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The impact of international migration on the economy of developing countries

Abstract. In the research, we study theories which reflect international migration initiation that describe migration decisions or situations independent from structural or individual factors which originally caused migration. We outline a variety of influences on the host country's economy by the migrants and focused on: migrants-workers, migrants-students, migrants-entrepreneurs, migrants-consumers, migrants-savers, migrants-tax-payers. The research finds that contribution which immigrants can make to the economy of their host countries depends on such factors: the socioeconomic characteristics of the immigrants themselves; immigration status and labor rights; level of integration into society; economic environment of the country of destination; policies and institutional environment. We made a correlation analysis and built a correlation matrix between GDP per capita growth and migrants' remittances for some developing countries that showed strong direct level of correlation.

The research showed that there is a strong direct correlation between the remittances of migrants from the developed countries and the growth of GDP per capita in the developing countries. The strongest link is observed in India, Nigeria and Philippines - in the countries, most dependent on remittances from migrants. In our research we confirmed that India, China, Mexico, Philippines and Nigeria benefited in GDP per capita due to migrants' remittances.

We developed priorities for the policy of migration countries the base of which should be adaptation of the migration policy to labor market needs; protection of migrant's rights and nondiscrimination; investment into integration of migrants; leveraging the impact of migration on the economy; and monitoring the economic impact of migration.

JEL Classification: F22; R23

Keywords: International Migration; Labor Market; Labor Mobility; Migrants' Contribution; Migrants' Remittances; Host Country; Economic Contribution

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Вплив міжнародної міграції на економіку країн, що розвиваються

Анотація. У статті досліджено теорії, що відображають появу міжнародної міграції, які описують міграційні рішення або ситуації, незалежні від структурних чи індивідуальних факторів, що спонукають міграцію. Автори окреслили різні види впливу мігрантів на економіку приймаючої країни та зосередилися на: мігрантах-робітниках, мігрантах-студентах, мігрантах-підприємцях, мігрантах-споживачах, мігрантах-заощадниках, мігрантах-платниках податків. У дослідженні встановлено, що внесок іммігрантів в економіку приймаючої країни залежить від таких факторів, як: соціально-економічні характеристики самих іммігрантів; імміграційний статус і трудові права; рівень інтеграції мігрантів у суспільство; економічне середовище країни призначення; політика та інституційне середовище. У статті проведено кореляційний аналіз і побудовано кореляційну матрицю між зростанням ВВП на душу населення та грошовими переказами мігрантів для деяких країн, що розвиваються, який показав сильний прямий рівень зв'язку.

У дослідженні розроблено пріоритети для міграційної політики країн, основою яких має бути адаптація міграційної політики до потреб ринку праці; захист прав мігрантів та недискримінація; інвестиції в інтеграцію мігрантів; посилення впливу міграції на економіку та моніторинг економічного впливу міграції.

Ключові слова: внесок мігрантів; грошові перекази мігрантів; економічний внесок; міжнародна міграція; приймаюча країна; ринок праці; трудова мобільність.

1. Introduction

In last few decades migration has become a factor in the promotion of international development of economy. Migrants have ties with their country of origin, their initial household there (by remittances, investment, lobbying) and the home community is the main channel of migration contribution into the migrants' native economy development. Migrants realise exchange of money, knowledge and ideas between the host and home countries. Remittances are the most important contribution of international migration for the developing countries. The volume of such remittances has reached a significant dimension at global levels. These flows have become an important source of foreign exchange and financing for many developing countries. They are arguably less volatile than other capital flows such as portfolio investment, foreign direct investment and official foreign aid.

G. Barnett and Y. Nam (2023) investigated the international migration network and its changes. The findings suggest that certain core countries play pivotal roles in shaping global migration by providing economic opportunities or political refuge. The study also examined the networks of antecedent factors that reflect both structural factors, such as geography, language, colonial history, political stability and economic differences, as well as transnational interactions, including student flow, trade, Internet flow and remittance, in relation to the international migration network.

D. Massey (2023) foresaid an acceleration of migration between developing and developed regions composed increasingly of people moving to evade threats at places of origin rather than to access opportunities at places of destination. The coming decade will require a better theoretical integration of refugee and migration studies, close attention to the trade-offs between internal and international migration, and a greater effort to theorize how states will behave in adapting to the realities of migration in an era of climate change.

S. Tsegay (2023) indicated that migration is not only a contested concept, but migration research has resulted in different outcomes. Migration is mainly affected by personal, socio-economic, and political factors associated with the origin and host countries. A researcher outlined the importance of the status of migrants, and what would happen after migrants obtain host country citizenship: would they continue to be migrants, the host countries' citizens, or both.

F. Adamson, E. Chung and J. Hollifield (2023) outlined the main features of the ideal-typical liberal democratic migration state before discussing the extent to which it can be used to describe

and theorise a wider variety of migration states, paying attention to the particularities of state development across different cases and regions, but also looking forward to how imperial and colonial legacies may shape future state responses to managing migration and mobility.

L. Lesejane (2022) argued that migration benefits both the place of origin as well as the new area, town or country. The economic benefits take place when migrants transfer or send money home through different remittance channels such as commercial banks and retail money-market by means of electronic transfer. This research investigated the relationship between internal migrant remittances and financial inclusion among households and whether remittance-receiving households differ from non-remittance receiving households in terms of their use of formal savings instruments and other financial products.

Not all aspects of migration are beneficial for developing countries. Migration may impose a high cost for developing countries by leaving the country without the human capital necessary to achieve long-term economic growth. At the same time human capital flight may impose a significant economic burden for developing countries as migrants take with them the value of their training, which is often subsidised by governments with limited resources. While migration impacts development, economic conditions are important drivers of migration. People migrate for a variety of reasons including the search for better economic opportunities, education, family reunion and escaping violence. People often migrate for a combination of these and other reasons. However, the expected income gap between developed and developing countries is a strong incentive for people to migrate. As such, migration affects development, but development also affects migration.

2. Methodology

Methodology reflects the purpose of the research. On the one side, migration research relies largely on quantitative approaches. On the other side, anthropology focuses largely on qualitative fieldwork as in case of future migration processes contribution research. Recently, researchers have more often resorted to mixed-method approaches for the migration studies (as combining qualitative and quantitative research) or proposed interdisciplinary research in areas such as migration and economic development. This creates a new level of complexity and allows uncovering the multiple facets of migration. In the last years, big data and social research have opened up a new way for studying migration and mobility, taking into account new issues and ethnical challenges.

In our research, we used regression analysis as a reliable method of identifying which variables have impact on a topic of interest. The process of performing a regression allows in research to confidently determine which factors matter most, which factors can be ignored, and how these factors influence each other. In order to understand regression analysis fully, it is essential to comprehend the following terms:

- **dependent variable - GDP per capita growth:** the main factor that we are trying to understand or predict;
- **independent variables - migrants' remittances:** the factors that we hypothesize have an impact on the dependent variable.

To ground conclusions and represent the main results, we build a correlation matrix to find out how strong and in what direction two or more variables are related. To make good decisions based on data, you need to know how to read and use a correlation matrix. The correlation matrix calculates the linear relationship between two variables. The matrix is constructed by computing the correlation coefficient for each pair of variables and inserting it into the relevant cell of the matrix. The following formula is used to compute the correlation coefficient between two variables (QuestionPro Collaborators, 2020):

$$r = (\sum XY - \sum X \sum Y) / \sqrt{((\sum X^2 - (\sum X)^2)(\sum Y^2 - (\sum Y)^2))}, \quad (1)$$

where:

r = correlation coefficient;

n = number of observations;

$\sum XY$ = sum of the product (the value obtained by multiplying each pair of numbers XY in a set) of each pair of corresponding observations of the two variables;

$\sum X$ = sum of the observations of the first variable;

ΣY = sum of the observations of the second variable;

ΣX^2 = sum of the squares of the observations of the first variable;

ΣY^2 = sum of the squares of the observations of the second variable.

The obvious gap in migration research knowledge invites to address the fact how migration impacts the economy of the developing countries. Hence, we deal with the economic issues in the scientific research process and argue for a special attention in migration research due to migrants' contribution into host country. Our research brings in knowledge garnered on migrants' remittances from a number of researches conducted on migration in the developing countries.

3. Results

The global demographic shifts and economic transformations underpin the need for migration. Migration is a major driver of development and prosperity. International remittances to low- and middle-income countries are now at about USD 670 billion, which is more than direct foreign investment and far more than official development assistance to those countries. Many regions are now investing in regional frameworks that cover trade and migration because the free movement of people and goods can bring sustained, inclusive economic growth and productive employment (Harnoss, Kugel, Kleissl, Finley, & Candelon, 2022).

Ageing populations are going to exacerbate these labour shortages. By 2050, countries such as Japan, the Republic of Korea, Italy, Spain, Greece and Portugal are projected to have nearly 40% of their populations over the age of 65. Meanwhile, 90% of the 1.8 billion young people aged 10-24 - the largest youth generation in the world's history - live in the developing countries. In Africa, where 70% of the population is under 30 and 40% are under 14, there is a stark scarcity of job opportunities. Six of the top 10 countries with the highest youth unemployment rates are in Africa.

Developing countries need sustainable and reliable financial support from a variety of sectors to boost resilience and growth. However, another key part of solving this economic challenge is to link available talent with available job opportunities, wherever they may be in the world. If governments focus on expanding regular pathways for migration, the world would realize a multitude of benefits, including:

- enhanced public confidence in migration that is safe, regular and dignified;
- reduced pressure on asylum systems as individuals will have more options to move;
- a greater alignment of migrant skills with the needs in destination countries;
- a reduced reliance on ad hoc intermediaries, thus destroying the smuggling and trafficking business model;
- a more sustainable development model that benefits migrants, countries of origin and destination.

To realize these benefits, global economy needs partnerships with and the active involvement of all stakeholders, especially the private sector, including employers, recruitment agencies and training institutions. There are millions of people with the skills, talent, and experience to work, but there are insufficient pathways for them to migrate regularly to find greater opportunity. Mobility is part of the solution.

Once international migration begun, other new conditions come in to perpetuate migration across time and space. Although wage differentials, household strategies, demands in receiving countries, and global market penetration may continue to cause people to migrate, new conditions arise to function as independent causes. Different theories stress various conditions that make the migration decisions or situations independent of structural or individual factors that originally caused migration (see Table 1).

Table 1:

The Theoretical Reflection of International Migration Initiation

Theoretical Approach	Level of Analysis	Assumptions
<i>Neoclassical (macro)</i>	Country	Migration as a result of labor market gaps between countries
<i>Neoclassical Economics (micro)</i>	Individual	Individual rational actors decide to migrate because a cost-benefit calculation
<i>New Economics</i>	Household	Individual migrants are influenced by household as a collective actor in economic survival
<i>Dual Labor Market</i>	Structural (Internal)	Structural demands of developed countries
<i>World Systems Theory</i>	Structural (International)	Market and cultural penetration from the core to peripherals

Source: Compiled by the authors based on Black, Adger, Arnell, Dercon, Geddes and Thomas (2011)

Neoclassical economics combine macro- and micro-levels. Such combination outlined that international migration stems from international differentials in wages and opportunities (by macro-level). By the micro-level, international migration is stimulus to maximize their human capital return, individuals who can have higher return to human capital in receiving countries are more likely to move internationally than others. Moreover, when the cost of migration is lower, the possibility for potential migrants to move is higher.

From the position of new economics, migration decisions are not made by isolated individual actors, but by larger units of related people typically families or households not only to maximize their income but also to minimize risks and constraints.

Dual labor market theory stresses the demand of receiving countries. People at developed societies faced motivational problems to enter the bottom of job hierarchy because there is no status in society and few channels for upward mobility. Such job vacancy creates demand for foreign workers who do not have the motivational problems because they do not expect bottom level jobs anything beyond means to earn money. Migration is usually initiated or pulled by recruitment on the part of employers in developed countries, or by governments acting as agents of employers.

World system theory argues that international migration follows the expanding global markets. Investment fosters changes that create an uprooted, mobile population in peripheral countries while at the same time forging strong material and cultural links with core countries, leading to international migration. International migration is especially likely between past colonial powers and the former colonies, because cultural, linguistic, investment, transportation, and communication links were established early. International migration has little to do with wage differences between countries; it is a result of the dynamics of the global economy (Black, Adger, Arnell, Dercon, Geddes, & Thomas, 2011).

Migrants affect country's economic prosperity and the well-being of the native-born population as well as social protection systems and other compensatory schemes. Migrants have a variety of influences on the host country economy: migrants-workers, migrants-students, migrants-entrepreneurs, migrants-consumers, migrants-savers, migrants-tax payers. **Migrants-workers** are part of, and have an impact on, the labor market; they also alter the country's income distribution and influence domestic investment priorities. **Migrants-students** or their children contribute to increasing the stock of human capital and diffusing knowledge. **Migrants-entrepreneurs** and **investors** create job opportunities and promote innovation and technological change. **Migrants-consumers** contribute to increasing the demand for domestic and foreign goods and services, thus affecting the price and production levels, as well as the trade balance. **Migrants-savers** send remittances to their countries of origin and contribute indirectly fostering of investment in their host countries through the bank system. **Migrants-tax payers** contribute to the public budget and benefit from public services. Through these different contributions, immigrants can help stimulate economic growth in their countries of destination and thus promote development. Migrants also contribute to the social and cultural diversity of the communities in which they live (see [Figure 1](#)).

When migrants send home part of their earnings in the form of either cash or goods to support their families, these transfers are known as workers' or migrant remittances. They have been growing rapidly in the past few years and now represent the largest source of foreign income for many developing countries. Migrants contribute to the host countries' economies in several ways: labor markets; public finance; economic growth. More detailed we present it below:

- labor markets, not only in terms of labor force and human capital, but also employment and wages;
- economic growth, in particular production and productivity, at both firm and economy levels;
- public finance, including public spending and fiscal contributions.

Labor migration's economic contribution goes beyond potential changes in the labor market outcomes. Migration can have an impact on the overall income of native-born individuals by affecting labor productivity. Changes in the number and productivity of workers through immigration can determine migrations' impact on GDP. Migration typically raises the share of employed individuals in the total population primarily because of the higher concentration of migrants in the working-age population. This rise leads to growth of the labor force and consequently increases GDP per capita.

Migration can affect the productivity of a country through several channels. Migrants often contribute to sectors where skills shortages are acute. These include both generic and

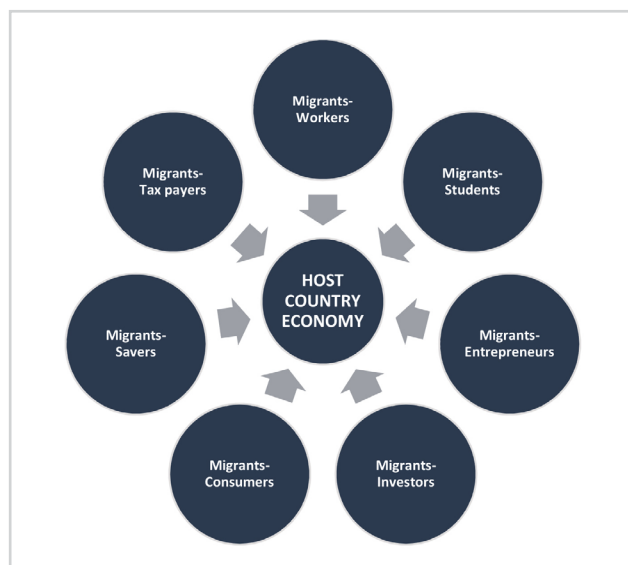


Figure 1:
Influence of migrants on the host country's economy
Source: Authors' own research

specialized skills, either from emigration or low education levels among native-born workers. However, some qualitative evidence at the individual, business and sectoral levels shows that employers may perceive recruiting and hiring migrant workers as a burden. Migrants also may contribute to competition, displacement or pressure on the environment but also to knowledge transfer and innovation.

Another factor is how much migrants benefit from the social protection system. Once their personal characteristics are taken into account, migrants in the partner countries are equally or less likely to benefit from pension or social benefit payments than the native-born population. This may partly be due to migrants' over-representation in informal employment and in some cases their irregular migration status. However, they may also not have worked a sufficient number of years in the country to be eligible for benefits.

If the effects in terms of labor market outcomes of native-born workers, public finance and economic growth are relatively limited in country - this implies that perceptions about a possible negative contribution of migrants in destination countries are often not justified. But it also means that most countries do not sufficiently leverage the human capital and expertise brought by migrants. Yet, migration is an increasingly important feature of many contemporary labor markets and for many countries it is an essential component of the future of work.

The contribution that immigrants can make to the economy of their host countries depends on a series of factors:

- the socioeconomic characteristics of the immigrants themselves, such as their age, sex, country of origin and skills level;
- their working conditions, which are related both to their immigration status and labor rights;
- their level of integration into the society, especially the labor market, but also in terms of social protection, education and health services;
- the economic environment of the country of destination, which relates to business cycles and long-term growth perspectives;
- the policy and institutional environment, which can affect a) the extent to which immigrants' skills are effectively recognized and used and b) whether immigrants can invest and develop new businesses and can contribute to the fiscal system.

Remittances to low- and middle-income countries growing in 2022 an estimated 5%, or up to USD 626 billion (see Figure 2). This is sharply lower than the 10.2% increase in 2021. Remittance flows to developing regions were shaped by several factors in 2022. A reopening of host economies as the COVID-19 pandemic receded supported migrants' employment and their ability to continue helping their families back home. Rising prices, on the other hand, adversely affected migrants' real incomes. The falling of euro in face of the higher inflation rates reduced the value of actual migrants' remittances in the U.S. dollar to North Africa and elsewhere. In countries that experienced scarcity of foreign exchange and multiple exchange rates, officially

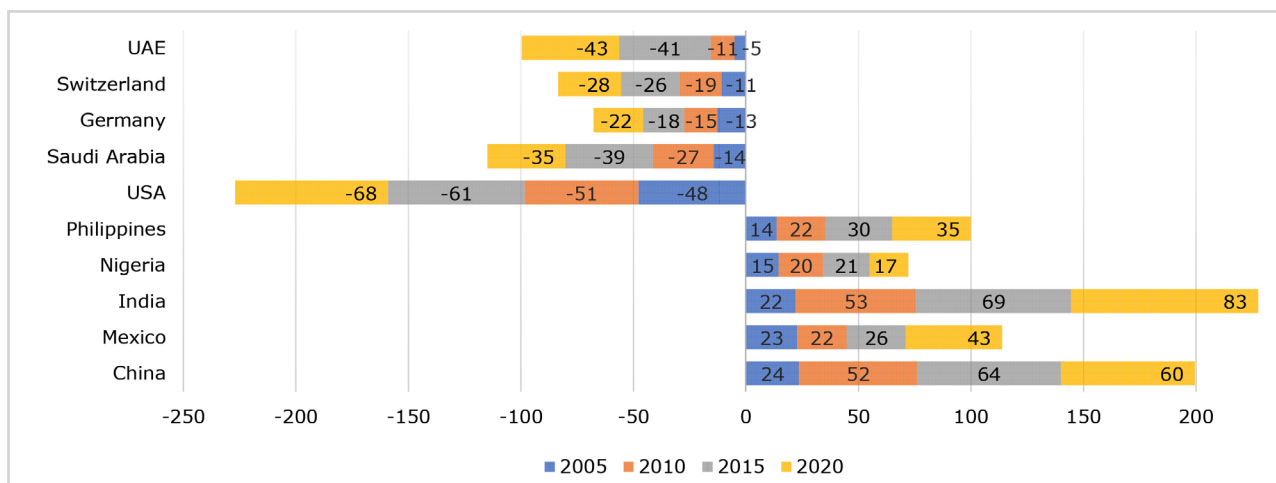


Figure 2:
Migrants' remittances, in billion US dollars

Source: Compiled by the authors based on the database <https://datacommons.org/>

recorded remittance flows declined as flows shifted to alternative channels offering better rates (MRTeam, 2022).

Remittances have the potential to stimulate development in the developing countries. At the macro-level, remittances contribute to the stabilization of the balance of payments in recipient countries, while being an important financial resource for poverty reduction. At the micro-level, remittances flow directly to poor households and stimulate the growth of the local economy, increasing the turnover of funds in the community. Remittances from migrant workers are a significant and often the only source of income and support for their families. They stimulate aggregate demand, increase consumption and, as a result, accelerate economic growth. Remittances increase household disposable incomes, lead to poverty reduction and increase investment in human capital.

The research showed that there is a direct strong link between the remittances of migrants from the developed countries and the growth of GDP per capita in developing countries (see Table 2). The strongest link is observed in the countries of India, Nigeria and Philippines, that is, in the countries, most dependent on remittances from migrants.

By region, remittance inflows grew for Latin America and the Caribbean (8%), South Asia (7.2%), East Asia and the Pacific (3%), and Sub-Saharan Africa (1.9%). Flows to the Middle East and North Africa fell for the second year, declining by 5.3% mainly due to a sharp drop in flows to Egypt. Remittances to Europe and Central Asia also fell by 1.4% after gaining more than 18% in 2022. The United States continued to be the largest source of remittances. The top five remittance recipient countries in 2023 are India (USD 125 billion), Mexico (USD 67 billion), China (USD 50 billion), the Philippines (USD 40 billion), and Egypt (USD 24 billion). Economies where remittance inflows represent substantial shares of gross domestic product (GDP) - highlighting the importance of remittances for funding current account and fiscal shortfalls - are Tajikistan (48%), Tonga (41%), Samoa (32%), Lebanon (28%), and Nicaragua (27%) (Ong, 2023).

In India, the largest global recipient, remittances represented only 3.3 percent of GDP in 2022 (see Figure 3). In India, the 8 percent increase in remittances in 2021 and the historic 24.4 percent rise in 2022 led remittances to peak at USD 111 billion, representing 63 percent of South Asia's total remittance flows (Chandra, 2023). The personal remittances received in Nigeria increased by USD 0.7 billion (+3.59 percent) in 2022. In total, the personal remittances received amounted to USD 20.13 billion in 2022. Remittances are flows of money between immigrants and their relatives

Table 2:
Regression analysis between GDP per capita growth (dependent variable) and migrants' remittances (independent variable)

Regression Statistics	China	Mexico	India	Nigeria	Philippines
Multiple R	0.967564	0.943647	0.999299	0.994016	0.999064
R Square	0.936181	0.89047	0.998599	0.991405	0.981029
Standard Error	2483.476	3898.822	74.9083	147.1006	150.0977

Source: Authors' own research

(Harnoss, Kugel, Kleissl, Finley, & Candelon, 2022). Remittances in the Philippines are overseen by the Central Bank of the Philippines, and in 2020, it registered an inflow of USD 32.808 million, which translates to 10.9% of the Gross Domestic Product (GDP).

Remittance costs remain persistently high, costing 6.2% on average to send USD 200 as of the second quarter of 2023. Compared to a year ago, sending money to all regions was more expensive, with the Middle East and North Africa being the exception. Banks continue to be the costliest channel for sending remittances (with an average cost of 12.1%), followed by post offices (7%), money transfer operators (5.3%), and mobile operators (4.1%) (Ong, 2023).

Generally, public policies can have direct and indirect effects on the migrants and on their contribution to the economy and integration into the society. Based on the current research outcomes, immigration countries should therefore build their policies on the five priorities (see Figure 4). This is also in coherence with the Declaration of the High-level Dialogue on International Migration and Development (UN, 2013) and the «Resolution concerning fair and effective labor migration governance» (ILO, 2017).

Most developing countries can benefit from migrants at all levels of the labor skills distribution. The development, economic transformation and diversification of countries require the emergence of new skills. By enriching the stock of human capital, migrants can help destination countries that face significant skills shortages to upgrade their production structures and move up the

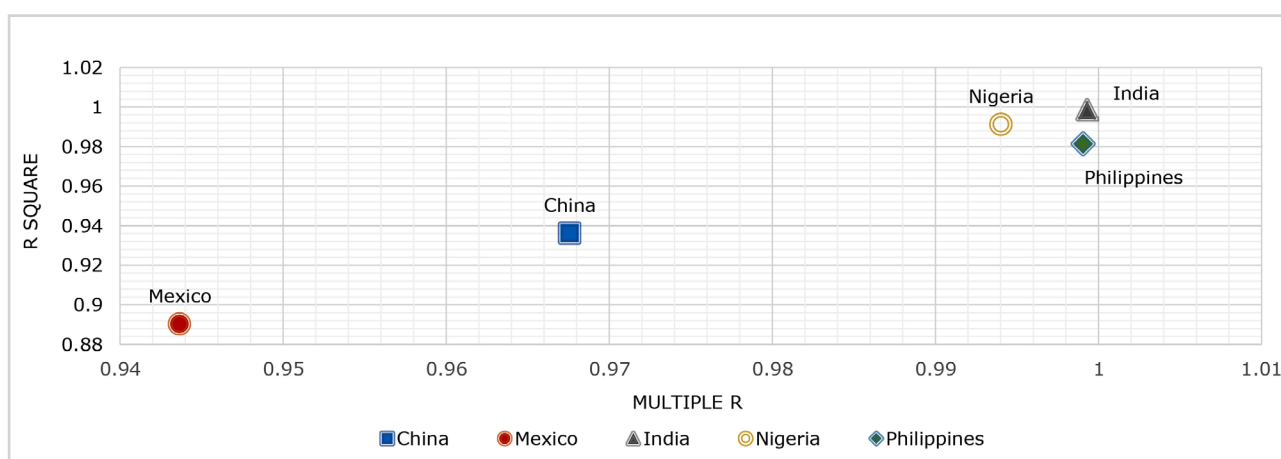


Figure 3:

Correlation analysis matrix between GDP per capita growth and migrants' remittances

Source: Authors' own research

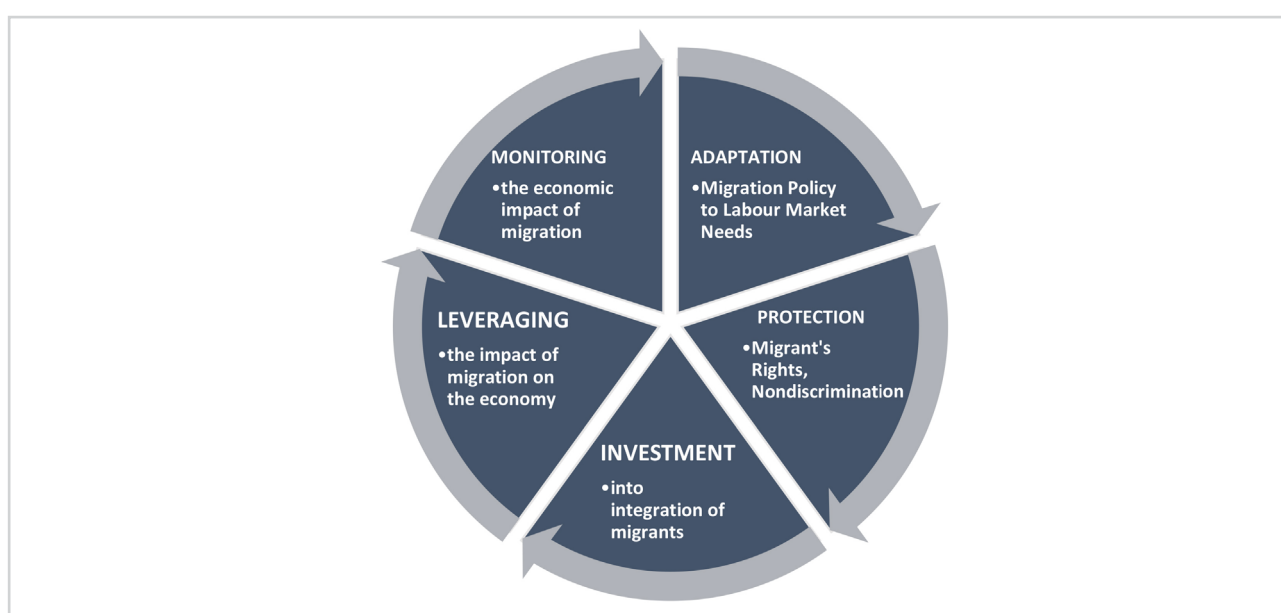


Figure 4:

Priorities of policy to enhance the economic contribution of migration

Source: Authors' own research

global value chains (OECD, 2013b). In addition to the needs for medium- and high-skilled workers, the migrants can also replace or add to the native-born workforce in the low-skilled segments of the economy. In many countries, investments in education enable populations to work in better and more qualified jobs, but the demand for low-skilled jobs remains. Migrants with low skills often have jobs that are less attractive to the local labor force, enabling the native-born to move to another sectors. This process depends on native-born workers' skills and the skills needed in these sectors.

Migrants often facilitate transition processes in developing countries. They replace the native-born workers that have moved from rural to urban areas or from lower-skilled to higher-skilled occupations, and local migrants. In ageing states, migrants can help maintain the ratio between active and inactive populations. They, also, can ensure the sustainability of the pension system, because their migration and employment statuses allow them to contribute to pension system. Partner countries and other low- and middle-income countries, should improve migration management systems that facilitate labor mobility. They can do it by protecting migrant workers, monitoring modern labor market needs and identifying skills gaps. Such systems need to be designed and implemented in partnership with worker and employer organizations.

4. Conclusion

Migration has a positive effect on GDP per capita. An increase in the labor supply due to migration would lower wages and expand total employment and output. Migrant workers send on average USD 200 to USD 300 home every one to two months. This represents only 15 per cent of what they earn - the rest stays in their host countries. But what they do send can make up as much as 60 per cent of a household's total income - representing a lifeline for millions of families. More than 70 countries rely on remittances for at least 4 per cent of their GDP. As these countries demonstrate, remittances are an engine of socio-economic growth and transformation - particularly for rural areas. In our research we constated that India, China, Mexico, Philippines and Nigeria benefited in GDP per capita due to migrants' remittances.

Migrant workers make an invaluable contribution to SDGs through remittances and investments. In particular, they contribute to ending poverty and hunger; promoting good health, quality education, clean water and sanitation, decent work and economic growth; and reducing inequalities. Strategic partnerships and progress on remittances have paved the way for lowering the cost of remittance transfers and provided financial services for migrants and their families.

Public policy has direct and indirect effects on the migrants and on their contribution to the economy and integration into host country society. The host countries should therefore build their policies on the such priorities: adaptation migration policy to labor market needs; protection of migrant's rights and non-discrimination; investment into integration of migrants; leveraging the impact of migration on the economy; and monitoring the economic impact of migration.

Analyzing the overall contribution of immigration to GDP requires developing or refining econometric models, including computable general equilibrium models, in such a way that they reflect better the dynamic and long-term interactions between migration and economic growth. More analysis could be carried out on the long-term impact of migration on the formation of human capital. Another problem of interest relates to the environmental impact of migration in countries already constrained in terms of natural resources. This research will have implications in terms of future economy sustainable development.

References

1. Adamson, F. B., Chung, E. A., & Hollifield, J. F. (2023). Rethinking the migration state: historicising, decolonising, and disaggregating. *Journal of Ethnic and Migration Studies*, 50(3), 559-577. <https://doi.org/10.1080/1369183X.2023.2269769>
2. Barnett, G. A., & Nam, Y. (2023). A network analysis of international migration: Longitudinal trends and antecedent factors predicting migration. *Global Networks*, 24(2), e12455. <https://doi.org/10.1111/glob.12455>
3. Black, R., Adger, W. N., Arnell, N. W., Dercon, S., Geddes, A., & Thomas, D. (2011). The effect of environmental change on human migration. *Global Environmental Change*, 21(Suppl. 1), 3-11. <https://doi.org/10.1016/j.gloenvcha.2011.10.001>
4. Chandra, V. (2023). Remittance flows reached an all-time high in 2022 in South Asia. *World Bank-KNOMAD*, 10. <https://blogs.worldbank.org/en/peoplemove/remittance-flows-reached-all-time-high-2022-south-asia>

5. Harnoss, J., Kugel, J., Kleissl, K., Finley, M., & Candelon, F. (2022). Migration Matters: A Human Cause with a USD 20 Trillion Business Case. BCG Report. Boston Consulting Group - International Organization for Migration. <https://www.bcg.com/publications/2022/global-talent-migration-the-business-opportunity>
6. Lesejane, L. A. (2022). Migrant remittances and financial inclusion among households in South Africa. MCom, University of Johannesburg. <https://hdl.handle.net/10210/504256>
7. Massey, D. S. (2023). The Shape of Things to Come: International Migration in the Twenty-First Century. In Lerpold, L., Sjöberg, Ö., & Wennberg, K. (Eds) Migration and Integration in a Post-Pandemic World (pp. 29-81). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-19153-4_2
8. Migration and Remittances Team. (2022). Remittances brave global headwinds. Migration and Development Brief 37. Special Focus: Climate Migration. The World Bank Group. https://www.knomad.org/sites/default/files/publication-doc/migration_and_development_brief_37_nov_2022.pdf
9. Ong, R. (2023). Remittance Flows Continue to Grow in 2023 Albeit at Slower Pace. Migration and Development Brief 39. World Bank Group. <https://www.worldbank.org/en/news/press-release/2023/12/18/remittance-flows-grow-2023-slower-pace-migration-development-brief>
10. Stipp, H. (2023). Remittance inflows to Nigeria 2011-2022. Financial Services. Statista Research Department. Statista. <https://www.statista.com/statistics/1012368/remittance-inflows-to-nigeria>
11. Tsegay, S. M. (2023). International Migration: Definition, Causes and Effects. Genealogy, 7(3), 61. <https://doi.org/10.3390/genealogy7030061>
12. QuestionPro Collaborators. (2020). Correlation Matrix: What is it, How It Works with Examples. Market Research. <https://www.questionpro.com/blog/correlation-matrix>

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