

The Future of Global Development and Implications for Aid

Remarks at the Oxford Martin School, October 30, 2023

Charles Kenny¹

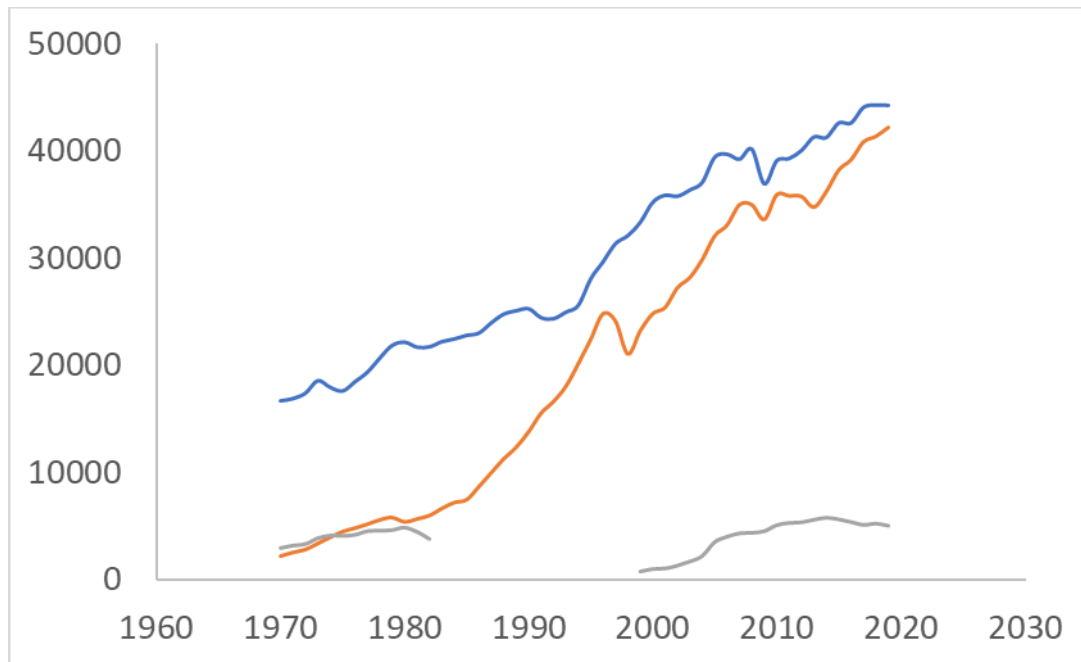
These are some thoughts on global economic change and its impact on the development prospects of poorer countries in particular. I think there are real grounds for concern but also huge opportunities if we choose to grasp them, and some evidence we are actually choosing to do precisely that. And I will argue this all has implications for overseas development assistance -aid- and what we should do with it.

In short, rapid development used to be about moving machines to workers and aid could help provide the needed physical capital to do that. Today, rapid development is about moving workers to clients and aid can help provide the needed skills –the human capital.

The Manufacturing Export Development Model

Perhaps the fundamental question of development economics is why have some countries boomed while others remain mired in poverty? Over the course of fifty years, how did South Korea (the orange line in Figure One) go from being poorer than Nigeria (the broken grey line) to about as rich as the UK (the blue line)?

¹ This is a lightly edited version of a speech given at the Oxford Martin School on October 30th 2023, where Kenny is a visiting fellow. It is largely based on material in Charles Kenny and George Yang, 2021. “Can Africa Help Europe Avoid Its Looming Aging Crisis?” CGD Working Paper 584. Washington, DC: Center for Global Development, Charles Kenny 2021 “Global Mobility: Confronting a World Workforce Imbalance” CGD Note September 20, Charles Kenny. 2023. “The Ultimate Resource is Peaking.” CGD Working Paper 630. Washington, DC: Center for Global Development Brian Webster, Charles Kenny, and Ranil Dissanayake. 2023. “Is Manufacturing Destiny? On the Dynamics of Future Sectoral Shares and Development.” CGD Working Paper 662. Washington, DC: Center for Global Development, Samuel Huckstep, Helen Dempster and Charles Kenny, 2023, “The Billion Dollar Benefits of Expanded Green-Skilled Migration CGB Blog, September 26.



GDP per capita PPP for South Korea (orange), Nigeria (grey) and the UK (blue).
Source: Our World in Data citing Penn World Tables.

Figure One²

Of course there are lots of explanations for what happened in South Korea, more than one of which doubtless played a part: there was a 'demographic dividend' generated by declining birth rates that left much of the population of working age, there were strong institutions and educational systems, a shrewd combination of openness and industrial policy, and a major program of land reform.

But it is widely accepted that these factors helped back a massive rise in manufacturing exports to the prospering economies of the rich world that were --at the time-- a rapidly growing source of demand. These days the country exports more than \$100 billion worth of integrated circuits a year and it is the world's largest exporter of passenger and cargo ships, blank audio media, cyclic hydrocarbons and styrene polymers amongst other things.³

Again it is arguable how much of a role international assistance played in South Korea's transformation, but US assistance supported both land and economic policy reform towards export orientation, the World Bank provided valuable infrastructure finance, and Japan provided technical assistance alongside lending that backed investments in factories and transfer of technology.

And to the extent that helped, it matches the story aid advocates like to tell of the Marshall Plan, a program so iconic that its invocation is cliché (if you can't have a moonshot program, at least have a Marshall Plan). The post-war European investment program financed by the United States combined capital goods and policy conditions in an attempt to relaunch battered economies towards sustained

² <https://ourworldindata.org/grapher/gdp-per-capita-penn-world-table>

³ <https://oec.world/en/profile/country/kor>

growth. And it is worth pausing to note that it was driven by a strong sense of self interest –not least that the US economy needed European recovery to provide a market for US exports.

The model of development that emphasized investment in factories and the infrastructure that connected them spawned a cottage industry of economic analysis to measure incremental capital output ratios and estimated global financing needs –UN watchers can think of them as the SDG Costing Studies of their day. But for all of the successes of European recovery and East Asian miracle growth, the manufacturing export-led growth model has turned out to be hard to repeat across much of the developing world. And worse, the world economy is shifting in ways that will make it even harder to replicate in the future.

The Twilight of Manufacturing Export Led Growth?

Figure Two shows Europe's estimated population since 1000AD. The dip in the 1300s is caused by the Black Death, and there are slight kinks where World War One and Two slowed but did not stop population growth. In 2020, we see peak European population. What is coming is the biggest long term demographic event in Europe since the Black Death. Between 1300 and 1400 Europe's population dropped by about a quarter, we'll see about the same decline over the next century. The major reason is lower fertility –people are having a lot less kids.

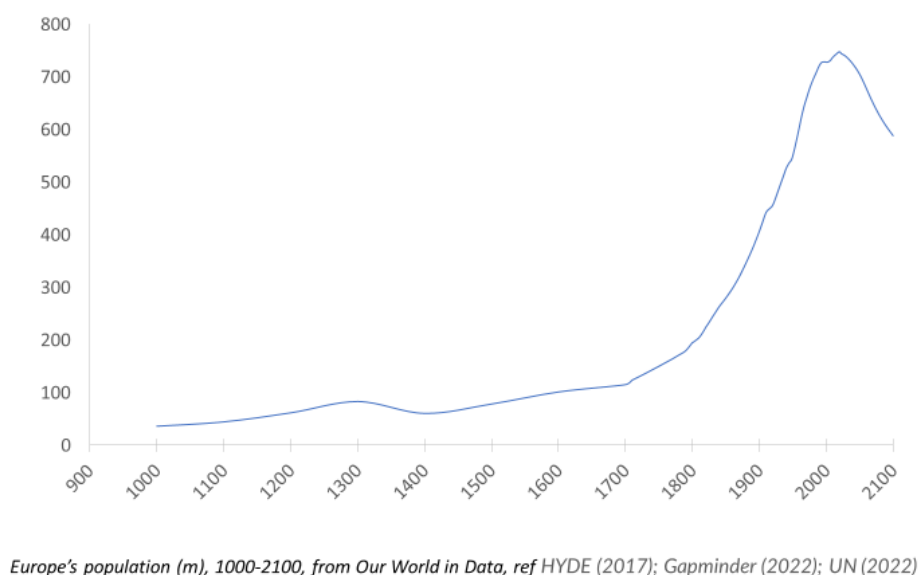


Figure Two⁴

That change combined with longer life spans is already leading to a declining working age share of the population in Europe, as retirees take an ever larger share. If South Korea had the help of a

⁴ <https://ourworldindata.org/population-growth>

demographic dividend to spur its growth, it along with other countries are now facing a demographic deficit as populations age.

We are in the midst of a collapse in working-age population growth in high income countries, as shown by the blue line in Figure Three: from adding six million potential workers each year as recently as 2008 to losing two million or more a year from here on out.

The orange line in Figure Three measures what's happening to the number of dependents –those not in the working age bracket. That continues to grow. At the moment, there is about one retiree for each three people of working age. By 2050, that will be one for every two people of working age. In Italy, South Korea and Japan, working age people will make up less than half the population by 2050.

Fewer potential workers directly translates into lower output, but the effects go far beyond that: an aging, shrinking workforce is a considerable drag on innovation and entrepreneurship, associated with lower firm startup rates and lower-value patenting for example. It all points to slower productivity growth in the future.



Figure Three⁵

Add in upper middle income countries and the picture is similar, but shifted over by a few years, and far larger in total scale (Figure Four). By the 2030s we'll be losing 10 million working age people a year in the world's richer countries, while adding more than ten million dependents.

High income and upper middle income countries including the US and Brazil through the EU to China, to Japan, Malaysia and Australia account for the considerable bulk of the global economy, and in

⁵ Author's calculation from data at <https://population.un.org/wpp/>

particular they are home to the huge majority of research and development capacity, and they are going to be considerably less dynamic than they were.

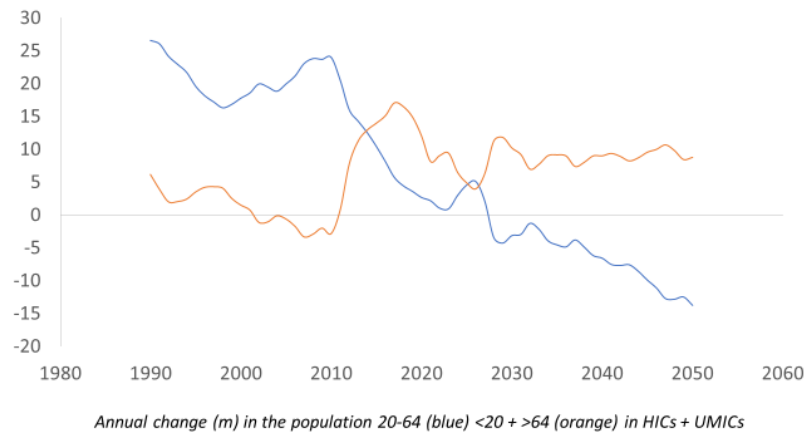


Figure Four⁶

We're already seeing the effects of a declining working age population in global headlines about labor shortages –Figure Five presents some from the past three years. Over that time there have been reports about shortages in occupations and sectors including farming, healthcare, mining, cannabis production, chefs, sales staff, professional Santa Claus actors, heat pump and solar panel installers, daycare, biscuit making, bus driving, lawn mowing services, the beer and wine industry as well as cheesemaking, postal work, security guards, shipbuilders, airline staff, interior decoration, ski lift operators, engineering, tourism, the military, manufacturing, construction, transport, cleaning services acupuncturists, and zookeepers.⁷

And the stories come from richer countries across every continent: the headlines in the slide include stories from Canada, the US the UK, Germany, France, Italy, Spain, Bulgaria, Romania, Malaysia, South Korea, Japan, China Tunisia, and South Africa, amongst others. With a declining and aging workforce, the rich world will see declining output, and the decline may not be gentle.

⁶ Author's calculation from <https://population.un.org/wpp/>

⁷ From the twitter thread here: <https://x.com/charlesjkenny/status/1202215964789612544?s=20>

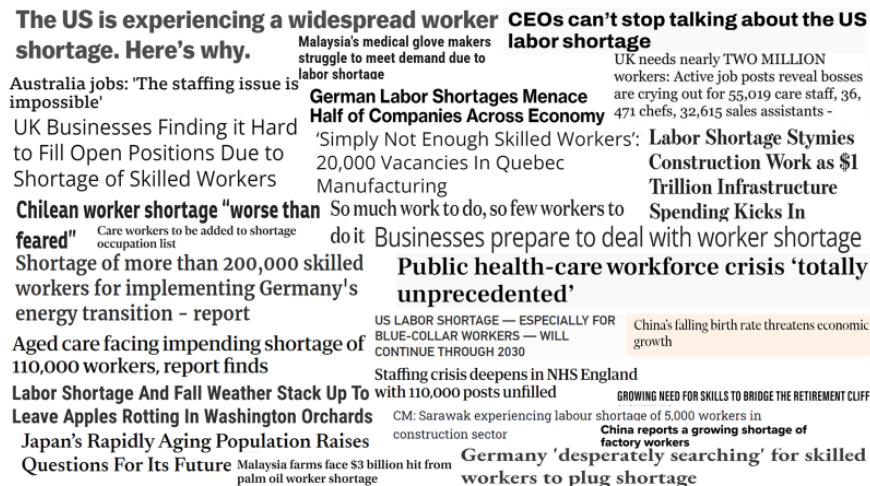


Figure Five⁸

A quick aside on robots and AI –will they fix this problem of too few workers? Over the last 150 years, automation been a huge force behind rising productivity in manufacturing and especially arable farming. And automation will continue in those sectors as well as spread –to transport for example. AI will also augment and in some cases replace workers. That's a reason for a little bit of optimism regarding future productivity growth.

But it is worth noting two things: first, the efficiency with which we combine inputs, equipment and labor to produce output –what economists call total factor productivity– has been in long term decline. And a declining impact of automation has a role to play in that. Our current trend isn't to bigger, better automation, but toward automation that has less impact. Hopefully that will change, but it hasn't yet.

And, secondly, one reason for a limited impact is that automation still remains concentrated in a few sectors like manufacturing. Robots really haven't spread far beyond that, and I think it will take some time for that to change. An example as to why is provided by *Robots for Shearing Sheep*, a book published in 1992, that reports experiments in automated sheep shearing date back at least to 1974. Figure Six shows a sketch of an early model. For those worried about animal cruelty, at least the book claims there were fewer nicks and cuts from robotic than human shearing.

But the point is that it is a half century since we've demonstrated that you can use a robot to shear sheep, and still to this day, worldwide, it is done by hand. That to the extent even governments like the UK that claim to want to limit migration are encouraging shearers to immigrate to make up for local skills shortages.

⁸ From the twitter thread here: <https://x.com/charlesjkenny/status/1202215964789612544?s=20>

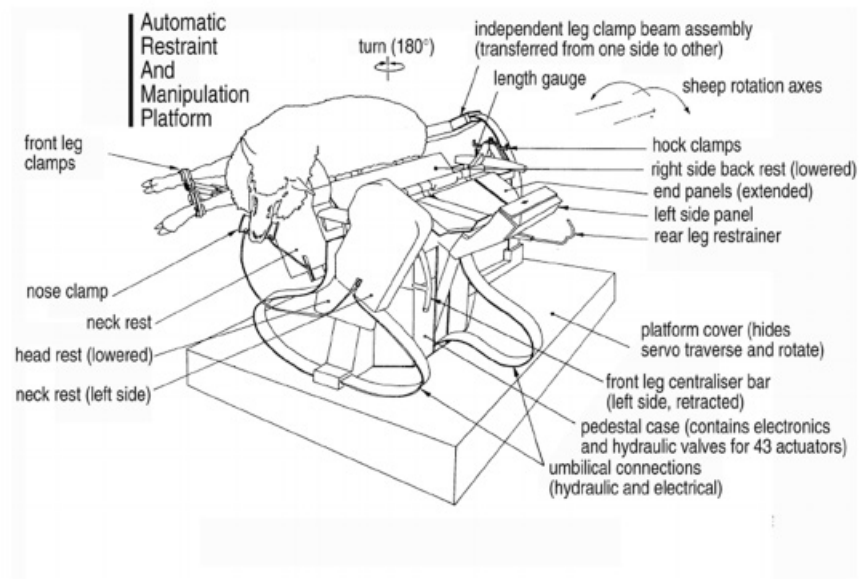
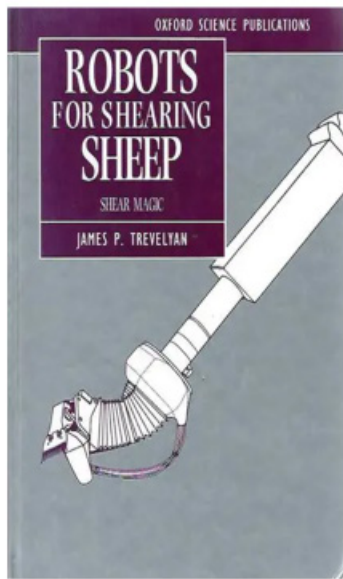


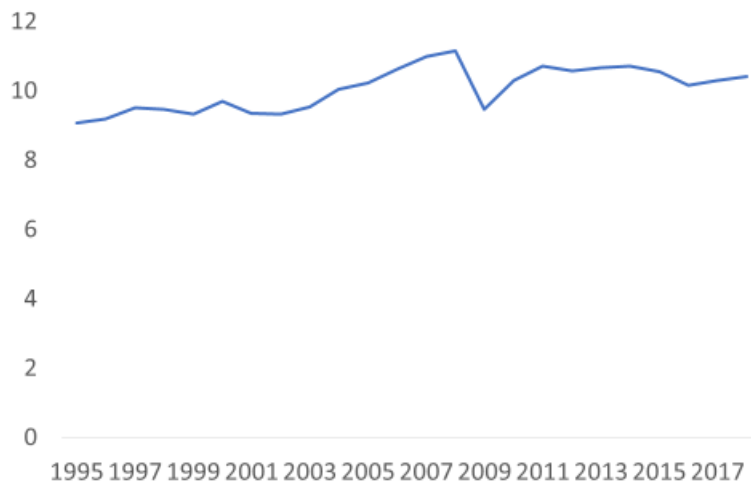
Figure Six⁹

Most services jobs are closer to shearing sheep than making cars. Think robots for bathing the infirm. These jobs are hard to automate for technical reasons –to say nothing of social and psychological barriers. So automation, if it comes, is likely to come quite slowly.

But going back to manufacturing, automation does continue to advance, and labor productivity to rise. What has started slacking off is demand. Shrinking populations in slow growing countries consume less. And aging, retiring populations in particular consume services, not stuff –home help, not new cars.

That is one reason that the traditional path towards rapid convergence for developing countries – manufacturing exports– appears to be stalling. Figure Seven shows global value added in manufacturing exports as a percentage of global output. It was higher in 2007 than ten years later.

⁹ <https://www.tandfonline.com/doi/abs/10.1163/156855387X00020>



Global value added in manufacturing exports as a % global value added

*Figure Seven*¹⁰

Added on top of that is the continued rise in productivity. Fewer, more educated workers with better machines can meet the slackening demand for goods. That's why we are probably at peak manufacturing employment. Figure Eight shows a forecast looking at global manufacturing employment out to 2050 in blue. Forecasting is hard, these numbers will be wrong, but if current trends in the forces determining manufacturing employment continue, there might be about 65 million fewer people working in manufacturing worldwide in 2050 than today.

¹⁰ Author's calculation from <https://databank.worldbank.org/source/world-development-indicators>

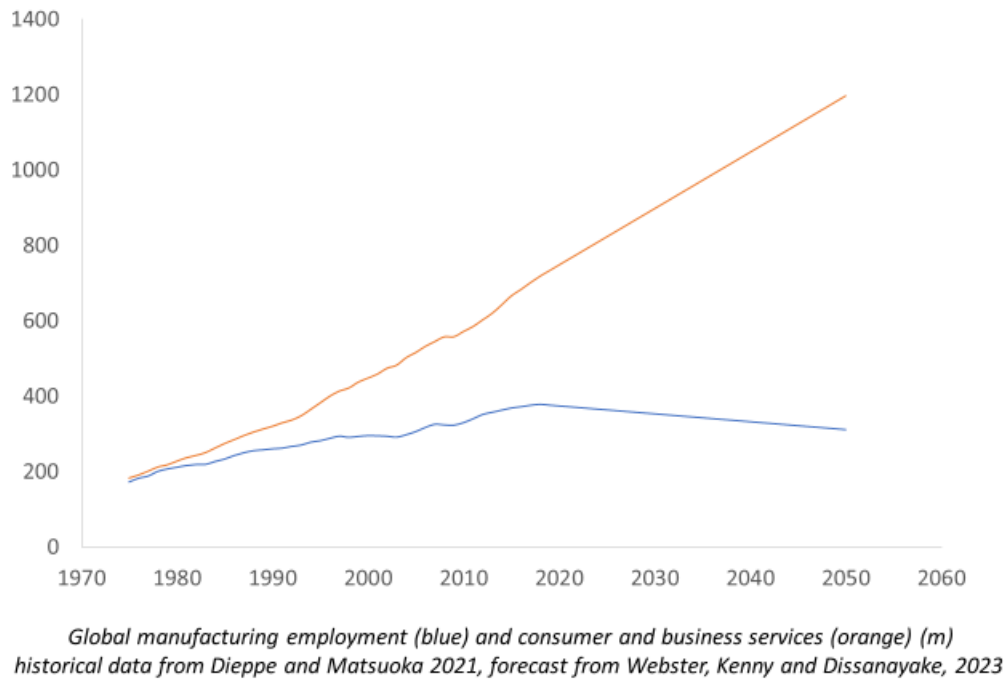


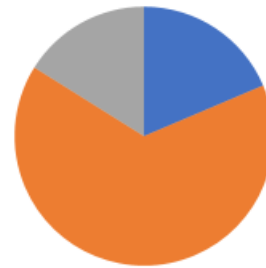
Figure Eight¹¹

Where are all the workers going? To the tough-to-automate service jobs (in orange in Figure Eight). Back in the 1970s, when South Korea began its path to wealth, about the same number of people worked worldwide in manufacturing as in consumer and business services. Already today nearly twice the number worldwide work in consumer and business services. By 2050, globally, we estimate that there will be nearly four times the number of people working in consumer and business services than in manufacturing.

But there is a problem. The top pie in Figure Nine shows the percentage of the global economy that consists of manufacturing output in blue, and services in orange. The bottom pie shows the percentage of global exports that are manufactured in blue and the percentage of exports that are services in orange. It is clear how much more tradeable manufactures are than are services. And if you are a fan of the export-led development model this is very bad news.

¹¹ <https://www.cgdev.org/publication/manufacturing-destiny-dynamics-future-sectoral-shares-and-development>

*Share of global economy: manufacturing
(blue) services (orange) other (grey)*



*Share of global exports: manufacturing
(blue) services (orange) other (grey)*



Source: Webster, Kenny and Dissanayake, 2023

Figure Nine¹²

Some comfort is that old services that *are* tradeable, like tourism and recorded entertainment, are growing, and some new services are becoming tradeable –think banking, call centers, medical transcription, and tutoring. But for a lot of the services for which demand is growing, the role for trade is still pretty limited –it turns out most things that are tough to automate are also tough to trade, because they involve an irreducible human component that has to be physically present.

Look at the growth employment sectors listed by the US Bureau of Labor Statistics for the 2020s: the number of jobs in the categories of healthcare, home care, education, policing, construction, cleaning, food prep, and maintenance will rise by nearly 5 million over the next decade in the US. It is simply difficult to imagine a lot of those jobs can be done on the other side of the world from consumers.¹³

So, where are we: demographic change in rich countries suggests global growth will slow and demand for manufactured goods will stall. Continued automation means manufacturing will generate ever fewer jobs. The world is moving towards an ever-greater concentration in services, but most of the products involved can't be traded. The manufacturing-export led path to rapid development is shrinking, and a services-export led model is constrained. On that reckoning, things are looking pretty grim for growth in low and lower middle income countries.

And yet I'm optimistic. Because if we can't move the jobs to the workers, poorer countries do have the workers to move to the jobs.

¹² <https://www.cgdev.org/publication/manufacturing-destiny-dynamics-future-sectoral-shares-and-development>

¹³ <https://www.bls.gov/ooh/> (2020 edition)

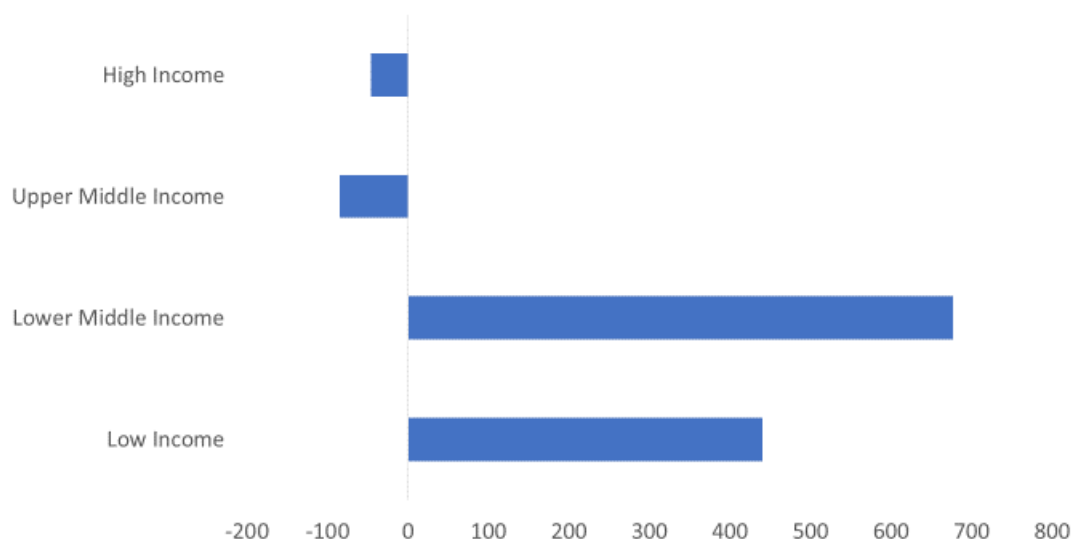
A New Model for Development Based on Movement of People

We have seen that high income countries including the UK are losing a net of 46 million working age people over the next thirty years. Upper middle income countries including China are collectively losing another 85 million workers. But low and lower middle income countries are adding hundreds of millions of workers (Figure Ten).

Globally, the working age population is close to a record high proportion of the total population –even if rich countries face the demographic deficit, the planet as a whole is near peak demographic dividend. We have a world workforce *imbalance*, not a world workforce *shortage*.

And, already, that imbalance is being corrected by people moving. Between 2000 and 2018, international migrants accounted for more than 75 percent of the total population increase in European countries. South Korea doubled the migrant share of its population in ten years, from less than 2 percent to more than 4 percent of the total.

It would still take considerably more migration than we see at the moment, but not unsustainably more, to fix the workforce imbalance. Keeping high income country working age populations stable would require attracting additional working age migrants equal to about 0.1 percent of the total population of those countries each year. Keeping high income dependency ratios –the proportion of working age populations to total populations-- at their 2020 levels would take adding about 0.5 percent of the total population of high income countries each year. The numbers are large, but they are far from impossible.¹⁴



Change in Working Age population 2020-2050 Source: Kenny (2021) using UN population data

Figure Ten¹⁵

¹⁴ https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3882466

¹⁵ <https://www.cgdev.org/publication/global-mobility-confronting-world-workforce-imbalance>

And the effort to attract more migrants to fill labor gaps is already a worldwide phenomenon. High income and many upper middle income countries are trying to attract more people. Figure Eleven provides some examples of headlines from North America, Europe, Asia and the Pacific over the past few years.

We are seeing countries issue more visas, with more generous terms and easier paths to citizenship, and countries allowing refugees to work while their cases are under review, or recruiting failed asylum applicants to stay on regardless. We are seeing amnesties for undocumented workers, countries allowing foreign students and family members of visa holders to work, and countries providing more support for language and skills training as well as help with housing and other services. We are seeing reduced licensing requirements making it easier for migrants to use their skills in their new jobs, countries paying flights and relocation costs and simply paying people cash on arrival. We have got to the point where the mayor of Helsinki has argued for changing the official language of the city to English to make it more attractive to immigrants.¹⁶

And we are already seeing heated competition for those migrants: New Zealand and Malaysia have both complained that Australia is poaching their migrant farm labor, Canada is expressly targeting US visa holders and applicants to move North, Poland is losing its Ukrainian migrants to Germany.

As a result, some countries are simply struggling to find enough people to come. In 2022, Malaysia actively tried to recruit nearly half a million migrant workers, but only 76,000 people applied. The country is going to have to increase the attractiveness of its offer if it is going to fill the factory and farm jobs that need doing. The UK provides another example: a government scheme offering three-month visas to EU lorry drivers only got half the applicants it was looking for because it was simply too short term to be attractive.¹⁷

¹⁶ From the twitter thread here: <https://x.com/charlesjkenny/status/1202215964789612544?s=20>

¹⁷ <https://www.theguardian.com/commentisfree/2021/oct/12/britain-is-learning-the-hard-way-that-migration-cant-be-turned-on-or-off-like-a-tap>

Australia relaxes visa rules to address labour shortage, increases skilled workers quota
 [Newsmaker] Seoul to extend visas for foreign workers to address rural labor shortage

Japan's aid agency to launch support body for foreign workers

UK Seeks to Attract Builders With Looser Immigration Rules

Taiwan opens its livestock industry to migrant workers

HUNGARY – GOVERNMENT SEEKS TEMPORARY WORKERS FROM OUTSIDE EU TO EASE LABOUR SHORTAGE (REUTERS)

WA Agriculture Minister calls for national illegal worker amnesty to ease farm labour shortage
 New occupations added to the Priority Migration Skilled Occupation List

Germany's new immigration law is making it easier for foreign workers to move there
 Foreign students will be allowed to work in nine sectors under expanded criteria

Thailand aims to employ army of 150,000 migrant workers to solve labour shortage

Canada opens up work permits to families of foreign workers in effort to fill labour shortage

Big Foreign Employment Opportunity For Youths: India To Supply Skilled Workers To Labour Strapped Japan

As labour shortage worsens, Quebec launches overseas hiring blitz

Germany turns to rejected asylum seekers to fill labour shortage
 Labour-starved Australia offers cash to 'work in paradise'

Kuwait seeks pact with Ethiopia to ease domestic labour shortage
 Germany trying to attract 'solar workers' from India

Portugal Changes Law To Attract Foreign Workers

Work permit rules eased for chefs, nurses and construction workers
 UK immigration plans prompt fresh calls for 'Scottish visa'

Hong Kong Ditches Local Licensing Exam to Tackle Doctor Shortage

Mayor suggests Helsinki declare itself an English-language city

Refugees are helping French wineries fill labour shortages

'Come on down!' Morrison offers visa fee refund to combat labour shortage

Russia Eyes Measures to Tackle Migrant Labor Shortage

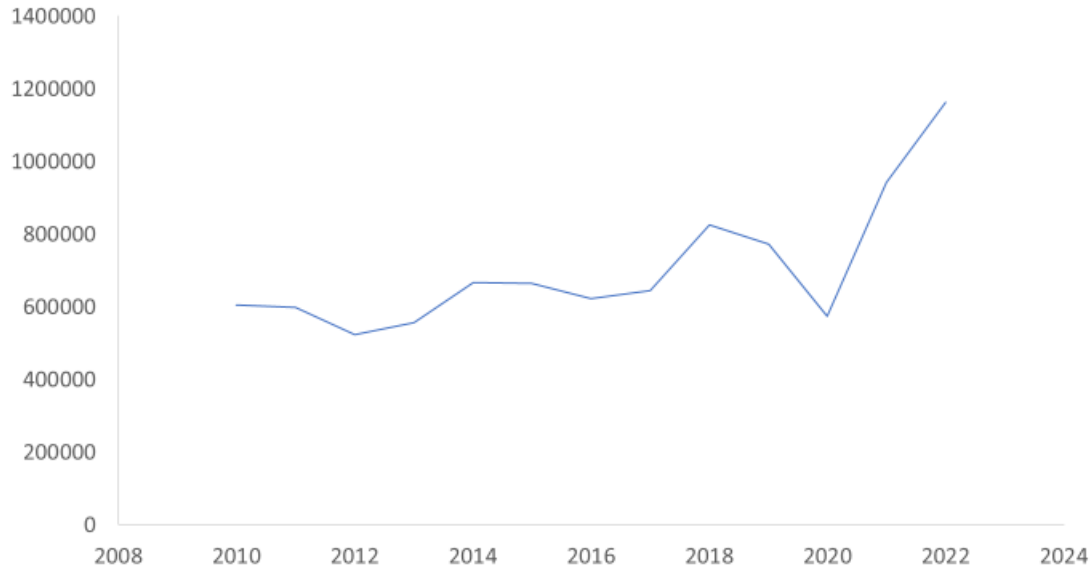
Chinese man gets Japan's 1st skilled worker visa with no time limit

Figure Eleven¹⁸

And on the subject of the UK, it provides an example of a country where the rhetoric is still heated and often nativist, but the reality is something different. Figure Twelve shows what has been happening to UK long term immigration over the past ten years. It has been going up. (though the Oxford Migration Observatory suggests we are likely to see a plateau in next few years).

It is a similar story in Hungary and Italy, and it should come as little surprise. Migration is surely a sensitive political issue, but hospital waiting lists are also a politically sensitive issue. Crops rotting in the fields, food shortages in the shops, understaffed old people's homes, missed net zero commitments, rising debt thanks to declining tax revenues –these are *also* politically sensitive issues. And politicians in rich countries increasingly understand the vital role that migrants play in tackling those problems.

¹⁸ From the twitter thread here: <https://x.com/charlesjkenny/status/1202215964789612544?s=20>



UK long-term immigration (annual). Source: ONS. Note change of methodology in 2018.

Figure Twelve¹⁹

How significant is this growing opportunity as a path to development? Look at Sub-Saharan Africa for example, where manufacturing exports, aid and remittances from emigrants abroad are already all about the same size (Figure Thirteen). Only one of these three sources of foreign exchange has considerable global upside potential in the years ahead. In a recent paper with George Yang we estimated that there could be as many as 30 million additional working age migrants from Africa to high income countries between now and 2050 under a business as usual scenario, with opportunities for as much as three times that number in a world seeking more migration. Nigerian emigrants send an average of \$17,000 home each year in remittances.²⁰ If the region as a whole saw the same from 30 million new emigrants, that would equal nearly half a trillion dollars.

¹⁹ <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration>

²⁰ <https://www.pewresearch.org/short-reads/2019/04/03/immigrants-sent-a-record-amount-of-money-home-to-sub-saharan-african-countries-in-2017/>

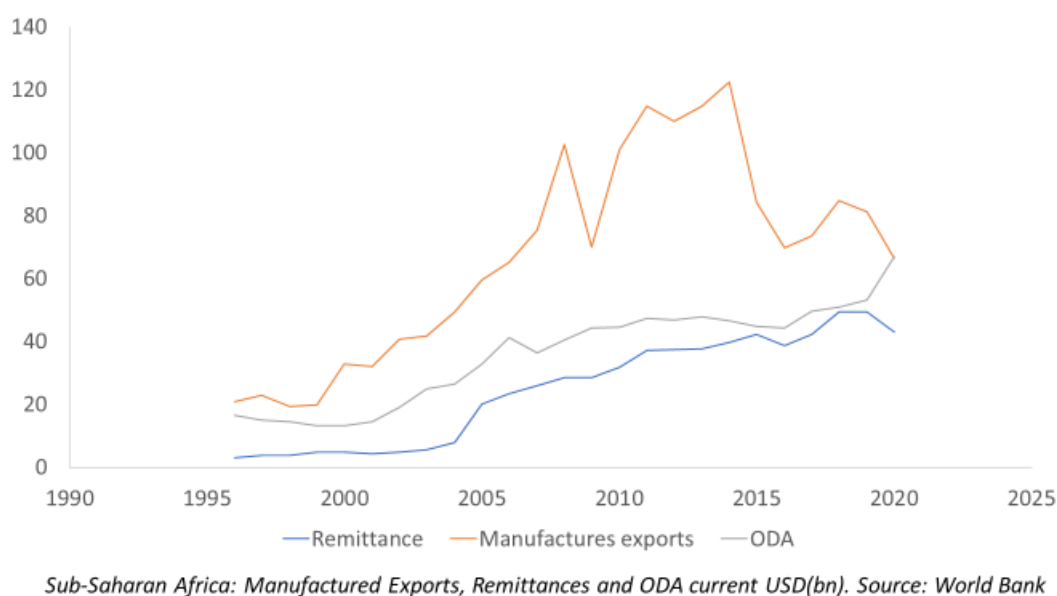


Figure Thirteen²¹

How much upside potential remains can also be illustrated by estimates of the global economic impact of removing barriers to cross border flows. For trade, the estimates collected by Michael Clemens a few years ago suggest perhaps a two percent gain from removing remaining tariffs and quotas, with a large degree of uncertainty. Removing barriers to capital flows might add perhaps one percent. Removing all barriers to migration could have an impact in the region of a doubling of the world economy (Figure Fourteen). It is a sign of the potential returns to rich and poor countries alike when it comes to steps towards more movement of people.

Hopefully Africa captures a growing portion of the global export market for goods, hopefully it will also see growing services exports, but migration and remittances will be a major source of development finance. And, as it happens, countries with stronger links in terms of migrant populations also see stronger trade and investment flows, so more migration will have considerable indirect effects on the region's economic vitality.

²¹ Author's calculation from <https://databank.worldbank.org/source/world-development-indicators>

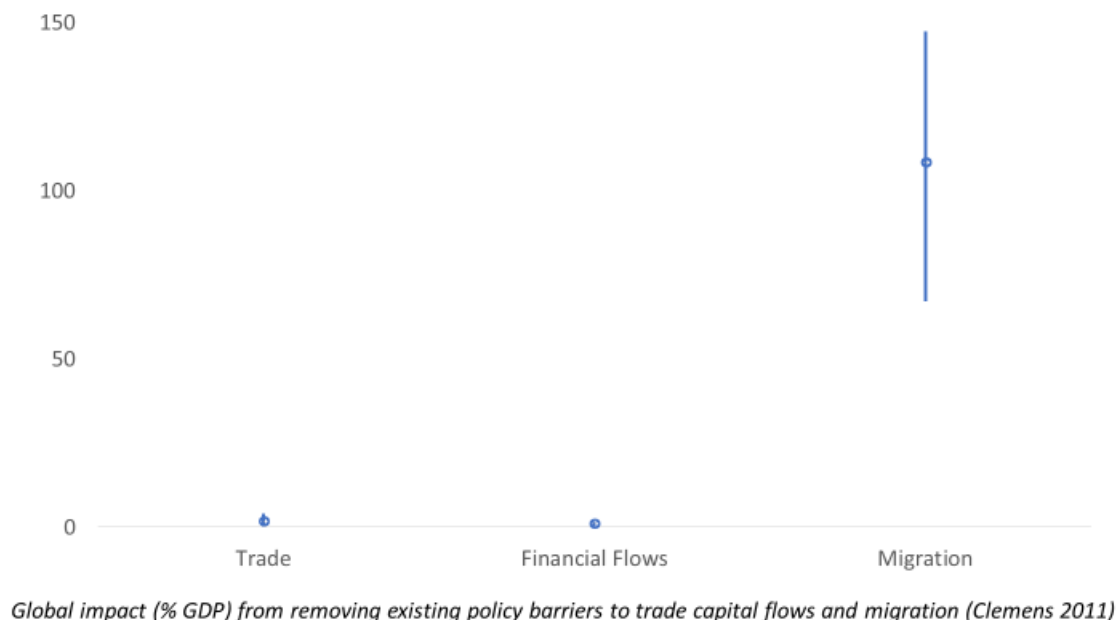


Figure Fourteen²²

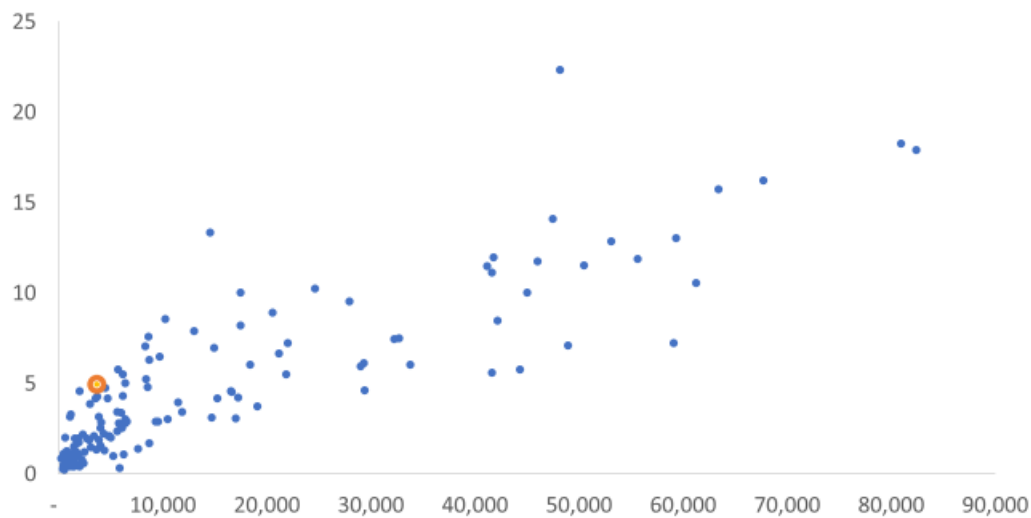
But what about brain drain? It is lucky that South Koreans in the 1970s didn't make the argument that 'we are manufacturing all of these goods for export, that doesn't do our consumers any good, let's close the borders to trade.' Similarly, closing the borders to emigrants would be a terrible development strategy.

Take a concrete example: the number of Philippine registered nurses is around 950,000. A little over 500,000 do nursing work at home while a little more than 300,000 have left to work overseas –about 150,000 are in the US for example.²³ This is causing political upset and President Marcos has tried to limit the number who are allowed emigrate. But it is worth looking at where the Philippines stands in terms of nursing staff. Figure Fifteen is a graph of number of nurses per capita in a country and income per capita. Richer countries have more nurses. But the Philippines, the orange dot, has a lot more nurses than you would expect given its income. The option to migrate has encouraged more people to go to nursing school.

Or look at India, where the country's massive tech boom was driven by return migration, contracting work and investment from Indians who had originally moved to Silicon Valley. Migration really can be, and usually is, a win-win-win for migrants, receiving and sending countries.

²² <https://www.aeaweb.org/articles?id=10.1257/jep.25.3.83>

²³ <https://www.asianews.it/news-en/Out-of-nearly-a-million-registered-nurses-in-the-Philippines,-one-third-work-abroad-58601.html>
<https://www.marketplace.org/2023/09/11/filipino-nurses-fill-critical-jobs-as-workforce-shortage-intensifies/>



Nurses per 1,000 people against GNI per Capita (2018). Source: World Bank

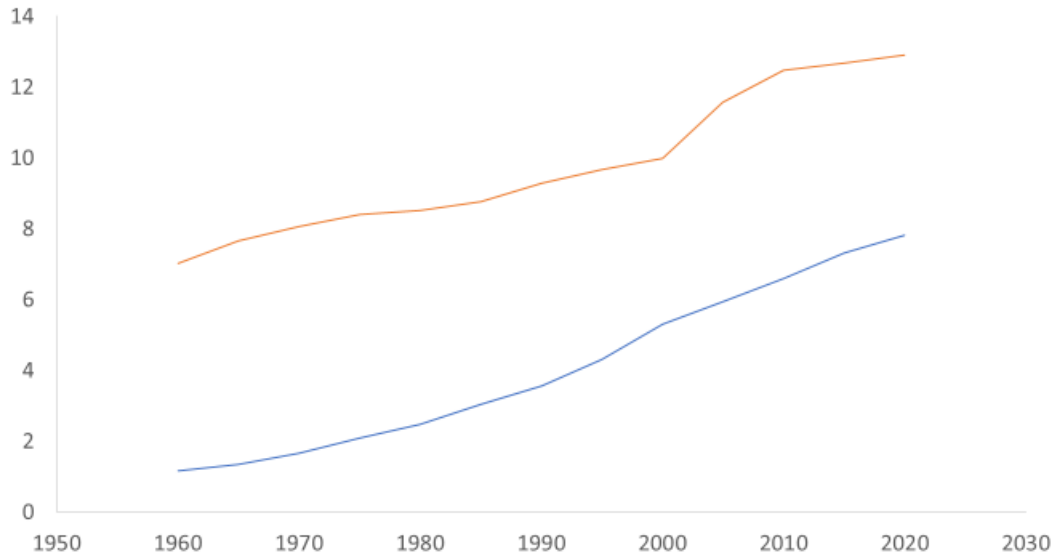
*Figure Fifteen*²⁴

On the other hand, do people have the skills to move and to do the work that needs doing? Look at India again. The orange line in Figure Sixteen is the average number of years of education in the UK working age population, India is in blue. India is about where the UK was in 1970 at an average of about eight years, and it is catching up. And that is of course the average.²⁵ In the 2020-2021 school year 9.5 million students graduated from higher education programs in India.²⁶ There are a lot of workers at every skill level, and the same is increasingly true of the Middle East and Sub-Saharan Africa.

²⁴ Author's calculation from <https://databank.worldbank.org/source/world-development-indicators>

²⁵ <https://ourworldindata.org/global-education>

²⁶ <https://www.thehindu.com/education/student-enrolments-went-up-by-75-in-2020-21-all-india-survey-on-higher-education-data-show/article66447898.ece>



Average Years of Schooling in Working Age Population India (blue) UK (orange). Source: Barro-Lee.

Figure Sixteen

That said, destination countries can help with skills gaps and reassure remainers about brain drain. One approach involves global skills partnerships, where an origin and destination country work together, with the destination country supporting training in the origin country and providing safe, legal migration pathways to some of the graduates of those programs. Meanwhile, other graduates stay home, using their new skills to the direct benefit of the local community.

This approach really matters where there are truly *global* skills shortages that are urgent to address, which applies to the skills needed for a zero-carbon economy. At the start of 2023, India and Germany signed a memorandum of understanding agreeing to increase green-skilled migration. Germany needs about 100,000 new solar panel installers. Training a solar panel installer in India costs about US\$200, much less than in Germany. And there are plenty of people who want the training, and many who would be willing to migrate. A skills partnership would help increase the *global* number of installers. That matters, because to slow climate change we need more solar power in India and Germany both, not solar power installed in Germany at the cost of slower rollout in India.

This green skills partnership, an idea created and championed by CGD's Sam Huckstep and Helen Dempster, adds one more win to the triple win of migrant, sending and receiving countries: faster progress against global climate change.

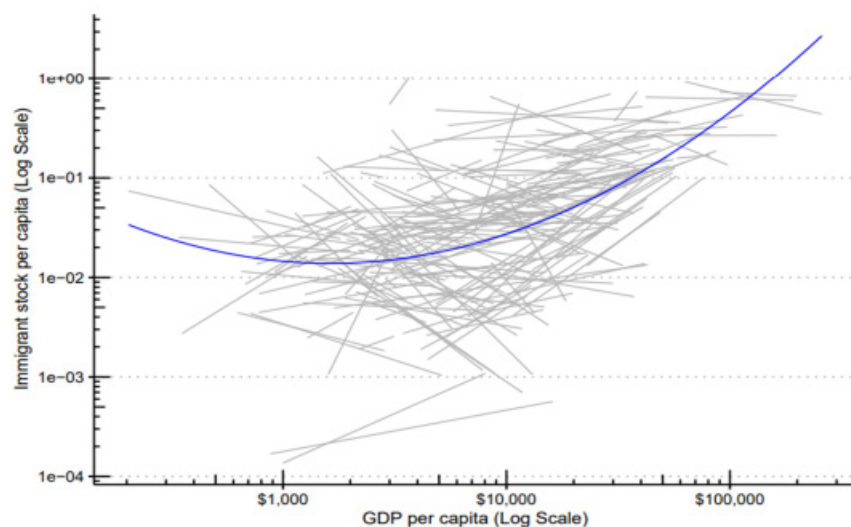
And there is a huge role for aid agencies to support such schemes. We're even starting to see the first baby steps in this direction; the US Millennium Challenge Corporation and the Government of Kiribati have signed a \$29 million labor mobility program to provide training opportunities and migration pathways for young people in the pacific island state.

More broadly, harnessing the potential of migration should be a central focus of global development policy: not least expanding safe legal pathways for migrants and coming to WTO agreements around trade in services involving the movement of people.

A Development Model Based on Movement Is Time-Limited

Migration as a solution to richer world labor shortages and low and lower middle income development challenges isn't a permanent fix. Not least, it is going to become harder and harder to attract enough migrants to fill jobs in aging countries.

Each grey line on Figure Seventeen shows the change in an individual country's immigrant stocks per capita from 1960 to 2019. The blue line shows the cross-country relationship. In short, richer countries –which tend to be older countries as we've seen– see larger immigrant populations.



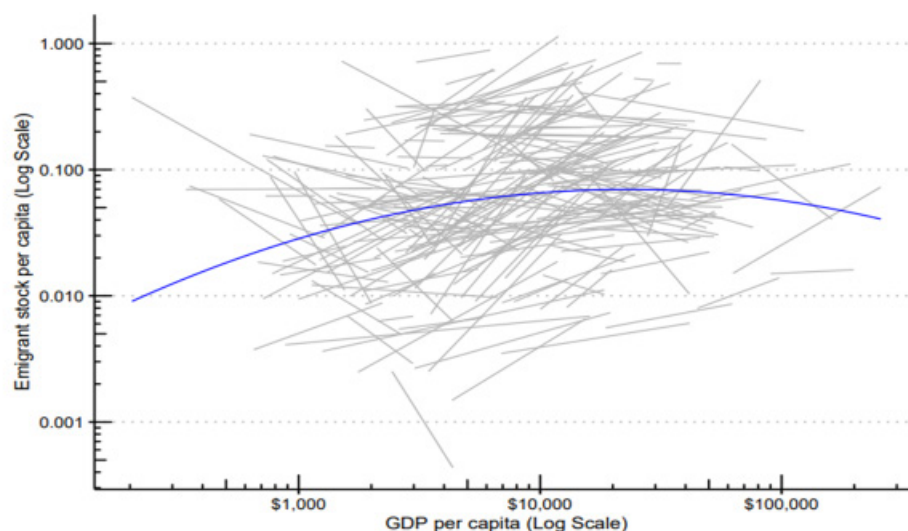
Source: Kenny and Yang, 2021

Figure Seventeen²⁷

But the challenge is presented in Figure Eighteen, where each light grey line marks a country's *emigrant* stocks per capita over time –people born in a country living outside of it. And the blue line again is the cross-country fit. As countries move from being very poor to middle income, more people can afford to migrate and emigrant stocks climb. But after a certain point –a GDP per capita of about \$10,000– emigrant stocks tend to fall again. Fewer people think it is worth the reward to move. Currently, about half the world's population lives in countries above the \$10,000 line, by 2040 it will be closer to two thirds.

²⁷ <https://www.cgdev.org/publication/can-africa-help-europe-avoid-looming-aging-crisis>

Together, the graphs suggest a growing mismatch –more demand for immigrants, ever fewer emigrants to meet that demand. It is going to have to take ever greater openness and ever more incentives in richer countries to attract sufficient immigrants –although, of course, that will only increase the likely development impact per person who moves.



Source: Kenny and Yang, 2021

Figure Eighteen²⁸

Even then, eventually, the world as a whole will enter the demographic deficit, with working age populations declining everywhere. And the world population will likely peak before the end of this century (Figure Nineteen). But, by then, perhaps the robots really will be ready to do a lot more of the jobs, and an aging workforce will be willing to work a few more years before retirement, and we will have managed to ensure quality childcare for all as an important tool to equalize female and male labor force participation, for example. And by then, thanks to the power of migration for development, we will be facing the challenge in a world that is considerably richer and more equal.

²⁸ <https://www.cgdev.org/publication/can-africa-help-europe-avoid-looming-aging-crisis>

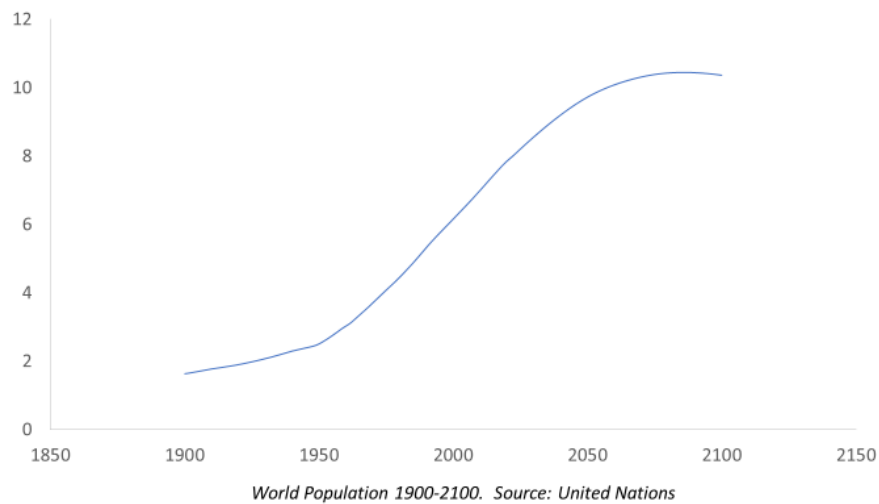


Figure Nineteen²⁹

And *until* then, moving to a model of rapid economic development based human rather than physical capital, pursuing global integration based on skills rather than machines, shifting work from dark satanic mills to light construction and care work, is simply a more sustainable and more pleasant path to economic growth. Indeed, Stefan Dercon and Chris Blattman have done research demonstrating that even in some of the world's poorest countries people really don't like factory work --Ethiopian women tend to leave factory jobs as soon as they have the opportunity, and it is seen as last resort employment.

A New Model for Development and Development Assistance

Meanwhile, development assistance used to be about supporting industrialization, but it failed to spark the growth of factories across much of the world. Partly as a result, aid has already moved heavily toward human capital –health and education– with considerable development success, but without fostering a stable domestic constituency in richer countries. Migration-based development and skills partnerships create a broader economic logic for human capital focused-aid. As importantly they create a domestic constituency for assistance that is about more than good intentions –closer to the self interest of the Marshall Plan.

The shouty part of the political discourse in rich countries sees the 'migrant crisis' as being about too many people. The reality, reflected in actual policy change in those same rich countries, is a growing recognition the problem isn't too many migrants, but not enough for the jobs that need doing. In turn that suggests that if twentieth century growth miracles were driven by investment in machines and the movement of goods, twenty-first century growth miracles are more likely to involve investment in skills and the movement of people.

²⁹ Author's calculation from data at <https://population.un.org/wpp/>

And while some aid agencies are still rolling out programs that will supposedly tackle the 'root causes' of migration, elsewhere, the conversation is moving on to programs that help ensure a triple win for migrants, sending and receiving countries. That change can't come fast enough.