Migration Matters: A Human Cause with a $20 Trillion Business Case

December 2022
By Johann Harnoss, Janina Kugel, Karina Kleissl, Marley Finley, and François Candelon

BCG × IOM UN MIGRATION

BCG

IOM
UN MIGRATION

Boston Consulting Group partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG was the pioneer in business strategy when it was founded in 1963. Today, we work closely with clients to embrace a transformational approach aimed at benefiting all stakeholders—empowering organizations to grow, build sustainable competitive advantage, and drive positive societal impact.

Our diverse, global teams bring deep industry and functional expertise and a range of perspectives that question the status quo and spark change. BCG delivers solutions through leading-edge management consulting, technology and design, and corporate and digital ventures. We work in a uniquely collaborative model across the firm and throughout all levels of the client organization, fueled by the goal of helping our clients thrive and enabling them to make the world a better place.

Established in 1951, the International Organization for Migration (IOM) is the leading intergovernmental organization in the field of migration and is committed to the principle of humane and orderly migration for all. IOM is part of the United Nations system, as a related organization, and is operational in over 590 locations worldwide.

IOM supports migrants across the world, developing effective responses to the shifting dynamics of migration and is a key source of advice on migration policy and practice. The organization works in emergency situations, developing the resilience of migrants in need, including refugees and internally displaced people, particularly those in situations of vulnerability, as well as building capacity within governments to manage all forms and impacts of human mobility.

Migration Matters: A Human Cause with a $20 Trillion Business Case

This is a time of great global adversity. Since the start of 2022, the world has witnessed an ongoing pandemic, stagflation, supply-chain breakdowns, accelerating climate change, and environmental degradation, all amid geopolitical fractures and war. As a result, millions of people have moved across borders. Some fled to secure their safety, escaping border conflicts, social persecution, and climate-related calamities such as floods and droughts. Others left home in search of economic, cultural, and educational opportunities for themselves and their families. Today, more than 280 million people—3.6% of the global population—live in countries other than where they were born.[1] Taken together, migrants globally would form the fourth-largest country in the world by population size. Moreover, more people are open to migrating if given the opportunity; over 50% of workers are willing to take up jobs abroad, according to a recent BCG survey.[2]

From a macroeconomic lens, cross-border migration currently generates an annual economic output of around $9 trillion.[3] Using a set of plausible yet conservative assumptions, BCG estimates that the direct economic output of migration could more than double by 2050, to around $20 trillion a year.[4] Moreover, in developed countries with aging populations, the political desire and fiscal necessity to keep dependency ratios stable could lead to even higher levels of migration.[5]

Migration is not only essential for future economic welfare but also presents a substantial opportunity today. Business is currently suffering from unprecedented labor shortages across skill levels, especially in industries such as digital technology, health care, education, trade, and construction. According to a BCG study of 30 countries, above-average labor shortages today cost business more than $1 trillion a year. That's over $3 billion a day—or more than 1% of global economic output.[6] In addition to alleviating such pressing labor shortages, foreign talent can drive innovation[7] and thus provides companies that embrace it with a substantial strategic advantage.

Even though the economic case is clear, business has yet to move. According to a recent BCG survey covering 850 executives in ten countries, 95% of private-sector leaders see the value of working with global talent, and 80% take some actions to capture that value; however, only 5% of them do so in a consistent manner that yields financial impact. To address this apparent gap between aspiration and action, this Brief will share more than 20 operational levers, illustrated with best practices from global corporations, which allow companies to benefit from migration and protect the rights of migrants. To do so, business can, and must, deploy three strategies to employ, elevate, and embrace migrants in the workplace and beyond:

1. **Develop a global talent strategy.** A common starting point is to *employ* foreign-born workers to staff hard-to-fill roles or cover short-term needs. Businesses can access fresh pools of talent by adopting new language norms, globalizing their hiring, using new recruitment platforms to discover overlooked talent, and allowing for more remote operations.

2. **Deploy a global innovation strategy.** This strategy drives value by harnessing the cognitive variety of globally diverse teams that are often more creative when solving complex innovation challenges. Companies can adopt this strategy by creating migration networks within their organizations, setting up externship programs, and championing differences to spark creativity that, when supported by the right operational levers, will boost and *elevate* innovation.

1. UN DESA, International Migrant Stock 2020; see also IOM World Migration Report 2022, Key Findings, Chapter 2.
2. BCG Decoding Digital Talent. Survey of 208,807 workers in 190 countries.
3. See the methodology in the appendix.
4. Due to the multitude of unpredictable factors that shape migration, these scenario estimates should not be over-interpreted. They give only a first indication of the substantial magnitudes at play.
5. UN World Population Report 2022.
6. BCG analysis, August 2022; data sources: Eurostat, Trading Economics, LinkedIn.
7. Alberto Alesina & Johann Harnoss & Hillel Rapoport, 2016. "Birthplace diversity and economic prosperity," *Journal of Economic Growth*, Springer, vol. 21(2), pages 101-138, June.

3. **Stand for global human rights.** Migration needs corporate allies that will *embrace* and protect migrants' rights before, during, and after migration while ensuring business practices are aligned with international labor standards. To improve policymaking, business leaders should participate in forums and share the benefits, opportunities, and challenges of global migration. They can lead by expressing their support for the principles outlined in the UN Global Compact for Safe, Orderly, and Regular Migration, and by partnering with governments and civil-society organizations to establish secure and dignified migration paths. Business engagement strengthens the governance structures that protect and safeguard the rights of migrants, and is vital to develop more sustainable and legal migration pathways.

It still remains difficult and risky for people to move across borders, even though public sentiment on migration has turned somewhat more positive in recent years,[8] and many governments slowly move toward relaxing visa restrictions, starting with those for the most educated workers.[9] To improve policymaking, business leaders should participate in migration forums and socialize the benefits, opportunities, and challenges of global migration. Additionally, business should join—or form—industry-specific groups to better forecast international hiring demand, share best practices on how to meet it, and advocate for policies that will help companies access the global talent they need.

Companies that act today can gain a sizeable competitive advantage tomorrow. Those that have embraced globally mobile talent, not only in their workforces but also in their leadership, have seen greater profitability and faster innovation. A BCG analysis of more than 3,000 publicly listed companies shows that companies with greater global diversity generate 2.2 percentage-point higher profits (in terms of EBIT[10] margin) and are 75% more likely to be world-class innovators.[11]

Shifting demographics, the climate crisis, and geopolitics, among other factors, are accelerating the global movement of people, and they will continue to do so in the future. Fortunately, migration can not only help alleviate some of those challenges, it also represents an opportunity for business to thrive in the face of adversity. There are trillions of dollars, billions of lives, and countless innovations at stake. It is time for business leaders to put global migration on their strategic agenda and employ, elevate, and embrace migrants.

8. BCG sentiment analysis with Quid.
9. "Building a Globally Diverse Team Is Actually Getting Easier."
10. Earnings before interest and taxes.
11. BCG analysis of the largest 2,000 publicly listed companies in any given year, 2012-2022, July 2022. N = 3,325.

We thank the International Organization for Migration (IOM) for partnering with BCG, and for providing an opportunity to explore how business can help solve one of humanity's defining challenges in the 21st century.

What Is Migration?

According to IOM, *migrant* is an "umbrella term, not defined under international law, reflecting the common lay understanding of a person who moves away from [their] place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons."[12] In this Brief, which focuses on international migration, "migrant" refers to anyone living in a country other than that of their birth.

The recommendations outlined in this Brief are relevant for all enterprises, but they are particularly relevant for public and private companies with revenues of at least $100 million or for investor-backed startups in the world's advanced economies. Recognizing that workers at all levels make valuable contributions, we refer to all migrant workers as talent irrespective of their educational backgrounds.

12. IOM, Glossary on Migration, IOM, Geneva, 2019.

Global Migration and Business

Global migration is increasing, and it represents a significant opportunity for business. But business leaders still lag behind on embracing migration as a strategic priority.

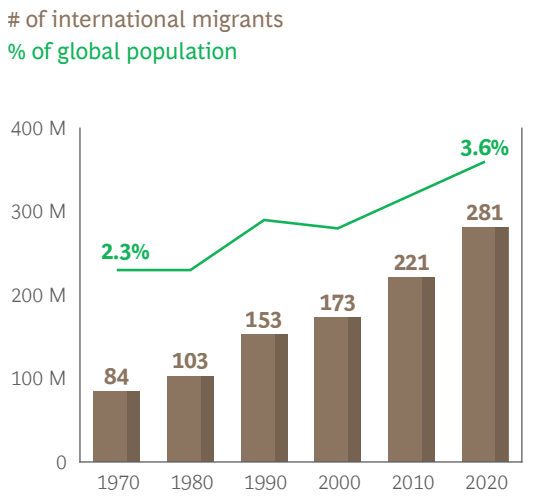
A Snapshot

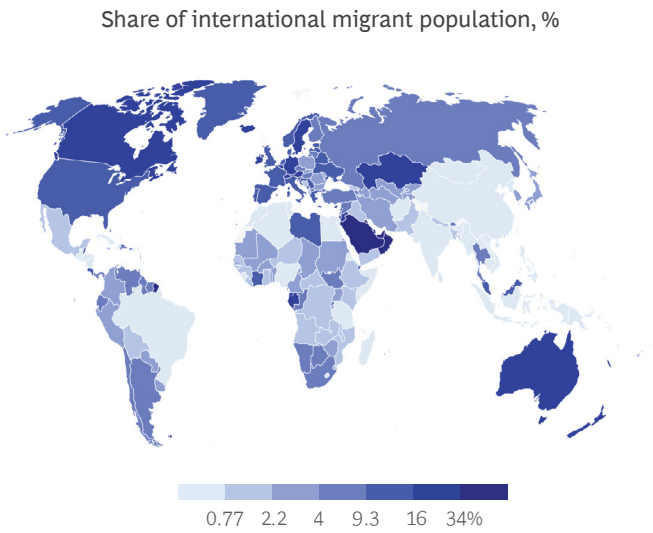
The number of international migrants has increased significantly in recent times. (See Exhibit 1.) Today, more than 280 million people (3.6% of the world's population) live in countries other than where they were born—up from 84 million (2.3% of the world's population) in 1970.[13] Approximately 169 million migrants in 2020 were workers, and 70 million of these workers were women.[14 15]

The United States has been the primary destination of migrants for the last five decades. In 2020, it was home to more than 50 million immigrants, followed by Germany and Saudi Arabia, with around 16 million and 13 million immigrants, respectively.[16] The countries with the largest emigrant populations that year were India, with 18 million

13. UN DESA (2021), International Migrant Stock 2020. See also IOM World Migration Report 2022, Key Findings, Chapter 2.
14. 2019 data, ILO.
15. UN DESA (2021), International Migrant Stock 2020. See also IOM World Migration Report 2022, Key Findings, Chapter 2.
16. Ibid.

Exhibit 1 - There Are Now More Than 280 Million Migrants in the World





Sources: IOM World Migration Report 2022; ILO; UN Population Division.

emigrants, and Mexico and the Russian Federation, with 11 million emigrants each.[17 18] The world's migration corridors usually coalesce into a few destinations. In 2020, the top ten destinations hosted more than 50% of all migrants.[19]

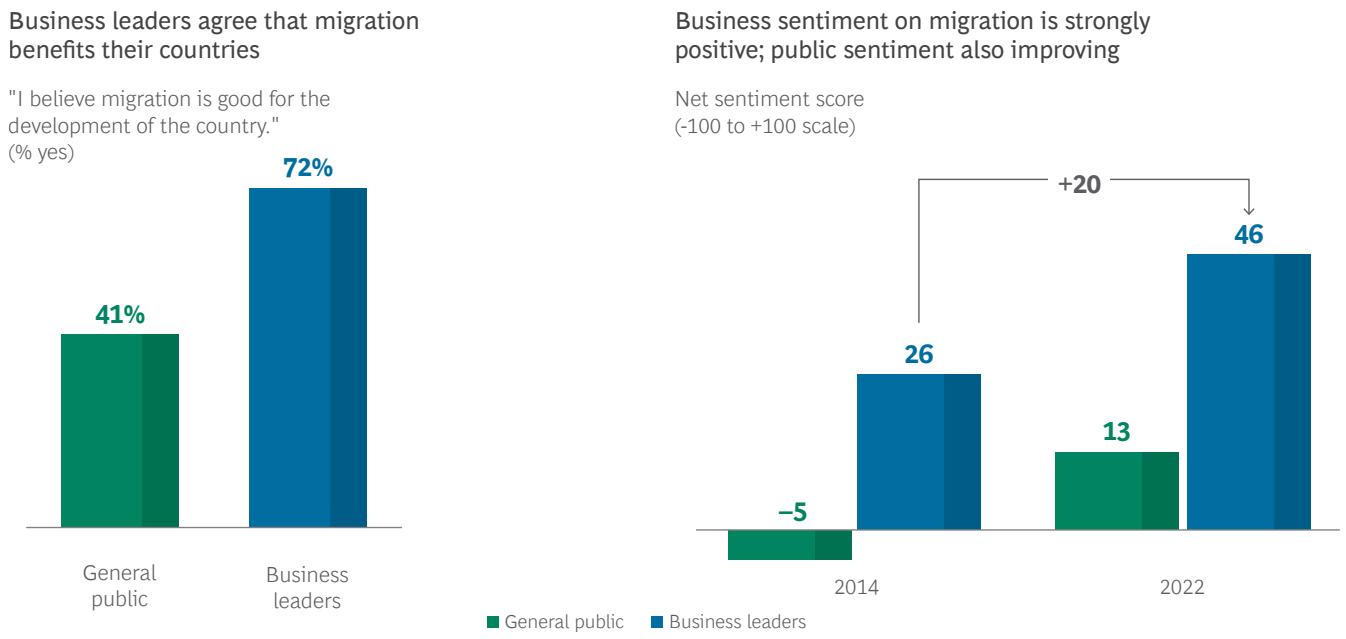
The COVID-19 pandemic only temporarily halted cross-border flows of people. It has been estimated that had the pandemic not happened, the migrant population in 2020 would have been larger by only 2 million—less than 1% of the total migrant population.[20] Migrant flows have since resumed, and in some countries—such as Germany and the United Kingdom—they've returned to pre-pandemic levels.[21] Moreover, BCG surveys show that more than 50% of the global workforce would be willing to take up jobs abroad.[22] That's roughly 1.7 billion workers open to migrating—ten times more than the current number of migrant workers worldwide.[23]

Tailwinds for Business

There is an opportunity for business leaders to embrace migration as a strategic priority, but most have not done so yet. When asked in a recent BCG survey of executives in ten countries, CEOs were highly supportive of migration.[24] According to the latest World Values Survey, only 41% of the general population in those countries[25] agrees that migrants are good for the development of their countries, but a much higher 72% of senior executives believe that migrants spur growth.[26] (See Exhibit 2.)

17. UN DESA (2021), International Migration 2020 Highlights; numbers rounded to nearest million.
18. Migration is increasingly complex, and many countries are to some degree immigration, transit, and emigration countries, with individuals often making multiple migration decisions over a lifetime.
19. 32% of migrants came from the top ten origin countries; International Migrant Stock | Population Division (un.org).
20. UN DESA (2021), International Migration 2020 Highlights. New York.
21. Had there not been COVID-19, the number of international migrants in 2020 would have likely been ~283M. COVID-19 and the State of Global Mobility in 2021 (migrationpolicy.org); IOM World Migration Report 2022, Key Findings, Chapter 2; UN DESA (2021), International Migrant Stock 2020.
22. Gallup, 2022.
23. UN International Labour Organization (IOM), 2019 data.
24. BCG Globally Diverse Teams survey, 2021. Countries covered: Brazil, Canada, China, Germany, India, Japan, Nigeria, the United Arab Emirates, the United Kingdom, and the US.
25. The ten countries are Brazil, Canada, China, Germany, India, Japan, Nigeria, the United Arab Emirates, the United Kingdom, and the US.
26. EVS/WVS (2022). European Values Study and World Values Survey: Joint EVS/WVS 2017-2022 Dataset (Joint EVS/WVS). JD Systems Institute & WVSA. Dataset Version 3.0.0, doi:10.14281/18241.19.

Exhibit 2 - CEOs Perceive the Value of Global Migration



Sources: World Values Survey; BCG Innovation Without Borders database, n=850; BCG/Quid analysis, July 2022.

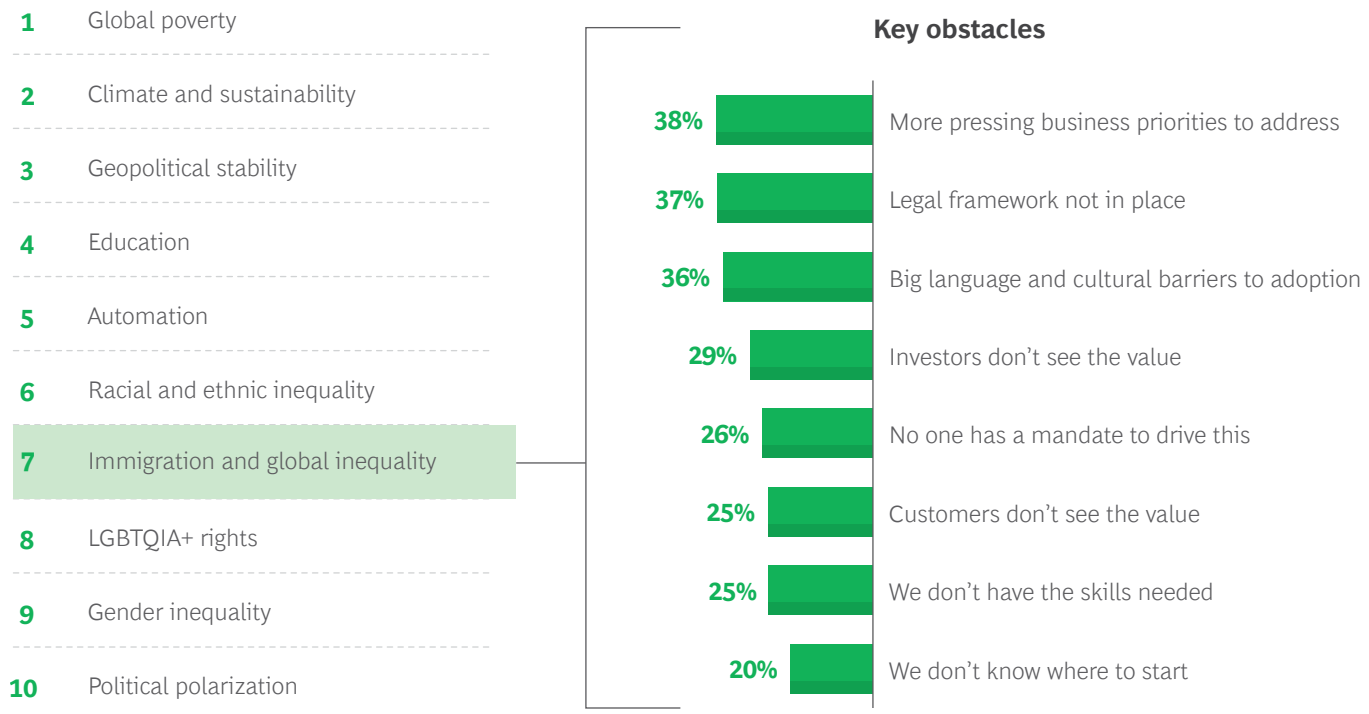
However, this attitude is not reflected in corporate strategic priorities. While 95% of CEOs say they intend to create more globally diverse teams, and 80% take some actions in this regard, only 5% do so in a manner that makes an impact. Moreover, migration is not explicitly on the list of business leaders' top five societal concerns at present. Global poverty, climate and sustainability, and geopolitical stability are the top three priorities, listed by 92%, 89%, and 88% of senior executives, respectively.[27] [28] Immigration and global inequality rank seventh among the ten CSR[29] action items considered. (See Exhibit 3.)

CEOs' attitudes are likely to change soon given three interrelated sets of factors: environmental, social, and governance (ESG) standards; diversity, equity, and inclusion (DEI) initiatives; and the changing values and attitudes of the next generation of employees.

- **Environmental, Social, and Governance.** Both institutional and retail investors increasingly allocate capital based on adherence to ESG criteria. Most of their attention has centered on the environment, but social factors are increasingly coming into focus.[30] Among those factors, a company's commitment to upholding labor standards and the human rights of its employees as well as workers along its supply chain, especially the rights of migrants, will be critical in the future.[31] Moreover, CEOs will increasingly see the connections between addressing the issues they care most about (namely, poverty, climate and sustainability, and geopolitical stability) and fostering migration.

27. Given that migration is a powerful lever by which to alleviate global poverty, it complements what is already the chief business CSR priority.
28. BCG Innovation Without Borders database.
29. Corporate social responsibility.
30. It's Time for Institutional Investors to Embrace the S in ESG | BCG.
31. Ethics and ESG Resource Center - Markkula Center for Applied Ethics (scu.edu).

Exhibit 3 - Migration Isn't a Priority Topic for Business Yet



Source: BCG Innovation Without Borders database, n=850.

Notes: Column 1. Question asked: On which of these political and social issues does your company already take action? Column 2. Question asked: What implementation obstacles do you see at your company? The percentages represent the portion of company leaders who named each obstacle.

- **Diversity, Equity, and Inclusion.** In the last five years, DEI has become central to corporate talent strategies. However, business's efforts have achieved only a fraction of the desired impact. Notably, 75% of employees from historically underrepresented backgrounds do not believe they personally benefit from diversity programs, and many still face discrimination, according to BCG research.[32] If DEI initiatives are to make a bigger impact, their scope must shift from specific types of diversity to a more holistic and contextual understanding of employees and their needs, including their identities as first-, second-, and third-generation immigrants in the countries in which they live and work.

- **Younger Workers' Priorities.** Driven by a younger generation that is just entering the workforce, employees are making novel demands on employers. As many as 61% of employees say they expect CEOs to shape policy debates on immigration in the future.[33] This demand reflects a long-run shift in workers' attitudes toward migration: Despite the polarization in the media, the next generation of employees embraces migration and wants employers to do the same.

32. Redefining Diversity, Equity, and Inclusion (DEI) | BCG.
33. 2022 Edelman Trust Barometer | Edelman.

The Business Case for Migration

Migration can address a growing labor shortage and help business meet key strategic objectives.

A $1 Trillion Opportunity Today...

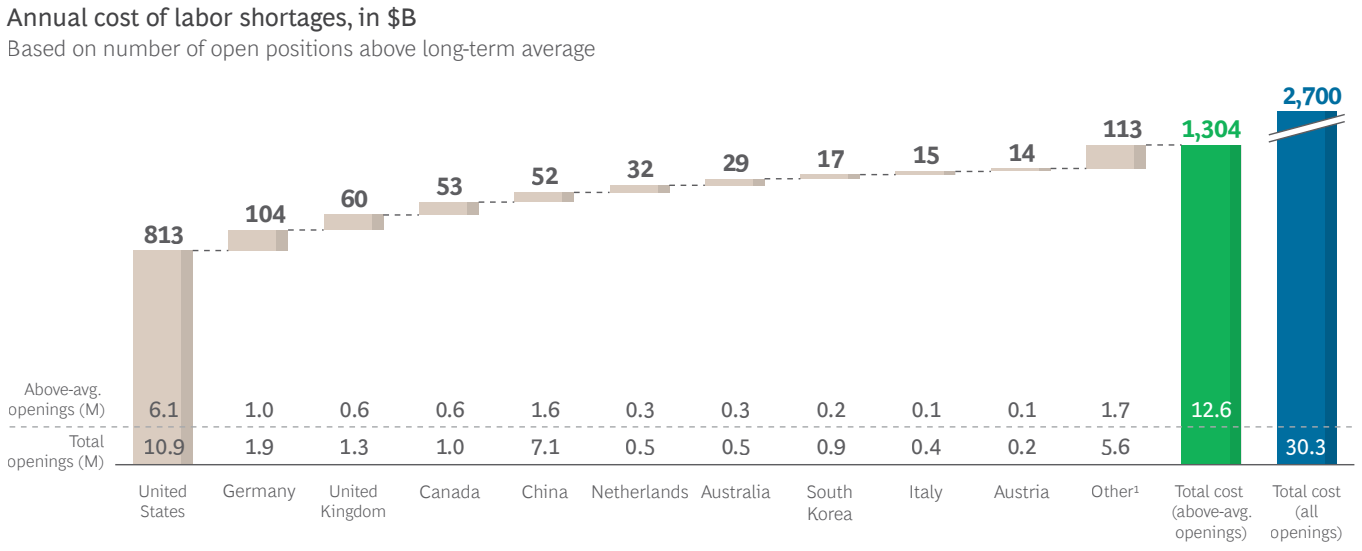
The world economy is suffering from a shortage of workers that reached an all-time high in the middle of 2022. These shortages were most pronounced in the United States, China, Germany, the United Kingdom, and Canada.[34] When BCG studied data on the 30 largest economies, we found 30 million open jobs, of which over 12 million were significantly above the ten-year long-term average of past levels, especially in manufacturing, information and communication technology, and health care.

These shortages are not limited to highly educated workers. In advanced economies such as Germany, only about 20% of job openings require college-level education, while 60% require vocational skills and another 20% are suitable for workers with no high school education.[35] Across skill types, structural labor shortages are costing the countries in our sample more than $1 trillion a year (when valued at the average GDP per worker). That is more than one-third of the cost to economies from all open jobs, which is estimated at nearly $3 trillion a year. (See Exhibit 4.) Higher wages, automation, education, and reskilling are all needed to fix this problem, and alongside those levers, business must also embrace migration.

34. Based on the average of the four quarters, given data availability on Eurostat and Trading Economics.

35. Current results, IAB.

Exhibit 4 - Annual Cost of Labor Shortages Is Over $1.3 Trillion



Sources: Eurostat; Trading Economics; BCG analysis.

[1] Includes 20 other countries in the top 30 by GDP.

...And a $20 Trillion Opportunity by 2050

Together, migrants would currently form the world's third-largest economy, generating approximately $9 trillion of economic output a year. (See Exhibit 5.) The entire value of migration is likely much higher because this figure does not capture migrants' full economic impacts as consumers, entrepreneurs, and innovators. In addition to meeting talent needs, migration expands and diversifies both labor and consumer markets in migrant-receiving economies, bringing a new mix of production capabilities and consumer preferences. Thus, migration allows a range of new products and services to be developed, sold, and bought, spurring entrepreneurship and helping existing companies, both large and small, grow revenues.[36]

The future value addition of migration depends on several socioeconomic factors that influence the trajectories of migrant pathways—such as labor-force participation, income differences, and access to social services—and on ecological and political factors, such as climate change, environmental devastation, and conflict. As a result of these uncertainties, there are no consensus projections for migration patterns in the future. Reflecting the uncertainty, BCG conservatively estimates that the economic output of migration will grow to between $13 trillion and $25 trillion a year by 2050.[37] In other words, in under 30 years, migration will reasonably become a $20 trillion opportunity for business.

We used two calculation methods to reach these estimates, both of which yielded nearly the same range of value addition.

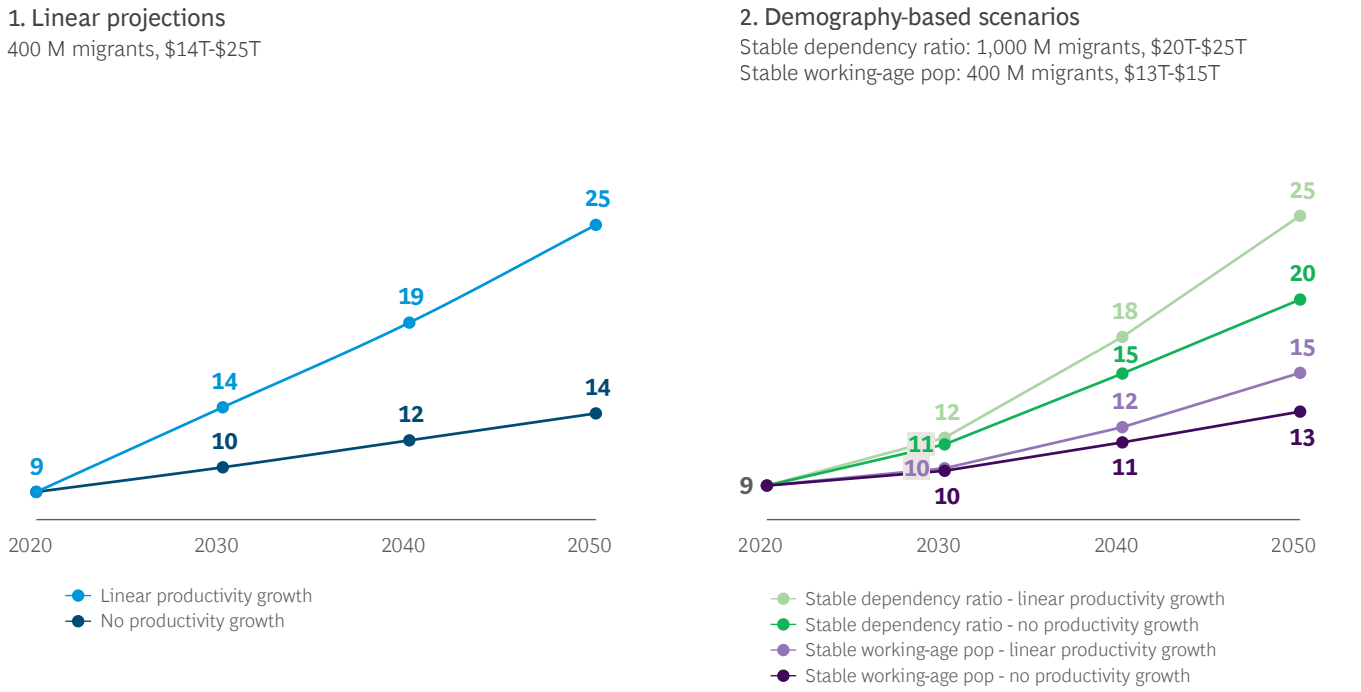
1. **A Linear Extrapolation.** By linearly projecting past trends into the future for destination countries, we estimate that migration will rise to 400 million people by 2050. That will translate into an economic value of between $14 trillion and $25 trillion a year.[38]

36. See Di Giovanni, Levchenko & Ortega (2014) Global View of Cross-Border Migration | Journal of the European Economic Association | Oxford Academic (oup.com).

37. See Exhibit 5. Range based on constant productivity per worker (at 2020 values and separately at growth rates 1990-2020). It assumes that migrants' labor-force participation and employment rates will not increase vs. 2020.

38. The low end of the range assumes constant GDP per capita; the high end assumes linear GDP per capita growth.

Exhibit 5 - Global Migration Will Be a $20 Trillion Opportunity By 2050



Sources: UN; UN Population Division; World Bank; BCG analysis.

Notes: 1. Linear projection of migrant stocks for all destinations from 1990 to 2020 (five-year intervals) per UN migration estimates. 2. Working-population deficit estimated as the difference between the 2050 working-age population, as projected in UN zero-migration scenario of World Population Projections, and what the working-age population would need to be in order to maintain 2020 values, assuming global migrant workers conservatively cover just 20% of each deficit. Productivity = GDP/worker.

2. **A Demographic Projection.** On the one hand, the ten countries most affected by population decline will lose about 345 million working-age adults by 2050.[39] On the other hand, the ten countries with the largest increases in population will see their working-age populations grow by more than 770 million workers.[40] In addition to automation, offshoring, and increased labor-force participation,[41] migration will be key to addressing the shortage of workers in aging societies. We estimate that if migration were to close as little as 20% of the projected gap, its economic value would, conservatively, rise to between $13 trillion and $25 trillion a year[42] by the middle of the 21st century.[43]

Note: *These estimates are not forecasts but are simply indicators of migration's value to the world's economies. Our two scenarios don't take into account a multitude of second-order effects, such as the economic contributions of second-generation migrants. The demography-based figures could have plausibly been higher if we had made other assumptions about variables, for instance, families moving with workers across borders. Our estimates also ignore the role of migrants in innovation, entrepreneurship, and the development of new industries. Our projections are therefore relatively conservative estimates of the future economic value of migration.*

39. China, Japan, Russian Federation, the United States, the Republic of Korea, Germany, Italy, Thailand, Ukraine, and Spain.

40. India, Nigeria, Pakistan, Democratic Republic of Kongo, Ethiopia, Tanzania, Egypt, Uganda, the Philippines, and Bangladesh.

41. In particular, increasing the labor-force participation of women will be an important lever for many countries.

42. **Note:** We chose 20% as a fairly conservative estimate. Labor Mobility Partnerships (LaMP) has much higher estimates, based on their estimates of the demographic need. Lower and upper ends of the range depend on whether productivity (GDP per capita) is held constant at 2021 values or linearly projected.

43. This range is based on two separate definitions of the working-age population gap. One defines the gap as the difference between the projected population and the 2020 level. The other defines the gap as the difference between the projected population and that needed to maintain 2020 dependency ratios. The more realistic dependency ratio scenario values the 2050 economic output of migrants within a range of $20 trillion to $25 trillion, depending on productivity growth. The methodology is described in detail in the appendix.

Business's Strategic Objectives

CEOs usually focus on three reasons why their companies should embrace migration for a strategic advantage. They are:

- **Closing Skill Gaps.** Companies should hire talent globally and either relocate employees abroad or embed them virtually in international teams to circulate knowledge. Recruiting and collaborating across borders provide access to all types of skills—including interpersonal, manual, academic, and technical skills—that companies need to grow. This objective is particularly important for companies affected by labor shortages.

- **Fueling Creativity.** Corporations can generate additional creativity and value from the cognitive variety of teams whose members have different geographical origins. Acquiring a global perspective enables companies to better understand the needs of local and international customers, and to generate novel solutions to business challenges. In our surveys, 40% of executives mention creativity benefits as a key reason for embracing migration.

- **Serving Society.** Companies can act on their ESG, DEI, and broader CSR goals by supporting migrants in their workforce, communities, and beyond. The actions they can take include creating safe and orderly migration pathways through employment, protecting human rights and upholding labor standards for migrant workers, and helping people displaced by conflict or disaster.

Some business leaders pursue these three objectives not only for their direct benefits but also to evolve their company cultures. For example, a Europe-headquartered fast-fashion retailer operates a global supply chain that extends to India, Bangladesh, Vietnam, and other Asian countries. It decided to lower carbon emissions along the entire chain, from fabric manufacturing to logistics and delivery, but it lacked the capabilities to do so at its headquarters.

To fill the skills gap, the company recruited workers from around the world who were familiar with sustainable manufacturing practices in the upstream parts of the supply chain, and it relocated many of these employees to its headquarters. Over time, the retailer not only progressed on its sustainability goals but also benefited from the fresh perspectives that its global hires brought to developing new product strategies and customizing sustainability initiatives to local consumer needs. The retailer now takes pride in supporting its international hires and regards its openness to global talent as a key performance-enhancing aspect of its culture.

Getting Started: Three Strategies and 20+ Best Practices

Business leaders can close skill gaps, fuel creativity, and serve society by elevating the role of global talent, deploying a global innovation strategy, and taking a stand on human rights.[44] In the rest of this Brief, we will share more than 20 operational levers that companies can deploy to execute a winning global migration strategy.

Develop a Global Talent Strategy: Employ globally mobile workers by tapping into global talent pools.

A global talent strategy is a starting point for most companies. This approach treats foreign-born workers as valuable resources to staff hard-to-fill openings and cover short-term skill needs. The strategy is particularly relevant when access to talent is a major barrier to companies' growth. Businesses facing such a challenge include asset-lite software firms, fast-growing startups, and manufacturing companies undergoing a digital transformation, among others. Talent is also critical to operations in people-intensive industries, such as health care, hospitality, agriculture, and logistics.

44. The CEO Agenda for an Era of Innovation Without Borders, BCG.

To create value through a global talent strategy, companies should take three steps. One, they must scout the world for overlooked talent pools. Two, they must attract foreign talent. And three, they must effectively tackle the revolving-door problem, characterized by attracting but not retaining global talent. The following levers will help companies check all three boxes.

1. **Globalize your employer brand.** Build a reputation in the world's largest talent hubs and leverage your existing talent and diaspora networks to do so. Raise your visibility by expanding commercially or investing in marketing campaigns in places with pools of workers you hope to attract. Companies such as **Google**, **Delivery Hero**, and **Zalando** take a personal approach to branding abroad, encouraging employees to share their experiences with peers from their places of origin and invite them to apply for jobs.

2. **Internationalize hiring.** Use global sourcing teams to scout for talent in specific places around the world. **Personio**, a human-resources tech unicorn based in Germany, deployed recruiting teams to Brazil after realizing that it could find topnotch engineers there. Companies must also develop incentivized referral programs to hire talent, especially from underprivileged backgrounds, in countries other than the company's home base.

3. **Hire for potential.** Recruit not only for competence, skills, and credentials but also for potential and attitude. Rely on the company's own subject-matter expertise and personality tests to avoid rejecting good candidates simply because they don't fit conventional expectations. **Red Bull** uses its publicly available personality-assessment tool, Wingfinder, to identify strong candidates, not all of whom may have standard certifications or experience. Similarly, companies in the renewables industry have evaluated applicants' potential to learn and invested in short-duration skill sprints to train new hires to manage the decarbonization of homes.

4. **Use freelance platforms.** Global freelance platforms, such as **Upwork** and **Fiverr**, can connect your business to overlooked talent abroad and act as a steppingstone to help your employees learn how to work in globally distributed teams. Companies should use these platforms not just for project-based outsourcing but also as talent-sourcing and talent-screening tools for permanent hires.

5. **Internationalize onboarding.** In onboarding packages, extend in-kind and financial support to foreign talent to ensure a smooth transition. Also, be ready to run virtual onboarding sessions abroad for new hires about to migrate, as the German logistics company **Forto** does. These practices have become common in digital startups, but leaders in other industries are increasingly adopting them.

6. **Start with remote work.** Recognize that speed is often critical, and migration may take too long to meet urgent business needs. Put in place mechanisms that support remote full-time employment around the world, which can help staff teams with offshore talent quickly. Remote work gives business quick access to foreign talent and establishes pathways that facilitate migration in the future.

7. **Adopt new language norms.** Open up to international talent by making language expectations less restrictive and more inclusive. It may mean empowering teams to work in different languages, making accommodations for employees with limited language proficiencies, or having staff communicate in a language that is accessible to migrants. **Douglas**, a leading European beauty retailer founded in Germany, has switched its tech teams' default language from German to English to expand its recruitment pools and enable global collaboration.

8. **Create pathways for young talent.** Build bridges for junior talent worldwide with coaching, extended training, vocational programs, and starter jobs. The music-streaming platform **SoundCloud** has created a DeveloperBridge program to hire younger employees from other countries. Another useful mechanism is the intercompany transfer program, which is not visa-capped in many countries and can serve as a way to move less-experienced talent across geographies.

9. **Build a supportive work environment.** To accomplish this, adapt your human-resources policies to migrants' needs, facilitate migrants' transition with streamlined onboarding processes, and expand cultural-sensitivity training for all employees. It is important to identify migrants' key needs and translate them into policies so that they feel included in the workforce. Additionally, companies can go beyond migrants' immediate needs and incorporate support for their families by, for instance, facilitating home searching, offering educational resources, and helping with administrative processes.

10. **Set up global networks.** Reach migrant networks by moving product and R&D hubs to new locations that will improve access to foreign workers. Cities with a high quality of life offer pools of globally diverse talent and are popular destinations for migrants.[45] Due to the high employee costs in traditional technology hubs—such as San Francisco, Berlin, and Singapore—companies may prefer to set up hubs in smaller cities, such as Austin, Bologna, Bogotá, Nairobi, or Tallinn, which are increasingly attracting global talent.

Deploy a Global Innovation Strategy: Elevate globally diverse teams to drive creativity in innovation.

A global innovation strategy is a logical extension of the talent strategy. It generates value by treating foreign talent both as a resource that is interchangeable with local talent and as a catalyst for creativity. Foreign employees enable companies to build geographically diverse teams in which the variety of perspectives provides a breeding ground for novel ideas. This strategy is critical for companies that face complex innovation challenges and for those whose market value comes from their future growth. But its potential is universal.

Companies can pull on one or more of six levers, which may be familiar but underutilized, to execute a global innovation strategy.

1. **Protect diversity.** Shape an organizational culture that values new ideas and respects the employees who generate them. In practice, this will involve creating exchange forums to pressure-test ideas in a trusted environment. **Stripe**, a financial-services firm, has formed interest groups based on employee origins. These groups serve as a second home for foreign talent, and they play an active role in customizing products and strategies for each geography. **Kyndryl**, a New York-based global IT services provider, appoints executive sponsors for each of its Inclusion Networks to champion recruiting, retaining, engaging, and supporting employees from diverse backgrounds. By involving senior executives, as well as encouraging their participation, Kyndryl fosters a company-wide culture that values diverse perspectives.

2. **Mix and match.** Consider geography when designing teams. Identity-based communities empower diverse voices, and diverse teams are important to bring these voices together in productive conversation. For instance, **GetYourGuide**, a travel and tourism company, builds its product teams to include engineers from a variety of nationalities. Global diversity should be represented at all organizational levels and functions to ensure that companies maintain the creative edge that diverse teams offer.[46]

3. **Connect international innovators.** Set up internal migration networks (also known as mobility programs) to bring together unconventional problem solvers from different locations. For example, BCG's think tank, the **BCG Henderson Institute**, offers people the opportunity to relocate to one of its innovation hubs and conduct research. The think tank also encourages teams across hubs to collaborate virtually and regularly holds organization-wide ideation sessions.

4. **Move everyone around.** Provide opportunities for employees across all levels of the business to develop abroad. The Japanese fast-fashion retailer **UNIQLO** believes that its future lies in globalizing through innovation. The company encourages senior and middle managers to work abroad for months at a time to gain a global perspective. UNIQLO also provides future employees with opportunities to develop internationally, offering scholarships to Indian, Bangladeshi, and Vietnamese students to study in Japan, and to Japanese students to study in the US and UK.

5. **Remain mission-first.** Train innovation managers to create alignment in teams that are multicultural and multi-functional. Most corporations pride themselves on creating organizational cultures that celebrate focus and put the business mission first. Aligning teams to the goals of fulfilling the mission and innovating for customers creates a common frame of reference while preserving the diversity of individual viewpoints. To create performance-boosting cultures, companies must empower global teams with decision-making authority and learn to trust them.

45. Cities of Choice: Global City Ranking, June 2021.

46. "How Diverse Leadership Teams Boost Innovation," BCG.

6. **Lead pragmatically.** Guide globally diverse innovation teams to successful outcomes—or fast failures. Companies can do this by subjecting innovation teams to a lean decision process that ensures that only the best projects survive. Most companies have processes to ensure that they allocate resources only after progress is made, but these mechanisms often fail to produce the desired outcomes. For a fast-failure culture to flourish, teams must be empowered or incentivized to recommend course corrections and to shut down doomed projects early.

Take a Stand on Human Rights: Embrace and protect migrant rights by building sustainable migration pathways.

Global mobility needs strong and vocal corporate allies who embrace the cause authentically for the benefit of migrants worldwide, which is in the long-term interest of business and society. Companies are increasingly taking the first steps by working with governments to support the implementation of the principles laid out in the UN Global Compact for Safe, Orderly, and Regular Migration. To build sustainable migration pathways and protect migrant rights, business can take seven actions independently or in partnership with governments and civil society.

1. **Implement fair and ethical recruiting standards.** The minimal requirements can be met by following existing guidelines, such as the IOM International Recruitment Integrity System (IRIS) Standard and the IOM's Migrant Worker Guidelines for Employers, to grow recruitment markets that operate equitably.[47]

2. **Apply equal, nondiscriminatory treatment of local and foreign workers.** Provide all migrants with the same terms and conditions as national workers. All decisions related to wages, work conditions, opportunities for promotion, health insurance and medical services, training, and termination of employment should be based on fair and objective criteria in accordance with the International Labor Organization standards and guidelines.[48]

3. **Donate time and resources.** The UN estimates that business has contributed $1.4 billion to support Ukrainian refugees.[49] Alongside financial donations, in-kind contributions and innovative collaborations are significant ways the private sector can support migration, with such engagement often benefiting the contributing companies as well. For example, the analytics company **SAS** partnered with IOM to shelter people displaced by the 2015 Nepal earthquake. SAS deployed its data, software tools, and research teams to track down critical supplies to support the IOM's immediate response. The story of these efforts made for SAS's most trafficked webpage over the next two years, driving more visitors to its product pages than any other channel. The story also strengthened the organization's relationships with customers as well as employees, who expressed renewed pride in working with SAS.

4. **Implement development programs and skills-mobility partnerships.** Public and private stakeholders from destination and origin countries should collaborate on creating skills-development and labor-mobility plans that will benefit everyone. The IOM's Displaced Talent for Europe project, for example, engages the private sector in developing labor-mobility schemes to match displaced talent in Jordan and Lebanon with employers in Belgium, Ireland, Portugal, and the UK. The business sector is a critical stakeholder that can identify the skill shortages in migrant-receiving countries and help IOM plan and execute labor-mobility programs.[50]

5. **Seek opportunities to engage migrants in the local and global community.** Companies can partner with civil-society organizations, including NGOs, to support migrants' integration into receiving communities. Through entrepreneurship and job training, IOM and **Citi Foundation** have supported sustainable livelihoods for Venezuelan migrants and local communities in several countries around the world. IOM and Citi jointly identified gaps in countries' labor markets and educated migrants to fill them through training in skills and entrepreneurship.[51]

47. Migrant Worker Guidelines for Employers | IOM Publications Platform & IRIS Standard | IRIS Ethical Recruitment (iom.int).
48. Migrant Worker Guidelines for Employers | IOM Publications Platform.
49. How Businesses Save Lives in Emergencies - Impakter; Ukraine Private Sector Donations Tracker: Dashboard (humdata.org).
50. Displaced Talent for Europe (DT4E) | IOM Belgium and Luxembourg.
51. IOM, Citi Foundation Expand Partnership to Support the Integration of Venezuelans | International Organization for Migration.

6. **Advocate for more humane treatment of workers along supply chains and support stronger labor-governance standards.** Companies must push for rules that protect the human rights of migrants and uphold labor standards. They must take action to help eliminate the trafficking and exploitation of workers. The world's leading garment and technology manufacturing companies are working to ensure that their supply chains don't just meet sustainability goals but also prioritize the humane treatment of workers, and other businesses need to follow suit.[52] Collaborations with IOM through Corporate Responsibility on Eliminating Slavery and Trafficking (CREST) can support the private sector to proactively protect workers at all levels and in all types of positions irrespective of nationality.

7. **Take a seat at the table.** To improve policymaking, business leaders should participate in migration forums and socialize the benefits, opportunities, and challenges of global migration for business. The International Migration Review Forum, for example, seeks to increase the private sector's participation in migration governance, and it serves as a global platform for implementing the Global Compact for Safe, Orderly, and Regular Migration.[53] In addition to engaging with nonprofits, business should join—or form—industry-specific groups to better forecast hiring needs, share best practices on how to address them, and advocate for policies that will help companies access the global talent they need. The voice of business must become a powerful amplifier of migrants' rights in the workplace and ensure that migration pathways become sustainable.

52. IOM Spotlight on Labour Migration in Asia.

53. The International Migration Review Forum will serve as the primary intergovernmental global platform to discuss and share progress on the implementation of all aspects of the Global Compact, including as it relates to the 2030 Agenda for Sustainable Development, and with the participation of all relevant stakeholders. The International Migration Review Forum shall take place every four years. More can be found here.

Those Who Take the Lead Get the Benefits

Companies that embrace global talent enjoy a substantial performance advantage over those that don't. According to a BCG study, companies that have more immigrants in their leadership report around 15% higher profitability on average—2.2 percentage points, as measured by earnings before interest and taxes in terms of sales. (The sidebar "Migrants in Corporate Leadership" offers more data on these executives.) They are also 75% more likely to be world-class innovators.[54 55] This is not influenced by other factors, such as the company's size, age, industry, or headquarters location.

These findings align with those of a 2017 BCG study of 700 companies in eight countries, and of a survey we conducted of 850 business leaders in 2021.[56 57] Even so, it is interesting to ask whether these companies are more innovative because they are more globally diverse, or whether they are more globally diverse because they are more innovative and, therefore, attract more international talent.

54. These estimates are robust at 5% in models containing size, age, year, industry, and country-level fixed effects.

55. These estimates are robust at 10% in models containing size, age, year, industry, and country-level fixed effects.

56. "How Diverse Leadership Teams Boost Innovation," BCG.

57. The estimates in such surveys often tend to be higher than those from analyses of public data.

Companies with migrants in leadership positions can gain a competitive edge.

We have answered this chicken-and-egg type of question in a study that compared two groups of similar companies with one key difference. One group consisted of corporations that had made it to BCG's list of the world's 50 Most Innovative Companies at least once in the last 15 years. The second group was made up of more than 3,000 publicly listed companies that had never appeared as one of the 50 Most Innovative Companies in the same period.[58]

We found that companies that made the list of the Most Innovative Companies were more globally diverse than their un-ranked peers four years before they appeared on the list. Furthermore, companies that made the ranking did not become more globally diverse following their first appearance on the list. On the contrary, after a few years, there were no significant differences between the two groups. Proving a causal link remains difficult with the available data, but we interpret the results to mean that there could be a causal relationship running from immigrant representation in leadership to the success of a company's innovation efforts.

58. Statistical side note: We thus use the year of first appearance on BCG's Most Innovative Companies list as the moment to study pre- and post-event differences in diversity between two groups of otherwise similar publicly listed large companies. This method is not perfect, as we define "innovative" as a binary variable based on BCG's ranking methodology. Still, this variable does indeed capture firm qualities associated with innovation, as MIC50 companies tend to grow faster and create more shareholder value in the years following their inclusion in the MIC50 index.

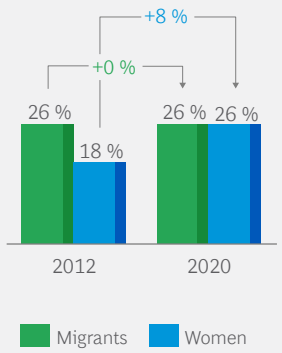
Migrants in Business Leadership

There's little public data on the number of migrant managers and workers in the business sector. Migrants' representation in leadership is better reported, but the data is still spotty. In 2020, only 28% of the 2,000 largest publicly listed companies in the world disclosed the citizenship of members of their boards of directors and executive leadership teams.[59] In those companies, a little more than one in four (26%) of board-level executives were from a country other than that of the company's corporate headquarters. (See the exhibit below.) The percentage has stayed virtually flat since 2012, unlike, say, the ratio of women on boards, which has made steady progress in those eight years, rising by 8 percentage points. Still, that's a long way from parity.

Snapshot: Migrants in Business Leadership

Migrant representation on boards
(% of board members)

Over time



Top countries

Luxembourg	77%
Netherlands	59%
Switzerland	56%
Indonesia	49%
Finland	46%

Bottom countries

Mexico	7%
Japan	12%
India	13%
United States	14%[1]
Austria	14%

Top industries

1	Health Care	31%
2	Materials	29%
3	Energy	28%
4	Durables	28%
5	FMCG	27%

Source: Refinitiv; BCG analysis.

Note: Migrant status based on citizenship vs. country of company headquarters.

[1]Relatively low in part due to high naturalization rates.

59. Thomson Reuters Refinitiv Database.

The Time to Act Is Now

In December 2015, the street artist Banksy created several murals in Calais, France, where many migrants from Africa were living while trying to enter the UK. One mural, titled *The Son of a Migrant from Syria*, showed Steve Jobs as a migrant with a black bag thrown over one shoulder and the original Apple computer in his hand. In a statement, Banksy explained: "We're often led to believe that migration is a drain on [a] country's resources, but Steve Jobs was the son of a Syrian migrant [to the United States]. Apple is the world's most profitable company; it pays over $7 billion a year in taxes—and it only exists because they allowed in a young man from Homs."

A radical shift in attitudes toward migration is long overdue, as Banksy vividly argued. Amid labor shortages that are greater than ever and looming demographic shifts, an opportunity cost of more than $1 trillion today could grow into a $20 trillion opportunity by 2050. Companies that move first to employ, elevate, and embrace migrants—and to close skill gaps, fuel innovation, and stand for global human rights—are bound to gain an early competitive advantage.

There's a business case for migration, but it's also a human cause that business would do well to champion. As Martin Luther King Jr. once said, "The time is always right to do what is right." When it comes to migration, the time for business to act is now.

Appendix

Data and Methodology

In the following pages, we provide a deep dive into the methodologies we used for our analyses. They are:

Semantic Text Analysis

Research Question

What is the sentiment (negative, neutral, or positive) in business and general audiences in articles covering the topic of migration?

Dataset

The analysis was conducted with Quid, an AI-based software that analyses text-based big data to understand the past and the present sentiment about migration across the globe over an eight-year period. We collected the data in five steps:

1. Search based on specific criteria. The initial database included more than 660 million English-language articles from August 2013 to March 2022. We restricted the search to news publications with regional, national, and global audiences, and we selected all 600,000 articles with terms related to migration in the headline (see below for complete terms).

2. Sample creation. The 600,000 results were segmented geographically into three relatively even subgroups for the US and China, the European Economic Area, and the rest of the world. The tool then sampled 10,000 articles that best matched our search criteria for each geographic segment. The aggregate sample of 30,000 articles covered 94 countries and passed quality checks to ensure that each geographic segment was appropriately represented.

3. Categorization. Using natural-language processing, the Quid tool categorized each article into a topic, which an analyst then normalized so that topics could be compared one to one across geographies.

4. Sentiment extraction. Sentiment was extracted using a human-generated lexicon that assigned positive or negative scores to individual words and phrases. Each article's sentiment is the sum of those scores for all the language that is used in it. This sum is normalized into a combined score from most negative (-2) to most positive (+2), and a summary category of negative, neutral, or positive is assigned based on the article's combined score.

5. Finally, we removed 2013 from our analysis to capture data on full years from 2014 to 2021 and the first quarter of 2022.

Search Terms

The Boolean search criteria selected articles with titles containing:

- "immigrant " * OR "migrant " * OR "migration" OR refugee * OR "border" OR "borders" OR "foreign worker" OR "foreign workers" OR "visa" OR "visas" OR emigra *.

- The US and China geographic segments also included "green card" OR "green cards" OR immigrant * OR "H1-B" OR "H1B."

- We included terms to exclude articles related to data or software migration and Visa, the financial-services company.

Note: *The * symbol includes any words that start with the letters before it. For example, "immigra*" includes words such as "immigration," "immigrating," and "immigrant."*

Analysis

We defined "net positive sentiment" as the difference between the number of positive and negative articles in a specified subset. For example, if a hypothetical search returned 100 articles, and 40 of them were positive, 40 neutral, and 20 negative, the net positive score would be (40/100) – (20/100) = +20%.

Results

- Business coverage of the topic of migration has been, on average, 33 percentage points higher than in all other publications since 2014.

- In business and other publications, the sentiment about migration has become more positive by around 20 percentage points over the same period.

- As of the first quarter of 2022, 46% of business publications have a positive sentiment about migration compared to 13% in the case of all other publications.

Limitations

- Coverage. The article database on which the search was conducted includes only English-language publications, so it is missing relevant articles in other languages, particularly in countries where English is not an official language.

- Timeline. The sample was selected based on the availability of data in the database (the oldest available was from August 2013), creating an arbitrary break in the timeline.

- Categorization. We used both natural-language processing technology and analyst input to categorize the articles into broad topics. Some articles could have been categorized differently due to the subjective nature of the process.

- Sentiment. We used a standard methodology to categorize sentiment, but this mathematical approach could miss the nuances of language. For example, "I beat cancer" could be classified as negative because of the words in the sentence, although its meaning is positive.

Labor Shortage Analysis

Research Question

What is the cost of labor shortages to countries today?

Dataset

There are two parts to our dataset:

1. GDP per country from the World Bank

- GDP in current US dollars. We limited our sample to the top 30 countries by GDP in 2021, including Argentina, Australia, Austria, Belgium, Brazil, Canada, China, France, Germany, India, Indonesia, Ireland, Israel, Italy, Japan, Republic of Korea, Mexico, the Netherlands, Nigeria, Norway, Poland, Russian Federation, Saudi Arabia, Spain, Sweden, Switzerland, Thailand, Turkey, the United Kingdom, and the United States.

- GDP per person employed (constant 2017 PPP $) for all countries in the sample for 2000-2021.

2. Number of job vacancies in countries between 2000 and 2022, aggregated from several sources in various steps:

- From Eurostat statistics. We extracted quarterly job-vacancy data from the first quarter of 2001 to the second quarter of 2022 for the 30 largest countries by GDP. We defined the annual number of vacancies as the average number of job openings across all four quarters.

- From Trading Economics. We extracted annual job-vacancy data for 2000 to 2022 for countries in the top 30 for which Eurostat data was not available.

- Where neither Eurostat nor Trading Economics data was available, the following approaches were taken:

  - For South Korea and Russia, we extracted job-vacancy data from the countries' official statistics bureaus.

  - For China 2019-2022 and Russia 2021-2022, we projected the number of job vacancies by using linear projections of historical data.

  - For the other countries with missing data (Argentina, Brazil, India, Indonesia, Italy, Mexico, Nigeria, Saudi Arabia, Turkey), we extrapolated total job openings from the job openings on LinkedIn as per the following methodology:

    - For the 43 countries whose data was in Eurostat or Trading Economics, we calculated the ratio between total openings according to these sources and job openings on LinkedIn.

    - Given the number of openings on LinkedIn located in each country, we took the median of the 43 ratios as an approximation of the total number of job openings in that country.

    - The total job openings in Argentina, Brazil, India, Indonesia, Italy, Mexico, Nigeria, Saudi Arabia, and Turkey were imputed by multiplying the median ratio by the number of job openings on LinkedIn located in each country.

Analysis

We calculated the average annual number of historical job openings from 2008 to 2020.

- For countries with historical data, we calculated the average job vacancies in that period.

- For countries without historical data, we took the average ratio of average historical vacancies to current vacancies across the countries with historical data and multiplied it by the number of current vacancies in countries without historical data to impute their average historical openings.

We defined the current excess job openings as the open positions in 2022 less the 2008-2020 average.

We estimated the impact of these excess job openings for the top 30 countries at a country level, multiplying the number of excess openings by the 2021 GDP per worker.

Results

- Labor scarcities were highest in the United States, China, Germany, the United Kingdom, and Canada.
- For all 30 countries, there were 30 million job openings, of which 12 million were above average historical levels.
- In (nearly) all the top ten countries by GDP, the number of job openings were at all-time highs.
- Above-average labor shortages in the top 30 countries have an impact of around $1 trillion per year, whereas the total cost from all open jobs is close to around $3 trillion per year.

Limitations

- Data availability. As described above, one source didn't have all the data on the top 30, so we used different sources and estimation techniques to compensate for this. The sources used have limitations too; for example, agricultural job-listing data wasn't adequately available in Eurostat.
- Precision. The analysis approximates the value of open jobs by multiplication with overall GDP per worker, which may be above or below the value of open positions.

Global Diversity of Boards: Composition Analysis

Research Question

What is the correlation between the global diversity of boards and companies' financial performance (TSR, EBIT, revenues)?

Dataset

- Years: 2012 to 2020
- Companies: 3,325 public companies that have ranked in the top 2,000 by market capitalization globally at any point from 2012 to 2022 to avoid for survivorship bias excluding the following:
    - Companies headquartered in hyperinflationary environments (> 1000%/year), such as Venezuela.
    - Investment vehicles that aren't companies (that is, all companies with tickers containing "arca" or "mutual fund" or names containing "ETF" or "fund" except for *Nippon Building Fund Corporation*, which was retained in the sample).
- Data was extracted for the sample of companies:
    - From *CAPIQ*, descriptive information: industry, country of headquarters, year founded
    - From *CAPIQ*, financial information: yearly revenue, yearly EBIT, yearly one-year TSR in US$ based on the year ending December 31st
    - From *Refinitiv*, board cultural-diversity and gender-diversity data: percentage of the board with citizenship different from the country of company headquarters, and percentage of the board identifying as female

Analysis

- Time trends. We compared trends for gender and cultural board diversity, as well as the averages of migrant and female representation on boards over the years excluding 2021 and 2022 due to the limited sample size and a time-lag data-collection bias.
- Sectoral and geographic trends. We captured the average cultural diversity across countries and industries through conditional means of data from 2012 to 2020; only countries with at least 30 company observations were included in the former. Trends in these subsets are analyzed through regression models that include controls for country, industry, size (revenues), and age.
- Financial trends. We defined a categorial variable that indicates if companies have "high" or "low" board cultural diversity (above or below the median, respectively, for each year), and we used regression analysis on the financial indicators using clustered standard errors and controlling for country, industry, company size (revenues), and firm age. To reduce the effect of extreme values, the dataset was winzorized, excluding the lowest and highest 5% of values. The financial variables analyzed include:
    - EBIT margin (EBIT/sales)
    - Sales growth
    - Total shareholder returns

Results

- Time trends. The share of migrants on executive boards stayed consistent at 26% over the period, while the share of women in boards increased from 18% to 26%.
- Sectoral trends. Migrant board representation was highest in health care, materials, and energy (28% to 31%) and lowest in financials, utilities, and real estate (18% to 24%). Representation has increased over time in health care, energy, consumer staples, and IT (time trends significant at a 1%-5% level).
- Geographic trends. Luxembourg, the Netherlands, and Switzerland have, on average, more than 50% migrant representation on boards. Representation is below 15%, on average, for companies in Austria, the United States, India, Japan, and Mexico. The Netherlands and the UK have seen increasing migrant representation over time (1% to 5% significance).

- Financial trends:
  - Companies with the higher migrant representation on boards had an EBIT margin that is 2.2 percentage points higher on average.
  - No statistically robust relationship exists between TSR and revenues.

Limitations

- Scope limitation. The source provides diversity data only at board and executive level, not for all employees.
- Reporting bias. The source provides diversity data only for companies that publicly share board members' citizenship.
- Citizenship approximation. A migrant is defined as someone living in a country different than their birthplace, regardless of citizenship, but the data is not available for company employees or board members. Foreign citizenship is the best available indicator of migration status and international diversity, but it may not precisely capture the representation of migrants on boards.
- Currency. The analysis uses US dollars, not local currencies, which controls for international differences in inflation but is influenced by foreign-exchange-rate fluctuations.

Global Diversity of Boards: Innovation Regression Analysis

Research Question

Are companies that have higher migrant representation in their leadership more likely to be innovators?

Dataset

- Years included: 2012 to 2020
- Companies included: the same 3,325 as in the trend analyses
- BCG's list of the 50 Most Innovative Companies (MIC50) in these years, with 2016 values interpolated from 2015 in the absence of the 2016 ranking

Analysis

- We ran a linear regression of the probability that a company was an MIC50 innovator in the current year, or was in at least one of the last two years (three years in total), on an indicator for high or low migrant representation.
  - This model includes controls for firm size (revenues) and age (founding year) and the fixed effects of year, industry, and country.

Results

Companies with "high" (above median) representation of foreign nationals on boards are 75% more likely to make the list of Most Innovative Companies than those with low migrant representation on boards.

Limitations

- The relationships appear only when key confounding variables (size, age, industry) are controlled for and are otherwise not significant.
- There is no statistical significance of a MIC50 appearance in only one year (instead of the three-year approach) due to the small sample size.

Migrant Representation on Boards: Innovation Event Study

Research Question

What is the level of migrant representation on boards for companies prior to them being ranked as a BCG Most Innovative Company (MIC50) innovator? Does higher representation precede or follow companies' being more innovative?

Dataset

- Years included: 2010 to 2022
- Companies included: the same 3,325 as in the trend analyses
- BCG's list of MIC50s across these years, with 2016 values interpolated from 2015, and 2011 values interpolated from 2010 because no rankings were published in 2011 and 2016

Analysis

We ran a simplified event study defining the event as the year a company was first ranked, comparing two groups of similar companies with one key difference: whether or not the companies ever appeared on the MIC50 list.

Results

- In the four years before entering the index for the first time, there is a statistically significant difference (mean innovator: 27.50%, mean non-innovator: 23.5%, delta: 4 percentage points, $p = 0.04^{**}$) in the level of migrant representation between companies that made the MIC50 for the first time and those that have never been recognized as MIC50 innovators.
- In the four years after entering the index for the first time, there is no statistically significant difference (mean innovator: 27.3%, mean non-innovator: 24.4%, delta: 2.9 percentage points, $p = 0.13$) in the level of migrant representation between companies that made the MIC50 for the first time and those that have never been recognized as MIC50 innovators.

- Our analysis suggests that higher migrant representation levels precede becoming a leading innovator (defined as being mentioned in the MIC50 ranking).

- The MIC50 ranking has changed its methodology over time but relies on a mix of expert-panel inputs (n = 2,500 executives until 2020, n = 1,500 executives since 2021) as well as the last three years of total shareholder returns. Other BCG research shows that the MIC50 ranking also correlates with subsequent total shareholder value outperformance (see, for example, mic.bcg.com).

Limitations

- The analysis is limited to publicly listed companies due to the MIC50 methodology.

- The identification in the analysis relies on a somewhat fuzzy event. Being innovative is not a binary event and, in fact, the underlying drivers partly predate the event itself. This is an inherent limitation of any analysis when innovation isn't measured as an input but as an outcome.

Population and Migration Demographic Analysis

Research Question

What are the trends in the working-age population across countries for the next decade? How do these differ for the top-destination countries for migrants?

Dataset

From UN Population Division for all countries:

- UN bilateral migration stocks, 1990 to 2020, every five years

- GDP per capita, USD, 1990 to 2020, every year

- Historical population estimates by age, 1950 to 2021, every year

- Future population projections by age and overall, 2022-2100, every year ("medium scenario" and "zero-migration scenario")

From the World Bank:

- GDP per worker, USD, 1990-2021, every year

- GDP, USD, 1990-2021, every year

Analysis

- The 2020 global value of migration is estimated by multiplying the immigrant population in each destination by its GDP per capita.

- Linear projection of GDP per worker

  - For each destination country, we fit a simple linear model of GDP per worker over time using 1990 to 2021 data (one-year intervals) and project the trends into future years regardless of the statistical significance of the time coefficient, setting any negative values to zero.

- Linear projection of migrant stocks

  - For each destination country, we fit a simple linear model of total immigrant stock over time using 1990 to 2020 data (five-year intervals) and project these trends into future years regardless of the statistical significance of the time coefficient, setting any negative values to zero.

- Future migrant stocks implied by demographic shifts in population projections

  - Version A: Constant working-age population

    - Per the UN zero-migration scenario World Population Projections, we define the future working-age population gap as the 2020 estimate minus 2030, 2040, and 2050 projections for ages 15 to 64. We can then look at working-age migrant populations implied by simple, conservative assumptions where migrants fill 10%, 20%, or 30% of this gap.

  - Version B: Constant dependency ratio

    - Per the UN zero-migration scenario World Population Projections, we define the future working-age population gap as the number of additional working-age people needed to maintain the 2020 dependency ratio (population aged <15 and >64 divided by the population aged 15 to 64). We can then look at working-age migrant populations implied by simple assumptions where migrants fill 10%, 20%, or 30% of this gap.

- We look at two valuations each for 3a (linearly projected migrant stocks), 4a (migrant stocks implied if they fill 20% of the gap to maintaining a constant working-age population), and 4b (migrant stocks implied if they fill 20% of the gap to maintaining a constant dependency ratio).

- Under constant productivity: sum across all countries of 2020 GDP per worker times the given migrant stock

  - Under linear productivity growth: sum across all countries of linearly projected GDP per worker times the given migrant stock

Results

- Population demographics: Per the UN's zero-migration scenario of World Population Projections, the ten countries with the greatest projected decreases in working-age populations will see this group lose 345 million people, while the ten countries with the greatest projected increases will gain 775 million potential workers.

- Migrant projection 3a (linearly projected): Estimated around 400 million migrants by 2050, with a value of $14 trillion (in current US dollars) with fixed productivity; $25 trillion with linearly projected productivity growth

- Migrant projection 4a (constant working population gap): If migrants cover 20% of the gap, with a population of around 400 million by 2050, the estimated value of migration is $13 trillion (in current US dollars) with fixed productivity, $15 trillion with linearly projected productivity growth.

- Migrant projection 4b (constant dependency ratio gap): If migrants cover 20% of the gap, with a population of around 1 trillion by 2050, the estimated value of migration is $20 trillion (in current US dollars) with fixed productivity, $25 trillion with linearly projected productivity growth.

Limitations

- Expectation of the unexpected. Future migration patterns will be greatly influenced by unforeseeable political, economic, and environmental events with unknown impacts. The approach taken is therefore simple compared to the uncertainty.

- This high-level approach doesn't concretely assess factors affecting migration patterns. The push and pull of migration, including governance (work and residency permits, asylum policies), cultural appeal, and economic conditions in countries of origin, are central to how migration plays out, but these factors operate at a level that the analysis doesn't capture.

- The valuation was calculated at the country level, but segmenting migrants across sectors, job levels, and internal geography could add precision and lead to different results.

- Classifying migrant types as economic migrants, family-related migrants, or refugees; comparing migrants' wages to those of local workers; and considering how well migrants have integrated with local communities could also make the results more accurate.

About the Authors

Johann Harnoss is a fellow at the BCG Henderson Institute and cofounder and CEO of Imagine Foundation, an NGO fostering safe and legal skilled migration. You may contact him at Harnoss.Johann@bcg.com.

Marley Finley is an associate in the firm's New Jersey office and BCG Henderson Institute Ambassador. You may contact her at Finley.Marley@bcg.com.

Janina Kugel is a BCG Senior Advisor, non-executive board member for multiple companies, and former CHRO of Siemens. You may contact her at Kugel.Janina@advisor.bcg.com.

François Candelon is a managing director and senior partner in BCG's Paris office and global director of the BCG Henderson Institute. You may contact him at Candelon.Francois@bcg.com.

Karina Kleissl is a former consultant in the firm's Amsterdam office and BCG Henderson Institute Ambassador. You may contact her on LinkedIn.

We invite the readers of this BCG Brief to join the discussion by sharing their approaches to, and best practices in, supporting planned, safe, orderly, and regular cross-border migration.

BCG × IOM UN MIGRATION