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DISCUSSION PAPER SERIES 152/25

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www.rfberlin.com DECEMBER 2025

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Reference

JEL Codes: F22, F24, F35, F65

Keywords: migration, immigration, immigrants, asylum, refugees, brain drain, development, remittances, technology, aging, demographic, pension, skill, workforce, labor, africa

Recommended Citation: Michael A. Clemens (2025): From Root Causes to Shared Gains: Migration Policy for Low-Income Countries in a Labor-Scarce World. RFBerlin Discussion Paper No. 152/25

Imprint

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From Root Causes to Shared Gains: Migration Policy for Low-Income Countries in a Labor-Scarce World

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December 2025

Abstract

International migration policy for lower-income countries is still shaped by assumptions forged in an earlier era—when less-educated labor was globally abundant, skilled emigration was seen as an unmitigated 'brain drain,' and development was expected to reduce migration. That world is gone. This paper reviews a large, recent research literature on migration policy for lower-income countries in the 21st century, where demographic decline is making labor globally scarce, skilled emigration can generate net long-term gains for origin countries, and sustained development often *increases* migration pressures for generations. This recent literature suggests that migration, managed through innovative institutions, can sustain fiscal systems in aging economies, catalyze investment in human capital at the origin, and accelerate structural transformation. Managing migration is not a substitute for macroeconomic development, but a catalyst and a major opportunity. Policy priorities include building regional free movement regimes, cultivating new destination-country partnerships, restructuring skill-training systems for a mobile world, and embedding migration into aid partnerships as a core driver of development. But far more research is required on what shapes the impact of these tools.

*JEL codes F22, F24, F35, F65. I had helpful interactions with Mushfiq Mobarak, Petia Topalova, Nan Li, Sneha Agrawal, Flavien Moreau, and Annalaura Maria Sacco, but any shortcomings are mine only. The work in this paper is supported by the Macroeconomic Research in Low-Income Countries program of the UK's Foreign, Commonwealth and Development Office (FCDO) and the International Monetary Fund (IMF) Research Department. The views expressed in the paper are those of the author and do not necessarily represent the views of the FCDO, the IMF, the IMF Executive Board, or IMF management. I also acknowledge support for some of the underlying research from Open Philanthropy and the Peterson Institute for International Economics, though again the paper does not represent the views of those organizations or their boards.

"*When my information changes, I alter my conclusions. What do you do, sir?*"
—Maynard Keynes (Samuelson 1986, 275)

Many sharp minds view today's events through an outdated lens. The global migration landscape has shifted in ways that too few policymakers or their development partners have grasped. This paper reviews the recent research literature on how that landscape has irreversibly shifted, what it implies for macroeconomic policymakers in low- and lower-middle-income countries, and some of the biggest unknowns that demand further inquiry.

Over the last half-century, many low- and high-income countries approached migration management resting on a set of ideas: that less-educated labor was abundant and its emigration a sign of development failure; that more-educated emigration was inherently harmful 'drain'; and that sustained economic growth at the origin would gradually remove the incentive to migrate. This view approaches migration as, at best, a *substitute* for macroeconomic development. It underpins aid programs to 'address the root causes' of migration by making it unnecessary.

We are in a new landscape now. Today, labor is becoming scarce at the global level. The world as a whole has fallen below replacement fertility, and many middle- and high-income countries are experiencing—now—sharp contraction in their native workforces. This challenge for migrant-destination countries is a historic opportunity for lower-income countries, which are already supplying the vast majority of the world's new labor. At the same time, recent research has overturned the presumption that skilled emigration inherently depletes origin-country capacity. Under innovative institutions, skilled migration can spur investment in education, foster technology transfer, and expand global market access, leaving the home economy *more* productive.

Development itself does not serve a brake on emigration for lower-income countries. For at least decades into the future, development unlocks *more* migration. Rising incomes, educational attainment, and demographic shifts increase the capacity and desire to migrate. In this new reality, designing policy to suppress mobility is neither realistic nor optimal for macroeconomic management. The central policy challenge for low- and lower-middle-income countries is to design migration systems that maximize the economic returns to mobility while mitigating short-term fiscal and service delivery costs. This requires a strategic pivot: away from attempts to

halt migration and toward building the lawful, well-governed channels and institutions that can transform it into a driver of shared prosperity.

1 The new global landscape for migration

In several dimensions, the environment for international migration is like none that LICs have faced before. Unstoppable economic and demographic pressures for greater migration are colliding with the immovable object of global fragmentation and populism, requiring migration policy to take new forms or risk chaos.

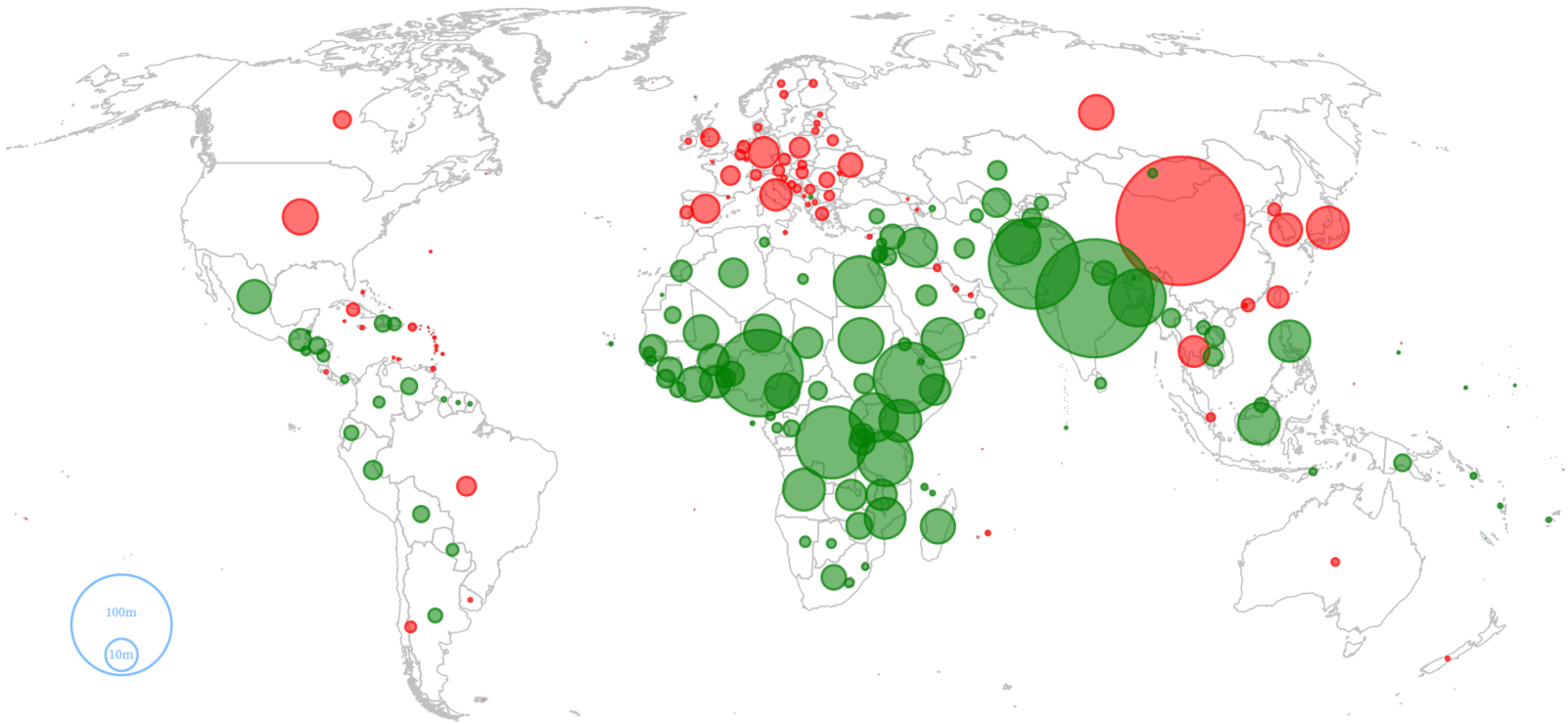
1.1 A world where labor is scarce

In or around 2022, the world passed a major milestone with little fanfare. The Total Fertility Rate for humanity as a whole fell below the global replacement rate of 2.3, the lifetime average number of children required to keep the population from falling worldwide (Espenshade et al. 2003; UN 2024b). In large parts of the world, historically few babies are being born. As older cohorts age out of each country's workforce, few younger natives are aging into it. Labor, at the global level, is becoming scarce.

Native workers are thus beginning to disappear from large parts of the world. This gives rise to a new global division: not between the 'developing' and 'developed', nor between the Global North and Global South, but between the limited number of countries where native labor remains abundant, and the many where it is scarce.

Figure 1 shows a snapshot of this demographic divide. For each country, it presents the net change in the number of working-age people—due to native fertility and aging only, *without any international migration*—over the next 20 years. Larger green circles show a larger net increase in the workforce; larger red circles show a larger net decline in the workforce; small circles show a stagnant workforce. Because 'working age' is defined here as age 20-64, these estimates rely on data about current and past fertility rates, not guesses about future fertility.

Figure 1: The Global Divide Between Worker Abundance and Worker Decline: Increase (*green*) or decrease (*red*) in the number of working-age people assuming zero international migration, 2026–2046



Country and territory data from the UN (2024b), medium variant, zero migration scenario. Working age defined as 20–64.

Several features of Figure 1 stand out. The principal source of new workers will be low-income and lower-middle-income countries in Africa, followed by lower-middle-income countries in South Asia. In Europe and in much of East Asia the native workforce will collapse, particularly in China, Thailand, Japan, and Korea. Native workforce growth will stagnate across Latin America and the Caribbean. The native workforce will fall substantially in the United States, Canada, Brazil, Chile, Australia, Malaysia, and elsewhere.

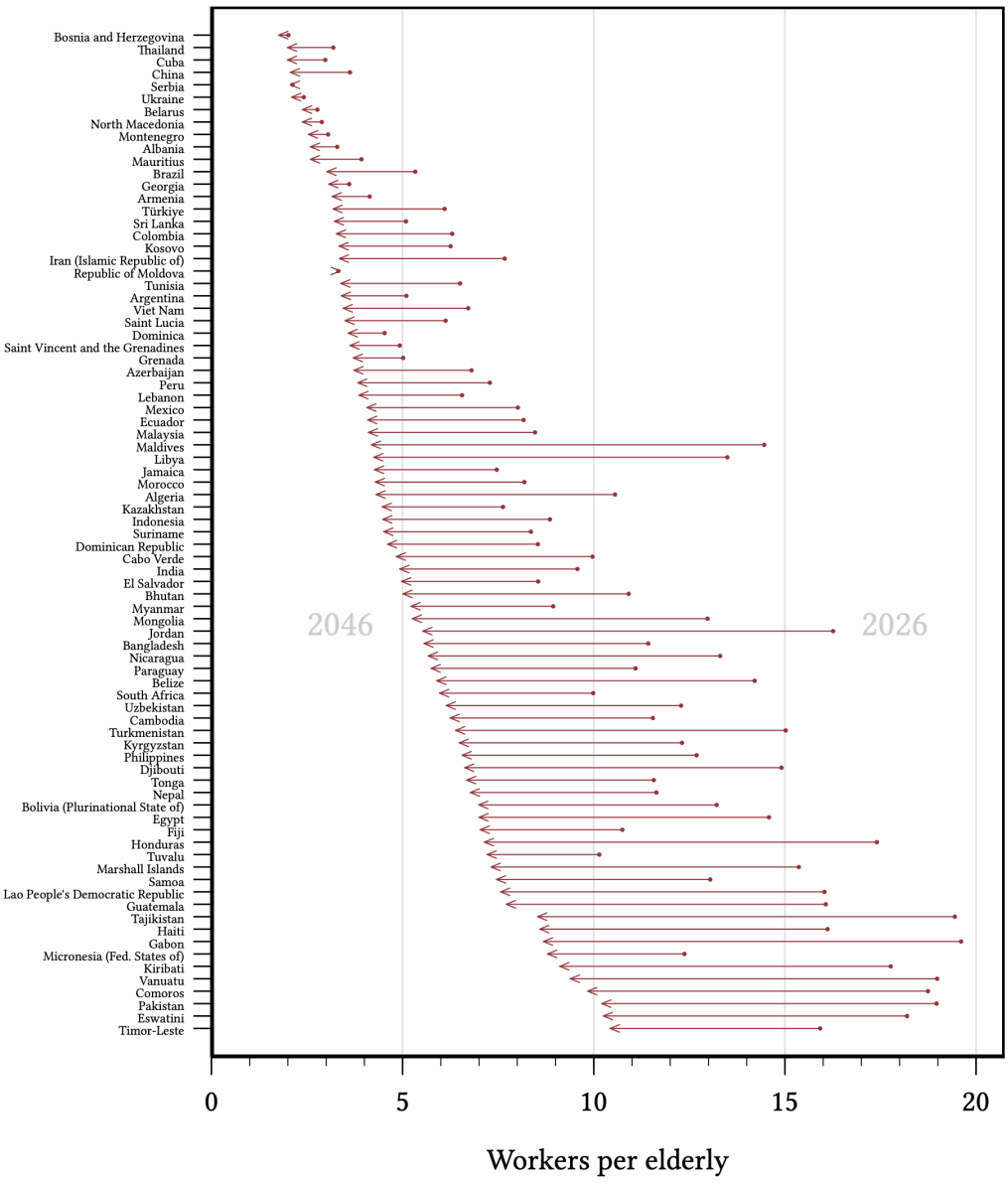
Scarce labor may seem like a triumph: scarce labor commands high wages, a central goal of economic development. But this is a fallacy, noted ever since the foundational economist Alfred Marshall (1890) lamented "the great vitality of the common belief that wages could be raised generally by merely making labour scarce". Workers, he noted, are also a factor of production. All else equal, fewer workers means less output—driving prices up, purchasing power down.

This matters acutely to those who own no labor, only capital: the retired. Even in many countries where the workforce continues to rise, the number of elderly will rise faster—retired people whose income arises from capital, pensions, and social security. It is well known that this is happening in the core group of high-income OECD countries, such as Italy or Korea, which will have (without migration) just 1.3–1.4 workers to sustain each retired person by 20 years from now.

But the disappearance of native workers is pervasive. It is happening even faster in middle-income countries (Figure 2). Between 2026 and 2046, without international migration, the number of workers per elderly would collapse by roughly half in rapidly aging *Mexico* (from 8.0 to 4.1) and *Colombia* (6.3 to 3.3); in *Morocco* (8.2 to 4.3) and *Tunisia* (6.5 to 3.4); and in *Vietnam* (6.7 to 3.4) and *Indonesia* (8.9 to 4.5). Across the world, far beyond the traditional high-income migrant destinations, labor is getting rapidly scarcer for those whose livelihood depends on the labor of others (UN 2024b).

Over time, disappearing workers may bringing greater harm. The latest research suggests that declining workforces and aging populations reduce entrepreneurship, innovation, and thus specialization, eventually stunting economic growth and consumption across the economy (Jones 2022; Bloom et al. 2024; Madsen 2025). In modern economic growth theory, the engine of long-

Figure 2: Native Workers are Disappearing from Aging Middle Income Countries: Change in the number of workers per elderly person, from 2026 (right) to 2046 (left), assuming zero international migration



Includes only countries currently classified by the World Bank as Upper Middle Income or Lower Middle Income. Country and territory population projections from the UN (2024b), medium variant, zero migration scenario. Working age defined as 20–64, elderly as 65+.

run growth is a constant stream of new ideas that are fundamentally produced by people. A declining workforce means fewer potential innovators, and lower returns to innovation—which means fewer new businesses and new *kinds* of business, less adoption of leading-edge technology, and less origination of new processes and technologies. Total factor productivity ceases to rise and living standards plateau. Capital deepening or automation can give a temporary boost, but without a growing pool of minds generating breakthroughs, that boost runs into a ceiling.

The global scarcity of labor is fundamental to understanding the effect of international migration on fiscal systems. By far the most influential method for studying the fiscal effects of migrants from developing countries in the destination countries is simply count the taxes they pay and subtract the benefits they receive (e.g. Blau et al. 2017; Christl et al. 2022). But in a world where workers are a scarce factor of production, this method is misleading. When low-skill workers' labor sustains key sectors of the economy, part of their effect on public coffers arises because they complement other factors of production: high skill workers (Colas and Sachs 2024) and capital (Clemens 2022c). That is, an important part of immigrants' fiscal contribution arises indirectly, through taxes paid by the factors they complement.

More sophisticated research methods that capture both direct and indirect fiscal effects of immigration find it to be a key factor *sustaining* public finances across the high-income OECD countries (d'Albis et al. 2019; CBO 2024)—regardless of whether taxes paid directly by migrants fully offset all transfers to them.

To see this, imagine a cartoon economy: a village where the only economic activity is one farm, and the entire population is three: one farm owner-manager, one farm laborer, and one retired person. They agree to tax the farm owner and laborer, and use the revenue to provide health care to the laborer and a pension to the retired person. What is the *effect* of the farm laborer's presence on the public coffer of this village? It is certainly not fully captured simply by calculating the taxes paid by the worker minus that worker's health costs. That number could be negative. But all fiscal revenue in this microcosm exists due to the combination of the laborer's work, the manager's work, and land-capital. If the laborer were absent, and replacements are unavailable, there would be much less production, as the manager muddled along inefficiently without labor—and thus much less tax revenue *from the farm owner*. The laborer's presence does not undermine

the ability of this village to support the pensioner simply because the laborer's meager taxes might not fully cover their cost of their own health care. The laborer's presence makes high production possible, and thus raises *all* public revenue from which the pensioner can draw a pension, from all sources.

In countries with rapidly declining workforces, particularly, immigration is central to sustaining the entirety of economic activity and thus the entire fiscal revenue system (Livi Bacci 2017; Puig 2019; Maffei-Faccioli and Vella 2021; Eble et al. 2025). This is independent of individual migrants' direct, personal payments to that system, and cannot be understood simply by totaling up those payments (Clemens 2022b).

1.2 A world where skilled emigration can bring offsetting gains

It might seem unquestionable that the emigration of educated professionals from developing countries—where their skills are in short supply—harms those countries. In a large experiment that randomized the placement of physicians across health centers in Nigeria, the mere absence of a physician caused a 25 percent increase in perinatal mortality relative to less-skilled health workers (Okeke 2023). When we think of skilled workers as providers of crucial services, their emigration amounts to directly depriving their country of those services—such as health care, teaching, and entrepreneurship. These migrants usually bring benefits to their own families, but to their home countries they might appear to bring at best nothing but the occasional remittance, at worst impoverishment and even death.

This view has been so common that the pejorative term 'brain drain' came to be used as a synonym for high-skill migration (e.g. Docquier et al. 2007)—*defining* such migration as categorically, inherently harmful. This assumption remains compelling to a broad audience, bolstered by the straightforward observation that professionals who emigrate typically provide few services in their home countries. The 'brain drain' assumption also draws persuasive power from its memorable rhyme.[1] Leading scientific journals once published proposals that anyone facilitating the migration of health professionals from low-income countries be tried for crimes against

[1] In experiments by psychologists, people find slogans more compelling and trustworthy when they rhyme—independent of their substance—a phenomenon known as the rhyme-as-reason effect (Filkuková and Klempe 2013).

humanity (Mills et al. 2008).

This 'brain drain' assumption has been weakened by research over the last two decades, revealing numerous indirect, long-term benefits of high skill emigration (Clemens 2016; Batista et al. 2025). This literature does not suggest that high-skill emigration is costless. Rather it is consistent with a range of complex benefits alongside the costs—benefits that have greatly weakened the economic case for deterring high-skill emigration as a tool to promote development (Clemens 2014a). These benefits fall into three broad categories.

- *Brain gain.* First, high skill emigration has been shown in various contexts to raise investment in skill in the home country. High-skill emigration can thus raise the supply of skills in origin countries over time through three channels: 1) the prospect of overseas work raises the return to education and induces more students to train, 2) remittances ease credit constraints for schooling of the next generation, and 3) returnees bring back education and work experience acquired abroad (Batista et al. 2025). A clear example is the Philippines: when the United States temporarily expanded nursing visas from 2000 to 2007, enrollment and licensing of nurses in the Philippines surged, yielding a large *increase* in nurses at home—even net of the departures (Abarcar and Theoharides 2024). This response was enabled by rapid expansion of domestic nursing programs, especially in the private sector. Such a response even occurred amidst one of the largest surges in high-skill migration from a developing country on record—the mass departure of skilled Fiji Islanders after a military coup. Their emigration did not cause a reduction in home-country skill stocks, because the prospect of moving abroad caused additional, offsetting investment in skill (Chand and Clemens 2023). This 'brain gain' effect was once just a theoretical conjecture (Mountford 1997). The effect is now well documented, it is large, and it is largest in low-income and lower-middle-income countries (Cha'Ngom et al. 2025).

- *Productivity.* Second, high skill emigration causes increased technology transfer, market access, and thus productivity in migrant-origin countries. High skill migrants are not only providers of crucial services. Many are also catalysts for new economic activity at home due to their activities abroad, even when they do not return but strengthen global networks. Those networks along with return migrants transmit ideas, managerial know-how, and commercial methods that raise firm productivity and catalyze new industries.

For example, a 10% increase in the migrant ethnic scientific network *in the United States* caused by a visa policy shock caused an average 3% rise in manufacturing output back in the skilled migrants' origin countries (Kerr 2008)—evidence that skilled emigrants expand technology diffusion and market reach back home. Emigrant inventors, even as they create and implement new ideas abroad, cause more innovation by their contacts who remain in the home country (Prato 2024). Refugee networks abroad are known to be a conduit for knowledge, technology, and best practices in manufacturing back to their home country (Bahar et al. 2024).

- *Market access.* Skilled migrants overseas frequently become part of a global network of business contacts who promote economic integration, whether or not they eventually return home. A well-known example is Mo Ibrahim (2012), the high-skill emigrant from Sudan who catalyzed billions in telecommunications and other infrastructure investment in Africa, from abroad. He illustrates a phenomenon that the research literature has documented more generally. This effect is why developing countries with larger numbers of high-skill migrants abroad have more opportunities for international trade (Felbermayr et al. 2015) and become more likely to start producing and exporting products they have never made before (Bahar and Rapoport 2018). Related work links larger skilled diasporas to more foreign direct investment into origin countries, reinforcing these long-run productivity gains (e.g. Javorcik et al. 2011; Mayda et al. 2017; Burchardi et al. 2018; Yu 2021; Bahar et al. 2022).

Not only have the indirect benefits of skilled emigration become clearer in recent research, the costs have at times been overstated by oversimplified observation. It is beyond doubt that poverty is associated with high rates of skilled emigration. But in the most recent data available from the International Labor Organization, very high fractions of skilled graduates in low-income countries find limited *demand* for their skills. In many low-income countries, large shares of university-educated workers under age 25 and actively seeking work can find only part-time work or no work at all. This share is 55% in Mali, 45% in Yemen, and 30% in Uganda. In all three countries, the same fraction for prime-age workers (25–54) remains quite high at 17%.[2] The binding constraint on high-skill worker productivity in those countries is allocation and

[2]International Labor Organization, "Combined rate of time-related underemployment and unemployment (LU2) by sex, age and education (%)", ILOSTAT *Data Explorer*, accessed Aug. 5, 2025.

realized demand, not the supply of educated workers to meet potential or hypothetical demand.

For all of these reasons, mainstream development economics research no longer views high skill migration as an inherent harm to be deterred, but as an evolving challenge to be carefully managed for maximum net benefit (Batista et al. 2025). The latest and best research we have finds that real income per capita in low-income countries is 6.7% higher than it would be without emigration. This positive effect is largest for low-income and lower-middle-income countries. It arises not in spite of relatively high emigration rates among the highly skilled, but primarily *because* of the indirect positive effects of high-skill emigration on human capital investment and productivity (Cha'Ngom et al. 2024, 2025). In other words, acting to deter emigration in general, or to deter higher-skill emigration specifically, would further impoverish low-income countries.

Notwithstanding this recent and illuminating research, the 'brain drain' rhyme continues to exert tremendous influence. Consider the physician placement experiment in Nigeria discussed above (Okeke 2023). All nuances aside, does that experiment not imply that every doctor who leaves Nigeria causes newborn children to die? No, it does not, and it is crucial that we read the research literature with care. The experiment was to place physicians into public service at rural health centers, with the incentives for them to remain in service there. It was not to bar physicians, at the airport, from leaving Nigeria. The effect of the experiment was to bring rural areas to parity with mortality rates seen in better-served urban areas. As Batista et al. (2025, 6) point out,

> "*The fact that the intervention precisely eliminated the rural-urban gap in infant mortality suggests that the binding constraint for health outcomes in rural areas is not emigration, but within-country factors that keep highly qualified medical staff away from these communities. Restricting emigration is therefore unlikely to be the appropriate intervention; government policies that incentivize work in rural areas may be more promising.*"

In short, the modern research literature on skilled emigration does not question that high skill workers provide crucial services. What we have learned instead is that reducing high skill emigration by itself often does little to increase service provision—given high rates of unemployment and distortions in the demand for skilled workers across space and sectors—and that skilled workers are far more than simply service providers. They are also catalysts for trade, innovation,

investment, education, and invention, as well as the spread of social norms that complement development. The resulting effects are complex, they are contingent on policy choices, and they are not reflected accurately by any rhyme.

Despite the indirect and long-term benefits, a central challenge of high skill emigration is short term fiscal management. When publicly-trained high-skill workers emigrate, they take the full training subsidy with them—when those subsidies are designed for an exclusively immobile world. Systems of higher education finance designed for immobile workers must be updated, to better align direct costs with direct benefits in the short run, separating the direct fiscal cost from the indirect benefits of high skill migration (Clemens 2014a). Policy innovations of this kind are discussed below.

1.3 A world where more development brings *more* migration

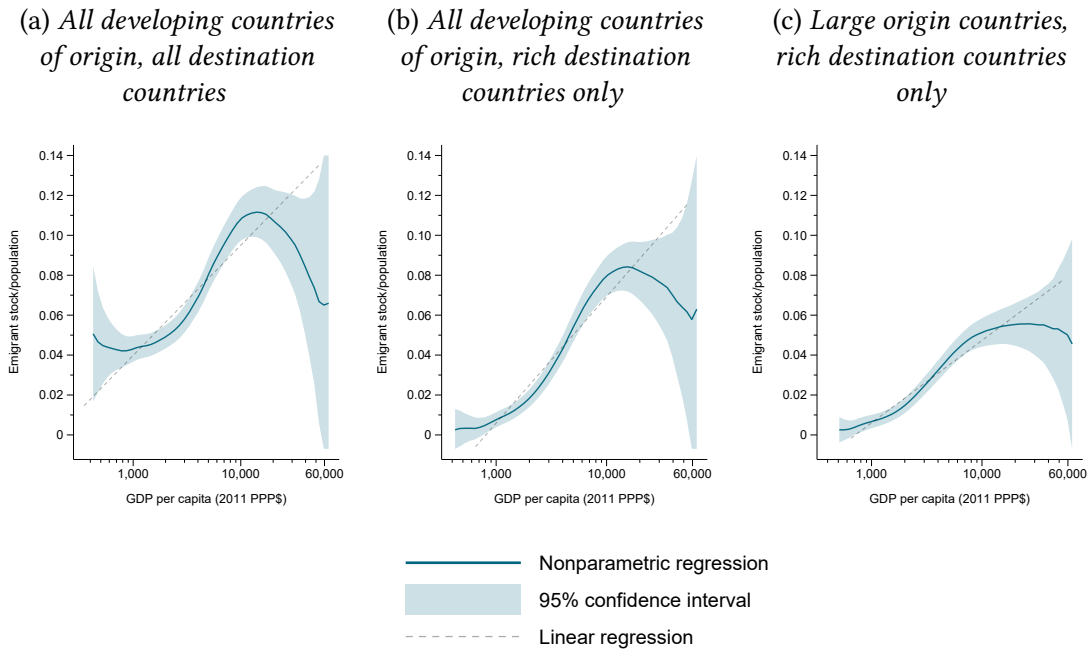
For decades, a central goal of development assistance has been to reduce migration pressure from low-income countries. Aid is supposed to do this by fostering greater prosperity and opportunity in recipient countries, reducing the incentive to leave. This view is intuitively compelling and supported across the political spectrum in donor countries (Clemens 2014b; Kıratlı 2021; Norman and Micinski 2023). It can unite a right wing suspicious of immigration with a left wing favoring overseas poverty reduction. It is popular in recipient countries as well. A recent president of Guatemala requested aid to discourage northbound migrants with a "wall of prosperity".[3]

But for all its political success in bolstering the constituency for aid in donor electorates, the idea of development as a broad deterrent to migration has little empirical support. There is no sign, in the data over the last two generations, of a generalized tendency toward lower emigration from poor countries that achieve sustained economic development. Nor does migration remain flat as poor countries develop.

To the contrary: Low-income countries, as their economies grow and diversify, typically experience very large *increases* in emigration (De Haas 2007; Clemens 2020, 2022d; World Bank 2023).

[3]Guatemalan president Alejandro Giammattei (2020–2024). Ana González, "Giammattei pide a Estados Unidos construir 'muro de prosperidad'", *República*, April 9, 2021.

Figure 3: Emigration Rises with Development: Emigration versus origin-country income per capita, pooled countries and years 1960–2019



From Clemens (2020). Observations are by origin country-year, in seven years (1960, 1970, 1980, 1990, 2000, 2010, 2019). "Developing countries" are countries classified as "low income" or ''middle income" by the World Bank in 1990—that is, countries that were not classified as "high income" for most of the period 1960–2019. Solid nonparametric regression line is local-linear regression, Epanechnikov kernel, optimal bandwidth minimizes conditional weighted mean integrated squared error. Dashed line is linear ordinary least squares fitted to the same data. "Rich" destination countries are those that were classified as "High Income" by the World Bank as of fiscal year 2020 (over $12,375 gross national income per capita at Atlas exchange rates). "Large" origin countries are those with population above the 25th percentile (that is, greater than 2.49 million) in 2019.

Figure 3 shows the relationship between the number of emigrants as a fraction of migrant-origin countries' populations on the vertical axes, and real income per capita on the horizontal axes.

This holds for large developing countries and small ones. It holds for all migrant destinations collectively and for high-income migrant destinations specifically. It holds for levels of emigration (stocks of emigrants overseas) and flows of emigration (net changes in stocks). It holds across countries and within countries. It holds both since World War Two and before World War One.

Only after countries surpass roughly PPP$10,000–15,000 income per capita—the advanced level of Tunisia or the Philippines—does further economic development entail reduced emigration

on average (Clemens 2020). The relationship between emigration and development thus tends to follow an inverse-U relationship known as the *emigration life-cycle* (Hatton and Williamson 1998), first hypothesized by Zelinsky (1971) before data became available to test it.

The reasons for this are numerous. Most directly, in low-income countries, higher disposable incomes alleviate binding capital constraints in paying the high costs of formal or informal migration. Less directly, higher incomes bring higher levels of education, more international connections, and higher aspirations for the next generation, all of which complement emigration (Dao et al. 2018; Clemens 2022a). This is why, across almost all low-income countries, people with higher incomes emigrate at much higher rates than the very poorest (Clemens and Mendola 2024). Beyond this, the number of relatively young, working age people (those typically making the migration decision) systematically surges during the development process, an aftershock of the demographic transition—the almost universal delay between earlier declines in child mortality and declines in fertility (Docquier et al. 2014; Dao et al. 2018; Caballero Reina et al. 2024). This demographic channel magnifies the effects of rising incomes on the emigration propensity of any given individual (Cattaneo et al. 2024).

For low-income countries experiencing sustained rises in income, a rising emigration rate is not a symptom of poverty. It is a symptom of development success, a symptom of the emergence from poverty. Of course, sudden negative shocks to income, in crisis or conflict, can create spikes in emigration. Here I am referring not to the effects of transitory shocks, but to the effects of *economic development*—increases in the complexity and prosperity of migrant-origin economies, sustained over decades.

It is a popular perception that today's high migration pressure arises from development failure, as poor countries fall further and further behind on macroeconomic indicators. They used to be falling behind—in the last half of the 20th century. But this too has reversed in today's world: From 1995–2025, poorer countries have grown systematically faster than richer ones (Patel et al. 2021). Low-income countries are, at last, catching up. This development success can explain a substantial part of today's high migration pressure (Clemens 2022d). The emigration life cycle means that we live in a more mobile world precisely because we live in a more developed world.

This is the heart of why a large literature finds that development assistance has no systematic effect of deterring migration from poor countries, and may even raise overall rates of migration (Azam and Berlinschi 2009; Berthélemy et al. 2009; Clemens and Postel 2018; Marchal et al. 2023). This does not mean that aid fails to promote development. The best evidence we have is consistent with foreign aid generally having a modest, positive, heterogeneous effect on short-term economic growth (Clemens et al. 2012; Galiani et al. 2017; Dreher and Langlotz 2020). The literature offers no reliable findings that aid systematically reduces growth. Instead, aid appears to encourage emigration precisely because it succeeds—in creating disposable income that can be invested in migration, and by building informational and relationship linkages between donors and recipients (Fuchs et al. 2023; Marchal et al. 2023).

This does not mean that highly targeted aid programs to change the incentives of limited subpopulations cannot reduce migration. Aid-funded cash transfers sharply conditioned on remaining in the origin country can reduce emigration while the payments are underway (Clemens 2022a). Aid that directly supports employment opportunties for health professionals can deter those professionals from emigrating (Okeke 2013; Lanati and Thiele 2021). Instead, it means that low-income countries seeking beneficial aid partnerships will gain more from partnerships designed to shape migration for maximum benefit to the origin country as it develops and unlocks its migration potential, rather than partnerships designed to prevent that migration potential from being realized.

1.4 A world where migration, in turn, sparks long-term development

Traditional analysts view migrant remittances as supporting consumption by family members back home. But this does not mean that they contribute to economic growth: Had the migrants stayed home, they too would have consumed at home, so the net effect of migration-and-remittances on consumption and thus GDP need not be positive. This is especially true with limited effects of remittances on investment and a potential reduction in exports via exchange-rate appreciation. It is little wonder that cross-country regressions detect only a small positive relationship (François et al. 2022) or no positive relationship (Chami et al. 2008; Barajas et al. 2009) between remittances and economic growth over the span of a few years (Clemens and McKenzie 2018).

This has encouraged the categorical perception that migration is a palliative—a (poor) substitute for economic development at home, but not a substantial cause of economic development. In 2024, migrant remittances to low- and middle-income countries reached US$685 billion per year, far more than all foreign direct investment (FDI) and declining Official Development Assistance (ODA), *combined* (Ratha et al. 2024). If these vast sums create no self-sustaining economic opportunity, however, migration does little to replace FDI or ODA as a catalyst for long-term development. The best that low-income country policymakers could hope for woudl be to tolerate migration as an imperfect social policy for poverty reduction.

Recent research has challenged this view. This literature has found unique settings that shed light on the macroeconomic effects of migration and remittances in the long term—across decades and via the next generation.

Two striking papers identify large, long term macroeconomic effects of low-skill migration on economic development in Malawi. A 1967 treaty suddenly removed quotas on the migration of of Malawian workers to South African mines, with two-thirds of miners' wages forcibly saved. In April 1974 a fatal plane crash prompted a mass repatriation of workers to Malawi, turning the deferred pay into a large, exogenous capital inflow to migrant-origin districts. Cohorts of children exposed to this migration episode in districts with easier access to recruiting stations completed 0.12–0.18 more years of schooling many years later—about a 4.8–6.9% increase—and were more likely to have any primary education (Dinkelman and Mariotti 2016). This additional education caused them to shift employment out of farming into higher-productivity services over the next three decades, with particularly large movements by women. The long-term effects of this sole, major channel of migration and remittances by itself accounts for 25% of *all* the structural reallocation of female labor out of farming and into non-farm work in Malawi, in the four decades leading up to 2008 (Dinkelman et al. 2025). With labor three times as productive in the non-farm rural sector than in farming, this effect on the structural transformation implies first-order effects of migration on Malawi's long-term productivity. These cannot be captured in short-term, cross-country panel regressions.

Similarly large, long-term effects of migration on development have been identified in the Philippines. Clemens and Tiongson (2017) find that a test-score threshold quasi-randomly giving Fil-

ipino households the opportunity to migrate for temporary high-wage work in Korea caused large increases in their investment in children's schooling, which is indistinguishable from consumption in standard national accounts. What are the long-term effects of such expenditures? Khanna et al. (2025) trace these for the first time. They exploit the 1997 Asian Financial Crisis as an exogenous shock to Filipino migrants' pay. Provinces of the Philippines differed in their pre-1997 exposure to migrant destinations (a province with many workers in Japan was hit harder by the yen's appreciation than one with stronger migration ties to Korea). Those exchange-rate shocks persisted, letting the authors build a province-level measure of migrant-income shocks and trace their effects through the year 2015. A one-standard-deviation migrant-income shock (a 9.3% increase in remittances in the average province) caused a rise in income *from domestic sources, two decades later*, of PhP1,750/30,699 = 5.7%. About one third of the additional domestic income arises from educational investment, including a 0.51 percentage point rise in the college completion rate. Robustness checks show these results are not driven by trade or FDI responses to exchange-rate movements. This is compelling evidence that migration and remittances have caused not just consumption support but sustained, productive investment over long periods.

Beyond these long-term effects in Africa and East Asia, similar effects have recently been documented in Latin America. Kosack (2021) studies human capital investment for children in Mexico caused by their fathers' seasonal farm work in the United States during the *Bracero* program of 1942–1964. He separates causation from correlation by exploiting variation in villages' exposure to *Bracero* recruitment that was quasi-random with respect to initial education conditions. Kosack (p. 8) finds that every 10 additional *Bracero* migrants caused an additional seven students to enroll in primary school in Mexico. In other words, this form of large-scale, low-skill migration caused increases in the productivity of the Mexican workforce decades later, effects that cannot be measured in or around the years that remittances arrive. And return migrants to Mexico from the United States bring with them skills, expectations, norms, and capital that cause more frequent and more successful entrepreneurship back home, expanded access to education and health care, and other beneficial development outcomes several years or even decades after they migrate (Bucheli and Fontenla 2025). Long-term positive effects on education have even been documented in what were once the poorest parts of Europe: Fernández (2025) finds that mass emigration from Galicia, Spain to the New World 1900–1930 raised human capital investment across *three to four generations*: 10 percentage points higher emigration rates for a Galician

municipality before 1930 caused an 8% increase in secondary school completion in the year 2011.

Finally, migrants convey non-economic ideas, beliefs, and norms to origin countries, all of which can shape economic development across the decades. Thus emigration produces complex and often beneficial social, political, and health spillover effects in the origin country. A randomized lottery for skilled migration from India to the Gulf countries caused, in lottery winners, greater support for contact and cooperation between ethnic groups (Gaikwad et al. 2025). Migration by spouses has been shown to cause greater decision-making power for women in households, with downstream positive effects on education and health, in the Philippines (Clemens and Tiongson 2017) and Bangladesh (Mobarak et al. 2023). Regions of Eastern Europe more exposed to emigration exhibited greater support for democracy, over time, when the migrants' destinations were democracies rather than autocracies (Barsbai et al. 2017)—and democratic institutions are known to be *sufficient* to promote long-term sustained growth in many countries, even if not strictly necessary (Acemoğlu et al. 2019).

This evidence is new, most of it arising from data and research methods that became available in the last several years. But despite this extensive new literature, the perception persists that emigration must undermine key factors in long-term development. In particular, inclusive political institutions have been central to past episodes of economic development sustained across several generations (North et al. 2009; Acemoğlu and Robinson 2012). Why would origin-country governments sacrifice to build inclusive political and economic institutions at home, this reasoning goes, when they can rely on emigration as a safety valve?

The idea that even large-scale emigration tends to undermine long-term development sits uncomfortably with the history of many of today's richest countries. From 1850 to 1913, over 20% of the populations of Norway, Sweden, and the United Kingdom emigrated en masse (Hatton and Williamson 1998). Not only did that emigration fail to undermine social and governance institutions, we now have evidence that the same wave of emigration actually strengthened citizens' voice in policy creation: Karadja and Prawitz (2018) show that areas of Sweden with greater exposure to mass emigration shocks gained increased political participation, better welfare systems, and increased union membership, precisely because emigration offered citizens a way to discipline otherwise unaccountable local elites. Systematic statistical tests in more recent years

detect no negative effects of emigration on standard indicators of democracy and governance quality, and in fact detect modest positive effects (Docquier et al. 2016; Rapoport 2016). Positive effects on democratization at home can arise through mechanisms including the interruption of closed political patronage networks by independent income from remittances (Escribà-Folch et al. 2022).

Does emigration not inherently undermine political reform, given that dissasatisfied citizens can be the most likely to leave (Cabra-Ruiz et al. 2025)? The fact that dissatisfied citizens are more likely to emigrate does not imply that, if they had been unable to migrate, they would have been sufficiently empowered to enact reform. Consider the governance catastrophes that came with the Samuel Doe regime in Liberia, or the Idi Amin regime in Uganda. These events caused a mass exodus of migrants from those countries, especially university-educated migrants (Clemens 2014a, 13). If a domestic political movement could have been built that would have ended those regimes earlier, that movement surely would have benefited from the skills of many of those who left. But this does not begin to imply that their emigration *caused* the perpetuation of those regimes. That would be *logically* equivalent to claiming that if such emigrants had not emigrated, all else equal, this would have been sufficient to shorten or end those regimes. That is hypothetically possible in anecdotal settings. But it is inconsistent with the systematic evidence we have from across the developing world. In general, less skilled emigration causes increased governance quality, and more skilled migration neither reduces nor increases governance quality (Docquier et al. 2014).

Far from undermining long-term growth, mass emigration seems to have been central to *creating* modern economic growth in Europe (Blanc and Wacziarg 2025). European countries in the long 19th century experienced a surge in the working age population as part of their demographic transitions, just as many low-income countries are experiencing now (Figure 1). This might naturally have tended to drive down wages, but emigration acted as a pressure release valve—allowing income per capita to rise sustainably above subsistence levels. Blanc and Wacziarg use genealogical data, census records, and cross-country analysis to show that migration-enabled escape from Malthusian dynamics quantitatively accounts for a substantial portion of European income growth in the 19th century, essentially giving technological progress a head start in its race against population growth. Mass emigration from Europe furthermore did not undermine

origin-country capacity for innovation and entrepreneurship, but in fact stimulated more innovation, as firms arose and adjusted to a reduced labor supply (Andersson et al. 2022).

Modern economists working at the intersection of migration and development no longer view migration as a straightforward symptom of underdevelopment at best, or a drain on development at worst. The last two decades of research reveal that migration and remittances hold the potential for long-term development benefits, when institutions and policies are designed to maximize those benefits (Yang 2025; Batista et al. 2025).

2 Policy Gaps: What to Do Next

Effective policy must be built around the world as it is, not as it was. The international migration landscape has undergone tectonic change in the last two decades. We are entering a world where labor is *scarce*, not abundant; a world where skilled migration, managed well, is a key *asset* to origin countries; a world where continued development will build *greater* migration pressure; and a world where policies to facilitate migration will be a key ingredient to *long-term development* in today's low-income countries (Table 1).

The policies of many low-income countries, and their bilateral and multilateral development partners, remain built around a vision of a completely different world. The overwhelming priority of official development assistance is to limit migration—as if labor were overabundant, not scarce. A top priority of many low-income countries is to limit skilled migration in particular—as if it were an inherent harm, rather than work with partners to build the institutions that unlock its benefits. The narrative that guides almost all development partnerships with low-income countries holds that migration will be stemmed by "addressing" its "root causes" with development—not building the partnerships to make the most of the *increased* migration opportunities *unleashed by* development. And countless low-income country leaders see their role as generating jobs so that migrants do not migrate, not actively assisting them to find well-matched jobs via migration.

These policies require reform. Many missing institutions must be built. Lower income countries and their partners abroad need new, lawful, politically feasible channels for migration. They

Table 1: From Root Causes to Shared Gains: A New Migration Paradigm

Outdated ideas	**Emerging Evidence**	**Policy strategy**
Labor is abundant	Global fertility has fallen below replacement; native workforces are shrinking across most regions.	Migration must be integrated into fiscal and growth strategies to sustain labor supply and productivity.
Skilled emigration is a "brain drain"	High-skill emigration can induce higher education investment, technology transfer, and market access at home.	Create bilateral *Global Skill Partnerships* and training finance systems that expand skills at both origin and destination.
Development reduces migration	Rising incomes, education, and demographic transitions initially raise emigration for decades before it levels off.	Design aid and development policy to manage and channel mobility, not to suppress it.
Migration substitutes for development	Migration and remittances can trigger long-run gains in human capital, entrepreneurship, and structural transformation.	Make mobility a core instrument of national development and international cooperation.

need new institutions to support large-scale skilled migration without 'brain drain'. They need to massively redirect development assistance away from stopping migration and toward reshaping migration for mutual benefit. And they need institutions to unlock and increase the long-term development benefits of migration and remittances, especially through human capital. All of these are detailed below.

To be sure, a cold headwind blows in the face of anyone building the institutions needed to shape migration into a greater force for economic development: The world as a whole is currently amidst a paroxysm of fragmentation and sweeping programs of anti-integration policy. One facet of this fragmentation is migration restrictions, with support for anti-immigrant politicians rising quickly in the United States, United Kingdom, Germany, Canada, and other traditional migrant destinations (e.g. World Bank 2023).

But populist waves are not a death sentence for reform. Low-income and lower-middle-income

country leaders should note that they are now almost the world's sole producers of labor (Figure 1). Labor is a globally scarce, precious resource that remains at the heart of economic growth and fiscal sustainability. And despite the ongoing wave of gains by populist politicians, a large research literature points to growing gaps between politicians' anti-immigrant actions and the beliefs of the electorate. Public opinion researchers find *rising* public support for immigration across Europe as a whole, among old and young, more educated and less educated (Goubin et al. 2022; Frattini and Pulito 2025), as electoral success of far-right parties has caused offsetting, increasing support for immigration in the broader public (Dennison and Kustov 2023). In the US public, support for increased immigration is higher today than 25 years ago; support for decreased immigration has declined over the last decade (Saad 2025). Sharp increases in immigration do generate political backlash, but also increase the population's habituation to immigrants over time (Claassen and McLaren 2022).

In other words, the present moment of fragmentation does not alter the long-term forces all but ensuring that the 21st century will remain an era of high—indeed, *rising*—international mobility from low-income countries. What is missing is innovation to meet the moment: new policies and institutions for low-income countries and their development partners to get the most benefit from this global opportunity (World Bank 2023). These include the following.

2.1 Regional free movement

In the short-term, continued populism and mass exclusion of migrants from traditional destination countries means that policy must focus on building new, safe, orderly pathways for migration. Economic development of low-income countries will create additional migration pressure on average—not alleviate it—for at least a generation or two. One of the most promising avenues to build new migration pathways is regional free movement (RFM) institutions among low-income countries, and between them and middle-income countries.

This need will become even more acute as climate change compounds demographic pressures. High income countries are currently and systematically de-funding efforts to mitigate or adapt to climate change, most notably the United States. The research literature expects higher global temperatures to have disproportionately severe impacts on low-income countries, including re-

duced economic growth (Tol 2021) and higher mortality (Carleton et al. 2022). Although climate-related displacement has been primarily domestic to date (Cattaneo and Peri 2016; Clement et al. 2021), escalating harms from climate change are likely to result in rising pressure for international migration (Smirnov et al. 2023).

But the political prospects for an explicitly climate-related legal migration channel are extremely limited. Huckstep and Clemens (2023) observe that climate-induced migration is highly unlikely to be granted a new legal category or to be wedged into the existing legal framework for humanitarian migration (refugee/asylum laws and treaties), not least because establishing that any given individual was displaced by climate change in an almost insurmountable challenge. Since family-reunification visas are also unlikely to play an important role in climate adaptation, Huckstep and Clemens argue, climate adaptation through international mobility must rely on either labor-based pathways or regional free movement.

International support for Regional Free Movement has been extremely limited. The multibillion-euro EU Emergency Trust Fund for Africa (EUTF) was established amid the rise in irregular migration to Europe in 2015, with the explicit purpose of deterring irregular migration to Europe by addressing its "root causes" (Vigneswaran et al. 2024). But the EUTF did not even attempt meaningful support for RFM within Africa: the EUTF gave no support at all to free movement protocols in West Africa and devoted just 0.3% of its resources to support free movement in the Horn of Africa region (Castillejo et al. 2019, 2; Castillejo 2019).

Low-income and lower-middle-income countries have crafted a number of initiatives for Regional Free Movement (Bisong et al. 2021; Okunade et al. 2024; Suleiman et al. 2024). The African Union in 2018 signed protocols for free movement of persons under the African Continental Free Trade Area (AfCTFA), overlapping with free-movement protocols developed by the Economic Community of West African States (ECOWAS). A system of regional free movement for some types of labor is under construction for the Association of Southeast Asian Nations (ASEAN) (Ngoc and Thuy 2023), as Nepal has sought regional free movement mechanisms for the BBIN subregion (Bangladesh, Bhutan, India, Nepal). These initiatives have not been a top priority for these countries and their development partners, and they must become one.

Such projects do not amount to simply 'opening doors'. RFM is hard work that requires large and sustained investment. It requires secure, interoperable systems for identity management; harmonized border management processes and infrastructure; mutual recognition of professional qualifications, educational credentials, and labor standards; data-sharing structures to address national security and labor market concerns; and strong inter-country mechanisms for dispute resolution, rights protection, and emergency management. ECOWAS has struggled to build a viable system of Regional Free Movement since 1979, due to a lack of clear commitment by some member states as well as little support from outside donors (Aniche et al. 2022). Building Regional Free Movement for countries with abundant labor can and should be a top priority for lower income countries and their donor partners.

2.2 New international destinations

As many traditional migrant destinations turn their backs on migration in the short run, new destinations are needed to expand safe, orderly, and regular migration pathways. Neighboring countries under Free Movement do not present the only opportunities. As discussed above (Figure 2), workers are rapidly disappearing from a range of middle-income countries—many outside the region of labor abundance.

Many of those countries with disappearing workers have, today, few immigrants. Figure 4 compares the current prevalence of immigrants as a fraction of the population (vertical axis) with the percentage-point loss in each country's workers-per-elderly during 2026–2046 (horizontal axis), for almost all countries on earth. Numerous countries will imminently lose roughly *half* their workers supporting each retired person, but today have very low immigrant prevalence of 0.7% of the population or less—including China, Brazil, Indonesia, Vietnam, Algeria, and Tunisia. A further group with similar labor force collapse, and higher but still-low immigrant prevalence of 1–6% of the population, includes Mexico, Thailand, and Peru.

The world has seen this transition many times before. In the years before World War One, the United Kingdom, Norway, and Italy were major sources of emigration; today their aging populations and small workforces produce numerous opportunities for economically beneficial immigration. In the decades after World War Two, Korea experienced large waves of emigration;

Figure 4: New Migrant Destinations? Many countries experiencing large, negative shocks to the native workforce have relatively few immigrants now

International migrant (foreign born) stock in 2024, as a percent of the migrant-destination-country population, from UN (2024a) (zero migration scenario). Loss of workers per elderly is 100 × (1 − the ratio of workers (age 20–64) to elderly (age 65+) in 2046 divided by the same ratio in 2026). It represents the percentage *decline* in the number of workers per elderly person over the next 20 years, so that countries closer to the right of the figure will lose a larger and larger fraction of their workforce—without international migration—relative to their elderly population.

it is now a prized immigrant destination. Next in line are Mexico and Vietnam, still frequently imagined as countries of emigration, but very likely to become major migrant destinations as their workforces rapidly disappear. In broad strokes, Figure 4 suggests that important new destinations for migrants are arising in some of the most developed parts of Latin America and East and Southeast Asia. Most other countries, in the short term, will lack the key traits—either incomes too low, or existing immigrant prevalence too high, or native workers disappearing insufficiently quickly—to make them a priority in this search.

2.3 Urbanization policy is also international migration policy

It has been 71 years since the great Arthur Lewis (1954) placed urbanization at the center of early economic growth in low-income countries. We now know that early economic growth is generally accompanied by rising emigration rates, particularly to high-income destinations (subsection 1.3, above). This naturally raises the question of whether urbanization itself complements international migration—as Zelinsky (1971) explicitly predicted. Should governments or donors seeking to reduce international migration pressure be concerned that policies fostering urbanization could in fact raise the pressure to emigrate?

In brief, yes. Across sub-Saharan Africa, rural-to-urban migrants are those most likely to develop intentions and plans to emigrate (Cirillo et al. 2022), so that urbanization broadly complements emigration from many low-income countries (King and Skeldon 2010; Menashe-Oren and Bocquier 2025). An analysis of 377 cities in seven developing countries suggests that in low-income countries, moving to cities tends to catalyze international migration rather than substitute for it (Lerch 2020), though this pattern can flip at much later stages of development. Although the evidence remains very weak that development assistance deters emigration in general (Clemens and Postel 2018), it is possible that aid targeted specifically to rural areas modestly reduces pressure to emigrate internationally (Gamso and Yuldashev 2018), in part by deterring rural-to-urban migration.

This widely documented pattern can help policymakers in preparing for the full, international impact of policies often crafted with a domestic focus. For example, it is now well known that in diverse contexts across the developing world, investment in transportation infrastructure such as roads increases rural-to-urban migration substantially (Jedwab and Storeygard 2022; Alder et al. 2022; Morten and Oliveira 2024). Both directly and by stimulating economic growth overall, policies of this kind can be expected to broadly and frequently facilitate rising rates of international migration. To be sure, this is not a reason to avoid such policies. Its significance is different. First, it counsels against pursuing policies to facilitate urban migration with the misplaced expectation that this will deter international migration by offering migrants an *alternative*; the evidence we have suggests the opposite. Second, it is a reason to pursue policies to maximize the benefits of international migration and remittances hand-in-hand with investments in the

urban transformation.

2.4 Training systems rebuilt for a mobile world

As discussed above, there is a powerful, accurate critique of facilitating high-skill emigration from low-income countries. Under existing systems of education finance, emigration by graduates requires fiscal drain: Emigrants take public training investments with them. This occurs when education finance is built for an immobile world, built on the assumption that people do not migrate. An alternative to blocking or vilifying skilled migrants is to innovate: To build systems of higher education finance that take global mobility as given and maximize its benefits to migrant-origin countries (Clemens 2014a).

Global Skill Partnerships (GSPs) are a pragmatic way to convert migration pressures into an engine of human capital *creation*. In a GSP, a destination government (often with employers) co-finances training in the origin country for specific, shortage occupations. Trainees choose a 'home' track (to work locally) or an 'away' track (to migrate), building skills in both places rather than being drained from one to the other. A GSP is an institution that shifts more of the responsibility for financing migrants' education to the people who benefit from it most directly, and—structured correctly—can *raise* skill stocks at the origin on net.

This model—originally proposed by Clemens (2015)—was prominently endorsed by the World Bank (2023) as a form of bilateral cooperation that better matches skills to labor demand and shares gains between countries. In practice, GSPs (and close cousins) have moved from concept to execution: Belgium-Morocco's PALIM pilot trained Moroccan ICT graduates for jobs in both Morocco and Flanders, Australia's PALM scheme couples large-scale lawful mobility from Pacific states with funded skills development, and Germany's 'Triple Win' program trains and recruits nurses with structured language, credentialing, and employer support (World Bank 2025).

For lower-income countries, the case is both economic and fiscal. First, GSPs directly expand the supply of scarce skills at home because the training is delivered domestically and is deliberately sized for both tracks; the destination's funding and technology lower the origin government's budget burden while raising the local stock of trained workers (World Bank 2023, 2025). Second,

lawful, targeted migration through GSPs yields sizable remittances and business links that are reliably pro-poor and macro-relevant in small economies (as seen in the Pacific under PALM), while mitigating irregular flows by opening a predictable, regulated channel. Third, because employers at destination pre-specify skills, placement is quicker, earnings are higher, and on-the-job upskilling is more transferable—features that raise the NPV of public co-financing compared to generic training subsidies (World Bank 2025). A simple example: Morocco trains 120 ICT graduates with Belgian co-finance, 40 on the 'away' track (as in PALIM), Morocco retains 80 newly trained workers while also receiving remittances, returnees with experience, and firm-to-firm ties seeded by the 40 abroad—an investment whose returns accrue to both labor markets.

Common concerns are manageable by design. Worries about 'brain drain' are addressed because the home track is built in and financed up front; training volumes are set to exceed expected departures, so the domestic stock of skills rises (not falls) (Clemens 2015). To protect workers and safeguard public reputation, programs incorporate pre-departure language and rights training, international recruitment standards, recognition-of-qualifications pathways, and employer monitoring—routines embedded in Germany's programs and now replicated elsewhere . Concerns about feasibility—procurement, curricula, selection, and financing—are easing as proven models accumulate and by cost-sharing with destination employers who face quantifiable vacancy costs (World Bank 2025). In short: GSPs are investable (co-financed and modular) as well as feasible (World Bank 2023).

Innovation is difficult, and resistance to this sort of innovation is high. Higher education systems are often deeply entrenched. But we must pause to consider the alternatives. In a world of drastic imbalance between the demand and supply of labor, migration will occur. The only question policymakers face is *on what terms* it will occur. Will it be irregular, uncontrolled migration for low-skill work, further increasing migration barriers by more destination countries? And if it is regular, controlled migration for high-skill work, then someone must finance it. GSPs offer a feasible way to ensure that necessary and certain migration occurs on terms that are relatively popular in destinations, with costs borne mostly by those who directly benefit from services, and in a way that need not deplete but can actually raise skill stocks at home.

A key ingredient to the feasibility of expanded GSPs arrived in 2021, with little fanfare. Health

workers frequently offer a major opportunity for GSPs (World Bank 2025). But earlier iterations of the World Health Organization's *Code of Practice* for ethical recruitment had been frequently interpreted to bar any kind of international agreement designed to facilitate health-worker migration from most low-income countries. Such interpretation had been the basis for health-worker recruitment bans, for example, by the United Kingdom and Germany. This changed in 2021. Both the World Health Organization and the UK government revised their recruitment guidance to explicitly allow for agreements, like GSPs, that are bilaterally accepted by migrant origins and destinations (Clemens and Dempster 2021). GSPs for nurses and other health workers, properly designed, are now understood to comply fully with the *Code of Practice*. GSPs are a clear, ethical alternative to uncontrolled high-skill migration financed exclusively by low-income origin countries—that is, the kind of migration that GSPs were designed to replace.

2.5 Restructuring aid partnerships for bilaterally-regulated migration

More generally, lower income countries require aid partnerships that shift emphasis sharply away from the near-universal goal of deterring migration. Development assistance, when it successfully fosters development in low-income countries, typically *raises* the demand for emigration. Low-income countries cannot 'develop' their way out of migration pressure, at least on a timescale of multiple generations. On a timescale that is meaningful to most policymakers, lower income countries need development assistance to shape migration for tangible, mutual benefit. Bilateral labor agreements have been proven to raise labor mobility in general, but the effects for low-income countries specifically have been muted by a lack of migrant-origin-country institutional infrastructure to manage those agreements well (Adhikari et al. 2024). Building that infrastructure requires investment, and often assistance.

But such assistance is near zero as a share of development aid overall. Consider again the EU Emergency Trust Fund. Its explicit and obvious goal was to reduce migration pressure from Africa to Europe (e.g. Vigneswaran et al. 2024). But remarkably, the European Court of Auditors (2024) finds that EUTF funds have been allocated across African countries with little regard to relative migration pressure, and no data have been collected that could evaluate the effects of the fund on migration to Europe. What is known is that almost no EUTF resources sought to foster safe, orderly, and regular migration pathways as a deterrent to irregular migration. Less

than 1.5% of the Trust Fund was directed at facilitating regular migration to destinations outside Africa (Kervyn and Shilhav 2017). So in the largest single effort to deter irregular migration with foreign aid in recent history, we see no evidence that it did deter migration *to any degree*. And we see close to zero resources to channel migration into regular pathways for mutual benefit across the demographic chasm apparent in Figure 1.

There are abundant models for how to do better. In 2007, New Zealand's bilateral aid agency—together with the World Bank and developing Pacific Island governments—launched the Recognized Seasonal Employer (RSE) program. This program assisted New Zealand employers with hiring necessary migrant labor from Pacific Island states. A rigorous and prospectively designed impact evaluation found that participating home-country households in Tonga and Vanuatu saw incomes rise 30% relative to otherwise identical non-participants—along with increased subjective well-being, savings, financial inclusion, and children's school completion.

Such "*development impacts that dwarf those of other popular development interventions*" (Gibson and McKenzie 2014) made the RSE program "*among the most effective development policies evaluated to date*" (Gibson and McKenzie 2010). But this program was controversial at the outset, with many observers in the region questioning the involvement of NZ Aid and the World Bank in a project whose goal was to *facilitate* migration. This mentality is simply outdated. Starving the RSE program of resources in favor of some other project, these evaluations determined, would have resulted in less effective interventions. Migration is both a symptom of development and a cause of development, as well as an opportunity for shared benefit between origin countries and destination countries. It is exactly what aid resources should be supporting, not exclusively but in substantial measure.

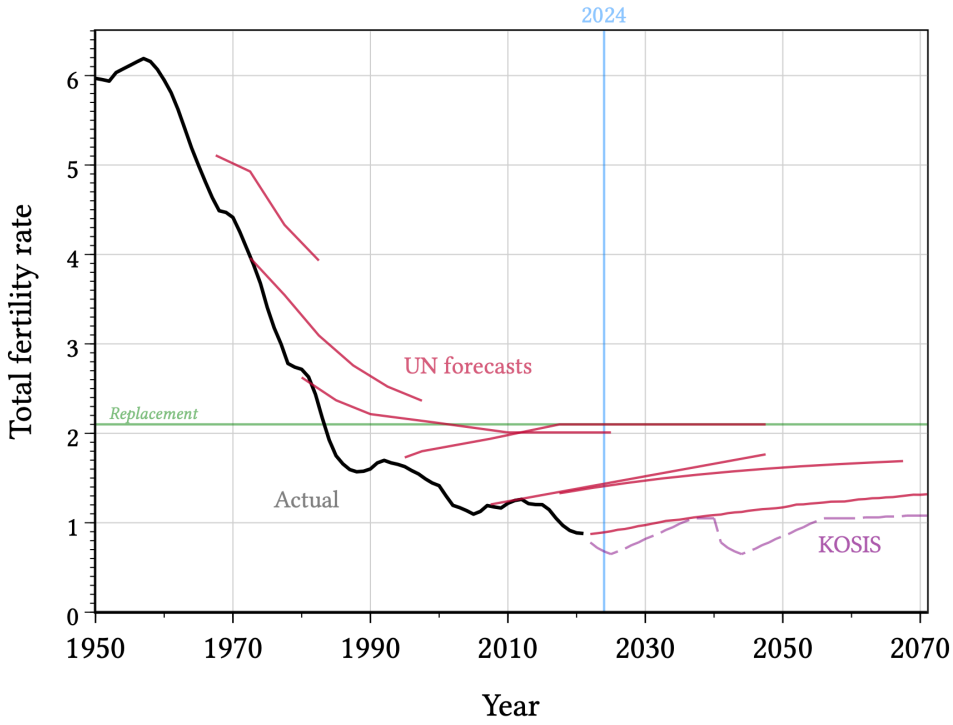
Such programs do not arise of their own accord. All mutually beneficial migration programs discussed herein—RSE, PALIM, and others—have required financial and technical assistance in origin countries to get started. Only aid agencies, bilateral and multilateral, have the institutional capacity to play this crucial role. Immigration ministries do not have the mandate, labor ministries do not have the global presence, interior ministries do not have the development experience.

Lower income governments must insist on truly shared governance of migration within well-defined bilateral or multilateral agreements, along with the aid resources and training they need to implement their part. Many of the ills commonly associated with labor migration, especially unethical or illegal recruitment practices, occur in large part due to unilateral regulation—with little role or capacity for migrant-origin country governments to conduct or regulate recruitment. This is the root cause of frequent abuses of workers recruited for temporary work between Mexico and the United States, under visas regulated unilaterally by the United States. The Mexican government plays no role in, and de facto does not regulate, recruitment in Mexico for those visas. Abuses are far more limited in recruitment of similar workers in Mexico for seasonal labor in Canada, which is carried out by the Mexican Ministry of Labor and governed by a series of bilateral agreements since 1974 (Clemens et al. 2016). An example of notable success in promoting ethical recruitment of migrant labor is Korea's Employment Permit System, regulated under bilateral agreements with 16 countries (Cho et al. 2018).

Ethical management of labor migration requires enforcement of the law, and enforcement of the law for people moving between countries inherently requires bilateral regulation. 152 countries endorsed this inescapable necessity in the Global Compact for Safe, Orderly, and Regular Migration (para. 15b & 21b UN 2019). For lower income countries, fulfilling their part of bilateral regulation requires assistance. Assisting the creation, expansion, and ongoing operations of bilateral migration agreements should be a major focus of international development assistance.

But today this priority begs for pennies. The Migration Multi-Partner Trust Fund, set up to finance bilateral and multilateral cooperation to implement the Global Compact, has received just US$65 million cumulatively since 2019, an infinitesimal sliver of global development assistance (UN 2025). Building bilateral cooperation will require drastically greater commitments to this form of assistance, at the expense of outdated and less effective efforts. Effective bilateral cooperation requires work, human capital, and finance. It requires new forms of interministerial coordination and international protocols to recruitment law violations, skill recognition, migrant family emergencies, worker-employer disputes, revenue sharing, and a range of other tasks. These will not happen without dedicated and empowered staff in both origin and destination countries.

Figure 5: Fertility in Korea, Forecasts vs. Reality: Korean childbearing in UN predictions (1968–2072) and in fact (1950–2022)



Source: Clemens (2024). "Actual" outcomes for Korea, in solid black, are taken from the UN *World Population Prospects* (WPP) 2022 revision. UN forecasts for Korea in solid red, are taken from the WPP 1968, 1973, 1984, 1994, 2004, 2014, and 2022 revisions. The 2023 "KOSIS" forecast is from Statistics Korea.

2.6 Beware magical thinking

Acceptance of the new global migration landscape is far from universal. Policy discussions of this topic often turn to policymakers' latest schemes to increase birth-rates. Pronatalist policies are a perennial political favorite in countries experiencing demographic decline.

Korea, for example, continues a policy of large cash payments to new mothers, alongside other pronatalist measures. Figure 5 compares the historical trajectory of actual fertility in Korea (the thick black line) to United Nations projections of future fertility at several historical moments (the thin red lines). For multiple generations, analysts seem to have been convinced that Korea's fertility collapse will slow or even reverse. Each time that did not happen, they convinced themselves that it would happen a few years later. It never did. Now, forecasts by Statistics Korea (the

dashed purple line) seem to have finally accepted the reality of sustained low fertility into the future (Clemens 2024).

This pattern is not specific to Korea, but global. Pronatalist wishes and policy measures have broadly and conclusively failed to substantially reverse the disappearance of workers at a global level. Ouedraogo et al. (2018) find no evidence in cross-country data that pro-fertility policies show any quantitative association with rising fertility rates. In the places of fastest demographic decline such as East Asia, Lee (2016, 108) concludes that pronatalist policy categorically is not "likely to have a major impact on fertility."

Even setting aside that broad conclusion, note that even sharp increases in fertility today—achieved by some unknown and unprecedented policy—*cannot* affect the demographic decline displayed in Figure 2 and Figure 4. They show changes in the population that is working age, defined as age 20–64, over the next 20 years. No baby born today *can* affect the size of the workforce age 20 and above, within 20 years. All changes in the workforce age 20+ over the next 20 years were set in stone by fertility changes that occurred before today. Those figures display changes that are immune to fertility policy changes of any sort, even hypothetical.

The workforce of many high-income and middle-income countries is vanishing, this outcome is certain, and it is time for policy to rest on reality. The time for magical demographic thinking is over. We now live in a world where new workers will come almost entirely from low-income and lower-middle-income countries, presenting a vast and historic opportunity for mutually beneficial exchange between those countries and those now racing through or completing workforce collapse. What we lack are the institutions needed to seize this opportunity.

3 Research Gaps: What to Learn Next

Many unknowns, however, remain. The preceding sections have outlined why the economics of global migration are shifting, and why low-income countries should prepare for a future in which labor mobility plays a larger role in growth, fiscal sustainability, and resilience. While the evidence base on many of these issues has grown rapidly, significant gaps remain. Addressing these gaps is urgently needed to shape billion-dollar investment choices in education, training,

infrastructure, technology, and development assistance. This section highlights a handful of the many areas where further research could either enrich or challenge the arguments made here, helping lower income countries design migration policies that are grounded in robust evidence.

3.1 What will be the effect of rapid technological change on migration pressure?

We are currently witnessing the rapid adoption of artificial intelligence in advanced economies, an inflection point in global technological change. A major unknown, in the research literature and in the analysis above, is how that revolution will reshape the relationship between labor, output, and income distribution worldwide over the decades to come. In some sectors—such as elder care, construction, and many personal services—physical presence will remain essential, leaving migration demand relatively intact. In others, like parts of business services and some manufacturing tasks, migration opportunities could shrink. Understanding these dynamics is critical to planning long-term strategies for skills investment, social protection, and diversification of labor export markets

The answers are not obvious. Artificial Intelligence, industrial robots, and related technologies clearly have the potential to reduce the *marginal* product of some types of labor (Ribeiro and Prettner 2025). But they have the offsetting potential to augment the marginal product of other types at the level of entire economies (Autor 2024; Autor and Thompson 2025).

But there is a common tendency for today's observers of migration policy to posit that artificial intelligence will systematically replace labor, necessarily reducing the demand for immigration by countries in demographic decline. While this is possible, particularly in some sectors, the case that technological change by itself can offset or reverse demographic decline has not been sufficiently examined.

This question requires much more research, especially quantitative research. Here I conduct an exploratory quantitative exercise to illustrate the extreme magnitude of technological change that would be necessary to offset the current, unprecedented demographic collapse of many advanced-economy workforces.

Table 2: TFP growth required to maintain GDP growth under zero migration after 2025

	Past 2005–2024			Future 2026–2046			
Growth in:	K/L	TFP	GDP	Labor	**TFP**	TFP vs. past	
						diff.	*mult.*
France	0.89	0.06	1.05	−0.43	**0.58**	0.52	9.1
Germany	0.59	0.37	1.08	−0.98	**1.47**	1.09	3.9
Italy	0.44	−0.01	0.22	−1.51	**1.28**	1.29	—
Japan	0.58	0.23	0.43	−1.42	**1.27**	1.04	5.6
Spain	1.80	−0.07	1.09	−1.42	**0.70**	0.78	—

Units of the first six columns are percent growth per year; column 7 is the ratio of column 5 to column 2 (required future TFP growth to past TFP growth). Data from the OECD (2025) *Productivity Database*, except workforce growth projections (age 20–64) from the UN (2024b) *World Population Prospects*, medium variant zero-migration scenario. Assumes capital deepening in the future period identical to in the past period, and no direct effect of aging on TFP.

How much would artificial intelligence need to raise the growth rate of total factor productivity (TFP) to prevent workforce decline from slashing economic growth? Consider the most straightforward Cobb-Douglas form for the production of output $Y = AK^{\alpha}L^{1-\alpha}$, where A is TFP. The growth rate of per-capita output $y \equiv Y/L$ is $g_y = g_A + \alpha g_{K/L}$, and the growth rate of output Y is $g_Y = g_L + g_y$. Suppose that workforce growth slows to the future, zero-immigration workforce growth $\hat{g}_L^f$, which is negative for a shrinking workforce. Then future GDP growth $\left(g_Y^f\right)$ can only equal past GDP growth $\left(g_Y^p\right)$ if per-capita growth reaches $g_y^* = g_Y^p - \hat{g}_L^f$, which in turn requires future total factor productivity growth of $g_A^f = g_y^* - \alpha g_{K/L}^f$. Suppose that capital deepening in the future period $\left(g_{K/L}^f\right)$ remains what it was in the past period $\left(g_{K/L}^p\right)$.

These assumptions yield a simple expression for TFP growth required to keep GDP growth constant in the two periods:

$$g_A^f = \left(g_Y^p - \hat{g}_L^f\right) - g_{K/L}^p. \tag{1}$$

That is, in order for GDP growth in the future period to equal GDP growth in the past period, TFP growth must equal the GDP per worker growth needed to offset the declining workforce *without migration*, minus the past contribution of capital deepening.

This required TFP growth can then be compared to recent, real TFP growth. This is informative about the magnitude of the increase that technological change must create in order to prevent

stagnation in economic growth. Table 2 estimates this required TFP growth, from equation (1), for selected advanced economies. The first three columns shows $g^p_{K/L}$, g^p_A, and g^p_Y in the past 20 years, in percent per year. The fourth column shows expected future workforce growth in the next 20 years, without migration. The fifth column shows necessary TFP growth g^f_A from equation (1). The sixth column shows the difference, in percentage points, between the necessary TFP growth (col. 5) and actual recent TFP growth (col. 2). The last column expresses the same TFP gap as a ratio.

This exercise suggests that in the absence of migration, TFP growth would need to accelerate *massively* in order to maintain GDP growth in key economies as their workforces shrink. Relative to recent real TFP growth, future TFP growth would need to immediately jump to a much faster rate and stay there for the next 20 years. TFP growth would need to accelerate by a factor of 3.9 in Germany, a factor of 5.6 in Japan, and a factor of 9.1 in France. In Italy and Spain this multiple cannot be calculated, because TFP has *fallen* over the past 20 years.

Are Artificial Intelligence (AI) and related technologies capable of causing TFP growth to jump, immediately and permanently, by an order of magnitude? No reasonable economist would claim to know the answer. But it is not at all obvious, given the information we have, that this is possible or close to possible. Acemoğlu (2025) uses *existing* evidence on the effect of task-level exposure to AI to estimate that it implies raising *annual* TFP growth by 0.06% over the next 10 years—noting that "even these estimates could be exaggerated". This is a sliver of the additional growth needed, in column 5 of Table 2, to prevent stagnating GDP growth. Further evidence could reveal that this is conservative, even drastically conservative, as Acemoğlu recognizes. But assuming that it is possible without evidence amounts only to enthusiasm.

This is just the beginning of a large and critical research agenda. Yet it does suggest that casually dismissing global labor imbalances with the wave of a hand, asserting that AI will obviate the need for labor in short order, is facile and premature. Much more research, especially quantitative macroeconomic research is needed.

The simple calculation in equation (1) and Table 2 is highly conservative in two senses. First, it assumes that capital investment will continue in the future equally to the past, so that capital

deepening over the next two decades will be equal to capital deepening in the past two—despite the declining workforce. Mainstream forecasts typically expect a slowdown in investment in these countries. Future work could compare current forecasts of capital deepening to systematic gaps between past forecasts and realized outcomes (Ech-charfi 2024). Accounting for that would raise further the TFP growth required to offset aging. Second, it assumes that population aging by itself has no effect on TFP (discussed below). Any negative effect of an aging workforce on TFP would raise still further the acceleration in TFP growth required to maintain economic growth.

3.2 What are the effects of a shrinking workforce, and a shrinking economy, on productivity?

With lower-income countries as almost the sole global producers of new labor (Figure 1), the magnitude of the economic opportunity presented to those countries depends on how the demand for migration evolves with demographic change. Apart from the mere absence of workers, population aging can shape the productivity of each worker remaining (Feyrer 2007). Aging can affect the creation and adoption of new technologies, the incentives for entrepreneurship, and the relative supply of cognitive versus manual human capital. Batog et al. (2019, 39) estimate that population aging in Central and Eastern Europe will slash 0.37 percentage points from TFP growth between 2020 and 2050.

There is widespread recognition that without sharp changes in the creation and allocation of global labor, many leading economies are headed for stagnant GDP growth or even ongoing shrinkage. Analysts at the Bank of Korea now project a high likelihood of negative Korean GDP growth into the indefinite future, starting in the late 2040s (Clemens 2024). Should advanced economies shrug off this decline, since for some it will be accompanied by a shrinking population and thus—mechanically—remained compatible with rising welfare for the people who remain? Jones (2022) suggests that shrinking populations could have difficulty sustaining income growth *per capita*. He examines how the non-rivalry of ideas means that more researchers generate more innovations that benefit everyone, while a shrinking population reduces the absolute number of innovators, creating a vicious feedback loop.

Much more research is needed at this crucial juncture. Separate from how technological change might shape the relationship between labor and production at a global level, aging itself may reshape that relationship. The latter effect, too, is central to how scarce or abundant lower income countries' labor will be at a global scale over the next generation. Better answers are central to forward-looking, migration-related investments by lower income countries now. But the literature is far too thin.

3.3 The potential and pitfalls of new destinations

Much of the global discourse on migration focuses on traditional high-income destinations. Yet many middle-income countries face steep demographic declines, rising old-age dependency ratios, and persistent labor shortages—but currently host few migrants (Figure 4). These "new destinations" could become major sources of opportunity for migrants from low-income countries. For origin countries, diversifying migrant destinations can reduce over-reliance on a small number of corridors, lower vulnerability to policy shocks, and open new remittance channels.

But the absorptive capacity of new destinations varies, far beyond the blunt metrics of Figure 4. Voters' views of immigration may be less favorable than in some traditional destinations, labor-market institutions may be weak, and capacity for recognition of foreign qualifications limited. In the absence of much greater investment in the institutions that shape migration for shared benefit, the result could be lower migrant earnings, higher informality, and weaker development spillovers.

Comparative research is needed to identify which middle-income countries combine demographic need, economic capacity, and institutional readiness to integrate migrants effectively. This could inform targeted bilateral agreements and investment in pre-departure training that match the specific labor demands of these emerging markets. The analysis above suggests that the most promising places to look may lie in parts of Latin America and East and Southeast Asia where the native workforce is already collapsing.

3.4 What are the binding constraints on mobility, and how to alleviate them?

Research is just beginning to understand what constrains international migration. It is not simply walls and visa quotas: Migration from Mexico to the United States, for example, was relatively low during the long historical period when migration enforcement at the US Southwest border was limited (until 1953) and there was no numerical quota on Mexico-US immigration (until 1968) (Clemens 2022d). A major research agenda surrounds understanding better what constrains international mobility now, and what policies can unlock it and shape it for mutual gain in different settings. Below is a partial list of avenues for future research, due to Mobarak and Haque (2024):

- *Paperwork and visa constraints*: International migration is often suppressed by heavy administrative burdens that make legal mobility slow, costly, and uncertain. Even when large wage gains are available, cumbersome visa-processing rules and binding minimum-wage or labor-market tests restrict who can access foreign jobs (Clemens et al. 2019). But policy interventions designed explicitly to alleviate those constraints have had limited effects, meriting further investigation (Beam et al. 2016).

- *Intermediation costs and credit constraints*: Prospective migrants in low-income countries frequently face high fees charged by recruitment intermediaries as well as large up-front costs for training, travel, and documentation. These expenses interact with liquidity constraints, making it difficult for poorer workers to take advantage of high-return migration pathways (Mobarak et al. 2023).

- *Monopsony power and employer mistreatment*: Employer-tied visas and restrictive sponsorship systems can give employers excessive bargaining power, enabling contract substitution, underpayment, or poor working conditions. Such risks deter many potential migrants and dampen the welfare gains of those who do migrate (Shrestha and Yang 2019; Barsbai et al. 2025; Naidu et al. 2016).

- *Fraudulent intermediaries*: In many migration corridors, prospective migrants confront recruiters who misrepresent job conditions or charge illegal fees, raising both the financial and psychological risks of mobility. These deceptive practices significantly erode trust and

reduce uptake of legal migration pathways (Bazzi et al. 2026).

- *Non-monetary disutility of migration*: Beyond financial considerations, many individuals experience sizable declines in subjective well-being upon migration—stemming from social dislocation, loneliness, or stress. These non-pecuniary costs can reduce net welfare gains dramatically and explain why many offered job opportunities still choose not to migrate. (Naidu et al. 2026; Stillman et al. 2009, 2015). McKenzie (2024) highlights two understudied behavioral forces, "fears" arising from deep uncertainty and "tears" stemming from emotional attachment to place and status quo bias, as major reasons why people remain in low-productivity locations even when moving would raise their welfare. In general, recent research suggests that people make migration decisions in ways far more complex than simply maximizing expected earnings (e.g. Batista and McKenzie 2023).

- *Language and skill barriers*: Migrant candidates often lack the language proficiency or sector-specific skills required in destination-country labor markets, lowering pass rates on required exams and increasing the costs and uncertainty of migration preparation. As a result, even large numbers of available visas remain unfilled despite high returns to migration (Mobarak and Haque 2024; Clemens and Tiongson 2017).

This research collectively suggests that enhancing international labor mobility is far more complex than simply 'opening gates'. Much more research is needed, in different contexts, to elucidate which public actions do or do not substantially facilitate labor mobility, on what terms.

3.5 Macroeconomic effects of Regional Free Movement, including under climate change

Regional Free Movement (RFM) agreements remove legal barriers to mobility within a bloc. These can yield substantial macroeconomic benefits by allowing labor to flow to where it is most productive, smoothing shocks across member states, and increasing resilience to localized downturns (Bisong et al. 2021). For climate-vulnerable regions, RFM can also serve as a planned adaptation mechanism, enabling those displaced by droughts, floods, or storms to move in search of work without falling into irregular channels (Huckstep and Clemens 2023). In a fragmenting world where barriers prevent mobility to some traditional destinations, RFM agreements present

a key alternative to new, faraway global destinations for migrant workers.

Despite their promise, the macro effects of RFM areas in low-income regions remain understudied. Little research quantifies how GDP, employment, and fiscal balances would differ under RFM compared to status quo border regimes—especially when climate shocks are considered. Research should also examine distributional effects: how do sending and receiving countries within an RFM bloc fare in terms of wages, inequality, and public services? Robust evidence on these questions would allow finance ministries to weigh the fiscal costs of harmonizing regulations and benefits systems against the growth and stability gains from freer movement.

3.6 What shapes the short- and long-term benefit of remittances?

Remittances are one of the largest and most stable external financial flows to low-income countries, often exceeding foreign direct investment and aid. It is now broadly known that in the short run, remittances boost household consumption, reduce poverty, and improve access to education and health care. Less known is the evidence reviewed above: that over the long run, migration and remittances can have lasting effects on economic development in low-income areas by shaping human capital investment and structural transformation.

Two important gaps in the literature today stand out from many others. The first is that we still lack a clear understanding of the multiplier effects of remittances—that is, the effects of remittances on people who do not themselves receive remittances. As a general rule, the vast majority of remittances are spent on food, schooling, medical care, construction, ceremonies, and other domestically-supplied goods and services. Remittances are not generally or largely spent on imports. This implies that remittances should have a multiplier effect on local economies, as the construction workers paid with remittances then spend their wages at local shops, whose owners purchase other goods and services, and so on ad infinitum. These multiplier effects have been occasionally studied within general equilibrium models (e.g. Karpestam 2012), input-output matrices requiring numerous assumptions (e.g. Glytsos 1993; Perez-Saiz et al. 2019), and in cross-country regressions (e.g. Giuliano and Ruiz-Arranz 2009; Nyamongo et al. 2012; Bettin and Zazzaro 2012; Meyer and Shera 2017).

These pioneering investigations have suggested a remittance multiplier of greater than unity, often in the range 1.2–1.5. But the magnitude of those estimates should be interpreted with caution due to the possibilities of model misspecification and endogeneity bias. The remittance multiplier has received little investigation via what Card (2022) calls design-based research—studies that seek causal identification in natural or designed experiments with specific and largely testable characteristics. A rigorous and design-based study of unrequited philanthropic cash transfers to Kenya—not identical to remittances but close—finds a multiplier effect of 2.5 (Egger et al. 2022). This suggests that almost the entire research literature on the impacts of remittances at the level of recipient households may substantially understate the broader economic effects of remittances, even in the short run. Policymakers' efforts to extend remittances should be guided by not just well-identified estimates of this short-run impact but what policies can expand the multiplier effect.

Second, although it is clear from recent research that remittances can have long-term development impacts, we have limited understanding of what shapes that long-term impact. Key factors appear to include the depth of domestic financial systems, the investment climate, macroeconomic stability, and the cost and reliability of remittance channels. Policies that channel remittances toward productive uses—such as matching-fund programs, diaspora bonds, or targeted financial literacy—may raise their long-term growth payoff. But evidence on the *long-term* interaction between such tools and the generational payoff to migration is quite limited. The literature contains mixed results on even the short-term potential for diaspora bonds (Akkoyunlu and Stern 2018; Rustomjee 2018; Dolan and Zeitz 2024), matching funds (Malone 2020), and related policies. Ambler et al. (2015) show promise in innovative institutions that channel remittances directly into human capital investment. More evidence is needed on which combinations of policies and market conditions shape the impact of migration capital on productivity.

3.7 What is the macro potential for Global Skill Partnerships?

Skilled migration is not synonymous with 'brain drain'. Modern research suggests that new institutions can shape high-skill migration for 'brain gain' to lower-income countries of migrant origin. For example, Global Skill Partnerships (GSPs) are cooperative agreements in which origin and destination countries jointly invest in training workers, with some graduates migrating and

others staying to meet domestic needs (World Bank 2023, 2025). Early pilots suggest they can expand skill supply in both countries, align training with actual labor-market demand, and provide predictable, regulated migration pathways. For origins, they can also raise human capital stocks and generate fiscal returns through both remittances and higher domestic productivity.

Yet the macroeconomic potential of GSPs remains largely unquantified. Key unknowns include the scale at which they can operate sustainably, their cost-effectiveness compared to other forms of skills investment, and their long-term impacts on wage structures and sectoral development at origin. Finance ministries need models that simulate the fiscal and growth effects of GSPs under different assumptions about program scale, financing arrangements, and migrant retention or return rates. This would enable informed decisions about when and how to deploy GSPs as a development tool.

This research is urgently needed. Global demographic imbalances ensure that migration will occur in some form, and skilled migration is by far the form with the benefits most tangible to destination-country voters (World Bank 2023). It is a strategic mistake for lower-income countries to design systems of education and training as if mobility will not occur. But we know too little about exactly what forms of innovation will most beneficially seize this opportunity, and how best to implement and scale existing proposals.

3.8 At what point does development come to deter further migration, in different countries?

Empirical research finds that emigration rates often rise with income up to a certain threshold, after which they decline—a relationship sometimes called the "migration transition" or "emigration life cycle" (Clemens 2020). This reflects the fact that economic development typically comes with more disposable income, higher education relative to local opportunity, surging cohorts of young workers, and other factors that complement higher emigration rates. At some point this relationship flattens or reverses, as the relative wage gap with destinations falls and domestic opportunities rise. But the level of income at which this turning point occurs varies by country, depending on demographic structure, education levels, and the distribution of growth across sectors and regions.

For planning purposes, ministries need country-specific estimates. Such estimates would help in forecasting the evolution of migration pressure under different growth scenarios and in designing policies that manage migration sustainably through the transition. Research should aim to update and refine global inverse-U estimates with disaggregated data, accounting for age structure, urbanization, and educational attainment. This would move the concept from a stylized fact to a practical tool for medium- and long-term policy planning.

4 Conclusion

The choice facing lower-income-country policymakers is not whether migration will occur. Demographic forces have already determined that. The choice is whether migration will unfold chaotically through irregular channels or flourish through well-designed institutions that multiply its benefits to origin and destination countries. The global division between countries producing workers and countries needing them represents not a crisis of incompatibility, but an unprecedented opportunity for mutually beneficial exchange that could define this century's development success stories. Just as the mass migrations of the 19th and early 20th centuries helped forge today's prosperous economies without impoverishing their origins, so too can today's mobility transitions—if supported by the right institutions—simultaneously address the fiscal strains of aging societies and accelerate structural transformation in lower-income countries. The research reviewed here suggests that the greatest risk is not that migration will reshape economies, but that outdated policies will squander a historic moment when labor scarcity and labor abundance could have been harnessed for shared prosperity across the demographic divide.

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