GROWING PAINS? A COMMENT ON "CONVERGING TO CONVERGENCE"

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ABSTRACT

Early tests of cross-country convergence found evidence only for conditional convergence. In contrast, with more recent data, Kremer, Willis, and You (2021) find evidence that since the mid-1980s there has been a trend towards unconditional convergence culminating in absolute convergence since 2000. Additionally, they find suggestive evidence that one of the major drivers of this trend is an underlying convergence towards development-favored policies. We discuss the implications of this result through the lens of individual welfare and poverty, concluding that the news is not as welcome as it may seem for the world's poor. We point out that absolute convergence has happened contemporaneously with rising within-country inequality, resulting in more of the world's poor living in middle-income countries. Next, we argue that domestic redistribution is essential to spread the benefits from industrialization, since the labor share of manufacturing isn't reaching the heights it did in industrialized countries. Finally, we argue that the democratic institutions that can facilitate this redistribution themselves face headwinds. Democratic backsliding, the Covid-19 pandemic, and a bleak climate outlook all present obstacles to transforming economic growth into economic justice for the poor.

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Abstract

Early tests of cross-country convergence found evidence only for conditional convergence. In contrast, with more recent data, Kremer, Willis, and You (2021) find evidence that since the mid-1980s there has been a trend towards unconditional convergence culminating in absolute convergence since 2000. Additionally, they find suggestive evidence that one of the major drivers of this trend is an underlying convergence towards development-favored policies. We discuss the implications of this result through the lens of individual welfare and poverty, concluding that the news is not as welcome as it may seem for the world's poor. We point out that absolute convergence has happened contemporaneously with rising within-country inequality, resulting in more of the world's poor living in middle-income countries. Next, we argue that domestic redistribution is essential to spread the benefits from industrialization, since the labor share of manufacturing isn't reaching the heights it did in industrialized countries. Finally, we argue that the democratic institutions that can facilitate this redistribution themselves face headwinds. Democratic backsliding, the Covid-19 pandemic, and a bleak climate outlook all present obstacles to transforming economic growth into economic justice for the poor.

1 Paper summary

Neoclassical growth theory posits that countries with access to identical technologies should converge to a common income level. However, an important literature, exemplified by Barro and Sala-i Martin (1992), tested this prediction using cross-country data from 1960–1990 and instead found conditional convergence. That is, poor countries converged in growth to rich countries, only after conditioning on policies, institutions and other country-specific factors (like human capital).

"Converging to Convergence" extends the underlying data series up to 2015, re-estimates cross-country growth regressions and documents a striking change.

Since mid-1980s, there has been a trend towards unconditional convergence culminating in absolute convergence since 2000 (roughly 1% per annum). The paper examines convergence in correlates of growth, and finds that enhanced Solow fundamentals (s, n, h), short-run correlates (political and financial institutions, fiscal policy), and culture all show β-convergence. This evidence, the authors suggest, is supportive of "institutional homogenization" contributing to absolute convergence: short-run growth coefficients diminished because convergence of "development-favored" policies outpaced that of income. Importantly, the same is not true of Solow fundamentals

The paper is based on an impressive collation of data-sets and careful standardization of conditioning variables. Using the original empirical specification developed in Barro and Sala-i Martin (1992), it documents changing trends and evaluates proximate determinants of the paper. The authors provide a battery of robustness checks and acknowledge the difficulty of identifying causal drivers of the absolute convergence findings. In line with Patel et al. (2021), they provide three pieces of descriptive evidence on the role of different income quartiles in driving absolute convergence. First, growth rates for richest countries slowed down post-2005, and convergence patterns are weaker if the top income quartile of countries is removed. Second, laggards remain: absolute convergence is stronger if on Sub-Saharan African countries or the bottom income quartile of countries is removed. And, third, there is an "absence of middle-class trap": Growth is particularly strong for the second quartile countries.

In their discussion of this paper, Acemoglu and Molina discuss the appropriateness of the original empirical specification if the aim is to evaluate economic relationships. Here, we provide a complementary discussion which examines the implications – both positive and normative – of absolute convergence for individual well-being. We take a development economics perspective and focus on poverty as the relevant welfare metric.

In Section 2, we discuss how the time period associated with absolute convergence has also been a period marked by greater clustering of the world's poor within lower-middle-income (second quartile) countries and rising within-country inequality. Drawing on recent research, Section 3 highlights how the changing nature of structural transformation – potentially driven by greater automation of manufacturing – has contributed to these patterns such that, today, a high share of labor fails to benefit from a more productive manufacturing sector. Thus, if disequalizing growth is to benefit the poor then institutions that support domestic redistribution are critical. In Section 4, we argue that strong democratic institutions can enable this but there is growing evidence of democratic backsliding – a phenomenon often linked to growing economic inequality. Inequality, combined with weak institutions for redistribution, may limit progress on the poverty reduction front in the coming years, especially in the face of Covid-19 pandemic. Moreover, a growing incidence of climate breakdowns suggest that the policies that may have helped absolute convergence are likely to be increasingly inadequate in ensuring that growth benefits the poor. Section 5 concludes.

2 The changing distribution of world poverty

Development economists have long concerned themselves with poor households and with poor countries. For much of the discipline's history, the association was natural: poor countries were predominantly home to poor households, and poor households were predominantly found in poor countries. Thus, countries rising out of poverty should be more or less equivalent to households rising out of poverty.

There are, certainly, income distributions *within* countries as well. If certain policies narrow the income distribution, this provides another way to reduce household poverty in middle-income countries, even holding mean income fixed. Using household survey data for 118 countries from 1970 to 2010, Dollar and Kraay (2002); Dollar et al. (2016), find that the poorest quintile of a country earns on average 7% of its income. While this proportion varies somewhat between continents, it is invariant across levels of mean income, across decades, and across periods of economic growth and economic crisis. The same result holds when using national accounts income data. "The good news," they conclude, "is that institutions and policies that promote economic growth in general will on average raise incomes of the poor equiproportionally." So long as income shares remain constant, absolute poverty will naturally decline as countries grow.[1] In this view finding absolute convergence is reassuring: as poor countries grow, so too do the incomes of the poor individuals within those countries. And poor individuals in poor countries make up the world's extreme poor… don't they?

The answer is, increasingly, "no." The period since 1980 has seen a weakening correlation between country income and the share of the world's poor in that country. While country convergence remains monotonically beneficial for poor individuals, its relative importance diminishes as within-country inequality has begun to dominate between-country inequality. In our discussion, we build on the changing profile of world poverty across countries to argue that absolute convergence in an increasingly unequal world is driving a wedge between country incomes and living standards of vulnerable groups, especially within lower-middle-income (second quartile) countries.

2.1 Poor are increasingly living outside poor countries

A common presumption is that poor people live in poor countries, many impoverished by colonialism. This was not always the case. Bourguignon and Morrisson (2002) find that in 1820 almost 90% of global inequality was due to within-country inequality rather than than between-country inequality. This proportion fell in the subsequent century, and by 1950 within-country inequality accounted for only 40% of global inequality. That proportion remained stable for

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[1]Deaton (2005) notes that non-classical measurement error in using either consumption surveys or national accounts to identify how economic gains are distributed within a country restricts our ability to conclude that this finding implies that growth is good for the poor. Consumption surveys undersample richer households and national accounts may assign incorrect consumption bundles to the poor.
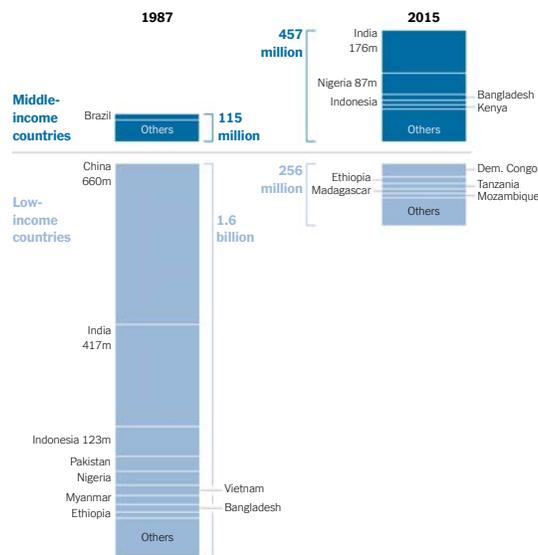
Figure 1: Most poor live in middle-income countries

Source: Pande et al. (2019). Graph reprinted courtesy of *The New York Times.*

the next four decades. In *The Bottom Billion* (2007), for instance, Collier argued that 58 countries – largely in sub-Saharan Africa – were home to the majority of the world's impoverished, and it is toward these countries that anti-poverty efforts should be directed.

In response, Sumner (2010) coined the "New Bottom Billion," pointing out that by World Bank definitions, three-quarters of the world's poor live in middle-income countries. Indeed, in recent decades, the global income inequality decomposition trend is reverting. World Bank Group (2016) finds that between 1988 and 2013, the proportion of global inequality due to within-country inequality rose from 20% to 35%.[2]

Page and Pande (2018) identify the subset of middle-income countries which contain 1% or more of the world's poor – high-poverty middle-income countries (HiPMIs) – typically in the second quartile of GDP per capita. Just five HiPMIs are home to half of the world's poorest: India, Nigeria, Bangladesh, Indonesia, and Kenya. While the mean incomes of these countries are not among the lowest in the world, the trends of inequality within them have an outsized impact on the global convergence between rich and poor regions, communities, households, and individuals.

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[2]The difference in estimates between when Bourguignon and Morrisson ends and World Bank, based on Lakner and Milanović, begins is in part due to different methodologies and measures – the former use Thiel index; the latter, mean log deviation – but we draw attention only to the direction and magnitude of the change, rather than the exact level.

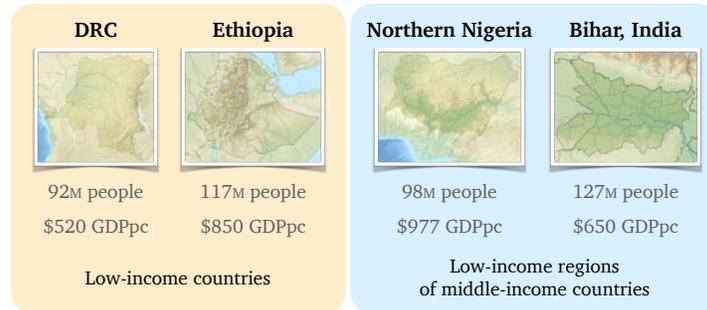| DRC	Ethiopia	Northern Nigeria	Bihar, India
92M people	117M people	98M people	127M people
$520 GDPpc	$850 GDPpc	$977 GDPpc	$650 GDPpc
Low-income countries		Low-income regions of middle-income countries	

Figure 2: Low-income regions of middle-income countries

2.2 Poor are increasingly clustered within countries

Within HiPMIs themselves, poverty is, naturally, nonuniform. As though viewing a fractal through a loupe, the spatial clustering of poverty so visible on a global scale is replicated within middle-income countries. The distinction between a poor region of a HiPMI and a poor country is not demographic, but political.

In populous middle-income countries like HiPMIs, some such regions are massive. In fact, if the Indian state of Bihar were a sovereign state, it would be the world's most populous low-income country, with 127M people and a GDP per capita of just $650. Or, were the northern region of Nigeria to break away, the low-income country it became would be second in population only to Ethiopia.

A large part of this spatial clustering of poverty reflects patterns of urbanization. As of the 2011 census, Bihar's urbanization rate of 11.3% was ahead only that of Himachal Pradesh, a much smaller state. Fully 80% of the world's extreme poor live in rural areas (Castañeda et al., 2016), while urban areas are engines of growth and labor productivity (Glaeser et al., 1992). The authors' ongoing surveys of economic migrants from two poor, rural Indian states finds that the incomes of migrants who returned to their villages during the Covid-19 lockdown fell by over 80%, while the incomes of those who subsequently remigrated – mostly to urban areas – rebounded to 85% of their previous levels (Allard et al., 2021).

Since such a large proportion of the world's poor are clustered in so few middle-income countries, the trends of within-country inequality in these specific countries matters quite a lot for global poverty – arguably more than all between-country inequality combined. The trends here are mixed, but are especially concerning in the South Asian HiPMIs of India and Bangladesh, and more or less neutral in other HiPMIs like Nigeria and Indonesia.

Indeed, the same convergence tests that are done between countries can also be done between subnational regions, and here there is suggestive evidence from India of within-country divergence in regional per capita income (Sachs et al., 2002; Ghosh, 2008, 2012; Kalra and Sodsriwiboon, 2010) or limited club convergence (Baddeley et al., 2006; Bandyopadhyay, 2011; Ghosh et al., 2013).
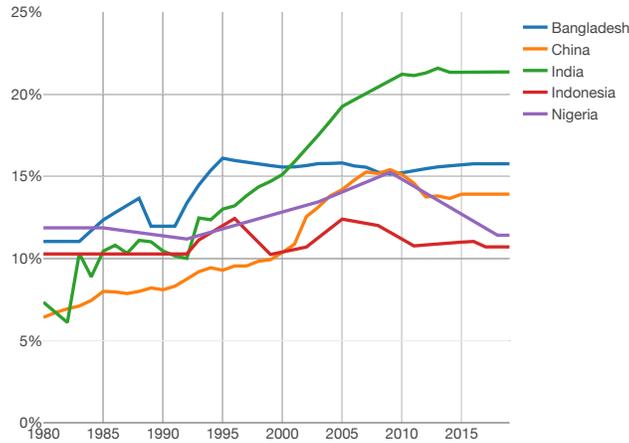
Figure 3: Income shares of top 1% are increasing in some HiPMIs

Data source: World Income Inequality Database

3   Structural transformation and disequalizing growth

If poor countries converged with rich ones with respect to mean income, then of course residual poverty *must* reflect within-country inequality. The important question, then, is whether processes of economic growth that imply absolute convergence are increasing within-country inequality.

Historically, processes of economic development have been marked by a decline in the share of agriculture in both country income and labor employment. For today's rich countries, the process of structural transformation was accompanied by the manufacturing sector demonstrating a double advantage. It was both more productive than farming and absorbed a larger population share.

More recently, lower income countries have continued to see relative increases in the income shares of manufacturing and, in some cases, services. Using data on (formal) manufacturing in 118 countries, Rodrik (2012) shows that up to 2005 manufacturing exhibited strong unconditional convergence in labor productivity. However, this was not accompanied by aggregate convergence due to the small share of manufacturing employment in low-income countries and the slow pace of industrialization. Figure 4 shows that HiPMIs continue to lag in manufacturing employment.

Service growth shows a similar pattern – India being the exemplar case here. Between 1950 and 2009, the share of agriculture in India's GDP fell from 55% to 17%, manufacturing rose but remained under 30%, while services increased to 57%. Fan et al. (2021) show that the rise in services was driven by consumer, not producer services and reflected limited employment gains. It was also urban-biased.

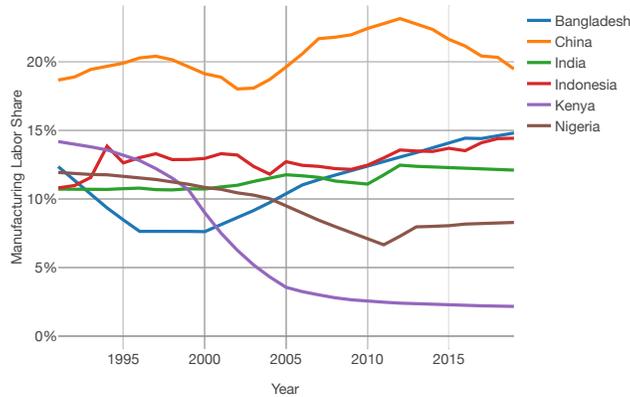Thus, recent trends in manufacturing and services suggest these remain

Figure 4: HiPMIs lag in manufacturing employment

Data source: ILO

productive sectors that are gaining GDP share in the world's less well-off countries. But, they are less likely to provide high levels of well-paid employment. Diao et al. (2021) show that this is leading to a new form of dualism: In Ethiopia and Tanzania, the manufacturing sector is made up of larger firms that exhibit superior productivity performance but do not expand employment much, and small firms that absorb employment but lack productivity growth. Clearly, the declining labor share of income in many developing countries may further weaken link between GDP convergence and household well-being.

4   The present and the future

Disequalizing growth can still benefit the poor if the state is willing and able to redistribute resources to those who need them. Pande (2020) shows that most of the world's poor now live in democratic states, but many of these states are relatively non-egalitarian. The twenty-first century has, concerningly, been marked by significant democratic backsliding. Haggard and Kaufman (2021) define it as "the processes through which elected rulers weaken checks on executive power, curtail political and civil liberties, and undermine the integrity of the electoral system." They identify over 16 democracies that have seen such backsliding in recent years.

Democratic backsliding and reduced redistribution is particularly costly for the poor and near-poor when economic growth falters – a possibility that has come to pass with Covid-19 in many HiPMIs. 2020 was the first year in the twenty-first century when world poverty rose. The newly poor are concentrated in 'second quartile' countries: 61% in South Asia and 27% in Sub-Saharan Africa (Lakner et al., 2021). At the $3.20/day threshold, 68% of the newly poor are in South Asia.
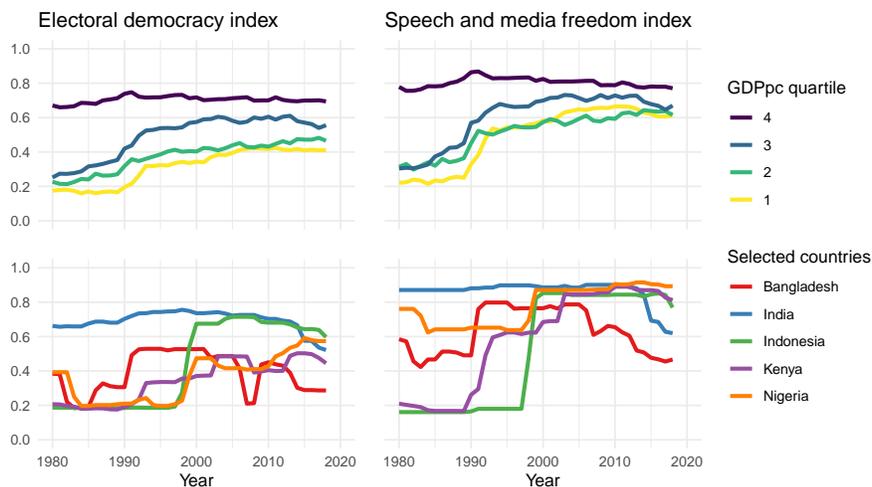
Figure 5: Democratic backsliding

Data source: V-Dem Project

In the medium-term, climate breakdowns will likely constrain fossil-fuel-based growth and this may particularly reduce growth in lower income settings. For the average developing country, economic convergence is accompanied by a convergence towards the global average usage of most primary energy carriers, consumption of final energy in most sectors, and total carbon dioxide emissions. Current economic growth in lower-income countries is no less energy intensive than past growth in industrialized countries (van Benthem, 2015).

In addition to potentially lower growth as countries transition away from fossil-fuel based growth, HiPMIs are also significantly exposed to direct climate change adverse effects. Notre Dame's ND-GAIN scores each country on its exposure to climate change (Chen et al., 2015). "Exposure" is a purely biophysical assessment, unrelated to a country's mitigation capacity. Factors include proportion of land that will be submerged under the sea, how annual groundwater runoff and recharge will change, how cereal yields will change, and so forth. Of the top five most-exposed countries with over one million population (thereby excluding most small island nations), three are HiPMIs.

International climate change mitigation policies are a double-edged sword for poor countries and HiPMIs. If adopted, they will make fossil-fuel-based convergence more expensive. If not, climate change itself may reverse their growth via draughts, floods, storms, or rising sea level. It is essentially a growth-and-carbon accounting exercise to then conclude that there are only a handful of possible outcomes: economic convergence will stagnate, industrialized countries will experience dramatic degrowth, economic growth will decouple from energy use, energy use will decouple from carbon dioxide emissions, carbon sequestration
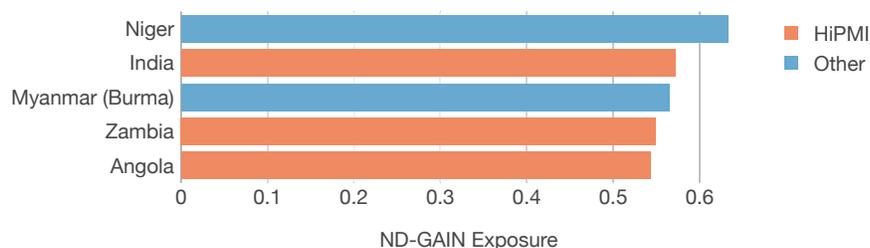
Figure 6: Exposure to climate change

Data source: Notre Dame Global Adaptation Initiative

technology will scale-up massively, and/or humanity will engage in brinkmanship with climate catastrophe.

5 Conclusion

The paper convincingly documents a trend towards absolute convergence in GDP per capita and provides suggestive evidence that policy convergence played a role. From a development perspective, it is useful to link a narrative about country-level convergence to income distribution within countries: poor regions, communities, households, and individuals. Doing so highlights the need for institutions that will ensure greater domestic redistribution and, possibly, also a rethinking of domestic industrial policy. This, we argue, is critical if absolute convergence is to be the tide that lifts all boats. The need is amplified by the ongoing Covid-19 pandemic and the increasing likelihood of significant climate breakdowns.

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