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# Practical thinking on investing for development

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## **Executive summary**

The role of private investment in development is varied. Some investments directly address specific development needs, but more generally, private investment is necessary to transform economies so countries can grow out of poverty and sustain a decent standard of living for all.

A previous British International Investment (BII) Insights paper showed that periods of higher private investment are historically associated with more rapid reductions in extreme poverty. That does not mean investment and economic growth always result in poverty reduction. This paper draws on the experiences of many developing countries to shine a light on when growth reduces poverty, and when it does not. Its ultimate objective is to clarify the role of private sector development finance institutions (DFIs) in the context of overall development policy, and the need for different forms and sources of investment and support that complement each other.

Concerns that growth might not translate into poverty reduction are, to an extent, overstated. Bergstrom (2022) finds that economic growth, as measured by the increase in national gross domestic product (GDP) per person, explains 90 per cent of the historical variation in poverty. From that one might imagine that anti-poverty policy would overwhelmingly be concerned with the question of how to stimulate growth, and less with the risk that growth might fail to reduce poverty. But the strong statistical relationship between growth and poverty reduction does not tell us that if an economy grows, then poverty will take care of itself – part of the reason why the historical relationship between growth and poverty exists is that governments of growing economies have often taken concerted actions to tackle poverty.

Economies differ from each other in important ways and generalisations can be misleading. However, some broad conclusions can be drawn from comparing countries that have translated growth into poverty reduction and those that have not:

- Growth anywhere in an economy will reduce poverty if there are strong enough economic linkages to the livelihoods of people living in poverty.
  These linkages work via labour and goods markets, and mechanisms such as internal migration and urban-rural remittances.
- The countries that had the greatest success in reducing poverty often saw private investment that generated growth in urban areas, and used that growth to pay for rural public investment programmes (roads, electrification, irrigation) to broaden growth geographically, and social spending (health, education, social protection).
- Governments gain more real resources to spend on social protection and public services as economies grow. Evidence shows the proportion of government revenues spent on social programmes tends to rise as countries get richer, so social spending increases faster than the underlying rate of economic growth.
- Growth fails to reduce poverty when the economic linkages to the lives of the poor are weak, and governments fail to use the proceeds either to encourage the spread of economic activity or for anti-poverty programmes. Some of the most egregious examples are in countries where growth was concentrated in resource extraction, such as Angola and Equatorial Guinea, while other countries such as Botswana and Indonesia have successfully used resource revenues to make investments to reduce poverty.

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<sup>1</sup> Carter & Thwaites (2021).

Short-run and long-run mechanisms differ. Growth in agriculture initially has the most immediate impact on poverty reduction because, early in the development process that is where most people in poverty are seeking to earn a living. Yet people who escape poverty often say it was through finding better job opportunities outside agriculture. Over time spans measured in decades, sustained poverty reduction entails fewer – but more productive – farmers, and more people with wage-paying jobs in larger, more productive firms.

Several distinct forms of development cooperation may be needed to ensure that the necessary range of investments and transfers occur and complement each other. That implies a division of labour among development institutions. Private sector DFIs should prioritise investments that directly reach people living in poverty, such as those in agriculture, when such investment opportunities can be found. But they should also make private sector investments that drive the economic modernisation and structural transformation that are essential for long-run poverty eradication, but which may be quite distant from the lives of the poor.

Other development institutions should transfer resources to governments, contribute to building state capacity, and help governments create a policy environment that supports growth from which to raise domestic revenue. This will enable public spending on rural investment programmes and other anti-poverty measures, including health, education, and social protection. These investments should benefit income and well-being, and also help to build resilience. Rural roads, electrification, and regional irrigation schemes generally require public spending, whether implemented by private or state-owned enterprises.



# 1

### Introduction

This paper looks behind the strong tendency for growth to reduce poverty, to examine when growth has a greater or lesser effect on poverty. It draws on economic theory and historical examples of more or less successful episodes of poverty reduction to answer the following questions: when and how is growth more likely to result in more rapid reductions in extreme poverty? Does success in lowering extreme poverty involve investments that directly reach the extremely poor, or are the mechanisms that link investments to poverty eradication sometimes less direct?

What we learn from the experiences of countries that have, and have not, translated growth into poverty reduction can be summarised as follows. This is not simply a question of whether private investment was 'targeted at poverty'. The most successful countries encouraged private investment in sectors where large firms could deliver large productivity gains, and governments used the income generated to finance public investment programmes in rural areas and higher levels of social spending. Growth fails to reduce poverty when it is concentrated in sectors that predominantly benefit elites, without creating many jobs and with few spillovers to the rest of the economy, and where governments fail to raise revenues and increase spending on public services and social programmes.

### **Box 1: Definition of poverty**

The first United Nations Sustainable Development Goal (SDG) is the eradication of extreme poverty, based on a poverty line currently defined by the World Bank as purchasing power parity (PPP) of \$2.15/day (at 2017 prices) household consumption expenditure per head. The SDG's "central, transformative promise" to "leave no one behind" and end the depredations of extreme poverty is undeniably the greatest priority from a human welfare perspective.

This paper asks whether growth that originates in areas of the economy distant from the lives of the extremely poor can nonetheless support pathways out of poverty, or whether only more targeted interventions can work. Nonetheless, people do not move beyond the concerns of development policy once their incomes rise above \$2.15.2 Less extreme poverty lines (such as \$3.65 and \$6.85) still represent unacceptably low standards of living, and the job of poverty eradication will by no means be done once extreme poverty is history. In the United States (US), the poverty threshold is around \$35 per day (the PPP dollars that international poverty lines are measured in seek to equate to the level of consumption a dollar would purchase in the US).

Looking at somewhat higher poverty lines leads to different lessons for how the changing nature of economic activity interacts with the lives of the poor. For example, the extremely poor are most likely to earn what income they have from agriculture or non-farm rural enterprises, whereas urban poverty tends to be less extreme, and employment tends to be in (formal or informal) services and manufacturing sectors. The international geography of poverty changes too: while extreme poverty is well on the way to eradication in India, it remains home to over 600 million people living beneath \$3.65/day (which compares to roughly 775 million in the whole of sub-Saharan Africa).<sup>3</sup>

For internal portfolio-level impact scoring purposes, BII measures direct reach to low-income populations by looking at the percentage of a company's workers or customers that are living beneath \$6.85/day, because that is a more relevant benchmark for people likely to be employed by larger and more productive formal sector firms.<sup>4</sup> This paper, however, puts more emphasis on extreme poverty, and the question of how growth originating in larger and more productive firms affects the extremely poor.

<sup>2</sup> Lant Pritchett argues that an excessive focus on extreme poverty can produce "limited gains in limited places" (see his blog National versus kinky development) and Kenny (2024) argues it is time to retire the extreme poverty line. Merfeld & Morduch (2023) point out that poverty lines based on annualised consumption conceal tremendous seasonality and instability in the lives of the poor, who lack liquidity to smooth consumption over time.

 $<sup>{\</sup>tt 3} \quad {\tt Based} \ on \ the \ most \ recent \ World \ Development \ Indicators \ population \ and \ poverty \ head count \ estimates.$ 

<sup>4</sup> See the BII blog: Why we use the \$5.50 poverty line as a benchmark for inclusion.

When looking at discrete historical episodes of rapid poverty reduction, it quickly becomes apparent they tend to be associated with growth in rural areas. This is for the simple reason that most people living in poverty are located there, so anything that increases the incomes earned in agriculture which could be driven by global food prices, or investment and productivity improvements in the sector – will have an immediate effect on poverty. However, agricultural growth can be a short-run phenomenon. Periods of sustained poverty reduction - where countries with an initially high rate of poverty have made continuing progress towards its eradication over decades - have resulted from efforts to modernise and transform economies, and to drive the growth of more productive and export-oriented manufacturing and services activities, as in the East Asian 'miracle' economies. No country's poverty eradication ambitions stop at trying to improve the livelihoods of smallholder farmers. Ultimately, poverty eradication is associated with fewer people working in agriculture, and more in larger formal sector firms, as the case studies that follow will illustrate.

There are instances where better performance in agriculture draws people back into farming, but the emergence of more productive farmers often goes alongside people moving out of agriculture, into rural non-farm enterprises or urban areas. The most obvious mechanism is that more productive farmers can supply more food at lower prices, which promotes urbanisation. But prosperous farmers also create demand for services in rural areas. A farmer is more likely to hire a carpenter or want farm machinery serviced when doing well. Cyclical changes in commodity prices – such as the prices of tea and coffee, cocoa, rice, maize, and edible oils – can change the fortunes of farmers, but periods of secular agricultural growth are driven by investments in mechanisation and rural infrastructure (roads, irrigation, communications, electrification) and technologies such as high-yielding seed varieties suitable for a country's particular agro-climatic environment.

Some forms of poverty are most easily addressed in urban centres with more active markets, better infrastructure, and proximity to local public services. Remote rural poverty is often higher and may be harder to reach, because economic linkages from the productive centres of the economy tend to be weaker, and many people are unable or unwilling to migrate to cities. At the national level, solely urban-based growth tends to be less poverty-reducing: although there may be positive spillovers from urban growth to rural areas, these have a less dramatic effect on rural poverty than when combined with rural investment. South Korea, for example, started with a policy of 'growth first', but its leaders soon realised investments targeted at rural areas would be necessary to bring poverty down rapidly. While some successful countries have prioritised growth over distributional concerns for some periods, those tended not to be the periods of most rapid poverty reduction.

But despite the importance of rural agricultural and non-agricultural growth for an immediate impact on poverty, investment in urban sectors and industry appears to be essential for sustained poverty reduction in the long run. First, urban growth reduces urban poverty, which is lower than rural poverty but can still be significant. Second, urban growth leads to rural-urban migration, which raises the incomes of migrants and enables them to send remittances to rural family members; and where migration lowers pressure to subdivide scarce high-quality land, this can increase rural incomes per head. Urbanisation is the process that drives economic modernisation and transformation over the longer run. It is inconceivable that countries like China and South Korea could have achieved their sustained rates of poverty reduction over time without rapid urban growth complementing rural growth.



No country's poverty eradication ambitions stop at trying to improve the livelihoods of smallholder farmers.

<sup>5</sup> Asher, et al., (2022) study irrigation canals in India and find they raise farm productivity and the local population, increasing the agricultural intensity of the regional workforce, despite also inducing some urban growth in nearby towns.

<sup>6</sup> Carter & Thwaites (2021) show that about half of 41 historical episodes of rapid and sustained poverty reduction were accompanied by investment booms, and of those that were not, half saw terms of trade improvements (increases in the prices of exports relative to those of imports). Investment booms without poverty reduction were rare – they found only seven such episodes.

Indirect mechanisms like these have sometimes lowered poverty dramatically in the space of a few decades, as the later case studies will document. Poverty reduction in successful countries has also depended a great deal on government social spending, including pensions and other cash benefits, and public health and education services. This spending relies on the proceeds of growth *per se*, independently of the parts of the economy where growth originates. These expenditures have a first-order effect on poverty reduction and are strongly dependent on the level of GDP per head. Countries tend to spend a higher *share* of GDP on poverty-reducing social expenditure as income per head rises, leading to an even more rapid increase in *absolute* social expenditures because of that same rise in GDP per head. Thus, any growth-inducing investments would be expected to lead to higher social spending further down the line, which in turn leads to poverty reduction.

Growth translates into rapid poverty reduction when three ingredients are combined and reinforce each other: rural investment and improvements in agricultural productivity, urban investment and economic modernisation, government expenditure on public services and social protection. Figure 1 illustrates some of the positive feedback mechanisms between these three ingredients. These indirect mechanisms will be elaborated, and supporting evidence presented, in section 3: Drivers of inclusive growth.

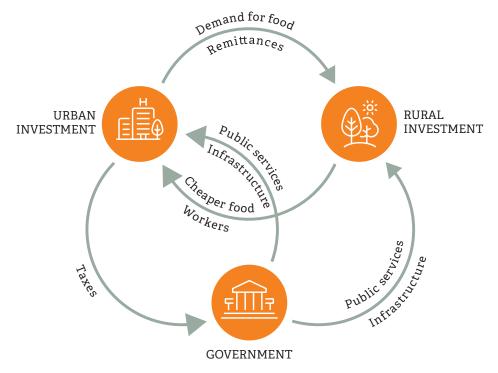


Figure 1: Three complementary ingredients of successful poverty reduction

One important phenomenon must be mentioned: the possibility that growth episodes might not only fail to help the poor, but may even make them worse off, which Shaffer, et al., (2019) call "immiserizing growth". There are clear cases of 'immiserizing growth' due to governments deliberately oppressing certain minority groups, which they describe as *active exclusion*. It can also occur less deliberately through *failed inclusion*, where policy changes or structural transformation lead to aggregate growth while also redistributing income in ways that harm certain poor groups. In principle, governments can implement policies to compensate those who lose out, but in practice often fail to do so. Teichman (2019) argues that indigenous people in Mexico were overlooked during its period of rapid growth in the three decades after the Second World War. Investment in irrigation, for instance, was made overwhelmingly where it benefitted large commercial agricultural export holdings rather than indigenous farmers. The solutions to these problems are political.

What do the experiences of countries that have succeeded in translating growth into poverty reduction imply for private development finance? At the highest level of simplification, the private sector will be needed to modernise economies, which often involves urban growth that can be quite distant from the lives of the poorest, while it is the public sector that is chiefly responsible for sharing the proceeds of growth across society.

But below that level of simplicity, private sector DFIs can play a more varied role in poverty reduction. Private investment is feasible in some aspects of rural investment, such as telecommunications networks, and the private sector can improve the supply of agricultural inputs, promote farm mechanisation, invest in supply chains, and connect farmers to markets.8 Private finance can help the banking industry and other lenders expand into rural areas, and excluded sections of society in urban areas, and DFIs can also prioritise those businesses that more directly reach people living in poverty. More generally, a private sector with healthier and more diverse production networks, and stronger linkages across society, is more likely to create positive spillovers from growth than a private sector that is concentrated in a few industries.

The next section of this paper provides a brief overview of some economic theory and cross-country evidence on the relationship between growth and poverty reduction. This is followed by sub-sections that draw out the most important points in more detail. The second half of the paper covers specific examples of countries that have translated growth into poverty reduction, and two that have not. The case studies help to illustrate the earlier points, and draw attention to the variety of experiences, but also some common themes. The paper draws on a set of background studies written by different researchers, each of whom selected individual countries based on their expertise.

This paper adds detail to the picture of when investment and growth results in poverty reduction. We have chosen to emphasise urban and rural investment, and social programmes. There are other important ingredients to this story that we have largely set aside, such as the wider roles of investments in health and education, the demographic transition and the effect of smaller household sizes on national saving, the politics of growth and redistribution, the policy environment and need for governments to build operational capacity, and the quality of other civil institutions and the consequences of corruption. This paper describes what successful and unsuccessful poverty reduction involve, it does not attempt a deeper explanation of why some countries succeeded and others fail.

<sup>7</sup> This is not to be confused with a different sense of the term 'immiserizing growth' from trade theory, due to Bhagwati (1958), which concerns total national income rather than the incomes of the poor specifically.

<sup>8</sup> By 'private investment' we have in mind larger sums invested in formal sector firms or financial intermediaries, relevant to development finance.

<sup>9</sup> This does not imply that these other considerations are unimportant. Gethin (2023) estimates that education is responsible for 40 per cent of global extreme poverty reduction, for example.



2

# Economic development: theory and evidence

The most venerable economic theory about how investment translates to poverty reduction is the "dual economy" model of Lewis (1954) and also Kuznets (1955). Models in this tradition divide the economy into two sectors, one modern and the other variously described as traditional, agricultural, or subsistence. For Lewis, this is the subsistence sector, and includes agricultural labourers in rural areas using traditional methods on small plots of land, but also informal workers in both rural and urban areas, typically self-employed, such as street vendors.

In the usual analysis of the Lewis model, investment occurs only in the modern sector. This leads to growth that draws workers out of the traditional sector, which acts as a 'reserve army' of workers that prevents the wages in the modern sector from rising. Thus, at first, the benefits of growth and rising productivity accrue to capitalists in the modern sector, not their workers, and inequality rises in the modern sector and nationwide. But if the growth of the capital stock outpaces population growth, there comes a time when the reserve army of labour has been exhausted and wages begin to rise, as capitalists are forced to compete with one another to attract workers; see, for example, Ranis and Fei (1961). In the simpler Kuznets framework, the main prediction is that inequality will at first rise and then fall as development progresses, as relative employment shares change.



Dual economy models suggest that for a protracted period investment and industrial growth may have very little effect on poverty yet in the long run it is the only way to eliminate poverty. What are the implications for investment-growth-poverty linkages? That for a protracted period, investment and industrial growth may have very little effect on poverty, yet in the long run, it is the only way to eliminate poverty. At some point, economies should see a 'turning point' after which wages rise and poverty falls. The more investment in the modern sector, the sooner that time comes. An account of how extreme poverty was largely eradicated in China, written by the country's Development Research Center of the State Council, notes: "As in Lewis's canonical dual economy model, China's growth was driven by the reallocation of labour from the low-productivity ('traditional') agricultural sector to the higher-productivity ('modern') industrial sector." Around ten years ago, a spate of academic papers asked whether China had reached its Lewis turning point, with associated discussion in The Economist magazine, although the data suggest average wages had been rising steadily before then.11

What broader lessons can we learn from dual economy models and the data? The explosion in the availability of household survey data, which covers most of the world's countries for most of the last 40 years, allows us to examine these issues with far greater confidence than was possible in the late 20th century. Kuznets's derivation of an inverse-U curve for inequality is clearly violated in many countries. Regarding the Lewis model, Datt & Ravallion (1998) cite literature from the 1980s and 1990s that finds conflicting results for the case of India, with some papers arguing that growth processes were not reducing poverty at all, as in the Lewis model before the turning point. Indeed, World Bank estimates for India show that, while the share of people in poverty has been falling since the late 1970s, the absolute number continued to rise until 2004.<sup>12</sup> Only after that point did the number fall – but then fell rapidly.

The standard analysis of the Lewis model has no room for productivity improvements in the 'traditional' sector raising the incomes of the poor. whereas that is a feature of poverty reduction in many countries. Datt & Ravallion (1998) found that a rise in farm productivity did raise the incomes of the Indian poor, for example. But the fact that complicated reality involves more than a simple model does not rule out the basic mechanism of the Lewis model – a modern sector pulling unproductive labour out of the economic periphery, initially without immediately much lowering poverty.

Bleynat, Challú & Segal (2021) suggest Lewis's core argument can be applied over the long term in the case of Mexico. There remains a reserve army of labour that prevents wages from rising with aggregate productivity. They find that, since the 19th century, GDP per head grew eight-fold while real wages and real median incomes merely doubled. They attribute the increase to improved infrastructure and agricultural inputs that modestly raised the productivity of the informal self-employed. Gollin's (2014) survey of the international evidence concludes that the assumption of a constant subsistence wage in the traditional sector is not literally correct, but the broader point, that firms in the modern sector initially have access to a large pool of workers that maintains downward pressure on wages, is probably widely applicable.

### Multi-factor, multi-sector models

More complicated models of growth and poverty reduction involve different types of worker, and more sectors than just 'modern' and 'traditional'. Many of them were developed to think about who wins and loses from trade, and feature traded and non-traded sectors – for example, the '3x3' models in Corden & Neary (1982), with labour, physical capital, and an exported natural resource. These frameworks can be extended indefinitely as needed (Feenstra, 2004).

<sup>10</sup> World Bank and Development Research Center (2022).

<sup>11 &</sup>quot;China approaching the turning point", The Economist (January 2013), https://www.economist.com/freeexchange/2013/01/31/china-approaching-the-turning-point

<sup>12</sup> https://pip.worldbank.org/country-profiles/IND

For poverty analysis purposes, models can distinguish between low-paid workers and high-paid workers, which can be analysed as embodying or owning different factors of production, including different skill levels. Poverty depends on relative prices across sectors, on the relative abundance of factors of production (including labour), and on technology or productivity in each sector (Feenstra, 2004). These models imply that the incomes of the poor will rise in the following cases:

- A rise in the price of a factor of which poor households are net suppliers, typically their own labour time.
- A rise in the productivity of household production by poor households. or a higher price for a good or service of which poor households are net producers.
- A fall in the price of a good or service of which they are net consumers.

The case studies and empirical evidence reviewed for this paper suggest that in practice the first of these has been the most common mechanism in countries that have experienced rapid poverty reduction - or at least, it has been the easiest to identify in historical accounts.

These models are primarily used in trade analysis. Liberalisation that raises the price of agricultural goods, for instance, will raise the incomes of poor households that are net sellers of food and impoverish poor households that are net buyers.13 But they can be combined with data used to explore the effects of investments that change productivity in different sectors.<sup>14</sup>

The development of labour-intensive light manufacturing in East Asian success stories would appear in these models as rising productivity in a sector which draws on labour, and perhaps especially unskilled labour. The diversification of economies into labour-intensive sectors, with strategic opening to external investment, is one of the four aspects of "getting the long-term macro development perspective right" for pro-poorest growth, as identified by the Chronic Poverty Advisory Network.<sup>15</sup>

As numerous commentators have observed, labour-intensive manufacturing is becoming less common as automation advances, and hopes for pro-poor growth have now turned to labour-intensive tradable services. Navvar, et al., (2021) is an excellent survey of the potential of the services sector to raise productivity and absorb labour. Productivity improvements in non-tradeable consumer services are not always especially powerful for poverty reduction. Fan, Peters, & Zilibotti (2021) model both production and consumption effects across sectors in India. They find that rising productivity in agriculture benefitted the poor by more than the non-poor, while the benefits of rising productivity in services were highly skewed towards better-off consumers, although with some benefit to the poorest.



Labour-intensive manufacturing is becoming less common as automation advances, and hopes for propoor growth have now turned to labour-intensive tradable services.

<sup>13</sup> These gains do not always materialise. Trade liberalisation under NAFTA in Mexico in the late 1990s lowered the price of corn. This harmed poor corn producers, as would be expected, but the expected benefit to poor corn consumers did not materialise because cartelisation in the tortilla industry meant tortilla producers did not pass on the price decline to consumers (Nadal, 2000).

<sup>14</sup> Loayza & Raddatz (2010) study a cross-section of 55 developing countries and find that growth in sectors that rely more intensively on unskilled labour makes the greatest contribution to reducing poverty rates. The empirical results show that agriculture is the most effective poverty-reducing sector, followed by construction and manufacturing.

 $<sup>15\</sup> The\ other\ three\ are\ diversification\ of\ rural\ livelihoods; improving\ the\ conditions\ of\ informal\ or\ casual$ workers; and policies to manage micro and macro risks. See CPAN (2016), Pro-Poorest Growth working paper 2.

### **Box 2: Structural change**

As countries grow, fewer people work in agriculture and more in manufacturing and services. Figure 2 shows how countries that have now reached upper middle-income status, and have eradicated extreme poverty, underwent structural change. Structural change ideally involves movement of workers from low to high productivity occupations, but that cannot be reliably inferred from sectoral employment trends alone. In some countries, people may leave agricultural employment and migrate to cities only to find unproductive and precarious informal employment in the non-tradable service sector.

The Economic Transformation Database, maintained by the Groningen Growth and Development Centre, captures changes in employment in detail, across ten main sectors of the economy (or twelve in the newest version). If countries are sorted into poverty eradication successes and failures, a few patterns emerge. Looking at changes in sectoral employment, expressed as a percentage of overall employment, manufacturing employment grew noticeably faster on average among the success stories, whereas growth in business services, which includes jobs such as security guards and cleaners, has been faster on average among poverty failures. In other sectors, there is no clear pattern.<sup>16</sup>

Analysis from the BIG Lab at the University of Notre Dame has taken the top 30 countries globally that have experienced sustained economic growth since 1990, and then sorted these in groups of strong poverty reduction (ten countries), weak poverty reduction (15 countries) and poverty increases (five countries). Unfortunately, the available data on economic structure are very patchy for this set of countries, so sample sizes are too small to place much weight on – but there appears to be the same pattern, associating more rapid growth in industry and services with more rapid poverty reduction. Growth in total employment, as a share of population, is clearly associated with stronger poverty reduction.<sup>17</sup> Interestingly, roughly half the members of each grouping saw inequality increase. This tells us that inequality does not always increase when countries grow rapidly, but also that rising inequality is often seen alongside rapid poverty reduction and does not preclude it.

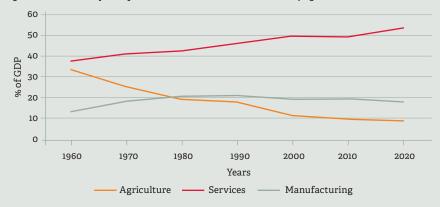


Figure 2: Sustainable poverty eradication involves movement out of agriculture

Source: Average shares of GDP among Upper Middle Income countres, World Development Indicators

<sup>16</sup> Based on calculations kindly supplied by Professor Emmanuel Mensah, Utrecht University School of Economics.

<sup>17</sup> For details of how employment data is obtained, see What's new in PWT 10.0.



# **Drivers of inclusive growth**

This section reviews the evidence of successful poverty reduction, drawing on both cross-country and within-country empirical evidence. The discussion is organised around three themes or ingredients of pro-poor growth: the roles of investments in the rural economy, investments in the urban economy, and government social spending. In many countries, all three have mattered for poverty reduction, for the reasons explained below. The second half of the paper will illustrate this by presenting a set of case studies, mainly of countries which have seen extreme poverty fall dramatically over recent decades.

Although we have chosen the headings of rural and urban investment, we could alternatively – and in the spirit of the Lewis model – have cut across urban and rural economies by distinguishing modern from traditional sectors. Success stories typically see growth in modern forms of production, via the replacement of smaller and less productive informal farms and firms by larger commercial farms and formal sector firms. The long-run outcome is fewer people working on the land and in the informal sector, as in the history of countries which have made a transition to high income status.

The case studies presented highlight investments in agriculture and rural areas, and public spending on health, education, and social protection. While individual country case studies less often highlight urban growth as a proximate cause of poverty reduction, there are several reasons why it can play an important role in the medium and long run. First is the impact of higher national income on the tax base: the proceeds of growth can be used for public investments to broaden growth and to finance social spending. Second, through the dual economy mechanism of rural-urban migration, urban growth raises the income of migrants who move from the lowerproductivity sections of the rural sector to the higher-productivity urban sector. Higher urban wages can also cause rural firms to raise wages to retain workers.18 Third, by raising demand for rural food production while drawing relatively unproductive workers off the land, and hence increasing the ratio of land to agricultural workers, it can raise rural incomes per head. Fourth, remittances from urban workers can benefit members of their families who remain in rural areas. Fifth, by generating the foreign exchange necessary for rural production upgrading, which is intensive in imported equipment.

<sup>18</sup> The entry of foreign firms that pay better wages has a similar effect on wages offered by local firms – see the box on FDI, on page 24.

### Box 3: Growth, poverty and inclusion

Bergstrom (2022) finds that, since 2000, 90 per cent of the historical variation in extreme poverty across 135 countries can be explained by changes in national income per person (average income). The fact that variation in growth explains almost all of the historical variation in poverty reflects the fact that average incomes have historically varied a great deal, increasing many times over in the span of decades, whereas inequality tends to be more stable.

The relative importance of national-level growth and redistribution changes with the time horizon. Looking at the relationships over the short run, growth is still the most important determinant of poverty, but redistribution that favours the poor is still reasonably important. For time spans of decades, economic growth is the dominant influence on poverty. Kraay (2006) studies household survey data for a large sample of developing countries in the 1980s and 1990s. Implementing a variance decomposition, he found that, in the short run, changes in inequality account for 30 per cent of the variance of changes in poverty; but in the long run, this falls to just three per cent.

The relationship between growth and the empowerment of women is complicated. There is a wide range of female labour force participation rates across countries at the same level of income, and the raw correlation with income per capita across countries is negative. 19 Duflo (2012) reviews the evidence for developing countries. She concludes that poverty and lack of opportunity tend to breed inequality between men and women, so that when overall poverty is reduced, gender inequality may also improve. Hence, the condition of women may improve more with growth than the condition of men, at least on average. In some countries, economic growth and a shift towards employment in larger firms has resulted in improved outcomes for women, such as higher levels of educational attainment and delayed marriage and childbirth, as documented in Bangladesh by Heath & Mobarak (2015). Gender discrimination is also a source of economic inefficiency. Chiplunkar & Goldberg (2023) estimate large aggregate gains from the removal of barriers to female entrepreneurship, for example, as those more productive female-owned firms would displace the less productive male-owned firms.

Despite the overwhelming importance of growth for poverty reduction, growth is unlikely to be enough on its own to eradicate poverty within the timetable of the SDGs. Yusuf, et al., (2023) combined existing growth forecasts with the historical relationship between growth and poverty to show that the SDGs will be missed by a wide margin. They call for investments in productive capacities to raise growth, and a renewed focus on redistribution.

### Investments in the rural economy

In many of the cases of rapid poverty reduction covered in this paper, governments intervened in rural areas, typically starting from positions where poverty was high. The simple reason is that the large majority of people in poverty are to be found in rural areas, most - though not all - of them working at least partly in agriculture. While agriculture is the main driver of rural economies, finding additional or alternative work in the rural non-farm sector is often a route out of poverty. Lanjouw, et al., (2013) find that, for rural India, the rural off-farm sector is both more dynamic and relatively pro-poor. and an important contributor to lower poverty.

19 Our World In Data: Female labor force participation rate vs income per capita.

Agricultural growth is often found to be pro-poor. Looking at 62 countries from 1978-2011, Ligon & Sadoulet (2018) find that income growth from agriculture has a progressive effect on the distribution of expenditures and argue that this seems a "very robust" feature of the data. They find some evidence that the benefits from income growth from agriculture are largest for the poorest households in the poorer countries.

Land reforms and investment in rural areas were among the most important elements of the poverty success stories in some of the East Asian miracle economies, perhaps better known for rapid economic modernisation through heavy industry and light manufacturing. The later case studies of China, South Korea, and Vietnam describe their respective policy histories in more detail.

Land tenure reform in China in the 1970s, known as the Household Responsibility System, "unleashed the energy and resources of scores of millions of farm families" and was enormously successful in lifting the living standards of hundreds of millions of rural people.<sup>20</sup> In Vietnam, egalitarian land privatisation gave out nearly 11 million land titles by 2000, setting the stage for agricultural growth and poverty reduction (Klump, 2007). Vietnam took a somewhat different route from China, closer to private ownership, when it broke up collective farms and allocated land to individual households with the intention of allowing land to be traded to improve allocative efficiency.21

In both cases, distributing land rights to rural households, combined with dramatic productivity improvements, were tremendously powerful in reducing poverty. In South Korea, the development strategy was initially "growth first, distribution later", but after successfully achieving rapid urban growth and poverty reduction in the 1960s, the government introduced a rural development plan in response to the fact that rural poverty was falling too slowly.

Land reform has a more complicated and varied history across Africa. Rather than starting from collective ownership under communism, many countries were grappling with the legacy of colonialism. Despite repeated attempts at land reform in several countries, land ownership remains highly unequal in many African countries. See Byamugisha (2013) and Ochieng (2020) for discussions of countries' experiences and opportunities. Numerous studies conclude that restrictive land market institutions result in land rarely being farmed by the most productive farmers growing the best-suited crops, and are responsible for lower agricultural productivity in poorer countries – see Ayerst, et al., (2023) for an example.

Unequal land holding not only affects how agricultural incomes are shared or concentrated in the hands of elites, but may also influence the long-term politics of countries and hence their economic policies. Galor, et al., (2009) argue that unequal land ownership inhibits the emergence of public schooling and thus slows the pace of the transition from an agricultural to an industrial economy.

As the case studies will show, countries that succeeded in poverty reduction have often made significant rural investments. These may be in local roads and irrigation, and infrastructure that increases connectivity between agricultural producers and urban areas (intercity roads and other transport, telecommunications). Investment in technologies such as improved seed varieties has also often played an important role. Besley & Cord (2007) analysed eight countries that successfully reduced poverty (Bangladesh, Brazil, Ghana, India, Indonesia, Tunisia, Uganda and Vietnam). They found that high transaction costs and low market access in agriculture constrained the earning power of the poor in rural areas, and hence investments in connective infrastructure were essential for poverty reduction. In Arndt & Tarp's (2016) analysis of 16 sub-Saharan African countries, they found agricultural growth was a key driver of poverty reduction in all five countries that enjoyed periods of relatively strong growth and poverty reduction (Ethiopia, Ghana, Malawi, Rwanda, and Uganda) in contrast to countries

<sup>20</sup> Taken from a 2009 USAID briefing note China: Lessons from a successful land rights reform.

<sup>21</sup> The 2008 article Land and Poverty in Reforming East Asia by Ravallion & van de Walle, in the IMF Finance and Development magazine, compared China and Vietnam.

that saw growth without corresponding poverty reduction (Burkina Faso, Mozambique, Nigeria, Tanzania, and Zambia). The provision of roads and electricity linking rural areas, small towns, and major cities aided poverty reduction in rural Bangladesh, India, Tunisia, and Vietnam (Cord, 2007).

Looking at some individual cases, in Ethiopia, the strategy of Agricultural Development-Led Industrialization (ADLI) included major investment in roads, their distance covered doubling over 1993-2008, integrating agricultural markets and connecting most regional capitals by 2011. 45,000 agricultural extension agents, among the highest number per farmer in the world, promulgated improved agricultural methods, seed varieties, and increased use of fertiliser (Stifel & Woldehanna, 2016). In Indonesia, rural development and poverty reduction depended on investments in roads (especially farm-tomarket roads), communications networks, market infrastructure and ports, and irrigation and water systems (Timmer, 2007). Similarly, in Thailand, public investment in irrigation, agricultural research, and rural roads was effective (Fan, et al., 2004). Sen, Mujeri, & Shahabuddin (2007) describe investments in flood infrastructure and flood season safety nets for poorer farmers in Bangladesh that reduced the risks they faced.

### **Box 4: Rural electrification**

Supplying grid connections to low-income households is difficult to do profitably. This does not rule out private sector investment, because contracts with private distribution companies can be designed where the government covers the shortfall, but it does mean that one way or another, the government often pays a share of costs from general taxation.<sup>22</sup>

Lee, et al., (2020) found that willingness to pay for grid connections in rural Kenya is a fraction of what would be needed to recoup construction costs. Between 2015 and 2019, Kenya more than doubled the number of grid connections through an aggressive campaign that included the Last Mile Connectivity Project. But reaching poorer households has resulted in total electricity consumption increasing only by a mere 25 per cent, with the result that Kenya Power's profits were wiped out.23

South Korea's astonishingly successful rural electrification was delivered by the state-owned Korea Electricity Power Corporation, financed by loans from the government and development banks such as the ADB and IBRD. Between 1965 and 1979, the rural electrification rate in South Korea went from 12 per cent to 98 per cent. See van Gevelt (2014) and GDI (2017) for detailed accounts.

BII portfolio company Gridworks recently announced the first new private-sector national electricity distribution company in Africa for over a decade: Weza Power in Burundi, a country with one of Africa's lowest electrification rates. Only 12 per cent of Burundi's 12 million people currently have access to electricity, with that number falling to 2 per cent in rural areas. Weza is a public-private partnership with the long-term goal to raise around \$1.4 billion over seven years to build a network to connect two-thirds of the country, without the government of Burundi needing to raise additional loans from its own balance sheet. Burundi's existing state-owned transmission network will continue to supply the country's main urban areas. Financing for the grid expansion will include commercial equity and debt, and – rather than transfers from the Burundi government – multilateral donor climate finance and other concessional funding, and private grants.

<sup>22</sup> McRae (2015) explores the difficulties of subsidising connections to low-income households.

<sup>23</sup> Taken from the Energy for Growth blog: The problem with Kenya Power's revenue model in three graphs.

Some such investments are not confined to rural areas in their effects. such as roads that link rural areas with urban centres, or power generation that serves large regions. Stronger economic linkages between rural and urban areas are key to ensuring growth in one area has positive spillovers to other areas. For instance, in Ethiopia, Stifel & Woldehanna (2016) report that investment in dams for power generation and in communication infrastructure, largely meeting urban demand, increased productivity in food markets. Adam, et al., (2018) model the distributional effects of public investments in Tanzania, and find that the rural unskilled are made better off when investments are targeted at non-agriculture rather than agriculture. indicating the potential importance of linkages across markets.

Narayan, et al., (2009), in their multi-country survey of movements out of poverty, based on interviews with tens of thousands of poor people across 15 countries, found that positive factors include overall local prosperity, the physical presence of markets in a village, and proximity to cities and roads. Survey respondents made similar suggestions: "Poor people in our study suggested five general approaches that could help: construction of roads; promotion of access to markets; investments in inputs like water, electricity, and telecommunications; provision of more credit; and easing of access to land, land titles, and business licences."

Rural road networks emerge as especially important in the work of Narayan and co-authors, based on the perceptions of people reflected in their surveys. Roads "create links between people in remote rural areas and the outside world, and between small farmers and traders looking for a good crop" (Narayan, et al., 2009, p. 202). They also serve as catalysts for new occupations. and overall, "Roads are the most impersonal mechanism that makes a difference, and almost universally so, across our sample of communities in different study contexts". Narayan, et al., suggest that even small increases in the cost of transporting produce to markets hurt small producers. The expansion of road networks, and their maintenance, typically require funds from governments or donors.

Other forms of support for improved farming methods can also play a role. Investment in improved seed varieties has raised agricultural productivity, thereby reducing poverty by raising rural farm incomes and increasing the availability of food. Support for farm productivity was important in China and South Korea – see the case studies below – and similar developments have been highlighted in studies of Ethiopia (Stifel & Woldehanna, 2016), Indonesia (Timmer, 2007), and Thailand (S. Fan, Jitsuchon, & Methakunnavut, 2004). More broadly, Gollin, et al., (2021) used crop planting and production data from 90 developing countries and the timing of the introduction of high-yielding varieties to show that the Green Revolution had an enormous impact. Had the Green Revolution never happened, their estimates imply GDP per head in the developing world would be half its current level.

### Caution about rural investment

Although rural investment is emphasised in many case studies of poverty reduction, recent quantitative research sometimes casts doubt on the reliability of historical narratives and the impacts of rural investments they suggest. For example, Ferguson & Kim (2023) estimate crop yields from historical satellite images. They show the increase in yields was not related to the introduction of the Household Responsibility System in China, but more likely resulted from the accompanying price liberalisation, even though numerous case studies have credited the HRS. Asher & Novosad (2020) find little impact of India's ambitious rural road programme on village consumption and production, although roads help villagers leave to work elsewhere. Likewise, Burlig & Preonas (2022) find that India's equally ambitious rural electrification programme had no significant impact in smaller villages on economic outcomes such as expenditure. They do find firm growth and positive returns in larger (more than 2000 people) villages.

These papers identify causal effects by looking at how outcomes are related to exogenous variation in the dates at which different villages are reached. But investments such as a road or a grid connection, in isolation, should not necessarily be expected to transform the fortunes of villagers. These estimates do not tell us about the total effect of packages of complementary rural investments, perhaps targeted at locations where governments think they will be most effective, and perhaps accompanied by economic growth elsewhere in the country. In the case studies later in this paper, there is some evidence of the practical importance of measures such as electrification, as in Vietnam. Nonetheless, this recent research suggests that rural investments, such as roads or electrification, may sometimes have only modest effects, at least unless complemented by other investments.

### **Box 5: Food security**

As with poverty reduction, there is a short and a long-run side to the food security problem. Many of those suffering from hunger are smallholder farmers who rely on food they can grow to eat, and to generate income to buy food they cannot grow.

About 80 per cent of farms are smaller than two hectares in low and lower-middle income countries; they operate on about 30 to 40 per cent of land and produce about 40 per cent of food by value. Farms get larger as countries get richer: farms greater than five hectares cover 28 per cent of farmland in low-income countries, nearly 40 per cent in lower-middleincome countries, 85 per cent in upper-middle-income countries and nearly 99 per cent in high-income countries (Lowder, et al., 2021). Wealthy economies are generally more capital intensive than poor, but the difference is far greater in agriculture – comparing the USA against the 20 poorest countries, the quantity of capital per worker differs ten-fold outside agriculture, but by a factor of 165 in agriculture (Chen, 2020).

Increasing the productivity and reliability of small farms should result in an immediate improvement in food security. In Asia, productivity growth on small farms was the catalyst for economy-wide rural and structural transformation. Food security is higher when incomes are higher, so spending on food consumption is a smaller share of household budgets and food price spikes do not push people into hunger and malnutrition. Moving from the farm to a better-paid job in manufacturing or services may do more to improve a person's food security than intervening to improve yields on their small farm.

Timmer (2017) argues that markets must be allowed to perform their function of price discovery, to reveal which resources are scarce and abundant, and signal to farmers what to produce. Markets also transform food commodities in time, place and form, to meet people's needs. But he also argues that allocating food by market forces alone is not enough. Too many people are too poor to afford sufficient food or grow it on their own land: "Additional policy instruments are needed, but they all need to operate compatibly with market prices". Public expenditures and transfers are important, in the form of safety nets to maintain incomes above a minimum, to provide free school meals, and to acquire and manage grain inventories to stabilise prices.

Timmer outlines three fundamental transformations for sustainable food security. First, structural transformation, with a rising share of urban economic activity and modern services; because structural transformation is partly driven by rising productivity in agriculture, it has historically delivered lower food prices. Second, agricultural transformation, exploiting international trade, and the commercialisation of decision-making and technology adoption. Third, dietary transformation, with the share of starchy staples in diet falling as incomes rise.



Investments such as a road or a grid connection, in isolation, should not necessarily be expected to transform the fortunes of villagers.

Giller (2020) argues that the core food security conundrum is how to produce food cheaply enough to feed urban populations and to export, while also providing incentives for investments by farmers, many of whom have too little land to make investment worthwhile. He concludes: "Incremental changes in yields cannot achieve this. Technologies for smallholder farms can enhance food self-sufficiency but in general are insufficient to achieve a living income for the households... major structural change to the farming systems is needed – to allow farms to grow in size to be economically and agronomically viable."

Jayne, et al., (2022) note there are signs of growth by mid-sized farms in Africa, managed by relatively educated and entrepreneurial farmers. which is catalysing change by encouraging new investments (in machinery rental, storage, and local buying stations) that also improve market access for local smallholders. The extra income earned has positive spillovers for the local non-farm economy. Knowledge diffusion from more entrepreneurial commercial farmers may be especially important – Jain, et al., (2023) show improved cultivars and planting practices are proven means of sustainable intensification by smallholders. But larger farms can do harm too. Heightened demand for land by large farmers can drive up land prices, to the detriment of non-land-owning smallholders, and in some cases, smallholders suffer from forced displacement and denial of access to ancestral lands.

### The rural non-farm sector

In most poor countries, a very high share of adults earn a living by farming. but the non-agricultural side of the rural economy is often part of their route out of poverty.

Mellor (2017) draws on decades of his experience in agricultural development and argues that the agricultural economy in most poor countries should be seen as consisting of two groups: small-scale commercial farmers, who are not poor, and those who are subsistence farming or in rural non-farm work. In his analysis, productivity growth in commercial agriculture – especially growth in crop yields – is key to pro-poor growth. This is because it expands the local demand for goods and services produced by the extreme poor who are in rural non-farm work, and eventually eliminates subsistence farming. But some evidence suggests additional mechanisms; see the case of India below, in which firms deciding where to locate factories were attracted to rural areas with lower wages, where agriculture was performing less well.

Many people split their time between farming and other occupations. In a study of how smallholder farmers' activities contribute to poverty reduction in Tanzania, for example, Mager & Faße (2023) found income from non-farm self-employment was the only income source with a constant decreasing effect on the incidence, severity and depth of poverty. Narayan, et al., (2009) asked survey participants in 15 countries how those who moved out of poverty had done so. About three-fifths attributed this to individual initiative in the non-agricultural sector, while only around 17 per cent attributed it to initiative in agriculture. Findings like these would have supported the initial optimism about microfinance, whereas we now know that, as a rule, only a small share of microenterprise borrowers are able to invest loans in a way that significantly increases their incomes. But the evidence does suggest that a more inclusive financial sector that serves firms in rural areas is important for poverty reduction.



In Tanzania, income from non-farm self-employment was the only income source with a constant decreasina effect on the incidence. severity and depth of poverty.

### Box 6: The financial sector

When poverty is initially very high, rapid reduction usually requires growth in agriculture, where productivity improvements often require mechanisation (Chen, 2020, and Caunedo & Keller 2021). But farm machinery needs financing, which in turn calls on the financial sector. That is one instance of a more general point: for positive spillovers from growth to spread, the financial sector must be willing and able to finance investment opportunities as they arise across an economy, especially among smaller firms which can be closer to the lives of people in poverty. Since finance is needed for farmers and firms to exploit opportunities that are created as economies develop, it is complementary to other forms of rural investment. Agarwal, et al., (2023) show that the extension of rural roads in India, for example, resulted in higher rates of bank lending for productive uses, and that people with fewer assets benefited more in terms of receiving higher loan amounts.

Finance-intensive growth, as measured by banking depth, has historically been associated with declining poverty rates. Honohan (2004) found that financial development reduces income inequality by disproportionately boosting the incomes of the poor, and that countries with betterdeveloped financial intermediaries see faster declines in measures of both poverty and income inequality. Beck, et al., (2007) also found that financial development disproportionately boosts incomes of the poorest quintile and reduces income inequality.

More recent work has focussed on the relationship between finance and inequality – with the caveat that increasing inequality does not imply a lack of progress for people living in poverty – poverty has often fallen rapidly at the same time as increasing inequality (see 'Structural change' on page 10). Proaño, et al., (2023) find that, on average across countries, economic growth tends to increase the income share of the lowest 10 per cent of income earners when financial institutions are deeper and more efficient. Cihak & Sahay (2020) use newly available data to show that initially financial depth is associated with lower inequality, but only up to a point, after which inequality rises; most countries in Africa and Asia have not reached that point. At high levels of development, deeper financial systems are associated with a surge in top incomes and financial sector profits.

The data also show that greater financial inclusion tends to be associated with reductions in inequality. For access to and use of payment services, benefits are greater for those at the low end of the income distribution. Both men and women benefit, but for women the association with inequality is stronger. With regard to credit extension, at low and medium levels of national financial depth, greater access to credit reduces inequality, while when financial depth is already high, inequality increases with credit expansions. There are numerous studies that exploit the regional expansion of banks in low- and middle-income countries, with lower levels of financial depth, to show its impact on poverty.<sup>24</sup> Increasing the supply of credit to the private sector, in a way that extends beyond the activities of economic elites, is instrumental for poverty eradication.

Finance is not an unalloyed good – it is often the source of crises that have a devastating effect on poverty and the ability of governments to combat it. What matters is how credit is allocated. Müller & Verner (2023) use the tradable and non-tradable sectors as imperfect proxies for productive and unproductive investment. They show that credit expansions to the nontradable sector (largely real estate) systematically predict slowdowns and financial crises, whereas credit expansions to the tradable sector are associated with sustained output and productivity growth.

Countries with betterdeveloped financial intermediaries see faster declines in measures of both poverty and income inequality.

24 Footnote 6 of the BII blog Why the financial sector matters for development lists many of these studies.





### Investment in the urban sector

Most poverty miracle' success stories have also been stories of urban growth, and of structural change that moved people out of agriculture and into manufacturing and services. In China, for example, the rural population share fell from 81 per cent in 1980 to 36 per cent in 2022, during which time extreme poverty fell from over 70 per cent to almost zero. The share of employment in agriculture fell from 70 per cent in 1978 to 18 per cent in 2015. In South Korea, the rural population share declined from 72 per cent in 1960 to 26 per cent in 1990. A more recent poverty success story, Vietnam, has seen rapid growth originating in the urban sector. Formal manufacturing employment grew almost five-fold in Vietnam between 1999 and 2017, and employment in foreign-owned firms expanded from 0.3 million people to 3.9 million over that period.

This may appear inconsistent with what the preceding sections had to say about the importance of rural investment and agricultural growth for poverty reduction. The key to reconciling the two ideas is to distinguish between the short and long run, and to allow for positive feedbacks between rural and urban growth. Urban growth raises demand for goods produced in rural areas, pushes up urban and rural wages, and generates government revenues to finance social expenditures and rural investment (or to repay the loans that financed them). In addition, productivity gains in manufacturing and services lower the relative prices of the capital goods needed by rural economies, such as machinery, transmission lines, and construction equipment, and associated services, such as engineers and accountants, and generates the foreign exchange needed to import capital goods.25

 $<sup>{\</sup>tt 25\,The\,relative\,price\,of\,capital\,goods\,is\,higher\,in\,poorer\,countries, which\,makes\,investment\,more\,expensive}$ in terms of forgone consumption. The Vox column The price of capital goods: A driver of investment under threat gives a good overview.

A country in which 70 per cent of the population are farmers will see immediate progress against poverty if agricultural incomes rise, but escaping poverty means more than having enough to eat – it means being able to access and afford services and manufactured goods. That, in turn, requires people working in those sectors to produce not only those goods and services, but also the buildings, machinery, technology, and infrastructure needed to produce them. In theory, a nation of highly productive farmers might be able to export food and import everything else, but in practice, more productive domestic manufacturing and services sectors, which overlap with the urban economy but are not synonymous with it, are necessary to take a low-income country all the way to upper-middle income status in the span of decades. which is what it takes to eliminate poverty.26

Shepherd & Diwakar (2019) argue that more people escape poverty through "growth from below", meaning small investments by households and microenterprises, than through "growth from above", based on larger investments in the formal sector. Although economic transformation requires a shift of workers from less productive to more productive activities, they argue "higher productivity jobs may not be easily accessible to poor people, however, who may lack the skills or networks required for certain roles." This tallies with the findings of Narayan, et al., (2009) noted earlier, that most people attribute movements out of poverty to individual initiative outside farming.<sup>27</sup> But the short and long-run distinction applies here, as does the question of feedback between the formal and informal sectors, and between urban and rural economies.

Positive feedback between urban and rural growth cannot be taken for granted. In Asia, since the turn of the century, growth in manufacturing pulled labour out of rural areas and agricultural use of other inputs intensified. But recent work based on Wollberg, et al., (2023) investigates falling agricultural yields in Ethiopia, Malawi, Mali, Niger, Nigeria, and Tanzania over the last decade, and finds suggestive evidence it is explained by reduced labour inputs by more productive farmers, as urban growth allows them to spend more of their time on other occupations, and a shift towards hired labour.28 That may be good for farmers, but there is little sign that urban demand for food has driven local agricultural investment in these countries. The use of tractors and irrigation is still very low, for example. Most farms are still too small to reward mechanisation. This could indicate that the virtuous circle of complementary rural and urban growth may not occur spontaneously without government investment or may be restrained by a lack of access to finance or other barriers to investment in local agricultural supply chains and the creation of larger farms.



Most people attribute movements out of poverty to individual initiative outside farming.

 $<sup>26\,</sup>The\,intention\,of\,this\,paper\,has\,been\,to\,avoid\,relitigating\,growth-poverty\,arguments, but\,it\,is\,worth$ remembering that growth toward upper middle-income status is "empirically necessary" for poverty eradication. Lant Pritchett has written extensively on this point; his blog Economic growth in five charts

<sup>27</sup> It is not clear whether individual initiative includes finding work at larger firms.

<sup>28</sup> See this Yale Economic Growth Centre Q&A with Chris Udry.

Over the longer run, poverty is eradicated as small, precarious, and unproductive informal enterprises are displaced by the formal sector (La Porta & Shleifer, 2014) and more people have salaried jobs; but as Bandiera, et al., (2022) show, this process has stalled in many African countries, where the formal sector is not growing fast enough and there are too few large firms. Feedback between the formal and informal sectors is complicated: the commercialisation of farming sometimes hurts and sometimes helps local smallholders, for example, and small retailers can be hurt by the entry of large formal retailers, even while the rest of the economy benefits.<sup>29</sup> However, as the research of Mellor (2017) and Narayan, et al., (2009) suggests, "growth from below" is probably easier when the overall economy is prospering, creating demand for the goods and services that microenterprises and small firms produce, while seasonal work can be found in cities and remittances sent between family members. Urban productivity growth should also lower the relative prices of inputs small enterprises use. "Growth from above" helps "growth from below".

Growth from above does not always lower poverty. Countries such as Angola and Equatorial Guinea have seen significant growth, as measured by national GDP, without significant poverty reduction. Often, such countries failed to develop their domestic manufacturing and services sectors and have instead traded commodities – especially oil – for imports of finished goods. In some cases, urban growth has a different nature; rather than the development of diversified manufacturing and services, we see "consumption cities" where goods are imported and non-tradable services (retail, hospitality) serve elites (Gollin, et al., 2016). Urbanisation without productive investment will not achieve poverty eradication and does not generate resources for governments to spend on anti-poverty programmes. Santos, et al., (2016) find that countries with higher levels of exports, industry and services, and better control of corruption, have lower multidimensional poverty.

Agriculture's importance for poverty reduction changes over time as economies develop. Ligon & Sadoulet (2018) found that, historically, growth in agriculture led poverty reduction, but also noted that, over time, poverty will become more of an urban phenomenon: "The drivers of poverty reduction will then have to be found in the labour-intensive sectors and in the cities." A report by the World Bank and the Development Research Center of the Chinese State Council describes how growth in agricultural incomes drove poverty reduction up to the mid-1990s; from then onwards, rural-urban migration, combined with rapidly rising productivity, played a stronger role and remittances from urban migrants to their rural families became increasingly important to poverty reduction. Yuen Yuen Ang, whose book How China Escaped the Poverty Trap is the definitive account of how China achieved the sustained investment boom behind its escape from poverty, recounts how China's initially rural policy orientation "took a decidedly urban turn" after the 1990s.30 Santos, et al., (2016) note that agricultural growth was historically more important than industry for poverty reduction in China and India, but that "cross-country evidence suggests that, in the long run, fostering industrialization can help to reduce poverty". The case studies of China, Indonesia, South Korea, and Vietnam presented later will describe the role of urban growth in these countries' poverty eradication success in more detail.

29 The evidence on the poverty incidence of the commercialisation of local farms is mixed and contextspecific. Ogutu & Qaim (2019) study smallholders in Kenya and show commercialisation reduces basic needs deprivation amongst the poorest households, although better-off farmers see the greatest income gains. The analysis of Ma, et al., (2022) suggests the transition from small to large farms raises overall welfare, but rural welfare can decline, so compensating policies are needed. USAID (2009) notes that China does not have America-style large farms but has achieved relatively high productivity in two million small farms. Atkin, et al., (2018) study the entry of large foreign-owned supermarkets in Mexico. They find large welfare gains for the average household in municipalities where foreign supermarkets enter, driven by lower prices, but an adverse effect on profits and employment in the traditional retail sector.



In some cases, urban growth has a different nature; rather than the development of diversified manufacturing and services, we see "consumption cities" where goods are imported and non-tradable services (retail, hospitality) serve elites.

<sup>30</sup> This paper has set aside the political origins of growth, which is the focus of Ang's book. She describes how  $the \ Chinese \ state \ practiced \ "directed \ improvisation" \ that \ allowed \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ the \ goal \ of \ local \ experimentation \ with \ local \ experimentation \ with \ local \ experimentation \ experimentati$ attracting investment. Her lesson for other developing economies is: use what you have. See The Moral of

### Box 7: FDI

Foreign investment played a major role in many poverty success stories, such as China, Ethiopia, Indonesia and Vietnam. China's 'open door' policy began in the late 1970s, with special economic zones established largely in eastern coastal cities, which for a time accounted for almost 90 per cent of FDI into the country. Between 1993 and 2003, it attracted around \$500 billion of FDI, almost all of it greenfield investment. China's FDI policies were explicitly oriented around technological upgrading.

Bangladesh's garments sector is another famous FDI success story. The country is now a major exporter of garments, and the sector employs 3.6 million workers, 55 per cent of them women. More recently Ethiopia has had some success using special economic zones to attract foreign manufacturers. As well as increasing the domestic demand for labour, and hence increasing wages – at least in the absence of the Lewis mechanism - FDI can be a quick way for a country to acquire more advanced productive capabilities.

Beyond the obvious success stories, the evidence on the impact of FDI on local economies is more mixed, with some researchers finding negative effects. That is in part because FDI data cover a range of sectors, including oil and gas, which may have fewer positive spillovers, and also mixes greenfield investments in new productive capacity with the acquisition of existing local companies by foreigners. The main findings in the literature are reviewed by Javorcik (2015) and Saurav, et al., (2020). They conclude that foreign multinationals often pay a wage premium and create "good" jobs. Urena, et al., (2021) find that not only do multinational firms pay significantly higher wages, domestic firms also increase their wages to attract and retain workers when exposed to the entry of multinationals. Sometimes, there are discernible linkages from FDI to domestic upstream and downstream firms. FDI is associated with technology transfer and (often) foreign management and control, and may therefore have effects, such as spillovers of various kinds, which are more complicated than those of domestic private sector investment. Sampson (2024) explores when buyers in rich countries share technology with suppliers in poorer countries.

Hoekman, et al., (2023) combine information on 40 million people in 2,500 subnational units over 1987-2019, and find that FDI has a positive effect on structural transformation, increasing employment in modern industries and higher-skilled occupations. But most of the findings are driven by FDI projects involving the establishment of new production facilities. Investment in extractive activities is not associated with structural transformation or skill upgrading. For domestic firms, exposure to FDI is associated with growth in sales and employment, by generating new economic opportunities for domestic firms that, in turn, stimulate demand for workers and new skills in modern sectors of the economy. Mendola, et al., (2022) look at whether individuals in sub-Saharan Africa benefit from proximity to a foreign multinationals' affiliate company, and find that having one within walking distance correlates with an increase in overall employment, higher off-farm and lower on-farm employment.



# Public expenditures: transfers and public services

Public expenditures are an essential component of poverty reduction in all countries, in addition to the role of the state in supporting and broadening economic growth. They are also key to the investment-growth-poverty reduction nexus for the following reason: one of the ways that higher GDP per head can translate into lower poverty is through higher investment in public services and social protection, as documented below. The higher national income generated by economic growth increases the tax base that can be used to finance social spending. Following this observation, the argument of this section can be summarised as follows. First, public expenditures are an important contributor to poverty reduction, and more spending implies a greater impact on poverty. Second, as countries get richer, they tend to spend an increasing share of GDP on poverty-reducing programmes, and a fortiori therefore spend higher absolute amounts. This implies that, as a country gets richer, its social expenditures will typically have a greater impact on poverty defined at any absolute level. This is an indirect, but in practice extremely important, mechanism through which growth affects poverty.

It is important to distinguish this from the argument that countries should "go for growth" without concern for distribution. The latter is one interpretation of the finding that incomes of the poor on average rise at the same rate as income per capita (Dollar, Kleinberg, & Kraay 2016). What that argument ignores is that richer countries tend to do more redistribution, not just in absolute terms (redistributing more real income) but also in relative terms (redistributing a higher share of national income). This partly explains why the incomes of the poor on average rise at the same rate as income per head, not a reason to think redistribution is unimportant and only growth matters. In order to track the impact of public spending, economists sometimes define three types of income (e.g., Lustig, 2018). First is market income, including salaries and wages, and profits from own-production or any businesses owned. Second is disposable income, which is this income minus direct taxes and plus any transfers, including government benefits in cash or in goods for immediate consumption (such as food rations), and also including remittances. Third is final income, which is disposable income minus indirect taxes plus the imputed value of public services in kind, usually meaning public health and education services. Official measures of poverty usually refer to consumption expenditure, for which the closest income concept is disposable income – and in most cases the poor are neither saving nor borrowing. meaning that disposable income is equal to consumption expenditure. However, most analyses of poverty also discuss health and education outcomes, and multidimensional poverty indexes count these dimensions explicitly (Alkire & Foster, 2011; UNDP & OPHI, 2022).

Still, even focusing just on consumption expenditure, redistribution by governments can have a dramatic impact. Fiscal redistribution in European Union (EU) countries reduces the Gini coefficient by an average of 18 percentage points going from market income to disposable income.31 For lowand middle-income countries for which we have comparable data, the average is just 2.4 percentage points.<sup>32</sup> This implies enormous potential for poorer countries to redistribute more as they grow. In a series of papers (Ostry, et al., 2014; Berg, et al., 2018) and a book (Ostry, et al., 2018), researchers from the International Monetary Fund (IMF) found that redistribution tends to have a benign effect on growth, and they emphasise the long-run importance of spending on health and education.

Even with low levels of redistribution, relative to richer countries, the World Bank (2018) estimates that on average, across developing countries, 36 per cent of the very poor escaped extreme poverty because of measures such as pensions, public works and school feeding programmes. This goes up to 43 per cent for countries that combine the highest levels of coverage with high benefit levels.33 The implication is that government social spending can be highly effective in lowering poverty.

Social spending is especially important because poverty eradication is about preventing people from falling into poverty as well as supporting pathways out of it. This is the consistent message of the Chronic Poverty Advisory Network over the years.34 Krishna (2007) finds that ill health and health expenses, customary expenses on marriages and death feasts, indebtedness, and failures in irrigation can all trigger descents into poverty.

What are the specific expenditures that account for the dramatic poverty reduction sometimes achieved by transfers? They can be broken down into two categories: non-contributory benefits and contributory social insurance. Non-contributory programmes include conditional and unconditional cash transfers; pensions; transfers of food and other subsistence goods such as clothes; school feeding programmes; and public service fee waivers and targeted subsidies (World Bank 2018). Spending on these programmes averages 1.4 per cent of GDP in low-income countries, 2 per cent of GDP in middle-income countries and 2.7 per cent in OECD member countries; but

- 31 Calculated from https://stats.oecd.org/Income Distribution Database for EU countries, downloaded 21/12/2021.
- 32 Distributional incidence average based on 55 low- and middle-income countries from Commitment to Equity (CEQ) data at https://commitmentoequity.org/datacenter/, downloaded 21/12/2021. Led by Nora Lustig since 2008, the CEQ project is an initiative of the Center for Inter-American Policy and Research (CIPR) and the Department of Economics, Tulane University, the Center for Global Development and the Inter-American Dialogue. The CEQ project is housed in the Commitment to Equity Institute at Tulane. For more details, visit commitmentoequity.org
- 33 Note that these are all proportional reductions, rather than changes in percentage points. Zouhar, et al., (2022) cites a different estimate by Lustig (2018), based on 19 developing countries, that finds that social expenditures reduce the PPP \$1.90/day poverty headcount by an average of 26.2 per cent if pensions are treated as deferred income, and 47.4 per cent if pensions are treated as government transfers.
- 34 The 2014-2015 Chronic Poverty Report recommends a tripartite approach, to tackle chronic poverty, prevent people falling into poverty, and ensure escapes from poverty are sustained over time.

nearly half of developing countries spend less than 1 per cent of GDP on these programmes (Zouhar, et al., 2022). Figure 1, from Lokshin, Ravallion, & Torre (2023), plots social protection spending as a share of GDP against log real GDP per head, demonstrating a strong positive relationship up to the level of OECD member countries such as France or the US. Thus, the share, and *a fortiori* the absolute amount per head, of such spending is rapidly increasing in GDP per head. Spending has also risen over time.

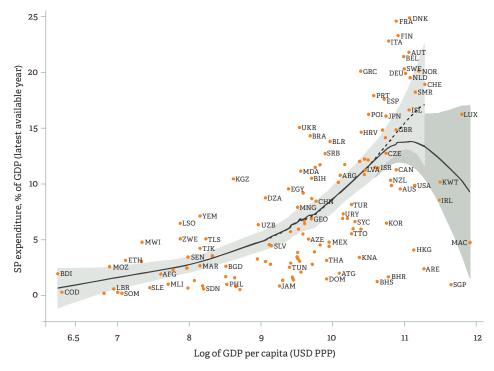


Figure 3: Scatter plot of social protection spending as a share of GDP against log GDP per capita for the latest available pre-pandemic year and the nonparametric SPEC Source: Figure 1 of Lokshin, Ravallion, & Torre (2023).

Note from original source: The solid black line includes all the countries, and the dashed one excludes the five richest countries as measured by their log GDP per capita (Macao, Luxembourg, Singapore, Kuwait, and Ireland).

In part owing to lower expenditures, coverage of these programmes is also lower in poorer countries. Social assistance programmes cover 18 per cent of the population in low-income countries against 43 per cent in middle-income countries. Social protection for the elderly covers 24 per cent of the aged in low-income countries, 57 per cent in middle-income countries and 97 per cent in high-income countries. The relative size of transfers is also rising in the country income level: social safety net transfers represent on average 10.8 per cent of the welfare of a beneficiary in the poorest quintile, while in middle-income countries they represent on average 24 per cent; social pensions represent 12 per cent of income in low-income countries and 35 per cent in middle-income countries (Zouhar, et al., 2022). Spending also tends to be flatter across the income distribution in poorer countries – relatively more is spent on the relatively better off. Looking at the poorest sections of society, Parekh & Bandiera (2020) find that, in low-income countries, on average only around 25 per cent of the poorest quintile receives any form of social transfer - whereas in lower-middle income countries the figure is around 70 per cent, and in upper-middle income countries it is 75 per cent.

In absolute terms, the differences in social spending countries are much greater, because the higher percentages are multiplied by higher GDP per head. Low-income countries spend an annual average of just \$15 (2017 PPP) per person on social expenditures – an inadequate sum – while in lower-middle income countries it is roughly \$90 and in upper middle-income countries roughly \$340.35 These numbers reflect the fact that real government revenues (largely taxes) per person tend to be extremely low in poorer countries. There is very little hope of delivering a decent level of public social services and social protection without economic growth to lift countries towards middle-income country status. If public spending is seen as the key to poverty reduction, then economic growth that raises countries into middle-income status, dramatically increasing the real resources at the state's disposal, should be an absolutely central objective.



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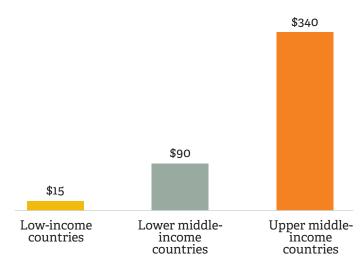


Figure 4: Spend per person on social services

Turning to countries' specific experiences, both cash redistribution and public health and education services have played important roles in poverty reduction strategies. In Vietnam, the National Programme for Hunger Eradication and Poverty Reduction (HEPR) was an integral part of its poverty reduction strategy (Klump, 2007). In Ethiopia, since 2005, the Productive Safety Nets Programme (PSNP) has provided paid work targeted at food-insecure rural households (Stifel & Woldehanna, 2016). While Indonesia's poverty reduction featured little in the way of direct pro-poor public expenditures or targeted subsidies, public investments in health and education were essential (Timmer, 2007). In Bangladesh, public spending on primary education, especially for girls, and on child and maternal immunisations have been similarly essential for poverty reduction; see Sen, Mujeri, & Shahabuddin (2007). Arndt, McKay, & Tarp (2016)'s analysis of 16 sub-Saharan countries finds that public spending led to improvements in education and health in recent decades. The Datt & Ravallion (1998) cross-state analysis of India finds that states with higher initial levels of literacy, mainly due to public education, then saw faster rates of poverty reduction. In South Korea, the government ensured that all rural areas had public health facilities by 1963, and education spending increased more than four-fold in real terms between 1970 and 1989 (Bharali & Gill 2021).

35 Author's calculations from World Bank's ASPIRE dataset.

The World Bank (2018) cites a range of examples where social assistance programmes have expanded substantially in recent years. Tanzania increased spending on its Productive Safety Net Programme from 0.03 per cent of GDP to almost 0.3 per cent of GDP over 2013-2016, raising population coverage from 0.4 to 10 per cent. Senegal increased spending on the National Cash Transfer Programme from 0.05 to 0.2 per cent of GDP during 2013-15, expanding population coverage from 3 to 16 per cent. The Philippines increased spending on its conditional cash transfer programme 4Ps from 0.1 to 0.5 per cent of GDP, increasing population coverage from 4 to 20 per cent. In Indonesia, budgetary expansion of Programme Keluarga Harapan led to an increase in population coverage from 1 to 9 per cent of the population between 2008 and 2016. Where these programmes are well administered, they will help to lower poverty among the targeted groups.



# **Country case studies**

This section illustrates some of the above points through a series of country case studies. The first cases are success stories, where growth lowered extreme poverty substantially in the space of just a few decades – although some of these cases have a more mixed track record. The historical accounts generally begin from the early stages of success, although in a few cases, the longer-term context is sketched. The countries included in this section are Bangladesh, China, Ghana, India, Indonesia, South Korea, and Vietnam. Of these, Ghana and India might be regarded as more partial successes. These cases are then followed by two countries, Angola and Nigeria, where growth has lowered poverty to a much lesser extent.

Government policies and the origins of growth differ as the contrast between, say, China and India quickly makes clear. Policies and growth strategies were sometimes inconsistent and changed over time, and several of the countries considered had a rather uneven record of investment. But some common themes emerge: initially agricultural growth was often important to poverty reduction, but with urban growth becoming more important as development proceeded. Private investment – often foreign direct investment – generated growth in urban areas, and governments used that growth to pay for public investment in roads, railways, electrification, and other infrastructure, including in rural areas. And some of the proceeds of growth were devoted to social programmes, especially once growth was underway, and sometimes – as in China and Vietnam – where it became apparent that remote or peripheral regions were not benefiting to the same extent as the rest of the country. Bangladesh provides an example of non-governmental provision of social services. Some cases of mixed success, such as Ghana and India, show a continuing need for structural transformation and investments in a more diversified and productive private sector.

The role of spending priorities makes clear the importance of politics, but the case studies also illustrate how growth has helped to lower poverty in a wide variety of political settings. One commentator on Indonesia makes an important distinction between transferring resources directly to the poor and acting in the wider interests of the poor. An exclusive focus on the former would risk forgoing the medium-run benefits of economic transformation, seen in many of the case studies: overall productivity growth drives up wages and lowers poverty, and increases the tax base that can be used to finance social programmes. In most of the success stories, governments sought, made or supported a range of investments that extended well beyond an exclusive focus on the well-being of the very poorest. This is especially important when investments complement one another.

### Bangladesh

Bangladesh is a surprising success story. It faced political and economic instability for nearly two decades after independence in 1971, and a banking crisis in the late 1980s. These were two full lost decades: it recouped its 1970 level of real per capita GDP only in 1990. A new Westminster-style parliamentary system was established in 1991, but the degree of democratic integrity remains limited (Blair 2020). The country currently ranks 149 out of 180 countries for corruption perceptions according to Transparency International. Its levels of human capital, as measured by indicators such as the adult literacy rate, remain low compared with most high-growth developing countries.

Yet despite these apparent disadvantages, growth in real per capita GDP averaged 2.7 percent in the 1990s, picking up to 4.1 percent in the 2000s, and rising again to an average of 5.2 percent over 2010-22. Per capita GDP more than tripled from PPP\$1730 in 1990 to PPP\$6263 by 2022 (in 2017 PPP\$). Inequality rose in the early 1990s but has remained relatively stable since then, meaning that the incomes of the poor rose approximately in line with the rapid growth in mean incomes. Correspondingly, the extreme poverty rate fell from 42 percent in 1990 to 33 percent in 2000 and to just 5 percent in 2022. It has also enjoyed substantial improvements in wider indicators of well-being including infant mortality, stunting, access to electricity, sanitation, and education. In 2022, average levels of physical capital (housing, utilities for the poor had reached the levels achieved by the non-poor in 2010 (World Bank 2023b).

In one sense, this performance is easy enough to explain by high and rising levels of investment. Investment started to rise around 1990 from 16 percent of GDP to 24 percent by 2000, of which 17 percent was private sector (including non-profit). It then continued to rise to around 32 percent since 2016, of which 24 to 25 percent was private sector. High levels of private investment in productive capacity, as well as investment by non-profits in development services, and by the government in both infrastructure and poverty-reducing services such as sanitation and the electric grid, were essential inputs to rising living standards. What explains this high level of investment?

At the macro level, it appears that the first fifteen years or so of this impressive growth can be explained by improvements to being 'good enough' in several respects, starting from a very low level. The key improvements, according to Beyer and Wacker (2023), were the following. First, recovery from political instability and a reduction in political violence. Second, recovery from the financial crisis at the end of the 1980s, and a range of reforms stabilizing the financial system. Third, more openness to trade and to FDI, starting in the 1990s, with the establishment of new export processing zones (EPZs), tax holidays, a duty-free facility for imports of capital machinery, and new regulations allowing full foreign ownership and repatriation of profits. Fourth was a high level of infrastructure investment, including in the telecoms sector and mega projects like the Padma Bridge, which carries rail, cars and telecommunications lines across its 6km of length. The country also experienced favourable demographic changes with a substantial decline in the dependency ratio and a rise in the female labour participation rate (Sinha 2017).

However, while these improvements can explain the rapid rise in per capita GDP from the end of the 1980s to around 2005, they are not sufficient to explain why growth has continued and even accelerated since then. Consider the role of FDI. The reforms of the 1990s encouraged it to rise from negligible amounts before 1995 to a peak of 1.7 percent of GDP in 2017, after which it began to decline back down to 0.4 percent of GDP over 2020-22. Even at its peak it remained much lower than in most successful economies at similar income levels. Similarly, political reforms contributed to a reduction in violence and instability, but Bangladesh remains far from a fully democratic country. There seems to be no ready macroeconomic or institutionalist explanation for the acceleration in growth post-2005 once these 'low hanging fruits' had been consumed.

A more micro approach produces further insights. The key driver of the economy since the 1980s has been the ready-made garment (RMG) industry. which was able to take advantage of the modest improvements at the macro level. Bangladesh is a model of a country discovering a comparative advantage in a low-wage labour-intensive industry and then providing substantial policy support to that sector. The initial seed of this process was an arrangement between the Bangladeshi firm Desh and the Korean firm Daewoo in the late 1970s (Mostafa and Klepper 2018). Daewoo was facing rising wages domestically and import quotas for garments in its most important markets. It was reluctant to invest directly in Bangladesh, and instead struck a deal with Desh in which the Bangladeshi firm sent 126 workers to Daewoo's state of the art factory in Korea for training, in return for a share of Desh's profits.

The newly-trained Desh workers, along with a small number of Daewoo technicians, established Desh's factory, which was then the largest in Bangladesh. The deal between the two companies fell apart in 1980, but by then Desh's workers had learned to produce export-quality garments with cuttingedge technology. Most importantly, these workers then began to be hired by new firms entering the sector, and by 1984 many of Desh's original employees had been employed by other companies to help set up factories. Some of these firms were established through outsourcing from existing firms that had achieved orders beyond their short-run capacity. From having a handful of apparel firms in the 1970s, by 1988 Bangladesh had 664 garment producers.

Initially, Bangladesh had no allied industries to support garment exports. Producers relied on imported machines, fabrics, and accessories, Garment entrepreneurs pressed the government to implement three policies to aid the industry: duty-free importation of machines, bonded warehouses, and back-to-back credit facilities. Bonded warehouses allowed garment exporters to import fabric and accessories without paying duties, while back-to-back credit facilities provided working capital loans to procure imported inputs. The sector continued to grow, primarily in and around the two major cities of Dhaka and Chittagong, and by 2014 Bangladesh was the world's second-largest exporter of apparel after China.

Growth has not been restricted to manufacturing, however. At the same time, reforms including liberalization of agricultural input markets and seed sector reforms helped improve agricultural productivity. This has increased both the amount and the diversity of food available (IFPRI 2019), leading to declining rates of malnutrition, and also to higher rural incomes. Reforms in social sectors including mandatory primary school, secondary school stipend program for girls, and family planning programs, helped to improve education and human capital – again from very low levels.

Perhaps for these reasons, growth has been broadly-based across sectors. Manufacturing remained stable as a share of GDP at around 14 to 16 percent from 1990 to 2013, rising to 17 percent in 2015 and then growing rapidly to 22 percent in 2022. Employment in industry also stands at 22 percent of the total employment. Agriculture has been declining as a share of both GDP and of employment since around 1980, and in 2022 it represented 11 percent of GDP and 37 percent of employment. Services have been around 50 to 54 percent of GDP since the mid-1990s, declining a few points since 2016 as the counterpart to the rise in manufacturing. Notably, value added per worker was higher in services than in manufacturing until 2010, and is now only slightly lower, reflecting this broad-based growth across the economy.

A further feature specific to Bangladesh, and which helps to explain its success, is its unusually large and effective NGO sector, which complements a relatively small offer of public services. Government expenditure is low at around 13 to 16 percent of GDP, and it spends 0.8 percent of GDP on social protection, a moderate amount compared with other countries in the region (Coudouel 2021). Coverage of social safety net programmes grew from 12 percent of households in 2005 to 15 percent in 2010 and 41 percent in 2016 but these benefits tend to be small: the World Bank estimates they reduce the headcount poverty rate from by less than three percentage points, from 22.2 percent to 19.8 percent in 2016. Complementing these modest outlays, however, is an NGO sector serving an estimated 26 million poor people in 2016 out of a total population of 158 million (Chowdhury et al. 2020).

Many NGOs combine microcredit with other services for the poor. These include services including health, family planning, population, environment, education, women's empowerment, youth development, and disaster management. International donors have been keen to work with these organizations, often seeing them as more effective providers of services to the poor than the government itself. Foreign aid and grants to NGOs grew from US\$106.6 million in 1990-91 to US\$516 million in 2009, and US\$827 million at the end of 2018 (Chowdhury et al. 2020).

The largest of these organizations is BRAC. Founded to provide humanitarian support in 1972 as the Bangladesh Rural Advancement Committee, it has grown into one of the largest NGOs in the world, operating in 12 countries. In 2017 alone, BRAC disbursed US\$3.62 billion within Bangladesh. This amounts to 1.2 percent of GDP, or the equivalent of nearly two-thirds of Bangladesh's entire public sector education expenditure. They provide an extremely wide range of services including legal and human rights services, agricultural training, humanitarian crisis management, healthcare and nutrition, and education. They run over 40,000 schools and education centres in Bangladesh with 3.8 million children enrolled, and another 400,000 children under 5 with access to pre-primary programs. Some observers have expressed concern that such an active NGO presence has crowded-out government services and led to the neglect of government capacity in this area (Asian Development Bank 2008). But it is not obvious that the government would have provided these services in their absence.

There are reasons to doubt that Bangladesh's high growth will be sustained, whether because it has been driven by rising capital ratios rather than growth in total factor productivity (Sinha 2017), or because the export sector has failed to diversity away from garments, and exports as a share of GDP have declined from their peak of 20.2 percent in 2012 to 12.9 percent in 2022 (World Bank 2022b and World Bank Databank). There is no guarantee that per capita GDP will triple again in the next thirty years. But so far, several lessons may be drawn from Bangladesh's experience. First, basic macroeconomic and political stability can go a long way in a country that has been lacking both, combined with economic liberalisation and openness to investment. Second, a successful export sector can be effectively 'seeded' by collaborations with state-of-the-art firms from abroad and promoted with government support. Transfer of expertise is essential to this process. Third, investment in both infrastructure and in social services, whether by the government or by NGOs, is crucial to ensure that growth is broad-based.

### China

Over the past 40 years, the number of people in China living in extreme poverty fell by around 800 million, accounting for roughly three-quarters of global extreme poverty reduction since 1980. China's dramatic growth began with agricultural reforms in the 1980s and liberalisation with the famous special economic zones like Guangzhou, Shanghai, Shenzhen, and Zhuhai (Lin, 1992). In the early 1990s, Deng Xiaoping's Southern Tour led to an expansion of these practices throughout the country. Over several decades, China's stateowned enterprises have largely been privatised. China received Most Favored Nation status from the US in 1992, and in 2001 became a full member of the World Trade Organization (WTO).

China had grown substantially during the 1980s and 1990s, but it was still a low-middle-income country with a real GDP per head of \$4,600 in PPP terms. By 2019, however, its average income had more than tripled to \$14,300 per head. China is now an upper-middle-income country. This achievement was mirrored by similarly dramatic poverty reduction. In 1990, 72 per cent of the population lived below the \$2.15/day consumption poverty line. Income roughly doubled in the 1990s, and by 1999 the poverty rate had already fallen to 46 per cent. By 2019, just 0.1 per cent of the population lived on less than \$2.25/day. Substantial progress has also been made to raise living standards more broadly. In the 2010s, the fraction of people living on less than \$6.85/day declined from 63 per cent in 2010 to 25 per cent in 2019.

Since China's poverty was concentrated in rural areas, agricultural development was initially the main driver of poverty reduction. Agriculture's contribution to the fall in poverty between 1978 and 2001 has been estimated at four times that of industry or services. As described earlier, land reforms and food price liberalisation in the 1970s unleashed rural growth, and these policy changes were accompanied by tax and other government policies shifting in favour of agriculture. China made substantial public investments in agricultural research, extension services, and production infrastructure, and in modernising farming techniques, which resulted in much improved rice harvests. Finally, the government promoted downstream linkages through farmer cooperatives that shared the costs of mechanisation and agro-processing.

Ravallion & Chen (2007) find that "Rural areas accounted for the bulk of the gains to the poor, though migration to urban areas helped. Rural economic growth was far more important to national poverty reduction than urban economic growth; agriculture played a far more important role than the secondary or tertiary sources of GDP." A later analysis by Montalvo & Ravallion (2010) comes to a similar conclusion and argues there is "little evidence" of "any poverty impact of non-primary-sector growth, controlling for primary-sector growth" although that conclusion does not rule out the possibility that growth in the secondary industries fed into primary-sector growth, by creating demand and pushing up wages. Also, as China continued to grow, poverty reduction became less about extreme poverty (\$2.15 PPP/ day) and more about continuing to raise living standards for those on lower incomes but above the extreme poverty line.

By China's own account (World Bank & DRC, 2022) the country's locus of growth moved from agriculture to industry from about the mid-1980s to the mid-2010s. Between 1978 and 2015, the share of agricultural employment fell from 70 per cent to 18 per cent. Waged employment expanded from 45 per cent of total employment in 1988 to 73 per cent in 2013.

Outside agriculture, growth has been heavily outward-oriented and exportintensive, with strategic partnerships in joint ventures between Chinese companies and foreign multinationals. China's industrialisation strategy was initially based on low wages, but the country managed to increase labour productivity more rapidly than wages, maintaining competitiveness and moving up value chains. Vocational training helped rural migrants

who had received little formal schooling. From 1992 to 2001, average labour productivity in secondary industries (largely manufacturing) rose from 8,150 yuan to 30,133 yuan, while the average annual manufacturing wage tripled from 2,635 yuan to 9,774 yuan.<sup>36</sup> Manufacturing employment peaked in 2013, and the services sector now accounts for most job growth.

China was already a successful exporter before WTO accession, but in subsequent years, the share of trade in GDP went from 39.6 per cent in 2000 to 63.8 per cent in 2005. In 2009, China replaced Germany as the largest global exporter. Changes in the terms of trade benefited predominantly urban consumers, but rural households benefited through new job opportunities and remittances from migrant workers. Wages rose steadily across the Chinese economy for decades, something the Lewis model does not predict. However, despite the hukou registration system – an important element of social control in China that restricts internal movements of people – as rural labour markets tightened, the substantial gap between rural and urban wages lessened until converging in around 2007. Some authors interpreted this convergence as the country having reached the Lewis turning point, with the economy finally having depleted the "reserve army" of labour.

The concentration of economic growth in urban centres was an issue in such a large country. Chinese policies have been targeted toward spreading prosperity spatially. The emphasis on special economic zones and industrial clusters was expanded regionally in the 1990s throughout the country with much success. The government has combined regional development strategies, like industrial clusters, with large-scale infrastructure investments also focused on regional development. These include the National Trunk Highway System and large-scale electrification, both of which have expanded all the way to the poorer western regions.

World Bank & DRC (2022) recount several studies that demonstrate the contribution of "connectivity investments" to agricultural and nonagricultural output growth in rural areas. These include estimates of the number of people moved out of poverty for every yuan spent on roads, electricity and communications and irrigation. Bidding rules favoured construction firms that employed local workers. Gross fixed capital formation, as a share of GDP, has risen steadily since 1980, arguably to excessive levels. The country is presently dealing with crises in over-indebted real estate developers and their lenders.

China's poverty reduction story was mainly a growth story. Poverty alleviation strategies were area-based and largely focused on promoting economic development in poorer areas. World Bank & DRC (2022) describes "in the broader context of letting some areas and people get rich first" how a council for poverty reduction was established in 1986, which identified poor counties that were targeted for infrastructure investment, health and education spending, and employment creation initiatives.

More direct poverty assistance has played a relatively small role in China. Direct social assistance remains less than 1 per cent of GDP. Social insurance more generally constitutes nearly 8 per cent of GDP, but that includes public pensions. A shift towards poverty alleviation policies targeting poor households (as opposed to regions) took place in 2013, although in 2009 a minimum income guarantee scheme (Di Bao) had been introduced. By the mid-2000s, old-age poverty emerged as a new policy concern given the rapid ageing of China's rural population, and subsidised universal pension schemes were started as pilots and then expanded nationwide. Between 2009 and 2013, China tripled the number of people covered by the old-age pension system. These observations confirm the general pattern discussed earlier, in which the relative importance of social spending increases with growth.

36 These paragraphs are compiled from World Bank & DRC (2022).

### **Ethiopia**

Ethiopia is a landlocked country of 105 million people. Similarly sized to Angola – considered later – its population density is low, but four times higher than Angola's. Its growth experience in the 21st century has been characterised by poverty reduction, productivity growth in agriculture. infrastructure investment, a push for economic diversification and the creation of export industries, and an expanded social safety net.

The country is renowned as Africa's leading proponent of state-led industrial policy, with a concerted effort to attract investments in employment-intensive manufacturing in special economic zones, such as the garments hub at Hawassa, inspired by the East Asian model. These efforts to grow exports have only met with limited success thus far, however. Its government also has a reputation for capability, exemplified by the construction of the Grand Ethiopian Renaissance Dam without financial support from the World Bank, the EU, or China.37

In 2009, the Growth Commission published a report based on the experiences of thirteen countries that had done something extraordinary: grow at an average rate of 7 per cent a year or more for 25 years or longer. For now, Ethiopia has not quite joined that set, but between 2004 and 2022 its growth rate averaged 9.5 per cent. 38 Ethiopia entered the century as extremely poor. and governed by a nascent democracy. One of the poorest countries in the world, its real GDP per head stood at just \$550, meaning that even average income (typically above median income) fell below the extreme poverty line of \$2.15/day. Over the past two decades, real income per head increased nearly five-fold, to \$2,500 by 2019. Despite this rapid progress, many Ethiopians remain very poor, even when compared with other African nations, and their democracy remains unsteady; nonetheless, the nation has succeeded where some have failed in translating growth into lower poverty.

Specifically, from 1995 to 2015, the poverty rate fell from 69.2 per cent to 27 per cent when using the rate based on \$2.15/day. Most of that progress occurred in the earlier years, however, when there was a dramatic change in agricultural productivity. Till (2023) documents a "clear break" in the mid-1990s when crop production started to rise sharply, initially with more land being cultivated; in more recent years, output growth resulted from yield improvements. Till credits high levels of public spending under the government's Agriculture Development Led Industrialization strategy, with spending on rural infrastructure (but not irrigation) and agricultural extension programmes. Despite agricultural growth having continued, between 2004 and 2015 the pace of poverty reduction was slower. Momentum in urban poverty reduction was maintained, but rural poverty reduction slowed. Inequality also rose: between 2011 and 2016 consumption did not rise for the bottom 15 per cent of the population.39

<sup>37</sup> In the book Gambling on Development former DFID chief economist Stefan Dercon contrasts his experiences of hearing polished presentations about economic policies in some African countries, after which he "would have been happy to bet that literally nothing of any importance related to growth or development would be implemented" with meetings in Ethiopia where "although the proposals were far less polished .... I had no doubt they would do all they could to implement them, as they had done rather successfully thus far with [the previous] Growth and Transformation plan".

<sup>38</sup> The most recent years since 2020 have been under 7 per cent. GDP per capita growth was running above 7 per cent until 2018, but has slowed more sharply since 2019 and the average between 2004 and 2022 is now

<sup>39</sup> https://documents1.worldbank.org/curated/en/992661585805283077/pdf/Ethiopia-Poverty-Assessment-Harnessing-Continued-Growth-for-Accelerated-Poverty-Reduction.pdf.

Like Angola, however, Ethiopia has not been free of political conflict. It was ruled by the Derg, a Communist-supported junta that represented the Amhara ethnic group, until the revolution in 1991. Since then, the Ethiopian People's Revolutionary Democratic Front (EPRDF) has ruled the country through ethnic-based federalism, but the country has suffered from prolonged and unresolved inter-ethnic clashes, political instability, and violations of democratic rule. In 2018, reform-minded Abiy Ahmed came to power. winning the Nobel Peace Prize (prematurely, as it turned out) and eventually dissolving the coalition in 2019, by merging most of its parties into a multiethnic Prosperity Party. Notably, however, the Tigray People's Liberation Front (TPLF), which had dominated the EPRDF coalition for 27 years, was not included. This led to political tensions, eventually erupting into the Tigray War and ongoing civil conflict (UNICEF, 2022).

Nevertheless, despite political instability, the economy grew rapidly throughout this period, and poverty fell consistently as well. Several factors contributed to the decline in poverty. With more than 60 per cent of the population engaged in agriculture, increased agricultural output and changes that made agriculture more profitable have enabled Ethiopia to achieve these reductions (Revenga, et al., 2015). At the same time, investments in major road and electrification infrastructure, to reach rural areas, led to structural transformation (Schmidt & Kedir, 2009, and Dercon, et al., 2009). Flagship projects include the Grand Ethiopian Renaissance Dam and the Addis Ababa to Djibouti Railway.

Ethiopia also expanded international trade and developed special economic zones for further industrialisation, diversifying the economy. Its exports are primarily agricultural, including floriculture, but more diversified than Angola's, with even a nascent textile sector, and some growth in transportation and tourism as well. In 2014, the prime minister inaugurated a new French-owned winery and vineyard employing 750 people, symbolic of the government's intention to diversify the economy through foreign investment. But the country did not rush to liberalise the economy. The telecoms sector only recently saw the entry of a private competitor to the state-owned Ethiotel, and the country's financial sector remains closed to foreigners, with plans for limited liberalisation under development.

Although China is its main provider of imports, it exports to more diversified countries as well (The Atlas of Economic Complexity, 2023). Nevertheless. exports remain lower relative to GDP than in some other African countries, export volumes have been flat over the last decade, and it remains to be seen whether the country's efforts to industrialise will succeed. The absolute value of industrial output has risen rapidly, but from a low base, and growth has stuttered over the last five years. Ethiopia's challenge is to make a success of industrialisation on a scale that can really make a difference to such a large country, and create linkages to its massive rural economy to sustain the process of structural transformation.

To address rural poverty and vulnerability, Ethiopia's coalition government introduced social programmes and taxation changes. These included, in 2005, the Productive Safety Net Programme (PSNP), a social safety net and food security programme involving cash and food transfers to the poor (Berhane, 2013). More equalising changes in taxation and land-use regulation were also introduced. An Urban Productive Safety Net Programme has since been introduced in 11 regional capital cities, and a Humanitarian Food Assistance programme can be triggered when a disaster occurs.

The recent civil conflicts in Ethiopia have exerted a terrible humanitarian toll and set back its ambitions to attract foreign investment and achieve export-led growth. But before the recent violence, Ethiopia stood out as a promising combination of rural investments, urban growth, economic modernisation, and social spending to achieve growth and translate that growth into poverty reduction.

#### Ghana

After Ghana became independent in 1957, the Nkrumah government pursued state-led industrialisation, with massive public investments in the 1960s and 1970s (Osei & Jedwab, 2016, p. 175). In practice, this did little to advance the position of manufacturing, and Ghana experienced two decades of decline and instability between the 1960s and the mid-1980s.

Since then, Ghana's fortunes have improved. The economy has seen significant growth since the mid-1980s. Between 2000 and 2020 GDP per person almost doubled, with growth averaging 3.4 per cent annually, with growth mainly driven by high prices for Ghana's main commodity exports, gold and cocoa, and the start of commercial oil production in 2010. Ghana is one of Africa's most democratic countries, with stable political transitions from one party to another in 2000, 2008, and 2016.

Ghana has achieved lower middle-income status, but without developing labourintensive manufacturing on the East Asian model. This means that developing the rural non-farm economy may be unusually important for growth and poverty reduction. As of 2010, agriculture remained the primary source of livelihood for around half the country's households. World Bank (2021) states that the Ghanian economy has created few decent jobs for workers moving out of agriculture and as a result "structural change and urbanization have not been engines for growth in Ghana as they have been in East Asia and other parts of the world, where lower-skilled workers moved from agriculture into modern sectors with higher productivity." Twenty years ago, the economies of Ghana and Vietnam were at broadly similar levels, but Vietnam has since integrated its economies into global value chains in a way Ghana has not (World Bank, 2022).

Poverty has fallen, although the largest proportionate reductions were around the capital city Accra, where the formal private sector is concentrated. and in the rural forest areas which produce export crops. The three northernmost regions are lagging behind the national average in achieving poverty reduction goals (Zereyesus, et al., 2017, p. 116). The northern rural regions lack access to infrastructure, perform worse on schooling and nutrition, and are more exposed to floods and droughts, and the risk of conflict spilling over from the Sahel (World Bank, 2022). Nonetheless, the estimated national extreme poverty headcount rate was 55 per cent in 1998. 42 per cent in 2005 and 26 per cent in 2012, meaning Ghana was relatively successful in translating growth into poverty reduction.

According to the World Bank (2021), however, the "trickle-down process started to stall in the early 2010s." Since then, growth has had a much weaker effect on poverty, compared to prior decades. After the start of offshore oil production in 2010, 11 per cent of GDP originated from just oil and gold by 2019. Hence, according to the World Bank, "a sizable portion of Ghana's growth over the past decade has not generated many jobs, and the impact of growth on poverty reduction has declined." Ghana has urbanised, but its cities specialise in low productivity services and lack larger and more productive formal sector employers (World Bank, 2022). Urban living conditions have deteriorated due to population pressures and inadequate investment. Only a third of urban households have access to safely managed water.

Osei & Jedwab (2016) observe that Ghana has developed without a Green Revolution, an industrial revolution, or a services revolution. Paul & Raju (2021) show that from 1960 to 2000, Ghana did not exhibit any strong signs of structural transformation – the employment share of agriculture fluctuated around 55 per cent over this period. But from 2000 to 2018, agricultural employment fell to 33 per cent and services rose to 47 per cent. Labour productivity in agriculture and industry rose over that period, but actually fell slightly in services. The Greater Accra region dominates Ghana's economy in terms of the number of firms and employment, and is the location of the most productive services and industrial firms. In poorer regions, the productivity gains from moving from agriculture to services and industry are much smaller – outside its richest regions, Ghana has experienced structural change without significant productivity improvements.

As this may suggest, Ghana's record on investments to raise growth and lower poverty has been mixed. Mensah, et al., (2023) describe how Ghana's industrial policy has gone through three phases since independence. The first was state-led import substitution, followed in 2000 by trade and market liberalisation. Possibly in response to criticisms that investment and growth was concentrated in a few regions, in 2016, the government introduced 'One District, One Factory' (1D1F) with the objective of establishing privately owned factories in all 260 districts of Ghana.

Investment in irrigation was "paltry" in the decade to 2007, while poor roads and other infrastructure weaknesses limited the prospects for food crop farmers to distribute their produce, a point also made by Osei & Jedwab (2016). The share of state spending on agriculture fell from 8.4 per cent in 1991 to less than 1.3 per cent by the mid-2000s (Aryeetey & McKay, p. 161). These authors write (p. 158) that "The lack of policy focus on agriculture raises the question of the extent to which urban bias continues to affect policy making in Ghana." Aryeetey & Baah-Boateng (2016) also note the failure to attend to agriculture.

The record on power infrastructure is also uneven. Akpandjar & Kitchens (2017) study the expansion of access to electricity from 1989 onwards. That year, the government created the National Electrification Programme (NEP) with a target to achieve universal access by 2020. The NEP was intended to connect large towns, cities, and district capitals to the grid as quickly as possible. Also from 1989 onwards, a concurrent programme in rural areas. the Self Help Electrification Programme (SHEP), aimed to connect those rural communities living within 20km of an existing transmission line. These priorities indicate that, overall, power investments were not always targeted at the poor. Adusah-Poku & Takeuchi (2019) find that, across rural communities, access is skewed towards communities with higher average household spending.

Pueyo (2018) writes that Ghana has one of the higher electricity connection rates in sub-Saharan Africa, but the quality of access has been poor, with frequent power outages and low consumption levels. The people of Ghana now use the word 'dumsor' to refer to a persistent and irregular power outage. A 2013 World Bank assessment found that enterprises considered electricity access to be the second most important constraint on business activity, after access to finance (Pueyo, 2018, p. 86). The government is widely perceived to agreed too many costly electricity generation contracts with private power producers, leaving it with power it could not use, and the sector also suffers from inefficient distribution companies that do not cover their costs. In 2019, the government began a process of renegotiating contracts and refinancing loans that should reduce long-run tariff obligations but at a considerable upfront cost (World Bank, 2022).

Although Ghana's investment record might have been stronger, its growth has allowed some redistribution. Since 2008, the government of Ghana has made cash transfers to some extremely poor households, through the Livelihood Employment Against Poverty (LEAP) programme. The current beneficiaries are those aged 65 or more without other support; people who are severely disabled; orphaned and vulnerable children; and extremely poor or vulnerable households with pregnant women and mothers with infants.

Ghana's macroeconomic management since independence has been a weak point, resulting in numerous debt crises (linked to election and commodity price cycles) and IMF programmes. High debts, with interest payments having accounted for roughly 35 per cent of tax receipts over the last decade, leaving little fiscal space for investment and social programmes. In 2017, for example, tax revenues amounted to just 12.6 per cent of GDP, lower than most other lower-middle-income African countries, while debt financing and government employee costs were about 11.8 per cent of GDP, leaving about 0.6 per cent of GDP for infrastructure spending (World Bank, 2021). According to World Bank (2022), Ghana's public sector is "vast and complex".

Recently, several expensive flagship projects were launched in anticipation of oil revenues that have not met initial expectations, including a costly attempt to shore up the banking sector that had made too many bad loans. In 2002, a combination of large fiscal deficits and high public debt again resulted in Ghana requesting help from the IMF, and in 2023, it defaulted on its Eurobonds. The government is attempting fiscal consolidation and public sector staffing reductions, while increasing spending on certain social protection programmes and healthcare.

#### India

The links between growth and poverty reduction, or their absence, have arguably been discussed more intensively in the case of India than for any other country. When India became independent in 1947, its economy was relatively liberal. Aspects of this persisted into the early 1960s, but the economy was held back by wars, droughts, and policies that became increasingly inward-looking (Ahsan & Mitra, 2016, p. 44). By the Fifth Plan of 1974-79, the government's stated aim, in addition to poverty alleviation, was self-sufficiency.

Some steps towards liberalisation were taken in the 1980s. After years of stagnation, India began to grow rapidly from then onwards. In 1991 and later, its leaders introduced reforms to open up the economy, allow more opportunities for private sector entrepreneurship, and encourage foreign trade and investment. Private corporate investment rose as a share of GDP from around 1980 onwards, from a very low base; see Kotwal, et al., (2011, figure 4). This was partly due to a declining price of equipment, and the earlier programme of financial deepening.

India's growth experience has been an unusual one: the service sector has grown strongly, manufacturing has not, and agriculture's share of employment has declined more slowly than in other fast-growing countries. Service sector growth can be attributed partly to a large pool of Englishspeaking university graduates, combined with the new information and communications technologies that emerged in the 1990s; India's particular form of growth would not have been feasible a few decades earlier, nor would it be easy to replicate elsewhere.

Whether India's growth has been pro-poor depends on the definition. Poverty rates have fallen sharply, but growth has not always benefited the poor disproportionately. Extreme poverty rates in rural and urban areas roughly halved in the three decades between 1973-4 and 2004-5 (Kotwal, et al., 2011, p. 1184). But if the poverty line is drawn at a higher level, about four-fifths of India's population was poor in 1983, and the proportion was about the same in 2004 (Kotwal, et al., 2011, p. 1196). Despite growth, India's income per head remained low, at about half of China's in PPP terms in 2010 (Ahsan & Mitra 2016, p. 41). Poverty is especially high among the Scheduled Tribes, who accounted for 9 per cent of India's population in 2012 (Chatterjee, et al., 2016, p. 9). At that time, the majority of the poor – about 80 per cent – lived in rural areas.

Consumption has grown for the bottom 40 per cent, although less rapidly than the average. Between 2005 and 2012, India's elasticity of poverty reduction with respect to growth seemed to be lower than in many other developing countries (Chatterjee, et al., 2016, p. 4). Considering just three fast-growing peers, India's pace of poverty reduction has been slower than in China, Indonesia, and Vietnam (Hasan, et al., 2015, figure 4.3). Growth has tended to be lower in states that account for a large share of India's poor (Hasan, et al., 2015, p. 97). Infant mortality rates have improved more slowly than in comparable countries, and the undernourishment of children remains a problem.

The source of official poverty estimates, the consumer expenditure survey, which is conducted every five years, was not published in 2017-2018. In its absence, researchers had produced differing estimates of recent poverty trends, some suggesting poverty had increased. 40 However, in 2024 some analysts produced preliminary estimates based on a 2022-23 survey, suggesting extreme poverty (\$2.15 PPP) has been eliminated and \$3.20 PPP poverty has fallen very rapidly. Potential explanations for this astonishing achievement, if it is confirmed (other analysts doubt it), are a dramatic increase in government welfare spending, including the distribution of free food, in response to COVID-19, and an Aspirational Districts Programme that targeted interventions at the 112 most deprived districts in the country. 41

The debate about priorities – direct poverty alleviation versus growth – had been especially contentious in India. The two poles of the debate are represented in two books by leading economists, one by Drèze & Sen (2013). who want to see much more emphasis on social needs and poverty alleviation, versus Bhagwati & Panagariya (2013), who argue that growth should be the central priority, at least for now. The recent rapid reduction in poverty since COVID-19 argues for the importance of government welfare programmes.

For some observers, decades of growth had achieved little for poverty. Kotwal, et al., (2011) write, "There are two Indias: one of educated managers and engineers... and the other – a huge mass of undereducated people who are making a living in low productivity jobs in the informal sector – the largest of which is still 'agriculture'." Similarly, Drèze & Sen (2013, p. ix) write that "What is remarkable is not the media's interest in [Indian] growth rates, but its near-silence about the fact that the growth process is so biased, making the country look more and more like islands of California in a sea of sub-Saharan Africa." But Chatterjee, et al., (2016, p. 1) observe that, based on India's official poverty line, the poverty rate halved between 1994 and 2012, with the pace of poverty reduction increasing over time, in both urban and rural areas.

The non-farm sector has grown in importance and by 2012, for the first time, farming accounted for less than half of employment (Chatterjee, et al., 2016, p. 16). Rural wages have grown dramatically since the mid-2000s, and the urban-rural wage gap has fallen as rural and urban areas become better integrated (Chatterjee, et al., 2016, p. 20). Khurana, et al., (2023) find that wage inequality has been falling over the last two decades, which they attribute in part to minimum wage legislation. In the first decade of the 2000s, more non-agricultural jobs were created in rural than in urban areas (Thomas, 2012, p. 46). Part of this rural job creation can be attributed to the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which has financed employment in rural public works since 2006, on a larger scale than previous rural employment programmes in the country. In 2011-12, 6.7 million casual workers were engaged in public works, of whom 2.9 million were employed under the auspices of MGNREGA (Thomas, 2015, p. 29).

India was a notable beneficiary of the high-yielding varieties of the Green Revolution. Whether agricultural growth in India "trickled down" has been much debated (Palmer-Jones & K. Sen, 2006). The statistical methods used to investigate this have typically been based on small samples, and for technical reasons some research findings may not be robust. Writing before that issue came to the fore. Palmer-Jones & Sen conclude that agricultural growth has resulted in poverty reduction.

Among survey respondents in West Bengal, the young working in agriculture hoped to develop an additional, non-agricultural source of income such as a business. Narayan, et al., (2009, p. 157) write that "Young people apparently realized very early the importance of diversification, which the field research in West Bengal found was crucial for mobility." They also note that the prospects for the Green Revolution to increase yields further have waned, and "Our respondents spoke more about agricultural diversification and expansion into non-farming business activities as a means to move out of poverty" (Narayan, et al., 2009, p. 221).

40 See the e-Symposium: estimation of poverty in India. 41 See the India Forum: Poverty in India over the last decade. Ravallion & Datt (1996) found that both the urban and rural poor gained from rural sector growth, while urban growth had no discernible effect on rural poverty. But they also noted that the period they studied included the era of capital-intensive industrialisation promoted by the state. In a later paper, Datt & Ravallion (2011) updated their analysis. They found a change after the reforms of 1991: "there is much stronger evidence of a feedback effect from urban economic growth to rural poverty reduction in the post-1991 data than was found in the pre-1991 data."

In the Mellor (2017) framework, partly inspired by India, expansion of the rural non-farm sector, in the wake of higher crop yields, helps to ensure that growth is pro-poor. Foster & Rosenzweig (2004), in a study of 240 Indian villages, also find that rural non-farm growth is especially pro-poor, but the mechanism differs from that in Mellor. In their data, the entry of factories into rural areas is more likely in areas with the slowest improvements in crop vields, consistent with models in which firms are mobile and seek low-wage areas. Rural factories can make productive use of unskilled labour, so that their entry into rural areas helps to increase the local demand for labour, raise wages and lower poverty.

In some ways, national aggregates are less informative than the differences between Indian states, which vary in their rates of poverty reduction, approaches and policies, and also differed in their initial conditions. Besley, et al., (2007) find substantial variation in the response of poverty to growth across states. They write (p. 62) that "Bihar would need four times as much economic growth as Kerala to achieve the same level of poverty reduction. This finding is a good indication that the poor in Bihar are less included in the growth process than are the poor in Kerala." They find poverty has fallen fastest in those Indian states with more accountable governments, greater access to finance, and greater extension of property rights to the poor.

Poverty is especially high in the low-income states. Seven of the 36 states and union territories account for 45 per cent of India's population but nearly 62 per cent of its poor (Chatterjee, et al., 2016). Drèze & Sen (2013, p. 78) note that Tamil Nadu introduced "bold social programmes such as universal midday meals in primary schools and started putting in place an extensive social infrastructure - schools, health centres, roads, public transport, water supply, electricity connections". Compared to many other Indian states, Tamil Nadu, and other states which have made social investments, such as Kerala and Himachal Pradesh, score relatively highly on human development indicators. These include improvement in multidimensional poverty, and especially on gender-related and child-related indicators.

In the state of Gujarat, between 1987 and 2004, Ahsan & Mitra (2016, figure 1.7) find especially fast within-sector productivity growth. They attribute this success to a fast pace of infrastructure investments (ports, roads, rail, power) and business-friendly governance. Agriculture has seen a shift to cash crops, while technical education has encouraged farmers to switch to high-yielding crop varieties. Irrigation has expanded rapidly, while new agricultural universities have been established.

For India as a whole, around the early 2010s, jobless growth and the performance of the manufacturing sector were much discussed in the pages of the Economic and Political Weekly, by authors including Kannan & Raveendran (2009), Nagaraj (2011), Rajakumar (2011), and Thomas (2012). Kannan & Raveendran drew attention to labour's declining share of value added in manufacturing, and the way in which growth varied across manufacturing sectors: some sectors generated many new jobs, but these were offset by losses elsewhere. Their account is a complex one, stressing a process of modernisation and quality improvement in some sectors producing for world markets, while manufacturing in the informal sector produces lowquality goods primarily for low-income households – Banerjee & Duflo (2007. p. 145) cite toothpaste, cigarettes and clothing in this regard.

Employment in most developing countries is dominated by small firms, but India's manufacturing sector is an extreme case, with very many small informal manufacturing businesses. Chatterjee & Subramanian (2023) point out that India's share of low-skill manufacturing exports among low and middle-income countries is greatly below its share of those countries' total workforce (China is an outlier in the other direction). They construe this as an opportunity, although it may also explain the country's mixed growth and poverty reduction performance. There are various explanations for the misallocation of capital and the absence of larger manufacturing firms in India, including taxation and labour regulations. Chatterjee, et al., (2023) show that Indian states in which regulations make exit more costly have lower rates of firm entry and more unproductive "zombie" firms.

As a whole, until recently India had not translated growth into poverty reduction as successfully as some of its peers, including the East Asian tigers. But India is an enormous country and contains multitudes. As is often observed, most Indian states are large enough to be countries in their own right. If they were, we would find examples ranging from tremendous success, with strong linkages between urban and rural economies that create pathways out of poverty, and failures in which the process of economic modernisation, as described in the Lewis model, has barely begun.

#### Indonesia

In the space of two generations, Indonesia has risen from being described as a "chronic dropout" (by Benjamin Higgins; see Hill 2000, p. 1) to upper middle-income status, reached in 2019. For much of the time since the 1970s, Indonesia's growth has been accompanied by stable or modestly increasing inequality and sharply falling poverty. This continued a trend dating back to the late 1960s; Bevan, et al., (1999, p. 289) write that "From 1967 onward there is evidence of falling poverty, initially hesitant but then becoming rapid and sustained". Extreme poverty has now been all but eradicated, falling from 19 per cent in 2002 to 1.5 per cent in 2022. Urban and rural poverty rates have converged, while inequality has fallen since 2014.

These assessments are based on conventional surveys. Initially, some observational research by anthropologists in the 1970s was gloomy about a lack of progress in rural areas. But later studies of particular villages, compared at times separated by a decade or more, confirmed general improvements in living standards (Hill, 2000, p. 200). The extent of upward mobility in Indonesia can also be seen in the survey used by Narayan, et al., (2009, p. 92 and Table 3.1).

For Timmer (2007). Indonesia has successfully ensured that the poor can participate in overall growth. In the short run, poverty was lowered as demand for the goods and services produced by the non-tradable, informal sector increased, especially in rural areas. Growth was pro-poor partly through the close integration of rural and urban labour markets, furthered by rural financial market intermediation, especially on Java. High population density may also help in supporting well-integrated labour markets, in which workers can move flexibly between locations and occupations, and return to agriculture at times of hardship. Timmer's account draws on the multisector model of Mellor (2000), with two commercial sectors (agriculture and industry) and the non-tradable, informal sector, which is mostly rural and where many of the poor seek to make a living. More broadly, Timmer (2007, p. 42) sees rapid, pro-poor growth as requiring constant attention to ensuring that labour-intensive activities remain profitable.

In a later formulation, Timmer (2018) uses Indonesia to sketch a general model all countries could adopt: "a three-tiered strategy of growth-oriented macroeconomic policy, linked to product and factor markets through progressively lower transactions costs, which in turn are linked to poor households whose capabilities are being increased by public investments in human capital" (Timmer, 2018, p. 22). Based on Timmer's discussion, transaction costs can be lowered partly through investment in infrastructure, partly through reforms to institutions and governance – not least in reducing corruption – and partly by restricting commodity taxes and trade barriers that risk impeding product markets.

Some rural investments were targeted directly at the poor, although the Suharto regime also made growth a priority. Bevan, et al., (1999, p. 4) write that "From the late 1970s the Indonesian government committed large resources to measuring and identifying poverty and implemented strategies to reduce it." The roots of the emphasis on poverty alleviation may extend back to Sukarno's rule in the 1950s and the views of the army, which saw itself as having a dual function as both military and serving society. Under Suharto, corporatism had some support until the debt crisis at the state-owned oil company Pertamina in 1975. Later, technocrats favouring liberal economic policies regained influence after the slump in the oil price in the early 1980s.

Policy was far from uniformly pro-poor. Writing in 2000, Hal Hill noted that there had never been a serious attempt to introduce progressive taxation; the politically powerful were often favoured; and the poor were sometimes treated badly by the state (Hill, 2000, p. 202). But he then adds that the government used oil revenues to invest in rural areas, including support for rice farmers, local development projects, employment generation programmes, and investments in rural infrastructure and education.

The pro-poor approach began in earnest with higher oil revenues after the oil price shock of 1973-4, and public criticism of the government's development policies. The new revenues were partly directed to social expenditure, and in particular irrigation, rural water supply, and schools. The Sekolah Dasar INPRES school-building programme, launched in 1973, led to one of the largest school expansions on record. Between 1973-74 and 1978-79, more than 61,000 primary schools were constructed. Duflo (2001) found that this raised educational attainment and earnings, with implied rates of return to education between 6.8 and 10.6 per cent.

Importantly, the state often intervened to raise agricultural productivity, rather than supporting the poor more directly. Bevan, et al., (1999, p. 385) write, "The key initiatives that alleviated poverty in Indonesia were not necessarily those directly focused on the poor but rather those that enhanced agricultural production." But they add (p. 417) that "Under Suharto the most serious pockets of poverty were identified through mass surveys and made the subject of targeted programs of public expenditure."

Indonesia's rural development programme dates back to the 1970s. Agricultural performance was strong in food crops, especially rice. Its progress was helped by the Green Revolution and its high-yielding rice varieties, while some of the support for agriculture took the form of a fertiliser subsidy that also helped to increase yields. Spending on the fertiliser subsidy was about ten times that on agricultural research and extension (Hill 2000, p. 152). Credit subsidies to the rice sector were also used. Unusually, migration in Indonesia has been explicitly subsidised (Banerjee & Duflo, 2007, p. 153) and the country is also unusual in that a high share of loans to the rural poor are formal, from a bank (Banerjee & Duflo, 2007, p. 155).

In the 1970s, government agricultural investment was often directed at building or rehabilitating irrigation networks, and reclaiming swampland for rice growing (Bevan, et al., 1999, p. 253). Over 1974-78, the direct share of agriculture and irrigation in development expenditure was typically less than 20 per cent. The rest of the development budget was devoted to industry and mining, electric power, and transport and tourism, as well as education (Bevan, et al., 1999, Table 14.5).

It is not clear how many of these investments were in rural areas, although Hill (2000, p. 200) refers to "vast improvements in rural infrastructure". Nor is it always clear whether industrial, power, and transport investments were mainly designed to alleviate or target poverty directly, or via overall growth and development. Timmer (2007, p. 30) emphasises that much of the rural infrastructure was built using labour-intensive techniques and low-waged labour, so its construction was pro-poor as well as the services ultimately provided.

When oil prices fell in the 1980s, the government's spending plans came under pressure, but cuts were made selectively to limit the effect on the poor (World Bank, 1990, p. vii). Spending on operations and maintenance was protected, along with transfers to provinces. Changes in the composition of development spending tended to protect spending programmes that used labour intensively.

Towards the turn of the century, the Inpres Desa Terttingal (IDT) antipoverty programme was launched and later followed by a similar Kecamaran Development Programme, responding to concerns that some were being left behind by growth and development. The central government selected villages deemed to be poor, and then villages chose which households should receive small business loans. A study by Yamauchi (2010) found that, contrary to concerns about elite capture, the wealthier and more unequal villages targeted the poor well.

Among rural investments, electrification became a specific policy objective only in the late 1970s, when the government became concerned about uneven access of rural versus urban residents. Rural electrification initially lagged behind peers such as Malaysia and Thailand (World Bank, 1986, fn. 4) until investment was undertaken. Using enterprise surveys for 87 countries in the early 2000s, Alby, et al., (2013, p. 122) note in passing that Indonesia is one of the five countries with the smallest number of power outages.

In the mid-1980s, the government took steps to encourage the development of the private sector and reduce the reliance on oil exports (World Bank, 1990). These steps were successful remarkably quickly. By 1992, manufacturing exports accounted for almost half of all exports, up from just three per cent in 1980 (Timmer, 2007, p. 39). The process was helped by foreign direct investment from northeast Asia, which the government supported with incentives. Timmer (2018) sees this as a fortuitous 'push' on FDI from Japan, combined with the 'pull' from the attractive investment climate in Indonesia; by the end of the 1980s, manufactured exports played a significant role in generating employment. More recently, the output of the service sector has risen especially rapidly: it expanded from 36 per cent of GDP in 2002 to 46 per cent in 2019, while manufacturing shrunk somewhat from 48 to 41 per cent (all figures from World Bank 2023).

Despite changing policy priorities over time, according to Miranti (2010) the growth elasticity of poverty was virtually unchanged across three development episodes: liberalisation in 1984-1990; slower liberalisation in 1990-1996; and the 1999-2002 recovery from the financial crisis across much of East Asia in 1997-1998. Timmer (2018) argues that more recently, Indonesia's post-Suharto democratic transition has increased the size and influence of the political coalition seeking direct poverty alleviation, while undermining the coalition in favour of pro-poor growth. His discussion suggests that recent policy may have become too focused on transferring resources directly to the poor, at the expense of acting in the wider interests of the poor (Timmer, 2018, p. 17).

#### South Korea

The respective roles of urban, agricultural, and rural investment in poverty reduction can be illustrated by the case of South Korea, one of the most dramatic development successes in history.

The country is famed for successful state-led industrial policy. It was predominantly an agricultural economy until President Park Chung Hee took power in 1961 and introduced his first Five Year Economic Plan. An important part of this strategy involved encouraging the growth of large familycontrolled firms with close connections to politics, known as Chaebols; some are now global corporations such as Samsung and Hyundai. Choi, et al., (2023) show that firm concentration rose during the growth miracle period (meaning there were fewer, larger firms) to the benefit of South Korean society, because these large firms delivered underlying productivity improvements.<sup>42</sup>

In 1973, South Korea's Heavy and Chemical Industries (HCI) programme prioritised six sectors: steel, nonferrous metals, shipbuilding, machinery, electronics, and petrochemicals, aligning with military modernisation aims and avoiding competition with the nation's existing strengths. Prior to the HCI drive, the country pursued an export-centred industrial strategy with strong incentives for exporters. With the introduction of HCI, industries under its umbrella, along with exporters, were shielded from certain governmental regulations and taxes. These industries were also beneficiaries of subsidised loans and credits. Lane (2022) writes that "this temporary drive shifted Korean manufacturing into more advanced markets, creating durable industrial change".

But these industrial successes took place alongside agricultural reforms and rural investment. Even before Park seized power, the government had intervened through land reform. Implemented after the Second World War, this cut tenant farming from 65 per cent in 1945 to 8 per cent in 1951. This set the stage for later developments.

While the development strategy has been described as "growth first, distribution later" (Bharali & Gill 2021), distributional concerns rapidly arose. Urban growth was high and urban poverty fell dramatically in the 1960s (Choo, Bark, & Bum Yoon, 1996), but growth and poverty reduction in rural areas, where around 70 per cent of the population lived, were much slower. 43 In response, and concerned about the widening gap between rural and urban areas, the government implemented the Six-Year Rural Development Plan of 1966-1971. This was followed by the Saemaul Undong (New Village Movement) in 1971, aimed at increasing rural incomes and quality of life (Asian Development Bank 2012).

The programme started by improving rural and agricultural infrastructure, including village path networks, upgrading streams for irrigation, forestation programmes to improve water supply, and building community facilities. It followed by building farm roads and encouraging mechanisation of agricultural production. Public investment in the development of highyielding rice varieties led to the introduction in 1971 of "unification rice". Its promulgation increased average rice yields from 3.34 tons per hectare in 1972 to 4.94 tons per hectare in 1977. Given the dominance of rice production in rural household income generation, this implied a large increase in rural incomes.

<sup>42</sup> In a separate paper, the authors estimate that the long-term benefits of South Korea's activist industrial policy resulted from learning-by-doing, not just from the immediate gains from relaxing financing constraints for firms.

<sup>43</sup> https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=KR

Village housing was modernised, and rural areas were electrified and incorporated into telecommunication networks (Asian Development Bank, 2012). The majority (72 per cent) of financing was provided by local communities, while the balance was provided by the government through public financial institutions. The project was a resounding success, and a key driver of poverty reduction. Rural poverty rates (at a constant national absolute poverty line) fell from 27.9 per cent in 1970 to just 9.0 per cent in 1980 and 4.4 per cent in 1984 (Choo, Bark, & Bum Yoon, 1996).

Thus, even a country known for its pursuit of growth and industrialisation very quickly found itself drawn into making agricultural and other rural investments, to translate that growth into rapid poverty reduction.

## **Vietnam**

The economy of Vietnam is another clear success story, following the Doi Moi ("renovation" or "rejuvenation") reforms that were launched in 1986 after several decades of war and stagnation. The economy grew quickly, and agriculture's share of GDP halved between 1986 and 2009.

Poverty declined rapidly; Klump (2007, p. 119) cites a poverty rate of 58.1 per cent in the early 1990s, falling to under 25 per cent by the end of 2004. The growth of the 1990s was pro-poor and rural poverty fell quickly, so living standards improved even in the areas where most of the poor Vietnamese live (Klump, 2007, p. 128). However, poverty rates remain higher for ethnic minorities and those in remote areas, where some people faced difficulties accessing clean water and power. Klump (2007, p. 122) writes of stark differences in development levels and speeds between the urban southeast and the more remote and sparsely populated northwest.

Vietnam is one of the stronger examples of a coherent and successful propoor growth strategy, with a long track record of reform that combined pragmatism and caution. However, based on interviews with key figures. Rama (2008) describes how its policies were not primarily designed to maximise the well-being of the least well-off; instead, policymakers wanted to avoid making any particular group worse off, which might lead to political opposition or threaten stability.

One of the early measures was land reform. In 1988, land use rights were granted to individual households; the 1993 Land Law was a titling programme which saw nearly 11 million land titles issued by the year 2000, one of the largest and most rapid such programmes in the developing world. Growth in agriculture was later accompanied by large flows of remittances to rural communities from urban migrants. About 60 per cent of new migrants start work in the private sector. Klump cites evidence that increased agricultural earnings contributed more than 70 per cent of total poverty reduction between 1992 and 1997. Rural households saw much faster income growth in the south than in the north, partly because the south commercialised the farm sector to a greater extent. The development of the three urban growth poles – the areas around Hanoi, Da Nang, and Ho Chi Minh City – may have had only a limited direct effect on rural poverty, perhaps due to a lack of transport and telecommunications infrastructure connecting the urban centres to poorer areas.

The account of Baum (2020) attributes strong growth partly to investment in education, combined with significant investments in infrastructure, especially in electricity. Investments by electricity company EVN resulted in electricity consumption per head more than tripling over the decade prior to 2020, and rural household electrification increased from below 50 per cent in 1990 to about 99 per cent in 2016, with the quality of grid service high. Khandker, et al., (2013) estimate that household electrification raised household income and spending by as much as 28 per cent and 23 per cent, respectively, bringing welfare gains that persist. These gains were likely amplified by improvements in education, happening in parallel. Roads and maritime development received the majority of donor funding, the latter reflecting a long coastline (Baum 2020, p. 16). Rural road expansion remains a priority of the government (Baum, 2020, p. 25).

Human development was a priority from early on, and the 1990s saw especially fast advances in the education of the poor, those in rural areas, and ethnic minorities (Klump, 2007, p. 130). Literacy rates are high, and Vietnam outperformed many developed countries in the 2012 and 2015 Young Lives longitudinal study and PISA. The government now earmarks 20 per cent of its budget for education, and attention has also been given to vocational education, with specialised training institutions established in most of the highly-populated regions and cities, and in the more remote areas.

Among the countries considered by Shepherd, et al., (2016), Vietnam "had more of the policy components expected to support pro-poorest growth than any other country" (p. 18). The benefits of growth were distributed throughout the country, with poverty falling in all regions, including the northwest, despite its very small manufacturing base and low rate of structural transformation (McCaig & Paycnik, 2016), Benjamin, et al., (2017) note that there has been a "marked" reduction in absolute poverty, although the rate of decline slowed after the mid-2000s. They also note that inequality has changed little, despite several decades of growth.

Vietnam is a former planned economy, and the state has retained some involvement. Vietnam's Public Investment Programme – more than 200 large-scale investment projects with a cumulative value calculated at \$7 billion between 1996 and 2000 – had a notable impact in the poorer provinces. The Doi Moi measures included agricultural reforms, enterprise reforms that reduced the reliance on state-owned enterprises, and trade reform. The private sector expanded rapidly: the number of registered private firms grew by 40 per cent per year between 1993 and 1997 (McMillan & Woodruff, 2002, p. 158). Some of these were ad hoc spin-offs from state-owned firms, but those represented a minority of new private firms. The private sector created (in net terms) "some 10 million jobs in the seven years from the start of reforms, while the state-owned and collective firms shed workers" (McMillan & Woodruff. 2002, p. 166). Formal manufacturing employment grew almost five-fold in Vietnam between 1999 and 2017 (McCaig, et al., 2023), a period that featured large FDI flows and continuing domestic private entry.

Baum (2020) suggests that the Vietnamese economy is dualistic, with the FDI sector and multinational companies integrated in the local economy to only a limited extent. The Vietnamese government encouraged private enterprise to concentrate in three areas that serve as regional growth poles. In 2002 the northern and southern poles accounted for more than half of GDP, but the central pole much less (Klump, 2007, p. 135). Baulch (2019, p. 12) notes that industrial parks and export processing zones have helped to spread the benefits of a boom in light manufacturing beyond the three major urban conurbations. By 2015, about half of all Samsung mobile phones were assembled in Vietnam (Baulch, 2019, fn. 20). Since FDI often seeks to take advantage of low wages, it can play a role in pro-poor growth by increasing the demand for local labour. Fukase (2013) studies the US-Vietnam Bilateral Trade Agreement in 2001 and finds (p. 329) that provinces more exposed to increased export opportunities experienced faster wage growth for unskilled workers and a decline in the skill premium.

All this happened despite "an almost total absence of formal institutions to facilitate business" (p. 156). Even in the mid-1990s, a decade after reform had begun, banks served state-owned firms almost exclusively, there were no credit reporting bureaus, and courts able to enforce private contracts were only just emerging (p. 155). Firms instead relied on long-term relationships and informal information-gathering. As late as 1997, a survey found that threequarters of firms reported having no debts to banks.

One interesting aspect of Vietnamese development is that policies have often varied between provinces; as one set of authors put it, "Vietnam is learning by experimenting in 63 laboratories" (Schmitz, et al., 2012). The subnational variation can be used to study the links between private sector development and poverty, as in Jaax (2020). Data on provinces show a clear negative correlation between the change in poverty between 1999 and 2009, and the change in the private sector's share of employment between 2000 and 2009: poverty falls the most where the private sector share has increased the fastest.

Private sector growth was complemented by government redistribution. According to Rama (2008, p. 31) some of the very poorest provinces receive transfers equivalent to half of their GDP. Programme 135, established in 1998, was a national socioeconomic programme designed to assist poor communes technically and financially, especially those in remote and mountainous areas. Its investments include irrigation, schools, and commune centres, reaching about 15 per cent of Vietnamese households. A second phase focused on 1600 poor and mountainous communes in 45 provinces, home to the majority of Vietnam's ethnic minorities. The budget was approximately \$800 million, divided between basic infrastructure, the encouragement of market-oriented agriculture production, improved access to social services, and capacity building for officials to implement the programme better. A third phase followed, extended to 2020 (Vietnam Economic News, 2016).

## Low or mixed success

We now consider two countries where growth has not translated into poverty reduction to the extent seen in the case studies above. These are Angola and Nigeria. The two countries have sometimes grown, and there have been declines in poverty in Nigeria, but overall, growth has not been inclusive. Both countries are oil exporters, and especially in the case of Angola, growth has been concentrated in that sector, without many benefits for the population at large. These two case studies also serve to illustrate the limitations of growth, when its sources lack spillovers to the rest of the economy and the proceeds are not spent partly on social programmes. Equatorial Guinea is a similar case, but a lack of data makes writing a case study of that country difficult.

## **Angola**

Among poverty failures, Angola stands out as a country which did not translate periods of growth into poverty reduction, partly because growth was concentrated in the extractive industries, with few linkages to the rest of the economy, and partly because of inadequate rural investment and social sector spending.

Angola is a country of 36 million people on the west coast of southern Africa. with a very low population density. After independence from Portugal, Angola suffered a drawn-out civil war, with the victor having remained in power. Its economy has been characterised by reliance on oil exports and hence volatile economic growth, low human capital investment, and high and persistent levels of poverty.

The stock of human capital is distinctly low (Ceita, et al., 2013). Its human capital score of 0.36 ranks among the lowest in the world on the Human Capital Index (HCI), and its fertility rate is high, again even among sub-Saharan African countries. Social assistance in the country remains low: less than 1 per cent of GDP, the vast majority war-related compensation. School enrolment has quadrupled since 2004: as of 2020, one in six children do not attend school., but in rural areas, only 6 per cent of girls of secondary school age are enrolled. Up to three-quarters of teachers have not received any formal training, and schools lack even basic facilities. Angola ranks among the last in terms of human resources in the health sector, with only one physician, 23 healthcare workers and 63 nurses per 100,000 people. Maternal and child mortality rates are about double the average in lower-middle income countries.

The World Bank's 2020 Angola Poverty Assessment noted that Angola was, at the time, the third-largest economy in sub-Saharan Africa and the secondlargest oil producer in Africa. But Angola has rarely used its sizeable resource revenues to address social and economic needs to the extent required, and could be contrasted with Indonesia and Mali in this respect.

The Angolan economy shrank over the last few decades of the 20th century, and Angola started the 21st century with a real income level of roughly \$2,500/ capita (in 2017 PPP dollars), still not especially low among African economies. Between 2000 and 2010, real income per head more than doubled to over \$6,000, a remarkable growth. This coincided with two important events. First, in 2002, the 27-year-long Angolan Civil War, a proxy war reflecting Cold War ideologies and foreign support on both sides, ended with a victory by the Communist-backed People's Movement for the Liberation of Angola (MPLA). Much of Angola's growth was due to the recovery from the war-torn years. which particularly devasted agriculture (World Bank, 2020). Second, this growth coincided with a near tripling of the international price of crude oil from about \$27/barrel to \$76/barrel between 2000 and 2010. Angola's exports consist almost exclusively of crude oil, with diamonds a distant second, and its chief trading partner is China (The Atlas of Economic Complexity, 2023).

During this high growth period, extreme \$2.15/day poverty fell only mildly, from 21 per cent in 2000 to 15 per cent in 2008, while middle-income \$6.85/day poverty actually rose from 67 per cent to 69 per cent. The estimated fraction of working people living in extreme poverty stayed essentially constant at around one third over this period. This is remarkable given the end of conflict and the strengthening of institutions, at least as measured by improvements in political stability and rule of law indices.

In 2014, Angola's economy started collapsing, in part a response to a fall in global oil prices begun a couple of years earlier. Real GDP per capita fell from roughly \$8,600 in 2014 to \$7,200 in 2019. By 2018, extreme poverty had more than doubled to an estimated 31 per cent, while middle-income poverty had risen to 78 per cent. The estimated rate of extreme poverty among the working rose from 35 to 50 per cent. Hence, using any measure, by 2018 there was higher poverty in Angola than in 2000, despite average incomes having tripled.

The labour force situation in Angola is unique. Unlike other countries that experienced productivity-improving structural change, Angola has experienced an increase in the share of the labour force engaged in agriculture, much of this a recovery after the war disrupted rural areas. These areas had been disproportionately under the control of the losing side in the civil war, the National Union for the Total Independence of Angola (UNITA). At the same time, there has been a sharp increase in urbanisation such that much of the poverty is urban (World Bank, 2020).

More than half the food consumed is imported. Around half of the workforce remains in subsistence agriculture, while a productive export-oriented oil economy flourishes in Luanda and other urban centres. State-owned enterprises play a large role in the Angolan economy in urban areas, especially in the oil and diamond industries, and job creation in these industries is not strong. The ruling party controls the Business Management and Participation Company (GEFI), a holding company that is active in banking and real estate. The oil and gas industry accounts for about a third of GDP, but employs just 1 per cent of the workforce. The largest sector of employment outside agriculture is commerce and hotels (23 per cent), followed by administration and personal services (15 per cent).

The employment share of the more productive manufacturing sector is low (4 per cent). Investment in infrastructure and housing, financed by export earnings, has stimulated domestic building materials and cement production. together with some brewing and beverages, bottling and canning. Wolf (2017) paints a more optimistic picture, with government industrial strategy prioritising agro-processing, textiles, chemicals and pharmaceuticals, and various materials, while vocational training programmes address the shortage of skilled labour, resulting in rapid growth in manufacturing value added since the turn of the century, albeit from a low base.

Rural development is hampered by infrastructure needs that limit the access of rural areas to markets. The country has seen some large-scale infrastructure projects, with Chinese financing and construction in exchange for oil, including the rehabilitation of the Lobito transport corridor and railway, which connects the Atlantic port of Lobito with Angola's interior and the neighbouring countries of DR Congo and Zambia, but also a \$3.5 billion residential development that has been described as a 'virtual ghost town'.

# **Nigeria**

Nigeria has the largest economy in Africa, the largest population, and the most people living in poverty. The World Bank estimates that around one in five of people living in poverty in Africa are Nigerian. The country is also home to Africa's richest man, Aliko Dangote. His \$20 billion oil refinery, Africa's largest, constructed on the outskirts of Lagos, has just started production.

Nigeria, like Angola, is a lower-middle-income country with widespread poverty. In 2022, the Federal Government of Nigeria estimated that 63 per cent of its 231 million people live in "multidimensional poverty" – the most recent World Bank extreme poverty (PPP \$2.15/day) rate was 31 per cent, in 2018. It is a large country - roughly the same size as Egypt or Ethiopia - but it is about twice as densely populated. Geography is important in Nigeria. The country is marked not only by ethnic differences but religious and economic differences as well. The southern region includes the coast and is wealthier, predominantly Christian, and has oil deposits in the Niger Delta region, while the northern regions are semi-arid, Muslim, and poorer (Lain, et al., 2022).

Estimates of Nigeria's real income per capita at the turn of the century differ – one source has it as low as \$740 (in 2017 PPP dollars) another nearer \$2,000 - but both agree the country saw rapid growth in the first decade of the 21st century, leading to an average real income per person of \$5,000 by 2010.44 As in Angola, growth coincided with the boom in oil prices, which allowed the country to graduate to lower middle-income status. In 1996, the \$2.15/day poverty rate was 58 per cent, falling to 48 per cent by 2003 and 35 per cent by 2010. Since this moderate success was over a period in which average incomes grew tenfold, Nigeria qualifies as a country that has translated national growth into poverty reduction much less successfully than some of its peers. The World Bank estimates that the growth Nigeria experienced in the early part of the 2010s disproportionately benefited non-poor Nigerians; welfare in richer households was far more closely aligned with Nigeria's macroeconomic performance.45 Since 2014, real GDP per head has declined, with some recovery in 2021 and 2022.46

<sup>44</sup> The Pen World Table 10.1 gives \$740 (expenditure side real GDP) and the World Development Indicators

<sup>45</sup> World Bank 2022 Nigeria Poverty Assessment.

<sup>46</sup> https://data.worldbank.org/indicator/NY.GDP.PCAP.KN?locations=NG

Oil and related products constitute the overwhelming majority of Nigerian exports, although exports are lower relative to GDP in Nigeria than in Angola, roughly 10 per cent. Nigerian dependence on oil is high, as reflected in its share of exports, GDP, and government revenues. The country has experienced volatile macroeconomic policies, with high inflation and persistent foreign exchange shortages. Throughout the past two decades, Nigeria has implemented import bans, tariffs, and foreign exchange restrictions for certain goods, restricting the flow of imports into the country. In 2019, Nigeria closed its land border for trade in all goods, in response to smuggling. President Bola Tinbu, who took office in 2023, has reopened some borders, allowed the currency to float, and stopped petrol subsidies that reportedly cost \$10 billion annually.47

Dangote owes his success to the Backward Integration Policy (BIP) introduced in 2002 by the Obasanio administration, designed to encourage local production of commodities like cement and sugar. 48 The BIP in cement restricted import licences to companies with domestic production capacities or plans to build it, waived taxes and duties on imports of cement production equipment, and exempted cement investment from taxation. Odijie & Onofua (2020) recount how the policy originated in a conversation between Dangote and President Obasanjo, and describe Dangote's frequent political contributions to successive administrations. Dangote acquired former stateowned plants, while some foreign producers, such as Heidelberg Cement, decided to exit Nigeria.

BIP has faced internal opposition – the World Bank estimated that cement is roughly three times as expensive in Nigeria as average prices elsewhere. and various groups lobbied for liberalisation. In 2017 Dangote joined the board of the government's Nigerian Industrial Policy and Competitiveness Advisory Council. Dangote Group then announced investments to grow and process rice, and the government created a programme of subsidies and trade protection to protect domestic farmers. More recently, Dangote has opened sub-Saharan Africa's largest fertiliser plant, and the continent's largest oil refinery. Despite being a major oil producer, Nigeria is an importer of refined products. In principle these investments in import substitution may improve Nigeria's macroeconomic situation.

To attract FDI, Nigeria introduced several free trade zones, starting in 1992. the most prestigious of which is the Lekki Deep Sea Port, at the Lagos Free Zone. From the mid-1990s, FDI rose to around 3 per cent of GDP in 2009, but has declined precipitously since. The manufacturing share of GDP fell from around 20 per cent in the 1990s to 7 per cent in 2010, recovering to 14 per cent in 2022. There are clusters of success, including many Chinese-backed smaller manufacturing firms (Chen, 2020), but the country suffers from poor infrastructure, including notoriously unreliable electricity. As a result, structural transformation has yet to advance significantly, and agricultural jobs are disproportionately concentrated among the poor. Only around 11.7 per cent of Nigerian workers were primarily engaged in jobs in industry in 2018/19, compared to 42.4 per cent in agriculture and 45.9 per cent in services (including retail and trade and other types of services).49

Households that relied more on agriculture were more likely to live in poverty. Around 57 per cent of Nigerians in households where the head engaged primarily in agriculture were poor, compared with 23.9 per cent of those where the head engaged primarily in wage work. Unemployment is not correlated with poverty but underemployment (working fewer hours) is, and both are more prevalent among women than men. Most agricultural outputs are consumed – only around a third of output is destined for sale – and the agricultural sector has not commercialised.

<sup>47</sup> See "Entrenched inflation drive Nigerians into poverty, says World Bank" Financial Times, June 2023.

<sup>48</sup> This paragraph draws on Odijie and Onofua (2020).

<sup>49</sup> World Bank 2022 Nigeria Poverty Assessment.

Politically, Nigeria had been relatively stable, but has suffered violent conflict with the Boko Haram insurgency. Although Boko Haram formed in 2002, its insurgency began in 2009, and since then has launched a series of terrorist attacks in the northern states, especially in Borno State. Conflict has proliferated, displacing populations and disrupting markets. This later period has been accompanied by economic stagnation. Nevertheless, the falling price of oil in the 2010s is a more commonly cited culprit for the disappearance of growth, and corruption is a more commonly cited reason for the ineffectiveness of Nigeria's state programmes in addressing poverty. despite growth in the 2000s. In 2022, Nigeria ranked 150th out of 180 countries in the Corruption Perception Index, well below the other countries we study (Transparency International, 2023).

As in Ethiopia and Mali, Nigeria has had strategic plans to address poverty. These programmes have simply not been as effective. Given the higher population density, access to local public services is generally higher in Nigeria than in Mali. But poverty efforts, focused on job training in the 1990s and agricultural support since, have proven less effective (Wohlmuth, 2008). In 2019, public expenditures represented only 12 per cent of GDP – significantly lower than in peer countries – and spending on health, education, and infrastructure has been hampered, as resources were diverted towards subsidies for electricity and fuel. These subsidies tend to favour richer Nigerians. States are responsible for social spending in a federal system, but the states are reliant on federal funding which is not always allocated in proportion to need.



## **Conclusion**

Poverty eradication success stories are about growth, first and foremost. They also tend to combine growth in urban centres with public investments directed at rural areas and higher social spending, drawing on the proceeds of overall growth.

This will not be news to some policymakers. Arkebe Oqubay, one of the architects of Ethiopia's industrial strategy, said that the government's interventions in the economy were not targeted at poverty per se but were about promoting growth and structural change, particularly in activities with the greatest spillovers and linkages. That meant heavy investment in electricity and roads, and the promotion of manufacturing through special economic zones.50 At the same time, the Ethiopian government spent on education, and the country's Productive Safety Net Programme transferred cash and food to the rural poor.

Yan Hao, from China's Institute of Social Development, writes that: "Most of the current anti-poverty programs in China can be divided into two categories: general development policies with indirect anti-poverty implications, and specially designed anti-poverty programs at both central and local level... some programs aim to improve the structural context and setting of poverty, whereas others aim to meet the basic, immediate needs of people living in poverty."

Country case studies of successful poverty reduction stress the roles of (a) investments in agriculture and rural areas, and (b) effective social expenditures. Sustained poverty reduction also requires economic modernisation, the movement of workers out of agriculture and into manufacturing and services, and an increase in waged employment at larger firms. These are the necessary changes in what Yan Hao calls the "structural context".

50 Speaking at the launch of SOAS's Development Leadership Dialogues in London, 2023.

Failure looks like the absence of growth, or a failure to ensure growth is inclusive. When growth fails to translate into poverty reduction, it has often been concentrated in sectors with few spillovers to the rest of the economy. and without a government willing to use the proceeds of growth to finance public investment and social spending. In between these poles of success and failure are partial successes, where only some of the right ingredients have been combined.

None of the case studies of successful poverty eradication relied on private sector urban growth alone; equally, none of them relied solely on rural public investment and government transfers. In the fight against poverty, the three ingredients of private investment (largely in urban areas), government investment (largely in rural areas) and government transfers are complements – each, in isolation, can achieve something, but together they can be miraculous.

Translating growth into poverty reduction requires investments that directly touch the lives of poor people, where they live today. But it also requires investments in parts of the economy that are quite distant from the lives of the poorest, but which drive urbanisation and structural change, without which sustained poverty eradication is impossible. This becomes clearer the longer the time horizon. It is quite wrong to think that, for private investment to contribute to poverty eradication, it must always be "targeted at poverty" in the direct sense. To believe that would be akin to believing that the tremendous urban growth and economic modernisation seen in the countries that have eradicated poverty in recent decades played no great role in that achievement.

It would be overstating the case to say that we can infer a single prescription for international development cooperation from the experiences of countries that have translated growth into poverty reduction. But it seems reasonable to suppose that, if the purpose of donor countries' official development assistance – foreign aid – is to support countries in eradicating poverty, then donors should assist countries with everything they need to do so, rather than just one or two specific forms of investment. A balanced approach is especially important when the different measures are complements: spending on education is more effective, for example, when there are jobs that can make good use of educated workers, which may in turn rely on good transport, power, and communications infrastructure.

Private sector DFIs are most obviously suited to investments in certain types of revenue-generating infrastructure and in larger formal firms, needed to accelerate economic transformation. But they can also find rural investment opportunities, indirectly through the financial sector, and directly into agricultural supply chains. Other institutions can help translate growth into rapid poverty eradication by supporting governments with public investment and social spending programmes. These forms of support would call on the sovereign operations of development banks and bilateral aid programmes. The central message of this paper is that poverty is eradicated most rapidly when a range of public and private investments reinforce each other, and that several types of institution, and many forms of support, have key roles to play.

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The Building Inclusive Growth (BIG) Lab seeks to address structural barriers to equitable economic growth in low- and middle-income countries. We generate evidence-based approaches for tackling these barriers at both macroeconomic and microeconomic levels. Such research requires a range of methodologies to make progress, and methodological breadth is a strength of our researchers.

We bring together faculty, graduate students, and undergraduates to address the root causes of global poverty. We understand that individuals in poverty face a complex set of barriers, and our researchers investigate the role of myriad factors in creating and sustaining inclusive growth, including institutional constraints, poor policies, market failures, societal biases and the lack of human capital or employment opportunities. Our lab is unified by a common commitment to economic development and a strong emphasis on quantitatively-oriented methodologies.

# For further information:

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