates due to improved public health reducing the death rate; and/or excessive migration from the countryside. Lewis concludes (1976, p. 29) that whether the enclave enriches or not the traditional sector 'probably depends most on whether the government coerces or helps the traditional sector, and on the nature of the enclaves' (meaning the modern or capitalist sectors).

There have been various critiques of the Lewis model many of which are of a 'red herring' variety as Ranis (2004, p .716) puts it meaning they are easily responded too or actually criticisms of Lewisians rather than the writing of Lewis himself. Many relate to the assumption of labour abundance in the subsistence sector (and thus the dominance of the wage from that sector across the economy), and the emergence of the urban informal sector, though Lewis' conception of surplus labour explicitly included the urban informal sector.[27]

It is clear Lewis (1954, 141) did not ignore the urban informal sector in the unlimited supply of labour concept:

> *The phenomenon is not, however, by any means confined to the countryside. Another large sector to which it applies is the whole range of casual jobs—the workers on the docks, the young men who rush forward asking to carry your bag as you appear, the jobbing gardener, and the like. These occupations usually have a multiple of the number they need, each of them earning very small sums from occasional*

and through trade (if the modern sector depends on the traditional sector for part of its needs, for example, for food or raw materials, the expansion of the modern sector will rely on the expansion of commodities in the traditional sector, but the traditional sector could be damaged by buying imports from the modern sector or abroad.

[27] This critique is really a critique of the Todaro model, which introduced the necessity of being physically in an urban area to be hired in a formal sector job is a simplification of Lewis to rural/urban.

employment; frequently their number could be halved without reducing output in this sector.

Informality was taken a step further in Ranis and Stewart (1999) who developed a model of dualism within the urban informal sector between a dynamic sub-sector linked to the formal sector and a less dynamic 'sponge' (meaning highly labour absorbing) sub-sector.

There are other critiques of the Lewis model (see discussion in Fei and Ranis 1964; Fields 1984; Harris and Todaro 1970; Minami 1973; Schultz 1964; Rosenzweig 1988; Todaro, 1969). One related to the over simplicity of a two-sector model. However, as Basu (1997, pp. 151–152) notes '[T]he assumption of duality is merely for analytical convenience. If fragmentation—irrespective of the number of parts—in itself causes some problems and we wish to examine these, then the simplest assumption to make is that of dualism.'

Neo-classical economists would not accept wages were set by any other mechanisms other than demand and supply. Contentions related to labour use and agricultural productivity and the assumption of zero marginal productivity in agriculture (that said the Lewis model actually rests upon the elastic supply of labour itself).

Finally, there has been a misperception that the Lewis model takes little account of the integrative aspects of ST and open economies and thus contemporary globalization and global economic integration. This point is absolutely a misperception and based on the notion that seminal Lewis (1954) piece outlining the basic Lewis closed economy model only contained a small section on an open economy. However, the role of external trade, and investment and finance are discussed in the seminal work and highly evident in many other writings of Lewis, given his interest in primary commodity-exporting countries. The main focus in the original (1954) work related to integrative ST is that is where it is argued that the Lewis turning point of surplus labour exhaustion may be delayed by international migration and capital export. The closed economy versions of the Lewis model (the first and the second) were building blocks to get to the third model (the open economy model) which Lewis believed represented most developing countries. It is the third model which explains the tendency for declining factoral terms of trade, which was his major concern for Lewis. Furthermore, an entire section is dedicated to critiquing comparative advantage based on his

open economy model.[28] Elsewhere (Lewis, 1976) a real concern of Lewis was – with great foresight - that primary exports dependency would eventually become a new dependency on a handful of manufacturing exports which would fall in value relative to import cost. Thus dependency on a few primary commodities whose relative price was falling vis-à-vis import needs would be replaced with dependency on a few manufactures whose relative price was falling vis-à-vis import needs.

A set of contemporary challenges throw up greater levels of complexity. First, is that domestic labour migration may not be permanent but be circular (back-and-forth) or 'commuting'. This means a worker may be active in both 'traditional' and 'modern' sectors. For example, non-farm rural income is generally estimated to be a substantial part of rural incomes suggesting too workers are not only active in 'traditional economy' at one point in time (See Booth, 2016; Hui and Jomo, 2014). Second, the contemporary scale of inter-sectoral resource flows via the growth of remittances further blurs the line between sectors with economic development and distributional impacts likely. Finally, that the Lewis transition can take a variety of forms beyond the anticipated one by Lewis and it is by no means guaranteed that the transfer will be from low to high productivity activities as Rodrik and MacMillan (2011) flagged. A transfer from low productivity agriculture to low productivity services has been the experience of many developing countries and a reversing of the Lewis transition has also been a phenomenon noted in a number of developing countries in the 'premature deindustrialisation' phenomenon. In short, multiple pathways of ST are possible.

If one focuses on four economic sectors alone there are six potential modes of inter-sectoral ST: agriculture to non-manufacturing industry, agriculture to manufacturing, agriculture to services, non-manufacturing industry to manufacturing, non-manufacturing industry to services and manufacturing to services. To this one could add four modes of intra-sectoral ST.

Nevertheless, the Lewis model does provide a framework to situate the developer's dilemma and the inequality dynamics or tension between structural transformation and inclusive

---

[28] Kaldor (1967) also took the two-sector model to be applicable to trade between developing and developed countries through the export of agriculture products from the former, and import of manufactured goods from the latter. He argued that international trade could make developing countries poorer because liberalization would increase agriculture exports which are produced at decreasing returns. These returns are not sufficient to compensate for the loss of manufacturing exports, which is a sector which produces increasing returns (this is essentially the same as the Prebisch-Singer hypothesis).

growth if one considers that structural transformation can take place in multiple ways. Lewis considered distributional dynamics in terms of the functional distribution of income and also the relationship between sectors as the discussion above highlights. Each mode of structural transformation is likely to have its own distribution dynamics as labour moves between or within-sectors. The distribution dynamics of such movements were also of concern to Simon Kuznets whose seminal work we revisit next.

4.4 Kuznets revisited

We next consider the contribution of Simon Kuznets and those writing in the Kuznets tradition in order to introduce inequality dynamics into a Lewis-type two sector model. Kuznets focused like Lewis on the factor abundant to developing countries, labour and its sectoral transfer from rural to urban areas.

Often one tends to find that Kuznets' thinking is reduced to his famous curve alone. There is much more depth and many more nuances and caveats than are often recognized (see for more discussion, Kanbur 2012, 2017). Kuznets (1955) implicitly took the Lewis dual economy model (though with a focus more so on urban–rural rather than modern and traditional sectors) though he posited that a labour transition from a rural sector to an urban sector would be accompanied by rising inequality in the early stages of development. In contrast, neoclassical economic theory would posit that the relative scarcity of factors determines inequality outcomes. The most important point to note regarding Kuztnets' seminal work is how tentative it is, and the number of disclaimers due to the scarcity of data available at that time. Kuznets builds theory through an abstract arithmetic model and then draws what he notes are very tentative conclusions. Kuznets' original thesis was based on time-series data for three countries (US, UK, and two states in Germany) plus point estimates for inequality in India, Puerto Rico, and Ceylon. He argued that inequality would rise in an 'upswing' and then fall later in the 'downswing' of what became known as the inverted-U or Kuznets curve.

Kuznets (1955, 6-7) outlined two forces which would increase pre-tax and transfer inequality in the long term,

> *The first group relates to the concentration of savings in the upper-income brackets .... The second source of the puzzle lies in the industrial structure of the income distribution. An invariable accompaniment of growth in developed countries is the*

shift away from agriculture, a process usually referred to as industrialization and urbanization.

The former of which resonates with Lewis' view on the savings class and Piketty's (2014) focus on capital accumulation as the driver of rising inequality.[29]

Kuznets (1955, 7–8) argued that inequality would rise as the inter-sectoral shift away from agriculture leads to income differences between sectors and changes within each sector as some population left the more equal sector.[30] Inequality, Kuznets posited is composed of inequality between and within segments (urban and rural), and inequality tends to be lower in the rural segment (relative to the urban segment).[31] Thus, as the size of the more unequal urban segment increases, this will further add upward pressure on inequality. And, given that, during economic growth, productivity in urban areas is likely to increase faster than in rural areas, this will add even more upward pressure on inequality.

In short, inequality in the dual sector economy is an aggregation of (i) inequality in each sector (be that urban and rural or traditional and modern 'sectors'); (ii) the mean of each sector; and (iii) the population shares in each sector (Kanbur 2017). Thus, even the population shift itself could raise inequality as Kuznets (1955, 14–15) himself noted:

> *[E]ven if the differential in per capita income between the two sectors remains constant and the intra-sector distributions are identical for the two sectors, the mere shift in the proportions of numbers produces slight but significant changes in the distribution for the country as a whole.*

Kanbur and Zhuang (2013) show how the between urban–rural and within urban and rural components of overall inequality can differ considerably between countries, and how the contribution of urbanization itself to inequality at the national level can also differ considerably between countries.

---

[29] More specifically Piketty's theory is that rising inequality in the contemporary period is explained by slow growth (and hence a diverging of wages and returns to capital).

[30] Kuznets argued that the early benefits of growth go to those with capital and education but, as more people move out of the traditional sector, real wages rise in the modern sector and inequality falls. He argued that the poorest lost out more rapidly than other groups as income-expanding opportunities arose away from agriculture. Kuznets argued that the only way to offset this was for the share of lower non-agriculture income groups to rise. He further contended that, in democracies, urban migrants would become politically organized, leading to redistribution..

[31] As Fischer (2014, 20) notes, Kuznets posited that 'underdeveloped' countries were more unequal than 'developed' countries (20).

Although inequality may rise as a result of movement between sectors, that may be balanced or outweighed by what happens to the within-sector components and the shares of each sector. Initial inequality between and within sectors will also play a significant role.

Although largely rejected as a universal law in studies in the 1990s, the Kuznets hypothesis remains relevant to ST and IG as a backdrop to any discussion.[32] Piketty (2006) is broadly illustrative of critiques of Kuznets and is the following:

> *The reasons why inequality declined in rich countries... do not have much to do with the migration process described by Kuznets… Inequality dynamics depend primarily on the policies and institutions adopted by governments and societies as a whole (p. 2, 11).*

As Kanbur (2017) notes, this is unfair to Kuznets. Not only does Kuznets discuss countervailing forces (for example, the two forces noted previously) but also institutional aspects are prominent for Kuznets (1955). For example,

> *One group of factors counteracting the cumulative effect of concentration of savings upon upper-income shares is legislative interference and 'political' decisions. These may be aimed at limiting the capital accumulation of property directly through inheritance taxes and other explicit capital levies. They may produce similar effects indirectly, [.......] All these interventions, even when not directly aimed at limiting the effects of capital accumulation of past savings in the hands of the few, do reflect the view of society on the long-term utility of wide income inequalities. This view is a vital force that would operate in democratic societies even if there were no other counteracting factors… Furthermore, in democratic societies the growing political power of the urban lower-income groups led to a variety of protective and supporting legislation.... (8–9, 16–17).*

There is resonance here too with Polanyi's (1957) 'double movement' or the dialectical process of the expansion of marketization and the push back against marketization and social

---

[32] Anand and Kanbur (1993a, 1993b) dismissed the Kuznets curve. Barro (2008) later found support for the Kuznets curve. Deininger and Squire (1988) found evidence of the curve in some countries and not others. Most recently, Gallup (2012) empirically posits an anti-Kuznets curve or non-inverted-U: inequality declines and then rises. Alvaredo and Gasparini (2015, p. 21) do, very cautiously, identify a U-shaped curve using 2005 PPP data but the upswing of the curve is entirely in sub-Saharan Africa and the downswing is entirely in HICs.
Indeed, Kuznets himself only found a rising trend or upswing in the data he used, not an inverted-U (his downswing of the inverted-U was based on theory and a data simulation).

protection in a 'counter-movement'. Polanyi argued that liberal reforms seek to establish and expand a market society where all things are commodified, the economy is 'disembedded', and society is subordinate to the market economy. This triggers a reaction of 'counter-movement' where by the creation of institutions such as labour law seeks to re-embed the economy in society.

Kuznets in the seminal piece said little about the integrative ST dimensions. There have been a set of contemporary scholars building new theory in the Kuznetsian tradition many who have focused on such integrative aspects of ST. Such scholars have developed theory with a focus on open economies and agrarian liberalization, the role of technology, as well as national aspects of domestic political economy and land distribution. For example, Galbraith (2011) argues that changes in national inequality since 1970 are driven by global forces. The key drivers of changes in national inequality are world interest rates and commodity prices (and between-sector terms of trade). He argues that a commodity boom reduces inequality in countries with a dominant agricultural sector as it raises the relative income of farmers and higher rates of interest are bad for debtor countries and this increases inequality. Galbraith presents an 'augmented Kuznets curve' or S-curve whereby the curve rises then falls and then rises again.[33]

In a somewhat similar vein, at least in the sense of a focus on open economies, Lindert and Williamson (2001) argue that it is the shift towards market orientation (domestic to export) of agriculture and not the shift from agriculture to manufacturing and services that causes inequality to rise. Lindert and Williamson predict an initial rise in inequality. However, while Lewis and Kuznets envisaged a downswing, Lindert and Williamson argue that inequality continues to rise because income in the urban sector outpaces rises in income in the rural sector as agriculture shifts to market orientation.

In contrast, Roine and Waldenström (2014) suggest a new Kuznets curve based on technological developments starting not a sectoral shift of agriculture to industry but a shift

---

[33] Galbraith (2011) argues that national inequality tends to follow similar trends around the world and that there have been four phases over time: (i) a first period, from 1963 to about 1971, of relative stability in national inequality; (i) a second period from 1972–80 when inequality declined slightly in much of the world due to the post-Bretton Woods inflationary boom based on extensive lending at negative real interest rates; (iii) a third period dated from 1982 to about 2000, consisting of sharply rising inequality due to the debt crisis, the collapse of many communist countries, and the liberalization of the 1990s which led to a fiscal squeeze and public sector retrenchment. There are some exceptions. China and India did not see the rise in national inequality until the 1990s and liberalization, because they did not liberalization their financial markets; (iv) a fourth period which began in 2000 and is one of modest declines in national inequality due to the slowing down of liberalization and the commodity boom.

from traditional industry to technologically intensive industry. If a given technology makes skilled workers more productive and there is an increase in the relative demand for those workers, the rewards accrue to a small proportion of the population who are skilled workers. Based on Tinbergen's (1974, 1975) hypothesis that the returns to skills are a competition between education and technology, the supply of skilled workers then determines whether their wages rise or not. Roine and Waldenström (2014) argue that the drivers of the Kuznets downturn were political and exogenous shocks.[34]

Oyvat (2016) argues that it is agrarian structures—land inequality—that are deterministic. Consistent with Kuznets he argues that migration is driven by higher urban incomes and this suppresses wages in the urban sector. If land inequality is higher, more people will migrate for lower wages as they do not own land or own small plots, and rural incomes are lower which will further depress urban wages.[35] Empirically, Oyvat argues that the level of land inequality has a significant impact on urbanization, intra-urban inequality, and overall inequality. The results suggest that land reforms or subsidies to rural small holders would thus reduce urban inequality.

Acemoglu and Robinson (2002) discuss the political economy of the Kuznets curve in two models of late capitalism. The first is a high inequality, low output model which they call 'autocratic disaster'. In this model, inequality does not rise and political mobilization is too limited to address existing inequality. A second model is the 'East Asian miracle' of low inequality and high output where inequality does not rise in order to ensure political stability and avoid the discipline of democracy being forced on elites. They argue that when the process of industrialization does increase inequality, this leads to the political mobilization of the masses that are concentrated in urban areas and factories. Political elites thus undertake reform to ensure their continued position at the top. The extension of the franchise is the best option for elites as it acts as a commitment to future redistribution and thus prevents unrest.[36]

---

[34] Lindert (2000) suggests that the factors compressing wages were institutional ones such as labour market regulation, trade unions, and the expansion of basic education.

[35] Oyvat argues that agrarian structures in Asia tend to have more owner-cultivators and tenants and thus small- and median-scale family farms than Latin America or sub-Saharan Africa which tend to have high land inequality and large plantation structures that hire wage labour, and very small family farms. Thus, in Latin America and sub-Saharan Africa the lack of sufficient formal employment opportunities for migrants generates an urban reserve army of labour in the urban subsistence sector which depresses wages in the urban modern/capitalist sector.

[36] Examples given are those of the UK and France where extension of franchise led to changes in labour market institutions, mass education, and reduced inequality. The thesis of Acemoglu and Robinson (2002) is that

In sum, there have been various attempts at new theory building on how income inequality evolves with economic development. As with Lewis a set of contemporary challenges throw up greater levels of complexity. First and foremost is the experience of premature deindustrialisation in developing countries.

ST has been associated with deindustrialization in the developed world. This typically means that there is a focus on the shrinking industrial base in absolute or relative terms as a proportion of industrial or manufacturing activity in GDP, employment, or exports. A key question is what drives such processes and also if they matter (see for discussion, Rowthorn and Ramaswamy 1999; Singh 1977). Such discussions were extended to developing countries in Palma (2005) and Rodrik (2015), though Singh (1977) and others have noted that shrinking shares are not necessarily a cause, and rather a symptom of underlying structural economic problems.

This phenomenon or what Palma (2005) and Rodrik (2015) 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.[37]

Premature deindustrialization has two components. The inverted-U pattern of manufacturing shares versus GDP per capita is shifting down and leftwards over time, and making it harder for late developers to attain the benefits of industrialization that earlier developers saw. The first component is that 'peak manufacturing', in employment or GDP shares (or export shares) has been reached and the inverted-U curve is now on the plateau or even 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 of the phenomenon? There are differing views. Rodrik (2015) links the phenomenon to trade liberalization over time and the impact of China's entry into

---

capitalist industrialization increases inequality but that this induces a change in political regime towards more redistribution.

[37] See also Dasgupta and Singh (2007), Felipe et al. (2014), Heintz (2009), and Amirapu and Subramanian (2015). Lewis (1979, 220) notes that 'the surest way to run into trouble is to have "de-industrialization" (industrial employment growing more slowly than the labour force), since this means that the reservoir or cheap labour will be filling instead of emptying. The political and social health of the community, no less its economic health, requires a continual transfer from the reservoir to the more productive sectors, rather than the relative expansion of the reservoir.'

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 were counteracted by a shift of manufacturing jobs to lower productivity economies.[38] They note that global employment in manufacturing and GDP shares 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.[39]

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 distribution dynamics of premature deindustrialisation warrant further exploration.

5 Conclusion

The purpose of this paper was to set out the conceptual points of departure in terms of ST and IG, and to situate the developer's dilemma in a model of economic development. We have thus discussed the concepts of ST and IG. We have revisited the Lewis model of economic development and the contribution of Kuznets and recent iterations.

This paper has argued the following: (i) that ST and IG have tended to be approached in a reductionist sense and disconnected from each other. By defining down each to a more minimalist definition, one loses important aspects of each and of their inter-relationship; (ii) that the vision of Lewis and Kuznets provides a two sector model for connecting ST and

---

[38] 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's economies (for example, China) has spread manufacturing jobs more thinly, making it harder for individual countries to sustain high levels of manufacturing employment.

[39] Palma goes on to argue countries that have a commodity export surge or policy shift away from Keynesianism have an 'additional degree' of deindustrialization.

IG that can be related to the sectoral, factoral and integrative aspects of ST and the income, inequality, education and employment aspects of IG. However, Lewis and Kuznets require contextualising to the contemporary period in which a set of 'new' issues have gained prominence. Notably, multiple forms and dimensions of structural change, 'premature deindustrialisation' and circular (back-and-forth) or 'commuting' labour movements; as well as non-farm rural income; the growth of inter-sectoral resource flows via remittances and the multiple dimensions of inclusive growth.

We have noted that Lewis focused on the inter-sectoral labour reallocation and related it to the functional distribution of income and inequality dynamics in terms of the relationship between sectors. Kuznets was concerned largely with the labour share in terms of the relationship between his sectors. Both were concerned with the sectoral aspects of ST as well as factoral ST.

The essence of Kuznets was that the labour transition could, unless governments intervene, be *unequalizing* if people move from the more equal sector (which Kuznets took to be rural in developing countries) to the less equal sector (which Kuznets took to be urban) because of the differences in relative income and the relative population weighting. All else being equal, the Kuznets hypothesis will only hold if the rural sector is more equal or if governments do not intervene to neutralise the forces of inequality that were unleashed by ST.

On the other hand, the transition could well be *equalizing* if the rural sector is more unequal (or if governments intervene). However, it will depend on (i) where in the distribution of each sector the migrant starts out from and ends up in and (ii) on how equalizing the wage gain they get from the urban sector is overall and furthermore, (iii) the extent of counter-balancing forces due to the movement of surplus labour from the traditional sector, which would lead to the average income in that sector to rise and generate a pattern that could be equalizing.

Furthermore, if developing countries seek economic development via ST and seek to make that inclusive form of growth then the Kuznetsian forces unleashed by ST require neutralizing. ST and capital accumulation tend to generate distribution tensions, these can be managed to some considerable extent by a focus on expanding public policy intervention. Specifically, the urban–rural income divergence; the skilled–unskilled worker wage divergence; and the capture of productivity gains vis-à-vis capital and labour shares and the within labour shares, and the extent to which productivity growth is translated into real-wage growth or employment growth. Thus, this would suggest ST with IG requires—counter-

intuitively—highly activist rural and agricultural policy and public investments to constrain the urban–rural income divergence; large investments in public education to constraint the skilled–unskilled worker wage divergence; and state–capital–labour pacts to ensure substantial employment growth is the consequence of productivity growth.

This raises a set of future research questions within the changing context that includes premature deindustrialisation, circular (back-and-forth) or 'commuting' labour movements, non-farm rural income, the growth of inter-sectoral resource flows via remittances and the multiple varieties of structural transformation and inclusive growth. A set of indicative questions for a future research agenda may include:

- How are contemporary structural transformation and inclusive growth to be understood?
- How are structural transformation and inclusive growth related?
- Does inequality always rise with structural transformation?
- How are governments to use public policy to manage the trade-off between structural change and inclusive growth?
- How does the changing nature of industrialisation and the emergence of premature deindustrialisation impact on the developer's dilemma?
- What models of economic development would ensure rapid economic growth and structural change with an expanding share of national income for the poor?
- How are countries to manage the developer's dilemma and what are the experiences of countries who have managed the tension?

These are not purely questions of economics of course, although they are rooted in economics as a point of departure. There is fundamentally a question of politics in that there are political choices to be made (meaning governments can intervene to manage inequality). There are also the social implications of policy intervention and non-intervention, and the direct implications for ending poverty in relation to how governments deal with the trade-off. A research agenda on the developer's dilemma would need thus to take all these aspects into account.

References

Acemoglu, D. and Robinson, J. (2002). "The Political Economy of the Kuznets Curve." *Review of Development Economics*, 6(2), 183–203.

Adelman, I. and Morris, C. (1973). Economic Growth and Social Equity in Developing Countries. Stanford: Stanford University Press.

Aghion, P. and Bolton, P. (1997). "A Theory of Trickle-Down Growth and Development." *Review of Economic Studies*, 64(2), 151-172.

Ali, I. and Zhang, J. (2007). Inclusive Growth toward a Prosperous Asia: Policy Implications. Manila: ADB.

Alkire, S., Roche, J. M., and Vaz, A. (2015). Changes Over Time in Multidimensional Poverty: Methodology and Results for 34 Countries. OPHI Working Papers 76. Oxford: University of Oxford.

Amirapu, A. and Subramanian, A. (2015). Manufacturing or Services? An Indian Illustration of a Development Dilemma. Center for Global Development Working Paper 409. Washington, DC: Center for Global Development.

Anand, S. and Kanbur, S.M.R (1993a). "The Kuznets Process and the Inequality-Development Relationship". *Journal of Development Economics,* 40, 25-42.

Anand, S. and Kanbur, S.M.R. (1993b). "Inequality and Development: A Critique." *Journal of Development Economics*, 41, 19-43.

Barro, R. J. (2008). Inequality and Growth Revisited. ADB Working Paper Series on Regional Economic Integration No. 11. Manila: ADB.

Basu, D. and Foley, D. K. (2013). "Dynamics of output and employment in the US economy." *Cambridge Journal of Economics*, 37(5): 1077-1106.

Baymul, C, and Sen, K. (2017) What do we know about the relationship between structural change, inequality and poverty in developing countries? ESRC GPID Research Network Working Paper. London: King's College London.

Betcherman, G. (2012). Labor Market Institutions: A Review of the Literature. World Bank Policy Research Working Paper 6276. Washington: The World Bank.

Besley, T., and Cord, L.J. [eds.] (2006). Delivering on the promise of pro-poor growth: insights and lessons from country experiences. Washington, DC: World Bank.

Chenery, H. (1960). "Patterns of Industrial Growth". *The American Economic Review*, 50(4), 624-654.

Chenery, H., M. Ahluwalia, C. Bell, J. Duloy, and R. Jolly (1974). Redistribution with Growth, Oxford: Oxford University Press for the World Bank.

Clark, C. (1957). The Conditions of Economic Progress. 3rd edition. London: MacMillan and Company.

Copestake, J. (2003). The Links between Social and Economic Development: The Sigma Economy of Adolfo Figueroa. Wellbeing in Developing Countries (WeD) Working Paper 3. Bath: University of Bath.

Cunha Neves P. and Tavares Silva, S. (2014). "Inequality and Growth: Uncovering the Main Conclusions from the Empirics". *The Journal of Development Studies*, 50(1), 1–12.

Dasgupta, S. and Singh, A. (2006). Manufacturing, services and premature de-industrialisation in developing countries: a Kaldorian empirical analysis. Centre for Business Research, University of Cambridge, Working Paper No. 327. Cambridge: University of Cambridge.

Deininger, K. and Squire, L. (1988). "New ways of looking at old issues: inequality and growth". *Journal of Development Economics,* 57, 259–287.

Diao X., McMillan M., Rodrik D (2017). The Recent Growth Boom in Developing Economies: A Structural-Change Perspective. Available online at https://drodrik.scholar.harvard.edu/publications/recent-growth-boom-developing-economies-structural-change-perspective

Dollar, D. and Kraay, A. (2002). "Growth Is Good for the Poor". *Journal of Economic Growth* 7, 195–225.

Dollar, D., Kleineberg, T. and Kraay, A. (2013). Growth still Is Good for the Poor. World Bank Policy Research Working Paper. Washington DC: World Bank.

Edward, P. and Sumner, A. (2015). New Estimates of Global Poverty and Inequality: How much Difference Do Price Data Really Make? Centre for Global Development Working Paper. Washington DC: Centre for Global Development.

Feenstra, R. C., Inklaar, R. and Timmer, M. P. (2015). "The Next Generation of the Penn World Table". *American Economic Review*, 105(10), 3150-82.

Fei, J. C. H. and Ranis, G. (1964). Development of the Labor Surplus Economy: Theory and Policy. The Economic Growth Center, Yale University. Homewood IL.

Fei, J. C. H., Ranis, G., Kuo, Shirley, W.Y. (1979). Growth with equity: the Taiwan case. A World Bank research publication. Washington, D.C.: The World Bank.

Felipe, J., Mehta, A., and Rhee, C. (2014). Manufacturing matters…. But it's the jobs that count. ADB Economics Working Paper Series No 420. Manila: ADB.

Fields, G. S. (2004). Dualism in the labor market: A perspective on the Lewis model after half a century. Ithaca: Cornell University.

Fields, G. S. (2001). Distribution and Development: A New Look at the Developing World. Cambridge, MA: MIT Press.

Fischer, A. (2011). "Beware the Fallacy of Productivity Reductionism". *The European Journal of Development Research*. 23(4), 521–526.

Fischer, A. (2014). The Social Value of Employment and the Redistributive Imperative for Development. UNDP Human Development Report Office Occasional Paper. New York: UNDP.

Galbraith, J. K. (2011). "Inequality and economic and political change: a comparative perspective". *Cambridge Journal of Regions, Economy and Society*, 4(1), 13-27.

Gallup, J. L. (2012). Is There a Kuznets Curve? Mimeograph. Available online at: https://www.pdx.edu/econ/sites/www.pdx.edu.econ/files/kuznets_complete.pdf

Gollin, D., Parente, S., and Rogerson, R. (2004). "Farm Work, Home Work and International Productivity Differences". *Review of Economic Dynamics*, 7(4), 827-850.

Gollin, D., Jedwab, R. and Vollrath, D. (2016). "Urbanization with and without Structural Transformation". *Journal of Economic Growth*, 21(1), 35-70.

Gollin, D. (2014). "The Lewis Model: A 60-year Retrospective". *Journal of Economic Perspectives*. 28(3), 71–88.

Greenwood, J. and Seshadri, A. (2005). Technological Progress and Economic Trans-
formation. In: Aghion, P. and Durlauf, S. (eds.), Handbook of Economic Growth, Vol.
1B (pp. 1225–1273). Amsterdam and New York: North Holland.

Grimm, M., Klasen, S., and McKay, A. (2007). Determinants of pro-poor growth: Analytical
issues and findings from country cases. Houndmills: Palgrave Macmillan.

Harris, J. R. and M. P. Todaro (1970). "Migration, Unemployment and Development: A Two-
Sector Analysis". *American Economic Review*, 60(1), 126–42.

Heintz, J. (2009). Employment, Economic Development and Poverty Reduction: Critical
Issues and Policy Challenges. UNRISD Working Paper. Geneva: UNRISD.

Herrendorf, B., Rogerson, R., and Valentinyi, A. (2013). Growth and Structural
Transformation. NBER Working Paper No. 18996. Cambridge, MA: NBER.

Jomo, K.S. (2006). The Great Divergence: Hegemony, Uneven Development, and Global
Inequality. Oxford: Oxford University Press.

Kaldor, N. (1966). The Causes of the Slow Rate of Growth of the United Kingdom Economy.
Cambridge: Cambridge University Press.

Kaldor, N. (1967). Strategic Factors in Economic Development. Ithaca: New York State
School of Industrial and Labour Relations, Cornell University.

Kalecki, M., (1954). Theory of Economics Dynamics: An Essay on Cyclical and Long-run
Changes in Capitalist Economy. London: George Allen and Unwin.

Kalecki, M. (1955). "The problem of financing economic development". *Indian Economic
Review*. 2(3), 1-22.

Kanbur, R. (2012). Does Kuznets still matter? Charles H. Dyson School of Applied
Economics and Management Working Paper, Ithaca: Cornell University.

Kanbur, R. (2016). W. Arthur Lewis and the Roots of Ghanaian Economic Policy. Charles H.
Dyson School of Applied Economics and Management Working Paper, Ithaca: Cornell
University.

Kanbur, R. (2017). Structural Transformation and Income Distribution: Kuznets and Beyond.
Charles H. Dyson School of Applied Economics and Management Working Paper,
Ithaca: Cornell University.

Kanbur, R. and Zhuang, J. (2010). "Urbanization and Inequality in Asia". *Asian Development Review*, 30(1), 131–147.

Kindleberger, C. P. (1967). Europe's Postwar Growth. Cambridge, MA: Harvard University Press.

Kirkpatrick, C. and A. Barrientos (2004). "The Lewis Model after 50 Years". *The Manchester School*, 72(6), 679–90.

Klasen, S. (2010). Measuring and Monitoring Inclusive Growth: Multiple Definitions, Open Questions, and Some Constructive Proposals. Asian Development Bank Working paper 12. Manila: ADB.

Kraay, A. (2006). When Is Growth Pro-Poor? Evidence from a Panel of Countries. *Journal of Development Economics,* 80(1),198–227.

Kuznets, S. (1955). Economic Growth and Income Inequality. *American Economic Review,* 45(1), 1–28.

Kuznets, S. (1966). Modern Economic Growth: Rate, Structure, and Spread. New Haven: Yale University Press.

Kuznets, S. (1971). Economic Growth of Nations. Total Output and Production Structure. Cambridge, MA: The Belknap Press of Harvard University Press.

Lewis, W. A. (1954). Economic Development with Unlimited Supplies of Labour. *The Manchester School*, Vol. 22(2): 139–91.

Lewis, W. A. (1958). "Unlimited Labour: Further Notes". The Manchester School, 26(1), 1–32.

Lewis, W. A. (1969). Aspects of Tropical Trade, 1883–1965, Stockholm: Almqvist and Wicksell.

Lewis, W. A. (1972). Reflections on Unlimited Labour. In: L. E. di Marco (ed.) International Economics and Development – Essays in Honour of Raoul Prebisch (pp. 75–96). New York: Academic Press.

Lewis, W. A. (1976). Development and Distribution. In: A. Cairncross and M. Puri (eds) Employment, Income Distribution and Development Strategy: Essays in Honour of Hans Singer (pp. 26–42). London: Macmillan.

GPiD Global Poverty & Inequality Dynamics *Research Network*

Lewis, W. A. (1979). "The Dual Economy Revisited". *The Manchester School*, 47(3), 211–229.

Lindert, P. (1986). "Unequal English Wealth since 1670". *Journal of Political Economy*, 94(6), 1127-1162.

Lindert, P. H. (2000). Three centuries of inequality in Britain and America. In A. B. Atkinson and F. Bourguignon (Eds.), Handbook of Income Distribution (pp. 167-216). Amsterdam: Elsevier

Lindert, P. and Williamson, J. (2001). Does Globalization Make the World More Unequal? National Bureau of Economic Research (NBER) Working Paper. Cambridge MA: NBER.

López-Calva, L. F. and Ortiz-Juarez, E. (2014). 'A Vulnerability Approach to the Definition of the Middle Class. *The Journal of Economic Inequality* 12(1), 23–47.

Matsuyama, K. (2008). A One-sector Neoclassical Growth Model with Endogenous Retirement. *Japanese Economic Review*, 59(2), 139–155.

McKinley, T. (2010). Inclusive Growth Criteria and Indicators: An Inclusive Growth Index for Diagnosis of Country Progress. ADB: Manila.

McMillian, M.S., Rodrik, D. (2011). Globalization, Structural Change and Productivity Growth. NBER Working Paper No. 17143. Cambridge MA: NBER.

Minami, R. (1973). The Turning Point in Economic Development: Japan's Experience. Economic Research Series No. 14, Tokyo: The Institute of Economic Research, Hitotsubashi University.

Okun, A. M. (1962). Potential GNP & Its Measurement and Significance. In: Proceedings of the Business and Economics Statistics Section, (pp. 98-104), Alexandria: American Statistical Association.

Oyvat, C. (2016). "Agrarian Structures, Urbanization, and Inequality". *World Development*, Vol. 83(C), 207-230.

Palma, J. G. (2005). "Four sources of de-industrialisation and a new concept of the Dutch-Disease". In: JA Ocampo (ed.) Beyond Reforms: structural dynamic and macroeconomic vulnerability. Washington, DC and Palo Alto: Stanford University Press and the World Bank.

Piketty, T. (2006). "The Kuznets' curve, yesterday and tomorrow". In: Banerjee, A., Benabou, R., Mookherjee, D. (eds.), Understanding poverty (pp. 63-72). Oxford: Oxford University Press.

Piketty, T. (2014). Capital in the Twenty-First Century. Cambridge, MA: Harvard University Press.

Polanyi, K. (1957). The Great Transformation: The Political and Economic Origins of Our Time. Boston: Beacon Press.

Pritchett, L., Woolcock, M. and Andrews, M. (2010). Capability Traps? The Mechanisms of Persistent Implementation Failure. Center for Global Development Working Paper 234. Washington, DC: Centre for Global Development.

Ranis, G. and Stewart, F. (1999). "V-Goods and the Role of the Urban Informal Sector in Development". *Economic Development and Cultural Change,* 47(2), 259–88.

Rauniyar, G. and Kanbur, R. (2010). Inclusive Development: Two Papers on Conceptualization, Application, and the ADB Perspective. January draft. Manila: ADB.

Ray, D. (2010). "Uneven Growth: A Framework for Research in Development Economics." *Journal of Economic Perspectives*, 24(3), 45–60.

Rodrik, D. (2013). "Unconditional Convergence in Manufacturing". *The Quarterly Journal of Economics,* 128(1), 165-204.

Rodrik, D. (2015). Premature Deindustrialization. NBER Working Paper No. 20935. Cambridge, MA: NBER.

Roine, J. and Waldenström, D. (2014). Long-run Trends in the Distribution of Income and Wealth. IZA (Institute for the Study of Labour) Discussion Paper No. 8157. Bonn: IZA.

Rosenstein-Rodan, P. (1943). "Problems of Industrialisation in Eastern and Southeastern Europe". *The Economic Journal*, 53(210-211), 202–11.

Rowthorn, R and Ramaswamy, R. (1999). "Growth, Trade, and Deindustrialization". IMF Staff Papers, 46(1), 18-41

Roy, A. D. (1951). "Some thoughts on the distribution of earnings", *Oxford Economic Papers* (New series), 3(2), 135-146.

Santos, M. E., Dabus, C., and Delbianco, F. (2016). Growth and poverty revisited from a multidimensional perspective. OPHI Working Paper 105, Oxford: University of Oxford.

Schultz, T. (1964). Transforming Traditional Agriculture. New Haven and London: Yale University Press.

Seers, D. (1963). "The Limitations of the Special Case", Bulletin of the Oxford Institute of Economics and Statistics 25(2), 77–98.

Sen, K. (2014). "Inclusive Growth: When May We Expect It? When May We Not?" *Asian Development Review*, 31(1,) 136-162

Shaffer, P. (2016). Immiserizing Growth: A Research Agenda. Q-Squared Working Paper No. 66. Nottingham: Trent University.

Shorrocks, A., Van Der Hoeven, R. (eds.) (2004). Growth, inequality and poverty: prospects for pro-poor economic development. Oxford: Oxford University Press.

Singh, A. (1977). "UK industry and the world economy: a case of de-industrialisation?" *Cambridge Journal of Economics*, 1(2), 113-136.

Storm, S. (2015). "Structural Change". *Development and Change*, 46(4), 666–699.

Sumner, A. (2016). Global Poverty: Deprivation, Distribution, and Development since the Cold War. Oxford: Oxford University Press.

Syrquin, M, (1988). "Structural change and economic development: The role of the service sector". *Journal of Development Economics,* Vol. 28(1), 151-154.

Syrquin, M. (2007). Kuznets and Pasinetti on the study of structural transformation: never the twain shall meet? ICER Working Paper No. 46/2007. Available online at: http://www.biblioecon.unito.it/biblioservizi/RePEc/icr/wp2007/ICERwp46-07.pdf

Targetti, F. (2005). "Nicholas Kaldor: Key Contributions to Development Economics." *Development and Change*, 36, 1185–1199.

Thirlwall, A. P., (1979). "The interaction between income and expenditure in the absorption approach to the balance of payments". *Journal of Macroeconomics*, 1(2), 237-240.

Tinbergen, J. (1974). "Substitution of Graduate by Other Labour". *Kyklos*, 27(2), 217-226.

Tinbergen, J. (1975). "Substitution of academically trained by other manpower". *Review of World Economics (Weltwirtschaftliches Archiv)*, Vol. 111(3), 466-476.

UNU-WIDER (forthcoming). World Income Inequality Database. Helsinki: UNU-WIDER.

Verdoorn, P. J. (1949). "Fattori che regoleno lo sviluppo della produttivita del lavaro". *L'Industria*, 1, 3-10.

Williamson, O. E. (1985). The Economic Institutions of Capitalism. New York: The Free Press.

World Bank (2013). World Development Report 2013. Washington, DC: World Bank.

World Bank (2016). World Development Indicators. Washington, DC: World Bank.