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Global Headwinds to Kuznets' Low-Inequality Transformation

PLUTOCRATS, POPULISM, AND MORE

 Nancy Birdsall

Abstract

Kuznets predicts an economy's return to low inequality once structural transformation has peaked. I explore some headwinds to falling inequality in developing countries given their thorough engagement in the globalized market Kuznets could not have foreseen. Headwinds include plutocrats' abuse of open capital markets to elude taxation; populism in rich countries that prevents migration of labor from less to more productive economies; and climate damage. On structural transformation: growth and urbanization in some countries, though less dramatic than for the first industrializers, indicates it is occurring. But in countries including India and Nigeria, the services-based transformation today's global market now requires depends on a dramatic upgrade in the quality of basic education.

KEYWORDS

Inequality,
globalization,
plutocrats,
populism, structural
transformation

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Global Headwinds to Kuznets' Low-Inequality Transformation: Plutocrats, Populism, and More

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1. Introduction

Seven decades ago, Kuznets outlined a process of structural transformation in which a country sees an increase in inequality (as labour moves from a less to a more productive sector) that is temporary, followed by a return in the transformed and more productive, richer economy to its initial, lower level of inequality. His 1955 paper, based on the experiences of the United States, the United Kingdom, and Prussia, was one of the first to set out a link between the development process and changes in the distribution of income—and in the country cases he outlined, to what can be called a ‘comforting’ return to low inequality.

In this paper I explore some implications for long-run inequality in developing countries given their thorough engagement since 1955 in the globalization of markets, a phenomenon Kuznets naturally did not take into account.¹ Today, after all, virtually all developing countries engage in extensive cross-border exchanges, including trade in goods and participation in financial markets: borrowing, lending, and investment. (Only the labour market is limited by immigration restrictions of rich countries, to which I return below.)

Participation in global markets has mattered hugely for growth in developing countries, but it also involves ‘headwinds’ to the eventual return to initial low inequality that Kuznets described for the three developed economies. Compared with 70 years ago developing countries face high costs in dealing with global public ‘bads’, including climate change and pandemic risk; these also constitute headwinds to reducing inequality, especially in developing countries due to their limited monetary and fiscal policy options for maintaining growth and redistributive programmes.

Kuznets’s inverted U, of rising inequality followed by falling inequality to an original low level, was reassuring to development economists in the latter half of the 20th century. It implied that growth in developing countries could proceed without any unfortunate by-product of higher inequality. In the late 1980s and the 1990s (when market fundamentalism and neoliberalism were at their height), the World Bank, for example, supported a near-singular focus on developing countries’ achieving growth-driven poverty reduction, with scant attention to income inequality in developing countries as a potential constraint on growth itself and on poverty reduction (Milanovic 2023).²

But economists now agree, based on better data and analysis in this century, that high inequality is a constraint on economic growth. At the World Bank (and at the International Monetary Fund in the last decade as well), the objective for developing countries has become ‘shared prosperity’,³ achieved by growth combined with reductions in the inequality that tends to limit economic expansion.⁴

1 Kuznets (1955: 20) did note that trade (and other trends) could generate long ‘swings’ similar to changes in inequality.

2 Milanovic (2023: chapter 7) blames the neoliberal school (dominant in economics from 1980 to the 2012 global financial crisis) for the neglect of income distribution.

3 The first ‘Shared Prosperity Report’ of the World Bank was issued in 2013, following the 2012 global financial crisis.

4 For example, (Ostry et al. 2014).

How does the reality of the global market system in which virtually all developing countries participate, combined with the shared risks of global public bads, complicate the comforting pattern that Kuznets described?

In Section 2, I make two points as background to the subsequent discussion of global headwinds to inequality. First is the question of whether most developing countries have experienced a sufficient measure of the ‘structural transformation’ Kuznets described (i.e. movement of labour from less to more productive work) to expect that inequality should be declining in the first place. Second is to note the large and persistent differences in the *levels* of inequality of the different regions of the developing world, and the discomfiting implication for the two highest-inequality regions.

In Section 3 I turn to three limits (three Ps) the global market sets on Kuznets’s expectation of a developing country’s return to its initial lower level of inequality following a structural transformation: Piketty plutocrats, the pressures of debt and currency management developing countries periodically face, and populist politics in rich countries. I argue as well that the global public bads of climate and pandemic risks constitute additional headwinds to Kuznets’s comforting expectation of a decline in inequality in the latter part of a process of structural change.

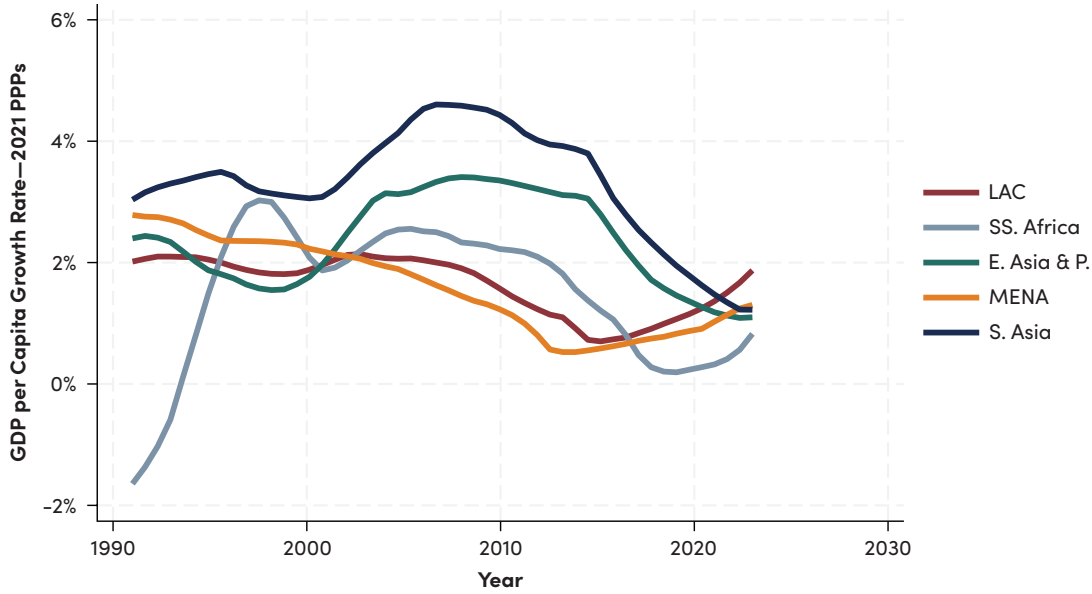
In Section 4 I return to the question of structural transformation in the two poorest regions of the developing world where human capital is wanting, and the (discomfiting) implications in the long run for reductions in inequality in those regions.

2. Applying Kuznets’s insight to developing countries: The question of ‘structural transformation’

Only a few developing countries—including the Republic of Korea, Brazil, China, and Viet Nam (on the latter see Sarma et al. 2017)—have enjoyed the structural ‘transformation’ based largely on manufactured exports that Kuznets documented for the US, the UK, and Prussia. However, careful studies of structural ‘change’ (short of the ‘transformation’ associated with industrialization) suggest that periods of growth in Ghana, India, and Zambia, among other developing countries, can be associated, along with improvements in ‘fundamentals’ (macroeconomic stabilization, external opening, improved governance), with a sufficient transfer of labour from agriculture to relatively high-productivity services (especially finance, insurance, retail, business) to constitute structural change (McMillan et al. 2016).

In fact, most developing countries in the last seven decades *have* experienced a form of Kuznets-style structural change if not ‘transformation’, with movement of labour from lower-productivity agriculture to presumably higher-productivity (and higher-income) urban informal service work (on the (in)formalization of work in urban areas of developing countries, see Ghani and Kanbur 2013). That change helps to account for per capita growth of two to three per cent a year beginning in the 1960s in Latin America and East Asia and later in South Asia, as well as some countries of sub-Saharan Africa (Figure 1).

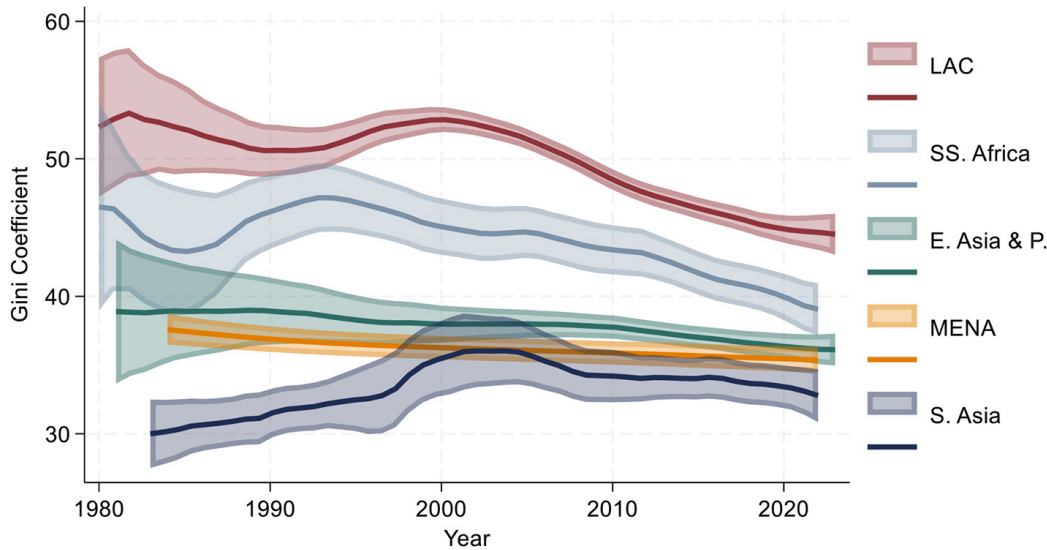
FIGURE 1. Average national gross domestic product growth by region



Source: Author's illustration based on data from World Bank (2025).

Figure 2 shows accompanying changes in Gini coefficients by region (averages of country changes). Overall it suggests that in Latin America, sub-Saharan Africa, East Asia, and beginning in the 1990s in South Asia, growth and structural change have been accompanied by the Kuznetsian pattern of increases followed by declines in inequality. The pattern is consistent with structural change leading to temporary increases in inequality, followed by declines. In East Asia as well inequality has declined modestly.

FIGURE 2. Average national Gini coefficients by region



Source: Author's illustration based on World Bank data (2025).

Figure 2 also makes clear large and persistent differences among the different regions of the developing world in *levels* of inequality—differences that are sufficient to dominate the smaller *changes* in inequality within each region that appear to be consistent with Kuznets-style structural change.

Over the last four (and more) decades, Latin America and sub-Saharan Africa have been high-inequality regions, whereas East and South Asia and the Middle East and North Africa have been relatively low-inequality regions. As Figure 2 shows, since 1980 there has been virtually no overlap in the measured inequality between the two high-inequality regions and the three lower-inequality regions. Consider Brazil and India, the two most populous countries in the Latin America and South Asia regions respectively. Brazil's Gini coefficient declined over the last 30 years of considerable structural change from about 60 (one of the highest in the world) to about 53, a substantial decline. But a Gini of 53 is still among the highest in the world. A decline to a Gini of 53 is consistent with Kuznets's expectation of governments undertaking redistributive spending (Brazil's Bolsa Familia for example) as structural change is completed. But does a Gini as high as 53 constitute a 'return' to the pre-industrial inequality that Kuznets had in mind?

What about India? In the last 35 years India's Gini has risen from about 30 (among the lowest in the world—Denmark's Gini coefficient is about 30) to a high of about 35. A Gini coefficient of 35 is well below the current Gini coefficients of the US and China of about 45. Does India's increase in inequality from a Gini of 30 to a still low Gini of 35 reflect the rise in inequality Kuznets foresaw during the process of structural transformation (or at least structural 'change')? Or should we expect it to rise further if India succeeds in a more complete structural transformation?

The difference in the levels of inequality between Brazil and India (and between Latin America and South Asia) eclipses in size the changes in inequality in each country over time. There have been Kuznets-style upswings in productivity and growth associated, for example, with new technologies or new economic policies in those regions. As with past upswings, however, they are unlikely to affect changes in inequality enough to alter the underlying regional differences.

Differences in levels of inequality across regions are more easily explained by history and associated political movements and institutions than by their varying experiences of structural economic change.⁵ That does not detract from Kuznets's insight into the relationship between structural change or transformation and inequality, but it does suggest that for poor residents of developing countries in Latin America and sub-Saharan Africa, a 'return' to their countries' initial inequality is not an escape from a literally 'poor' outcome.

5 Cf. the 2024 Nobel prize-winning work of Acemoglu et al. (2001), who explain high inequality in Latin America as a function of the region's colonial history of exploitation of its mineral resources and plantation-friendly natural settings leading to political rules and institutions controlled by the economic elite. See also Acemoglu et al. (2002), who develop a model in which, when development leads to inequality, the political elites are forced to democratize (but democracy in itself does not lead to reductions in inequality).

The East Asian ‘miracle’ economies of South Korea and Taiwan are good examples of the relevance of history and institutions to the inequality effects of a full structural transformation. Both countries enjoyed a classic case of structural transformation in the form of a rise in manufacturing exports beginning in the 1960s. South Korea’s low Gini coefficient of 32 in the 1950s did not, however, rise with its increase in manufactured exports and growth in the 1960s to the 1990s. Only in the post-transformation period, in the 2000s, did its Gini coefficient rise to a still low 34. Iscan and Lim (2022) argue that South Korea’s low inequality throughout the late-20th century transformation of its economy is explained by the equal distribution of land imposed by the US during its post-war military occupation.

In Taiwan as in South Korea, inequality did not rise during its structural transformation from the 1960s to 1980s as manufactured exports and average incomes rose. It is instead since 1980, with continued growth driven by liberalization of the economy and its recent technology-driven increase in exports (chips), that there has been an increase in inequality, though still a modest one. After peaking in the early 2000s, inequality is still at a low level with a Gini in the low 30s.

East Asia’s higher level of inequality than South Asia’s (Figure 2) reflects partly the case of China. There, in an apparently classic case of Kuznetsian structural transformation, inequality did rise from a Gini of about 32 in 1990 to about 45 as manufacturing exports rose (especially once China joined the World Trade Organization in 2001). As Kuznets would have expected, there has been a big increase in the urban-rural wage gap as well. However, there has not been any diminishment of that wage gap nor the return to low inequality (UNDP 2023) of a classic Kuznets curve. After more than 30 years, China appears to be still at the peak of high inequality in Kuznets’s inverted U-curve.

Overall, the evidence is that in the seven decades since Kuznets’s analysis, globalization combined in many developing countries with sensible macroeconomic policies has brought sufficient growth and structural change to generate, as Kuznets suggested, the increases followed by declines of inequality that today we call Kuznets curves across much of the developing world. But except in the ‘miracle’ economies of East Asia, the declines have been modest, leaving many people in poverty in much of the developing world.

3. Three global market headwinds to Kuznets’s U-curve return to low inequality

Overall, inequality is declining in many developing countries. At the same time, for many developing countries inequality is very high (Brazil, South Africa): high enough to wonder about its long-run negative effect on growth itself (given the evidence that inequality can reduce growth) as well as on the well-being of the poor in those countries. In other cases, inequality is not declining towards its initial lower pre-structural-change level (China, Bangladesh).

Kuznets's inverted U-curve predicts a gradual return to low inequality once structural change/transformation has peaked. The process is technically completed when the gap in real wages between the productive ('urban') and less productive ('rural') sectors has disappeared.

Kuznets refers to three reasons for declines in inequality on the downside of the inverted U-curve: dissipation of the original rents or returns to capital associated with the transformation; a decline in the urban-rural wage gap (or between the more and less productive sectors); and the emergence of societal pressures for greater sharing of rents through redistributive social programmes and progressive taxes, for example to support the elderly.

Consider the global headwinds to each of these.

3.1. Per Kuznets: Dissipation of returns to capital reduces inequality. But: Piketty plutocrats and footloose capital

Is there evidence of a decline in the returns to capital and the dissipation in the rents Kuznets expected in capital-abundant economies, making the rich in relative terms less rich?

Piketty argues in his 2014 book *Capital in the Twenty-First Century* that a reduction in the returns to capital need not happen and is not happening.⁶ He cites historical data showing returns to capital that have often exceeded rates of growth due to the market power of monopolistic and oligopolistic firms; the constant flow of technological innovation in our modern economies (consider artificial intelligence today); and most relevant for this paper, the ease with which capital can flow to and be withdrawn from different parts of the world.

Kuznets could not have foreseen how in today's global financial market, in which capital is highly mobile, developing countries would be subject to 'sudden stops' (Calvo et al. 2003; Zucman 2015: 53)⁷ of normal capital inflows during a financial crisis, and to greater than expected outflows as capital seeks higher returns elsewhere. To minimize the resulting risks, most developing countries keep higher reserves than they otherwise might and have flexible exchange rates allowing for currency depreciation, but these have their own costs. Depreciation for example raises the cost of dollar-denominated debt.

In the case of market-driven capital flows, developing countries in net terms benefit from access to global capital. But problematic for all countries, including the rich, is that footloose capital escapes domestic taxation, as firms and individuals can easily move their capital across borders to settings where they pay lower taxes or no taxes at all. Zucman (2015) estimates that between four

6 A memorable example he invokes is that of the US Ivy League universities with their huge endowments. They obtain higher returns than the average investor because they can take more risk and can spend more on managing investment portfolios to maximize return.

7 US corporate tax revenue fell between 1995 and 2017, while profits rose faster than the economy (see also Zucman 2015: 67). Saez and Zucman (2019) estimate that 40 percent of multinational profits are shifted to low-tax settings.

and ten per cent of rich-country financial wealth was held offshore. For Latin America the figure is 21 per cent, and for Africa 30 per cent.

Add to forgone revenue due to offshore tax avoidance of individuals the impact of profit-shifting of corporations, and in 2023 total estimated tax losses of all countries were US\$420 billion, including US\$47 billion for developing countries.⁸

A total of about US\$420 billion in annual lost tax revenue for all countries is not trivial. All rich-country aid to poor developing countries in 2023 was just short of US\$200 billion. The World Bank is currently seeking contributions by well-off countries of US\$30 billion to the International Development Association, its special fund for low-income countries. The goal of transferring an additional US\$100 billion a year to developing countries to deal with the climate crisis set in 2012 was only achieved in 2022 (and included private investments). The goal agreed at the 2024 Conference of the Parties global climate conference was US\$200 billion year by 2035, a figure considered grossly inadequate to the task.

Money lost annually to tax havens and profit-shifting could, in other words, finance almost all annual bilateral and multilateral flows to developing countries, as well meeting current goals for climate funding from rich countries.

Moreover, in a vicious circle, tax havens and profit-shifting have led many countries to reduce domestic tax rates on capital in the hope of keeping more taxable capital at home. The pressure to reduce tax rates on capital has finally led most developed countries to coordinate on a minimum agreed corporate tax rate of 15 per cent. (An initiative of the Organisation for Economic Co-operation and Development and G20 led to a 2023 agreement on a minimum corporate tax of 15 per cent. A 15 per cent alternative minimum tax for corporations was agreed in the United States as part of the 2023 Inflation Reduction Act, but an executive order by President Trump raises doubts about US adherence to certain aspects of the initiative.)

3.2. Per Kuznets: Decline in the urban-rural wage gap and increases in redistributive spending reduce inequality. But: Pressures of changing commodity prices and interest rates, and associated debt burdens

The urban-rural wage gap (in China still more than two to one (Milanovic 2024), in Brazil and India about 1.5 to one) that Kuznets assumed would decline once structural transformation had peaked, bringing about a reduction in inequality, has not been declining in developing countries, perhaps

⁸ 'Moreover, without an effective corporate tax, a progressive income tax on individuals' income is not possible, as rich people can create small individual companies and transform the income tax into a (hardly enforceable) consumption tax' (Saez and Zucman 2019: 114).

because structural change in the developing world is a longer and more gradual process and is still ongoing (longer than the 30–50 years in Kuznets’s examples of the US, UK, and Prussia).⁹

The challenges associated with debt and currency management in a global market in which developing countries have little control over commodity prices and interest rates help to sustain the urban-rural wage gap. (Likewise, associated fiscal pressures in indebted countries reduce the redistributive spending Kuznets foresaw once structural change or transformation has peaked.)

For example, exchange rate policies in Latin America prior to market-based floating for years reflected the politics of urban bias (Lipton 1977). Agricultural producers and workers lost out for decades as overvalued currencies reduced the cost of living for urban consumers but hurt rural producers. Though managed floating of currencies has eased that problem, the residue of underinvestment for the last several decades of the 20th century (including in roads and schools in rural areas) is still exacting a loss of income for rural populations, sustaining the gap between urban and rural wages even where rural producers may be as or more productive than urban workers in the informal sector.

Galbraith (2011), using pay data for most developing countries over several decades, shows convincingly that global economic and financial phenomena (periods of higher interest rates, lower oil and commodity prices) are the key reason for periods of higher pay inequality in those economies.

Those global pressures are also behind the high debt burdens of low-income countries (especially recently, following the pandemic and the effect of the Ukraine war on fuel and fertilizer prices) and the large number of low-income countries in debt distress today (2024–25).

Servicing high debt reduces a government’s fiscal capacity to finance the redistributive programmes Kuznets foresaw for education and infrastructure investments in higher-cost (for equipment and teachers) rural areas. This is true as well in the case of the redistributive programmes for health that would increase worker productivity in rural areas, helping to reduce the urban-rural income gap in the long run.

What about the phenomenon of high proportions of informal-sector workers in developing countries? On the one hand, the large informal sector of urban areas, accounting for 60 to 80 per cent of urban workers in many developing countries (e.g., 74 per cent in Indonesia, 74 per cent in Kenya, and 51 per cent in Mexico (International Labor Organization 2025)), could be viewed as a challenge to Kuznets’s expectation of structural change, as long as their productivity and earnings are below the average for urban workers in the formal sector. On the other hand, urban informality does reduce the average urban-rural wage gap from what it would otherwise be, suggesting there has been structural change. Assuming that informal urban workers are more productive and earn more than

⁹ Kuznets (1955) refers to data for the periods 1929–50 for the US, 1880–1947 for the UK, and 1913–30 for areas now in Germany.

rural counterparts (in agriculture and informal work in rural areas), the phenomenon of informality sustains what would be an even larger urban-rural gap without it, and in that sense is consistent with an ongoing process of structural change.¹⁰ It is also consistent with the increases in gross domestic product and income per capita (in middle-income India, Indonesia, and Mexico, and in some lower-income countries of Africa) noted above.

3.3. Per Kuznets, perhaps: Declines in the global wage gap between less productive and more productive workers across countries? But: Populism in the more advanced economies

The global analogue in the 21st century to the structural transformation Kuznets observed within countries in the latter part of the 20th century is migration of labour from poor and less productive settings in developing countries to rich and more productive settings in rich countries. However, lack of an open global market in labour due to political resistance to immigration in rich countries slows structural change in developing countries and prevents the structural transformation at the global level we could otherwise imagine today (Clemens 2011).

Movement of labour from low- to high-productivity settings is limited because of political resistance in rich countries, reflected in the increase in the size and political heft of populist movements in the US and western Europe.

Populism is defined as follows by Wikipedia (2025): ‘A range of political stances that emphasize the idea of “the people” and often juxtapose this group with “the elite”’. Alesina and Tabellini (2024) conclude that the roots of populism are twofold: economic insecurity and cultural backlash.

Economic insecurity and cultural backlash are in turn closely associated with today’s globalized market. In the US, the 1992 North American Free Trade Agreement and later admittance of China into the World Trade Organization are still blamed for the loss of jobs in the last three decades. This despite evidence that changing technology is as much or more behind job losses (Lawrence 2017). President Trump, especially during his 2016 presidential campaign, sought to build his appeal with working-class voters by decrying the ‘globalists’ and by making ‘globalism’ a dirty word associated with the ‘elite’.

The political pairing of economic insecurity and cultural backlash are especially associated with the immigration that does occur from relatively poor to relatively rich countries, despite the evidence that immigration in fact leads to an increase in jobs and per capita income (Jaumotte et al. 2016).

¹⁰ If more prolonged than in Kuznets’s examples of industrializing countries.

Moreover, because populism is associated with a loss of trust in political institutions and the 'corrupt elite', populism militates against Kuznets's expectation of increased redistributive spending on social programmes and the elderly in a democratizing society as the structural transformation process winds down. Populism (at least right-wing populism in the US) is also associated with resistance to the progressive taxes to fund those redistributive programmes, and thus helps perpetuate inequality in the rich countries.¹¹

In short, populist-driven anti-immigration sentiment in rich countries (ironically despite ongoing and acute labour shortages (Kenny 2023)) undermines the broader and faster structural transformation at the global level that Kuznets might well have foreseen in today's otherwise globalized market economy, contributing to a greater than otherwise decline in global inequality.

3.4. Non-Market global headwinds: Global public bads

Finally, consider two non-market but thoroughly global headwinds that were unknown to Kuznets: climate change and 21st-century pandemic risk. These 'global public bads' add to the market headwinds discussed above in limiting declines in inequality in developing countries undergoing structural change.

Recent studies provide estimates of the 'liability' or 'climate debt' of countries, that is, the sum of emission damages whose costs have been imposed on the globe without compensation since 1959 (Clements et al. 2021). The total for the United States is roughly six times higher than for China, and 25 times higher than for India. Robinson et al. (2021) conclude in a relatively conservative scenario that rich countries ought to be transferring US150 billion a year to poor countries. These large numbers indirectly address the fiscal challenge developing countries face in dealing with climate damage (and the likely asymmetric effects on the poor within countries), which is likely to slow Kuznetsian declines in inequality. Climate damage raises levels of spending on emergency rescue measures in the short run, and reduces fiscal capacity to spend on investments in health and education (a critical form of the inequality-reducing redistribution that Kuznets foresaw) that would minimize the long-run vulnerability of populations. (They also increase global inequality as developing countries face higher costs of coping in the case of climate change, if only by reason of geography and lower resilience (Wheeler 2011)).

11 Populism's anti-immigration stance can be linked to reduced support for redistributive programmes (Alesina and Tabellini 2024), similarly to the effects of racism in the US (McGhee 2022).

Additionally, these non-market forces add to global inequality: in a vicious circle they discourage the flow of global capital to developing countries for investments to reduce climate and other risks. That is so despite the reality that the expected returns to investment in climate mitigation are higher in middle-income developing countries than in advanced economies (Glennster and Jayachandran 2023), as is the expected return in reduced mortality to greater investment in vaccine capacity and distribution across the developing world.

4. Structural transformation in Africa and India: The ‘learning’ challenge

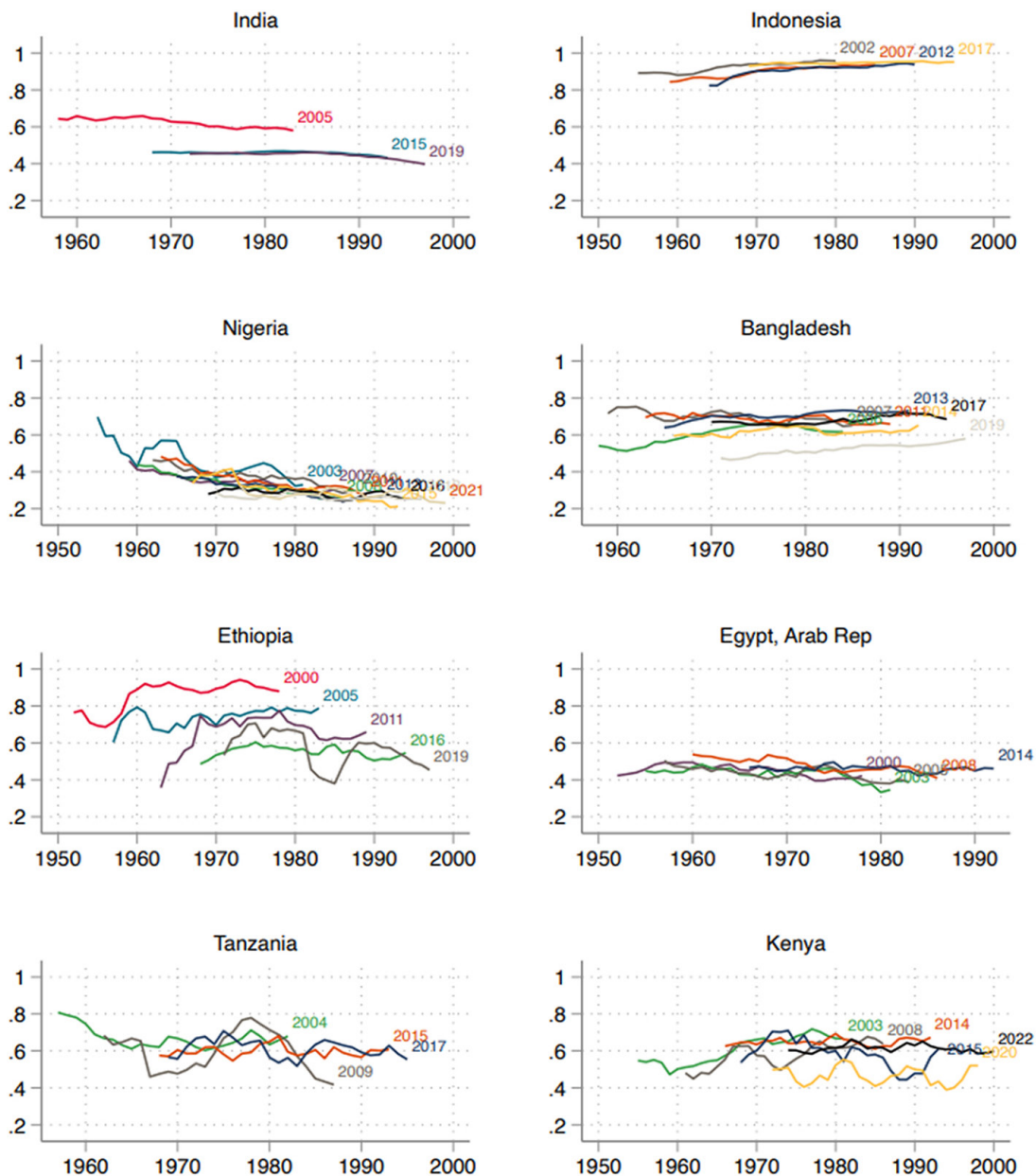
In Section 3 on global market headwinds to reducing inequality in developing countries, I used a ‘loose’ definition of structural transformation, referring to McMillan et al. (2016), who note that many developing countries have had some measure of growth due to structural ‘change’ if not ‘transformation’, usually combined with improved macroeconomic and governance fundamentals.

Rodrik and Stiglitz (2024), however, argue that even with good fundamentals, growth in developing countries in the long run still relies on ‘structural transformation’ that is based on manufactured exports (as Kuznets envisioned), or given the reality of ‘premature de-industrialization’ in developing countries (Rodrik 2015), on structural transformation based on success with services-based exports. Citing Stiglitz and Greenwald (2014), they propose governments stimulate the development of ‘labour-friendly technologies’ in services to raise the productivity of ‘low-skilled’ labour in services.

Is that likely to work without attention to improving basic education in the developing world? Hanushek and Woessmann (2021) among other economists have shown convincingly that long-run economic growth of a country is largely driven by the cognitive skills of the nation’s population. They find that cognitive skills explain 75 per cent of the variation in economic growth of countries.

Cognitive skills are best measured not by years of schooling but on the basis of internationally comparable standardized tests of ‘learning’. Figure 3 (from Le Nestour et al. 2023) shows literacy rates of adult women with four to six years of schooling for countries with the available comparable data on literacy measured on a three-point scale: able to read an entire sentence; able to read parts of a sentence; cannot read at all.

FIGURE 3. Literacy rates of women with four to six years of schooling (selected countries)



Source: Le Nestour et al. (2023: 33).

Figure 3 illustrates the challenge faced by many developing countries, most of which are close to achieving universal enrolment in primary school. Literacy rates of adult women with four to six years of schooling who are able to read a sentence are less than 50 per cent in India, Nigeria, Ethiopia, and Egypt (based on household survey data collected between 2012 and 2019). Worse, in Ethiopia, India, and Nigeria (and possibly Bangladesh), literacy rates measured in the same way have fallen for more recent cohorts of women. The authors' summary statement in their abstract is the following:

'We find that education quality, defined as literacy conditional on completing five years of schooling, stagnated across the developing world over half a century, including absolute declines in both South Asia and sub-Saharan Africa' (Le Nestour et al. 2023: 1).

It is hard to imagine how any growth strategy based on raising labour productivity in services can work without increasing the proportion of workers in sub-Saharan Africa and parts of South Asia who complete primary school able to read, and for that matter go on to complete secondary education able to use ever-advancing technologies—for example to use the Internet or master blueprints.

Goldin and Katz (2008) in *The Race Between Education and Technology* document the near-universal access to high-school education in the United States in the 20th century (and the gradual mass increase in college education), a period during which income per capita increased to five to six times its level in 1900, boosted by skill-intensive technology changes. They conclude: 'Invest in education, get higher levels of technology and productivity, and attain a rapid rate of economic growth and a higher standard of living' (Goldin and Katz 2008: 2).

That is the lesson from the experience of the United States in the 20th century. As technologies changed, widespread secondary education raised worker productivity in industry, maintaining low inequality until the 1980s. It is also the lesson from the experience of South Korea and Taiwan, the 'miracle' economies of East Asia (see Birdsall et al. 1993).

Moreover, Goldin and Katz's (2008) main argument has to do not only with explaining growth in the United States in the 20th century, but also with income distribution. For much of the 20th century, constant gains in the skills of labour kept up with and contributed to the gains in productivity associated with changing technologies, and income inequality in the US did not grow. But beginning in the late 1970s, the supply of education lagged while changes in technology continued: as the demand for skills raced ahead of the supply, income inequality increased (to its high level in the low 40s today).¹²

Kuznets broke new ground by linking the pattern of changes in productivity to changes in the distribution of income. Without massive increases in education to keep up with changing technology, the low-learning regions of the developing world (northern India, much of sub-Saharan Africa) face low per capita growth with increasing inequality in this century, as only the small group with critical but scarce skills thrive.

5. Conclusions

In the last three to four decades, growth based on some combination of structural change and improvement in economic policies and management in most developing countries (and investments in schooling) has led to modest declines in most developing countries' inequality. 'Globalization'

¹² World Bank Poverty and Inequality Platform, 2024 (retrieved May 24, 2025.).

broadly defined has without question contributed to that growth and to the poverty reduction associated with lower inequality.

At the same time, global headwinds associated with globalization and the global market, and the costs of global public bads for developing countries, have probably reduced what might have been faster and greater declines in inequality for those developing countries on the far side of the Kuznets inverted U-curve of inequality, including Brazil, China, and even already low-inequality India.

What would Kuznets say today about the global market headwinds that slow the declines he anticipated on the further side of his inverted U-curve?

I believe he would argue that inequality in developing countries today is in part the product of failures of the good global governance a global market economy requires. Without strengthened coordination on, for example, a 15 per cent minimum corporate tax across countries (and ideally more than 15 per cent) and on other measures to limit tax evasion (such as a fully shared tax registry), and without debt relief for low-income countries caught in the vice of commodity price and interest rate shocks (à la Galbraith analysis) associated with Covid-19 and the Ukraine war, and without compensation from rich to poor countries for the climate damages associated with the higher per capita emissions of the former (plus the harsh reality of developing countries' greater vulnerability to climate damage by reason of geography, and to pandemic risk), inequality in developing countries in our global market economy will be greater than Kuznets could have foreseen.

Increases in refugee admissions and legal immigration allowances in rich countries (in their own interests, given their acute and growing labour shortages) would help reduce inequality in countries from which more emigrants could come, as would financial support from rich to poor countries to deal with global public bads, as would a just arrangement for more rapid reduction of greenhouse gas emissions with some form of compensation for the climate 'debt' rich countries are accumulating. But without those steps, developing countries cannot escape the global market headwinds that inflict on their societies greater inequality than they would otherwise have, and the resulting lower levels of growth associated with greater inequality.

Developing countries also face responsibility in managing the inequality-increasing global headwinds they will continue to face. Their long-run future growth will be reliant on a version of structural transformation Kuznets could not have considered, based on high-productivity services exports. That 21st-century version requires not only releasing more labour from agriculture by raising productivity in their agricultural sectors but ensuring their education systems enable 'migration' of more and more workers to education-intensive modern services, as in the East Asian 'miracle' economies beginning six decades ago.

References

- Acemoglu, D., S. Johnson, and J. Robinson (2001). 'The Colonial Origins of Comparative Development: An Empirical Investigation'. *American Economic Review*, 91(5): 1369–1401. <https://doi.org/10.1257/aer.91.5.1369>
- Acemoglu, D., S. Johnson, and J. Robinson (2002). 'Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distributions'. *The Quarterly Journal of Economics*, 117(4): 1231–1294.
- Alesina, A., and M. Tabellini (2024). 'The Political Effects of Immigration: Culture or Economics?' *Journal of Economic Literature*, 62(1): 5–46. <https://doi.org/10.1257/jel.20221643>
- Birdsall, N., J.E. Campos, C.S. Kim, M. Corden, and L. MacDonald (1993). 'The East Asian Miracle: Economic Growth and Public Policy'. World Bank Policy Research Report 12351. Washington, DC: World Bank. Available at: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/322361469672160172/summary> (accessed 5 May 2025).
- Calvo, G., A. Izquierdo, and E. Talvi (2003). 'Sudden Stops, the Real Exchange Rate and Fiscal Sustainability: Argentina's Lessons'. Washington, DC: Inter-American Development Bank. <http://dx.doi.org/10.18235/0010951>
- Clemens, M. (2011). 'Economics and Emigration: Trillion-Dollar Bills on the Sidewalk?' *Journal of Economic Perspectives*, 25(3): 83–106. <https://doi.org/10.1257/jep.25.3.83>
- Clements, B., S. Gupta, and J. Liu (2021). 'Who's Responsible for Climate Change? New Evidence Based on Country-Level Estimates of Climate Debt'. Policy Paper 242. Washington, DC: Center for Global Development. Available at: www.cgdev.org/publication/whos-responsible-climate-change-new-evidence-based-country-level-estimates-climate-debt (accessed 5 May 2025).
- Galbraith, J. (2011). 'Inequality and Economic and Political Change: A Comparative Perspective'. *Cambridge Journal of Regions, Economy and Society*, 4(1): 13–27. <https://doi.org/10.1093/cjres/rsq014>
- Ghani, S.E., and R. Kanbur (2013). 'Urbanization and (In)formalization'. Policy Research Working Paper WPS6374. Washington, DC: World Bank. Available at: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/266421468332490917/urbanization-and-in-formalization> (accessed 5 May 2025).
- Glennester, R., and S. Jayachandran (2023). 'Think Globally, Act Globally: Opportunities to Mitigate Greenhouse Gas Emissions in Low- and Middle-Income Countries'. *Journal of Economic Perspectives*, 37(3): 111–36. <https://doi.org/10.1257/jep.37.3.111>
- Goldin, C., and L. Katz (2008). *The Race Between Education and Technology*. Cambridge, MA: Harvard University Press.

- Hanushek, R., and L. Woessmann (2021). 'Education and Economic Growth'. *Oxford Research Encyclopedias, Economics and Finance*. <https://doi.org/10.1093/acrefore/9780190625979.013.651>
- International Labor Organization (2025). 'Statistics on the Informal Economy: Informal Employment Rate by Sex, Age and Rural/Urban Areas'. Available at: <https://ilostat.ilo.org/topics/informality/> (accessed 6 February 2025).
- Iscan, T., and K.M. Lim (2022). 'Structural Transformation and Inequality: The Case of South Korea'. *Economic Modeling*, 107. <https://doi.org/10.1016/j.econmod.2021.105735>
- Jaumotte, F., K. Koloskova, and S.C. Saxena (2016). 'Impact of Migration on Income Levels in Advanced Economies'. Spillover Notes 2016/008. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781475545913.062>
- Kenny, C. (2023, 24 April). 'Rising Retirement, Lumps of Labor, and the Real Migration Crisis'. Center for Global Development Blog. Available at: www.cgdev.org/blog/rising-retirement-lumps-labor-and-real-migration-crisis (accessed 5 May 2025).
- Kuznets, S. (1955). 'Economic Growth and Income Inequality'. *American Economic Review*, 45(1): 1–28. Available at: <https://assets.aeaweb.org/asset-server/files/9438.pdf> (accessed 5 May 2025).
- Lawrence, R. (2017). 'Recent US Manufacturing Employment: The Exception That Proves the Rule'. Working Paper 17-12. Washington, DC: Peterson Institute for International Economics. Available at: www.piie.com/publications/working-papers/recent-us-manufacturing-employment-exception-proves-rule (accessed 5 May 2025).
- Le Nestour, A., L. Moscoviz, and J. Sandefur (2023). 'The Long-Run Decline of Education Quality in the Developing World'. Working Paper. Washington, DC: Center for Global Development. Available at: www.cgdev.org/publication/long-run-decline-education-quality-developing-world (accessed 5 May 2025).
- Lipton, J.P. (1977). 'On the Psychology of Eyewitness Testimony'. *Journal of Applied Psychology*, 62(1): 90–95. <https://doi.org/10.1037/0021-9010.62.1.90>
- McGhee, H. (2022). *The Sum of Us: What Racism Costs Everyone and How We Can Prosper Together*. New York: One World.
- McMillan, M., D. Rodrik, and C. Sepulveda (eds) (2016). *Structural Change, Fundamentals, and Growth*. Washington, DC: International Food Policy Research Institute. Available at: https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/structural_change_fundamentals_and_growth.pdf (accessed 5 May 2025).
- Milanovic, B. (2023). *Visions of Inequality: From the French Revolution to the End of the Cold War*. Cambridge, MA: Harvard University Press.
- Milanovic, B. (2024, 19 October). 'Changes in Income Distributions in China, India, and the United States, 2018–23'. *Global Inequality and More 3.0*. Available at: <https://branko2f7.substack.com/p/changes-in-income-distributions-in> (accessed 5 May 2025).

- Ostry, J., A. Berg, and C. Tsangarides (2014). 'Redistribution, Inequality, and Growth'. IMF Staff Discussion Note 14/02. Washington, DC: International Monetary Fund. Available at: www.imf.org/external/pubs/ft/sdn/2014/sdn1402.pdf (accessed 5 May 2025).
- Our World in Data (2025). 'Gini Coefficient, 2023'. Available at: <https://ourworldindata.org/grapher/economic-inequality-gini-index> (accessed 6 February 2025).
- Piketty, T. (2014). *Capital in the Twenty-First Century*. Cambridge, MA: Harvard University Press.
- Robinson, L., I. Mitchell, and A. Tahmahsebi (2021). 'Valuing Climate Liabilities: Calculating the Cost of Countries' Historical Liabilities to Inform Countries' Future Climate Commitments'. Center for Global Development Policy Paper 233.
- Rodrik, D. (2015). 'Premature Deindustrialization'. Working Paper 20935. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w20935>
- Rodrik, D., and J. Stiglitz (2024). 'A New Growth Strategy for Developing Nations'. Research Paper. Available at: <https://drodrik.scholar.harvard.edu/publications/new-growth-strategy-developing-nations> (accessed 5 May 2025).
- Saez, E., and G. Zucman (2019). *The Triumph of Injustice: How the Rich Dodge Taxes and How to Make Them Pay*. New York: W.W. Norton.
- Sarma, V., S. Paul, and G. Wan (2017). 'Structural Transformation, Growth, and Inequality: Evidence from Viet Nam'. Working Paper 681. Tokyo: Asian Development Bank Institute. Available at: www.adb.org/sites/default/files/publication/231546/adbi-wp681.pdf (accessed 5 May 2025).
- Stiglitz, J., and B. Greenwald (2014). *Creating a Learning Society: A New Approach to Growth, Development, and Social Progress*. New York: Columbia University Press.
- UNDP (2023). 'China in Numbers'. New York: UNDP. Available at: www.undp.org/china/publications/china-numbers-2023 (accessed 26 May 2025).
- Wheeler, D. (2011). 'Quantifying Vulnerability to Climate Change: Implications for Adaptation Assistant'. Working Paper 240. Washington, DC: Center for Global Development. Available at: www.cgdev.org/sites/default/files/1424759_file_Wheeler_Quantifying_Vulnerability_FINAL.pdf (accessed 5 May 2025).
- Wikipedia (2025). 'Populism'. Available at: <https://en.wikipedia.org/wiki/Populism> (accessed 6 February 2025).
- World Bank (2025). 'Poverty and Inequality Platform'. Available at: <https://pip.worldbank.org/home> (accessed 24 May 2025).
- Zucman, G. (2015). *The Hidden Wealth of Nations: The Scourge of Tax Havens*. Chicago: University of Chicago Press.