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WORKERS WANTED, WORLDWIDE:

**STRATEGIES TO SUCCEED IN THE
GLOBAL DEMOGRAPHIC DROUGHT**

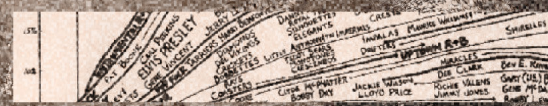
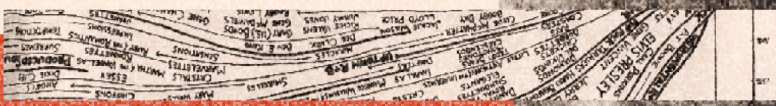


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I. Executive Summary



Populations are aging and talent pools are shrinking across all economies globally. What started as a talent shortage in a few countries will continue to devolve into an outright shortage of workers across the globe.

Through 2040, the growth of the working-age population (persons ages 15 to 64) is expected to slow in 8 out of 10 countries globally, according to [UN population projections](#). A slowing working-age population means that fewer people are entering and more are exiting working age. Declining fertility rates, rapidly aging populations, and falling immigration are squeezing world-wide labor supply.

Previous Lightcast reports have documented the imminent [Demographic Drought](#) in the United States: the American working-age population is set to grow at a much slower pace in the coming decades. And that means the labor shortages employers are experiencing today aren't necessarily going away.

But this isn't just about the US. Working-age populations in East Asia and the Middle East will slow down twice as fast as in the US through 2040. And in the European Union—where working-age populations are flat-out declining—27% of manufacturing firms and 35% of services firms [reported](#) that a lack of workers limited production in Q3 2022, the highest or near-highest proportions ever recorded.

Slowing immigration, especially in more developed regions,¹ presents an additional barrier to increasing national labor supplies. Net migration (immigrants minus emigrants) is projected to slow through 2040 in nearly 60% of developed economies, according to the [United Nations](#).

Employers are facing a global labor shortage and sooner than many of them expected. Since not all working-age persons work, the rapid rate of population slowdown means that any remaining slack in the labor market will diminish in most developed regions by the end of the decade, if not sooner.

Almost every employer will feel the impact of shifting demographics, but the more global a company is, the more complicated the challenge. Multinational companies have always faced a complex calculus in sourcing qualified people, siting facilities, and managing global supply chains. The old rules of finding talent, and the unspoken assumption that there is always more talent to be found, somewhere, may no longer apply.

In this report, we hope to provide practical guidance to employers on how to make these new calculations in finding talent. The rules of the global talent hunt may have changed, but success is still possible—and essential.

¹The designations "more developed" and "less developed" countries or regions follow [UN location definitions](#). More developed regions comprise North America, Europe, Australia, New Zealand, and Japan.

THREE FACTORS WILL SHAPE THE FUTURE GLOBAL LABOR SUPPLY

For global business leaders, there are three factors to watch:

- 1 An aging population is happening everywhere, but at a different pace.** Seventy years of declining fertility rates and rapidly rising retirements around the world have resulted in a **Global Demographic Drought**. Today, countries in **Europe** and **East Asia** are aging fastest. Through 2040, growth in the working-age population is expected to slow in 8 out of 10 countries globally, and outright shrink in 3 out of 10.
- 2 Falling immigration will further squeeze the labor supply in more developed economies.** Net migration is projected to slow in nearly 60% of developed economies over the next 20 years. Immigration in **Oceania** and **North America** is expected to slow down but not enough to cause the working-age population to decline. In **Europe**, the situation is more dire: the working-age population is projected to lose more people than immigration will replace.
- 3 Higher workforce participation can partially offset an overall decline in working-age people.** It's not all doom and gloom. Over the last decade, labor force growth has outpaced working-age population growth in 4 out of 10 countries, a trend primarily seen in developed economies in **North America, Europe, Oceania,** and **East Asia**. Increasing the size of the labor force by expanding available talent pools can lessen the economic blow of a vanishing population, ongoing retirements, and fewer migrants.

WHAT DOES THIS MEAN FOR EMPLOYERS?

The Global Demographic Drought will not constrain employers to the same extent everywhere. Certain geographies will fare better than others depending on three things. Here's what employers need to know:

- 1 There's a lot employers can do to get more people into the workforce.** Flexible work, skill-based hiring, and making accommodations for health or family challenges can tap into overlooked talent and partially offset the economic impact of a declining labor supply.
- 2 Businesses need to understand the skills, tech readiness, and innovative capacity of the local workforce.** Companies can more successfully compensate for a shortage of workers if the workers that *are* available are highly skilled, have access to new technologies, and can operate in a dynamic and innovative environment. That means employers may need to invest in training and support to ensure workers keep up with change.
- 3 Employers need to value the workers they have.** Employers are finding out that workers aren't disposable, and employees who leave may not be so easy to replace. Employers that consciously work to retain employees by understanding and accommodating workers' unique circumstances will have a competitive advantage in the labor market.

DEMOGRAPHIC RISKS AND OPPORTUNITIES WILL DRIVE TALENT ACQUISITION STRATEGIES

Finding workers at the right place, at the right cost, and with the right qualifications has never been easy—and it’s only going to get harder. To better inform employers of the recruitment strategies most likely to succeed in their geography, we categorize countries and regions according to the relative demographic risk or opportunity employers will face in finding the workers they need over the next twenty years.

Higher risk geographies are associated with *lower* projected working-age population growth rates and *less* skilled, tech ready, and innovative workforces. In contrast, higher opportunity geographies are associated with *higher* projected population growth and *more* skilled, tech ready, and innovative workers.

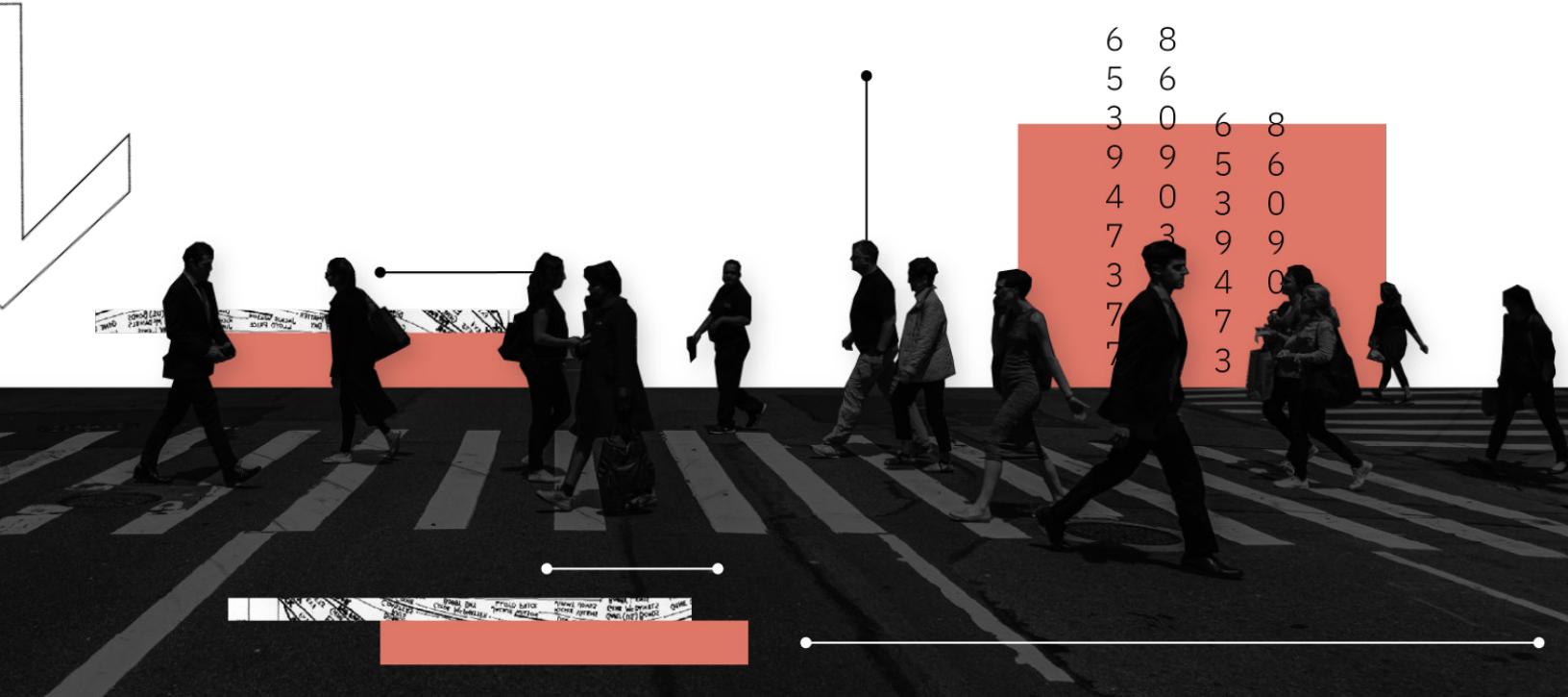
We define four categories:

Higher Risk regions/countries with declining working-age populations and skill, tech, and innovation gaps.

Higher Opportunity regions/countries with both growing working-age populations and skilled, tech ready, and innovative workforces.

Lower Risk regions/countries with declining working-age populations, but with skilled, tech ready, and innovative workforces.

Lower Opportunity regions/countries with growing working-age populations, but with skill, tech, and innovation gaps.



For each geography in which they are operating, employers will need to understand the level of demographic risk or opportunity they are facing and retool their “B” recruitment strategies (Box 1) to make the most of the labor supply, skills, and technology available in their local labor market.

BOX 1: Talent compass for your “B” strategies

In an environment where there are insufficient workers to maintain current levels of production, engaging the full menu of B strategies is critical for employers operating globally and facing an array of skill, technological, and innovative capabilities.

B strategies include:

Build: Upskill talent

Buy: Acquire talent

Borrow: Engage gig talent

Bind: Retain talent

Blend: Extend talent with contractors

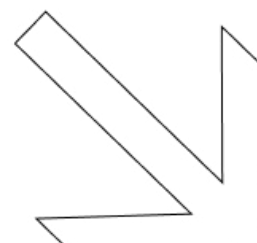
Broaden: Expand talent pools or roles

Bot: Augment roles with technology

Ultimately, overcoming the struggle to find enough workers—and doing so faster than competitors—will entail a forward-looking and data-driven understanding of regional and local workforces. Our regional findings are summarized below (Figure 1):

Higher Risk: In **Eastern and Southern Europe**, employers will struggle more than in other geographies to recruit and retain workers. Rapid aging and significant emigration will largely overshadow efforts to increase labor force participation, resulting in both shrinking working-age populations and workforces. These regions also have a labor force with fewer skills, more modest technological adoption, and a lower innovative capacity than other developed regions. Companies will need to focus on *building* and enhancing the skills of the local workforce through targeted training programs, *borrowing* and *blending* the talent pool with gig workers or contractors to gain access to skills that aren't locally available, and retaining—or *binding*—employees through flexible and meaningful work.

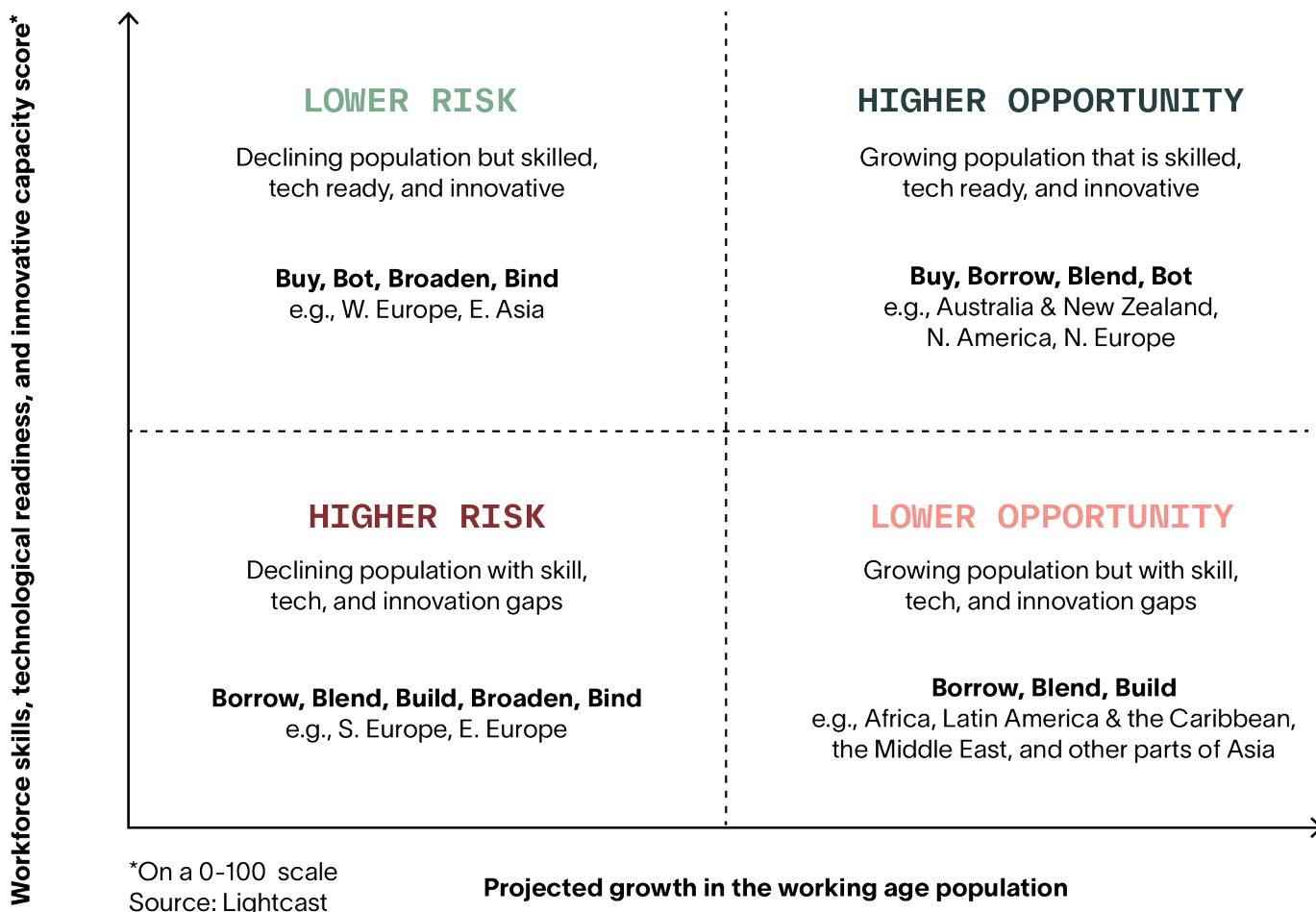
Higher Opportunity: **Australia, New Zealand**, and more developed countries in **North America** and **Northern Europe** will manage to avoid a shrinking working-age population and labor shortages as severe as in other regions due to an enduring (although thinning) stream of immigrants. In addition, skilled, tech ready, and innovative workforces in these areas will enable employers to find and *buy* talent more easily than in other geographies, to develop and adopt the newest forms of technology (*bot*), and to *borrow* or *blend* the talent pool with third parties to bring in innovative or scarce resource capabilities.



Lower Opportunity: Less developed countries in **Africa, Latin America and the Caribbean, the Middle East,** and **parts of Asia** will remain younger for longer and will see emigration slow. No region will escape the working-age population slowdown, but countries in these areas will maintain relatively robust rates of population and labor force growth. Thus, the focus in these geographies moves from "not enough people" to "not enough skills." *Building* human capital through training programs that enable skills transition in the long-term will be a key strategy in developing regions, as well as *borrowing* and *blending* gig talent to access specialized talent that fills skill gaps quickly.

Lower Risk: In **Western Europe** and **East Asia,** where working-age populations are expected to shrink over the next 20 years, a relatively skilled, tech ready, and innovative workforce will enable employers to find and *buy* skilled talent more easily and implement labor-saving technologies (*bot*) more effectively than in other geographies. National labor market policies in these regions that encourage workers to join or remain in the labor force will also make employer efforts to *broaden* the talent pool and retain (*bind*) workers more fruitful.

Figure 1. Demographic risks and opportunities will drive talent acquisition strategies





II. Three factors will shape the global labor supply

1. An aging population is happening everywhere, but at a different pace

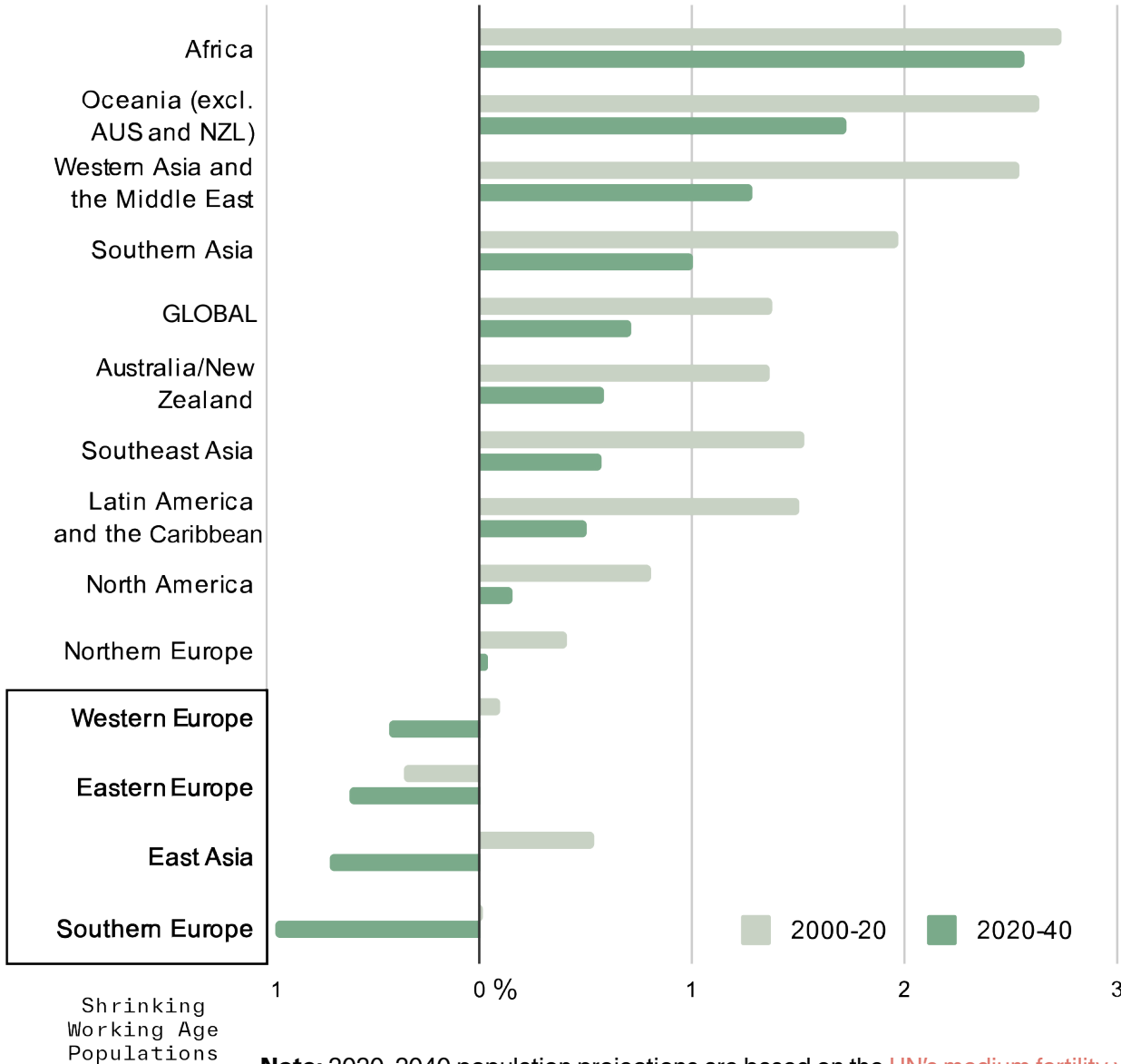
Fewer and fewer working-age people are supporting a growing elderly population. Seventy years of declining fertility rates around the world, coupled with increased longevity, has resulted in proportionally fewer children (under 15 years of age) in the population and a larger proportion of people aged 65 and over.

These trends are largely responsible for falling workforce entrants and rising exits, and in turn, the worldwide slowdown in the working-age population. In fact, through 2040, average annual growth of the working-age population is expected to slow in 8 out of 10 countries globally, and outright shrink in 3 out of 10.

The slowdown is most acute in developed countries, where fertility rates have dipped below levels needed for populations to replace themselves. A smaller working-age population, as is projected in East Asia and parts of Europe (Chart 1), puts more pressure on those who are working to support dependent populations and can lead to economic slowdown. But shrinkage of the working-age population, at least for now, has been largely limited to parts of the developed world. Africa, the Middle East, and parts of Asia are still growing fairly rapidly and will continue to do so for the foreseeable future, albeit at slower rates than in the past.

Chart 1. The working age population will grow more slowly in all regions through 2040, but in parts of Europe and Asia, that population will shrink

Average annual growth rate of the working age population (aged 15-64)

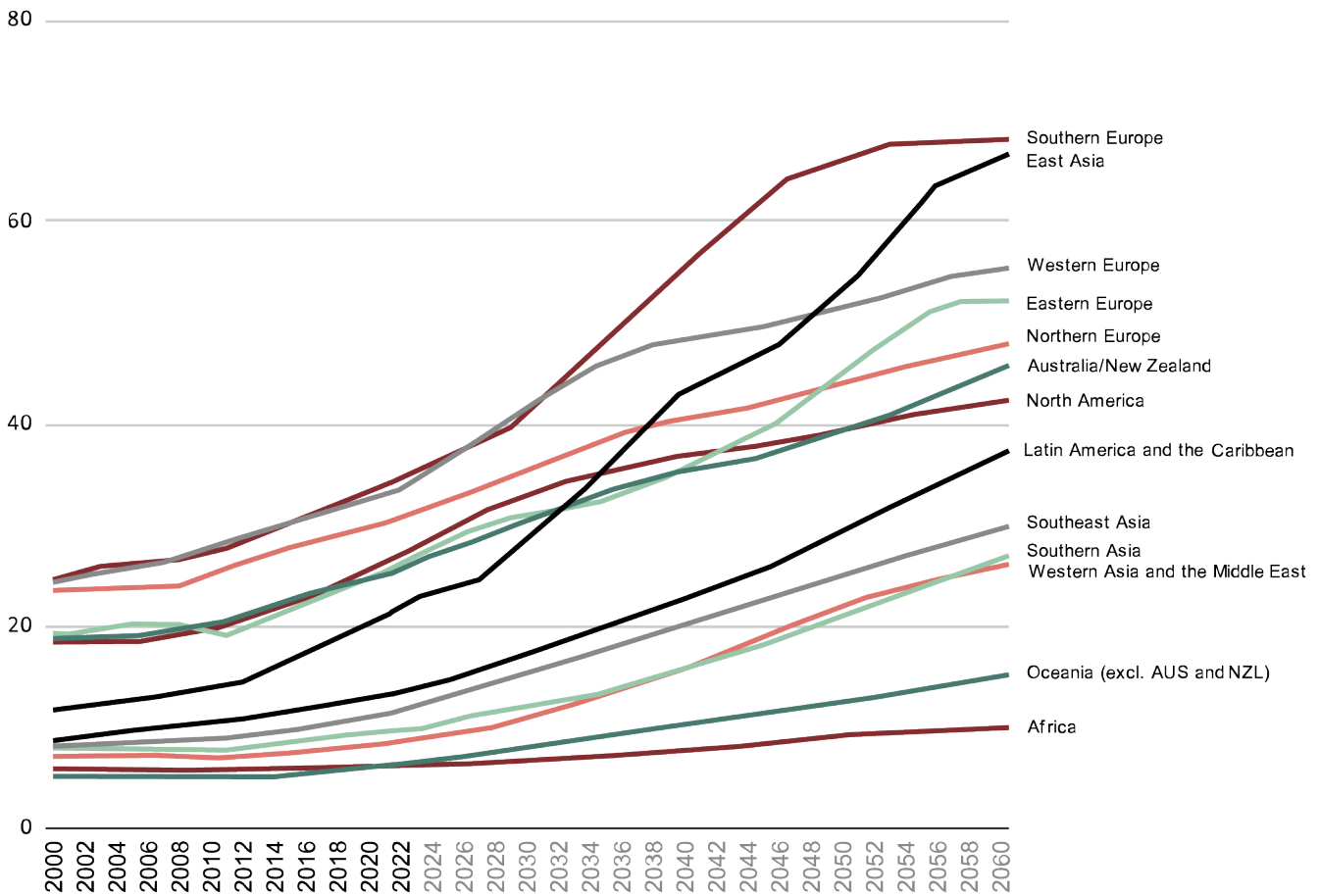


Note: 2020-2040 population projections are based on the UN's medium fertility variant, which includes net migration. Countries included in each global region follow UN location definitions. **Source:** UN World Population Prospects 2022 and calculations by Lightcast

The bottom line is that every region in the world is projected to see its over-65 share of the population increase, but at a different pace (Chart 2).

Chart 2. Europe is aging fastest, but by 2040 several East Asian economies will have some of the largest shares of people aged 65+

Dependency ratios (persons aged 65+ as a share of persons aged 15-64)



Note: 2020-2060 population projections are based on the UN's [medium fertility variant](#), which includes net migration. Countries included in each global region follow [UN location definitions](#).

Source: [UN World Population Prospects 2022](#) and calculations by Lightcast

BOX 2. Regional Snapshot: Aging Trends

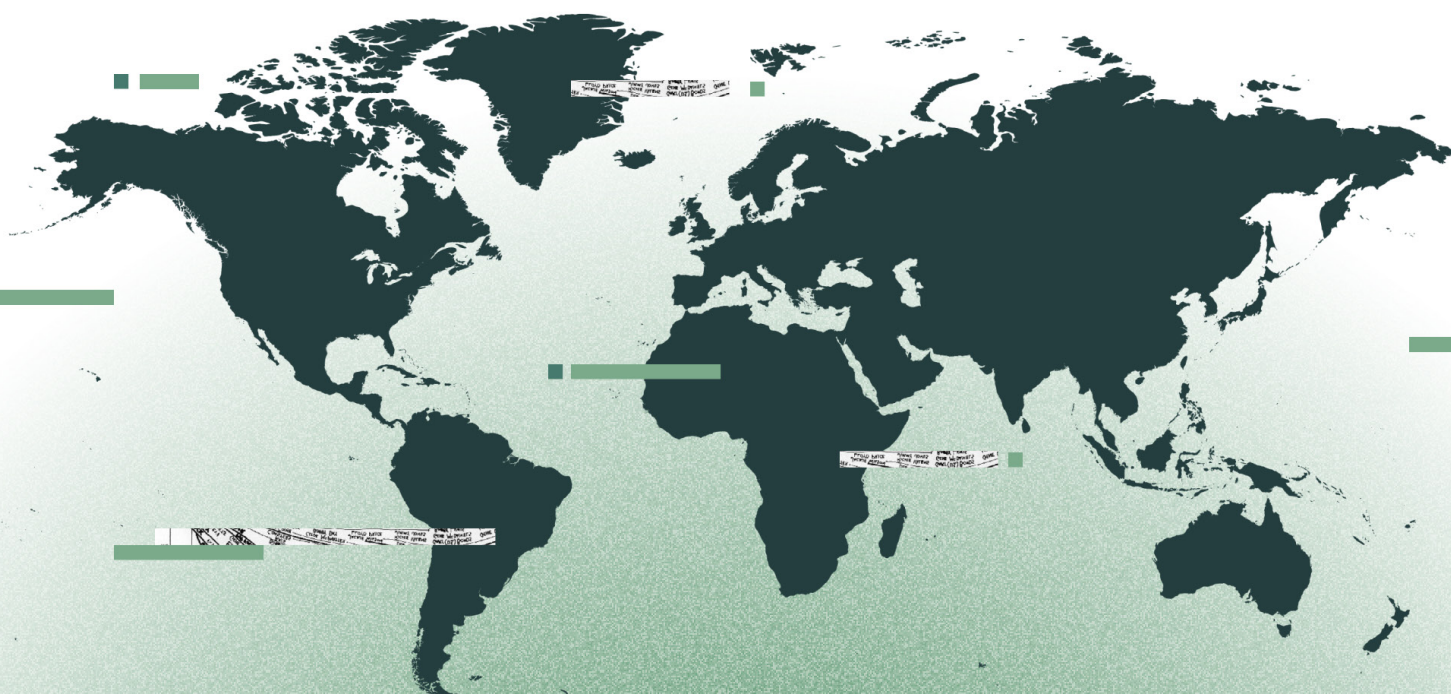
Europe is aging fastest, especially countries in **Southern Europe**. By 2040, Spain, Portugal, and Greece will all have dependency ratios, which measure the proportion of persons aged 65 and over to the working-age population, above 50%. Italy's dependency ratio will reach 63%. Aging in Poland, Slovakia, and other **Eastern European** nations will speed up dramatically beyond 2035.

Asia is also home to some of the most rapidly aging populations globally. Several **East Asian** economies with shrinking working-age populations will have among the highest dependency ratios in the world by 2040, including Japan (66%), South Korea (58%), and Taiwan (48%). The aging of the Chinese population will occur more slowly, with the over-65 share reaching "only" 42% by 2040. In **Southeast Asia**, Singapore and Thailand will age most quickly and their working-age populations will decline. Accelerated aging will occur in Vietnam and Malaysia predominantly after 2045. In **Southern Asia**, India will remain significantly younger for longer.

The aging of the population in the US, and in **North America** more broadly, will continue to accelerate through 2030. This is because the number of US high school graduates—and thus young workforce entrants—will **start to decline** in 2025. And by 2030, all baby boomers will be at least age 65, further reducing the working-age population. But when compared to other regions, the pace of working-age population slowdown in North America through 2040 is about half that in East Asia and the Middle East.

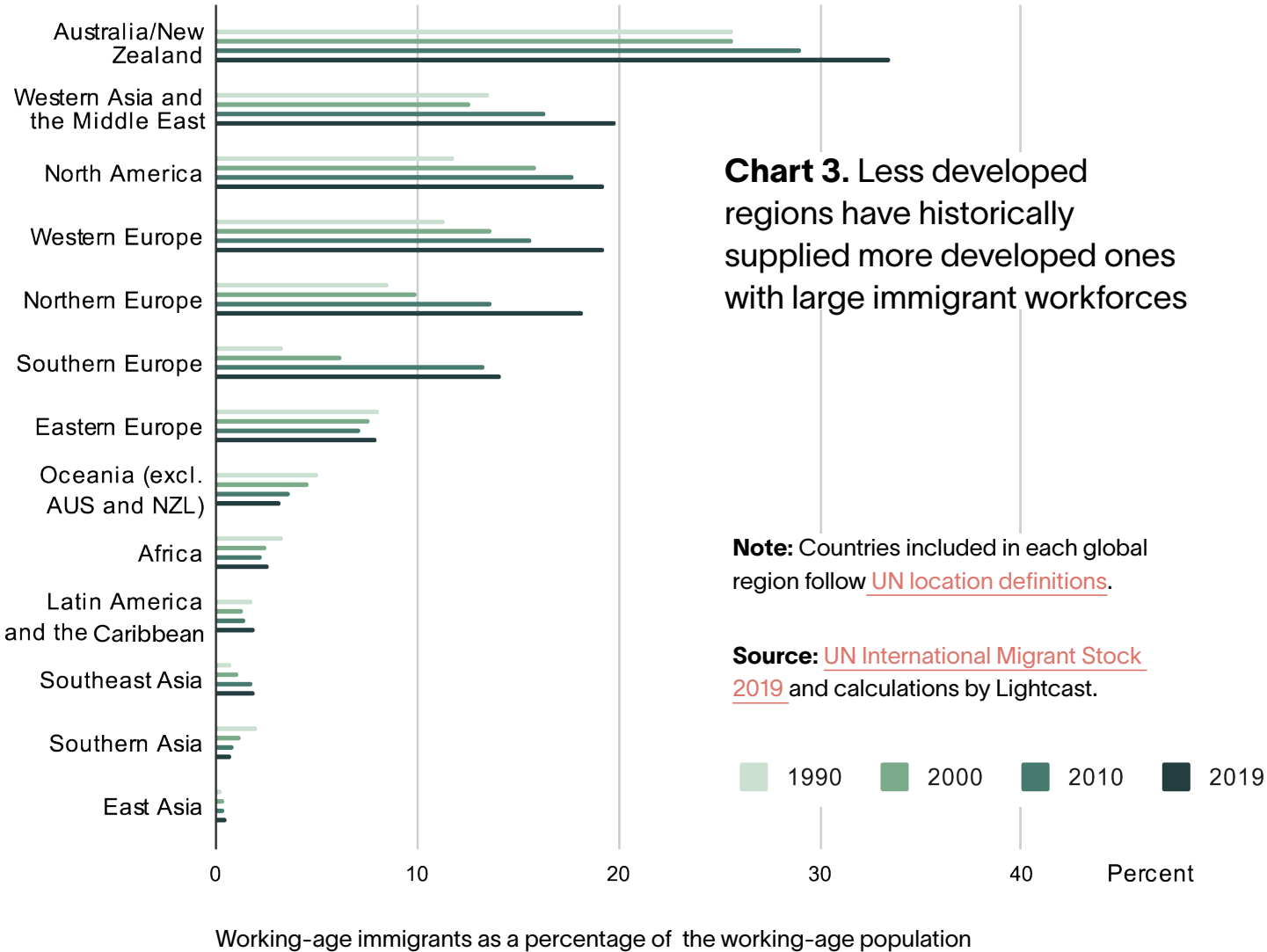
Aging is taking place at different speeds across **Latin America and the Caribbean**. On some islands, dependency ratios will peak in 2040, while the rest of the region will begin to age more rapidly after that time, especially in Chile, Costa Rica, Brazil, and Columbia. Mexico will remain the youngest among **OECD member countries** through 2040 and beyond.

Developing economies in **Oceania** (excluding Australia and New Zealand) and **Africa** will also remain younger for much longer. In these regions, the challenge is not about enough people, but rather enough skills.



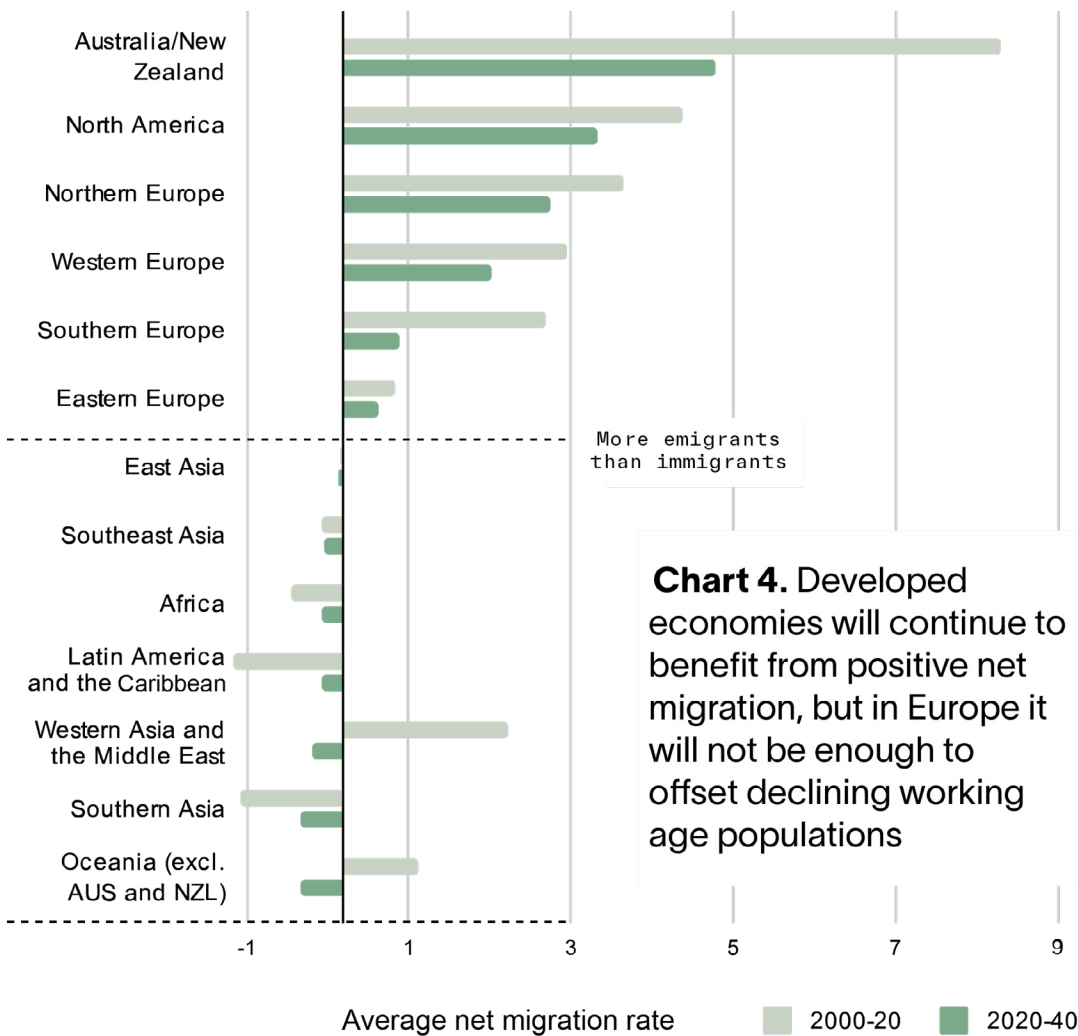
2. Falling immigration will further squeeze the labor supply in more developed economies

One strategy for replacing lost workers is importing labor. In 2019, immigrants represented 15% of the working-age population in developed regions, compared to 2% in less developed ones, according to [UN estimates](#). Historically, people from less developed nations have migrated to more developed ones, providing large immigrant workforces to sustain key sectors such as agriculture, construction, professional and health services, and leisure and hospitality. Between 1990 and 2019, international migrants as a share of the working-age population rose significantly in developed nations in Oceania, North America, and Europe, as well as in the Middle East (Chart 3).



Yet net migration rates (the number of immigrants minus the number of emigrants, expressed per 1,000 people) are projected by the UN to fall in nearly 60% of developed economies over the next 20 years (Chart 4).

Many nations aim to attract similar pools of talent. [Global demand for digital roles](#) is especially likely to intensify, even in less developed regions, given accelerated digitization worldwide. Countries experiencing high levels of emigration will increasingly compete to retain their own talent. Employers in developed economies with low birth rates will no longer be able to rely on immigration to fill future talent gaps.



More emigrants than immigrants

Chart 4. Developed economies will continue to benefit from positive net migration, but in Europe it will not be enough to offset declining working age populations

Note: 2020-2040 projections are based on the UN's [medium fertility variant](#). Countries included in each global region follow [UN location definitions](#).

Source: [UN World Population Prospects 2022](#) and calculations by Lightcast



BOX 3. Regional Snapshot: Migration Trends

In nearly all of **Europe**, immigration will not be enough to offset dwindling working-age populations. Through 2040, net migration will fall most sharply and exacerbate the decline of the working-age population in **Western and Southern Europe**, primarily in Spain, Switzerland, Austria, Belgium, and Italy. In **Eastern Europe**, less emigration from Romania, Slovakia, and Poland will help ease labor shortages in those countries. In addition, huge inflows of Ukrainian refugees as a result of the Russia-Ukraine war will temporarily bolster the [labor supply](#) in neighboring Eastern European nations, and across Europe more broadly.

The projected drop in net migration is by far the largest in the **Middle East**, including in Saudi Arabia, Qatar, and the United Arab Emirates. Based on [UN estimates](#), working-age immigrants in these countries comprised 44%, 80%, and 90% of the total working-age population in 2019, respectively. An exodus of expatriates, and slowing working-age populations, are expected in the region given large scale efforts by [Gulf Cooperation Council \(GCC\)](#) governments to [nationalize](#) their workforces.

In **Australia** and **New Zealand**, large inflows of international migrants have historically contributed to strong population growth. Over the next 20 years, a significant slowdown in immigration will likewise curb working-age population growth, although it will remain firmly in positive territory.

Although falling, immigration will continue to prevent the decline of the working-age population in **North America**. In 2019, for instance, 19% of the working-age population in the US, and about 23% in Canada, was foreign born. Based on [UN estimates](#). In fact, Canada plans to attract a [record number](#) of immigrants through 2024 to fill skill gaps and provide more of the qualified workers that businesses are looking for.

In **Asia**, nations like Japan and South Korea—with very low birth rates and little immigration—are already facing falling working-age populations. Over the next 20 years, Singapore will experience among the largest declines in immigration in the region, and similarly will see its working-age population contract during that time. In **Southeast Asia**, by contrast, declining emigration from Laos, the Philippines, and Indonesia will partially offset slowing working-age population growth in those countries. While in Thailand, continued migrant inflows will not be enough to counterbalance a shrinking working-age population.

In **Latin America**, the migration picture is mixed. In Chile, although immigration is expected to remain positive, a significant drop in foreign born workers through 2040 will likewise lead to a drop in the working-age population. In Columbia and Ecuador, positive migration balances will become negative over the next 20 years as emigration rises, while in Argentina negative balances will become positive as immigration increases. In Mexico and Peru, significantly fewer people are expected to emigrate, which should bolster local working-age populations. And in Brazil, migration trends have historically had little impact on the overall population because migrant inflows and outflows largely offset each other.

Ebbing emigration from developing countries in **Africa** will help sustain national labor supply in this region.

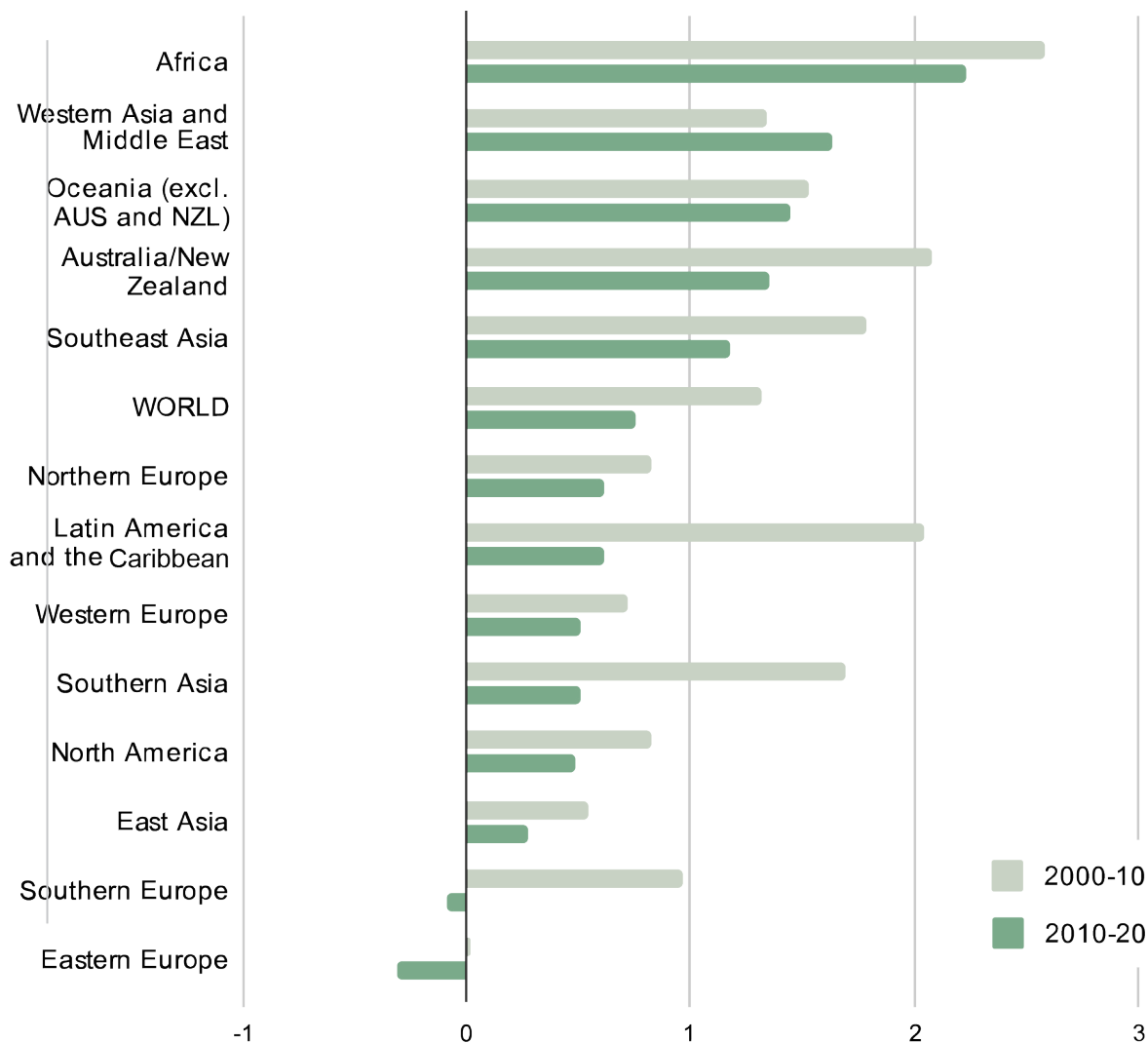


3. Higher workforce participation can partially offset fewer working-age entrants

The perfect storm of falling fertility rates, an aging population, and slowing immigration is constraining the growth of the labor force in nearly all regions, especially in Eastern and Southern Europe (Chart 5) where workforces are now shrinking. These trends will continue to weigh on the future development of the labor force particularly in developed economies.

Chart 5. Slowing working age populations mean the labor force will also grow more slowly globally and shrink in parts of Europe

Average annual growth rate of the labor force (aged 15 years and over)



Source: ILO modeled estimates, November 2021 edition, and calculations by Lightcast.

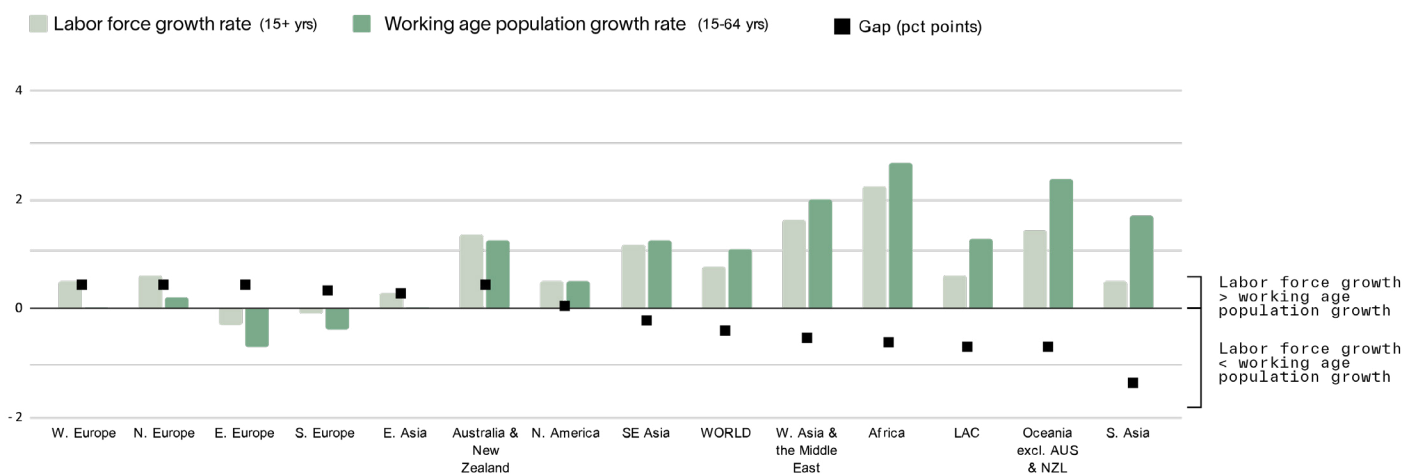
Note: Countries included in each global region follow [UN location definitions](#).

However, if countries can engineer labor force growth to outpace working-age population growth, through targeted workforce strategies, they can lessen the expected economic blow of having fewer eligible workers. Over the last decade, labor force growth has outpaced working-age population growth in 4 out of 10 countries globally, and in 8 out of 10 countries in developed regions (Chart 6). Among developing economies in Africa, Asia, Latin America, and Oceania, the advantage of robust population growth means very little if eligible workers are not effectively transitioned into the workforce, and ultimately into employment.

Attracting—and retaining—groups that have historically had weaker attachment to the labor market will be key to mitigating the impending people shortage crisis. Innovative policies and solutions that help more people enter the workforce, and stay in it longer, can boost workforce participation. A focus on retention, in particular, offers key advantages to governments and employers because they can capitalize on the knowledge, skills, and experience accumulated by an aging workforce—also known as the “longevity dividend.”

Chart 6. Countries and regions that can engineer labor force growth to outpace working age population growth through targeted strategies and policies can lessen the expected economic blow

Average annual growth of the labor force and working age population (percent), and the percentage point difference (gap), 2010-20



Note: LAC refers to Latin America and the Caribbean. Countries included in each global region follow UN location definitions.

Source: ILO modeled estimates, November 2021 edition; UN World Population Prospects 2022; and calculations by Lightcast.

BOX 4. Regional Snapshot: Labor Force Trends

European countries have been most successful in mitigating slow growing or falling working-age populations with [inclusive labor market policies](#) aimed at expanding the workforce. Policies in **Western and Northern Europe**, such as in the Netherlands and Sweden, encourage workers to join or remain in the labor force, or help workers better combine family and work life. In **Eastern and Southern Europe**, however, efforts to increase labor force participation are largely overwhelmed by rapid aging and large migrant outflows, resulting in both shrinking workforces and dwindling working-age populations. Yet Hungary and Czechia, and to a lesser extent Italy, are bright spots in these regions that have managed to grow the labor force despite a declining working-age population.

Australia and **New Zealand** have experienced some of the highest labor force growth rates over the past decade among developed economies. Yet there is still room for raising the labor market participation of [certain groups](#), including women, indigenous people, and older workers.

In **North America**, labor force growth in the region matched working-age population growth between 2010 and 2020. Rapid aging is expected to unravel this parity in the coming decades. In the US, where Baby Boomers are such a large cohort, the single most significant driver of labor market tightness is the [ongoing retirement](#) of the boomers. At the same time, labor force participation rates of older Americans 65 and over—those outside the typical working-age population 15 to 64—are [projected](#) to increase through 2030. Thus, employers that entice older workers to remain in the labor force for longer will unlock an important source of growth.

In **Asia**, and globally, Japan is at the forefront of innovative solutions to an aging and dwindling working-age population, dubbed as “[shrinkonomics](#).” Despite experiencing one of most rapidly declining working-age populations in the world, Japan’s [policies](#) aimed at raising labor force participation among women and the elderly have resulted in an increase in the size of the workforce. Labor force growth in South Korea and Singapore, and in China to a much smaller degree, has also outpaced working-age population growth over the last decade. Among less developed Asian economies, Malaysia has had success in expanding its labor force at a faster rate than its eligible working-age population, partially through [policies](#) to improve female participation, while India has largely [failed](#) to transition its young and growing populace into the workforce.

Compared to other regions, **Latin America and the Caribbean** experienced the largest drop in the average annual growth of the labor force between 2000-10 and 2010-20. Thus, despite rising educational access and [female participation](#), [high rates of “informal” work](#) and persistent [skill](#) and [gender gaps](#) throughout the region have limited the expansion of the labor force. In Brazil, Columbia, Argentina, and Mexico, for example, the labor force grew at least half a percentage point slower than the working-age population in the previous decade, while in Peru it grew 1.6 percentage points slower. The challenge of expanding available talent pools in the region has only [intensified](#) due to the pandemic.

In **Africa**, only 10 of 54 countries have seen labor force growth outpace working-age population growth. Some of this is good news: as access to education improves across the continent, youth can [stay in school](#) for longer. However, labor absorption problems remain in the region because it has both the highest [fertility rates](#) and [unemployment rates](#) in the world (in Niger and South Africa, respectively).



III. RISKS AND OPPORTUNITIES

The Global Demographic Drought will not constrain employers to the same extent everywhere

Declining fertility rates, an aging population, and slowing immigration will create significant challenges for employers in the coming decades, including workforce renewal, knowledge transfer, and retention of experienced employees. An uptick in fertility rates today would take years to lessen the shortage of working-age people. And although migration can be a shorter-term policy approach, even a large increase in immigration would not significantly curb the projected drop in working-age population growth in most developed economies.

However, countries with greater technological diffusion and with a skilled and innovative workforce will be better situated to compensate for diminishing labor supply. Not all countries or regions face the same risk level associated with an older workforce and declining working-age populations. The quality of skills and education of the local workforce, the degree of digital connectivity and digital skills of the population, and the extent of firm-level absorption of the latest technologies and the ability to innovate with them can mitigate some of the economic drag from aging.

Chart 7 presents a combined measure of a region's workforce skills, tech readiness, and innovativeness, calculated using data from the World Economic Forum (see Box 5). Countries and regions with higher *Workforce Skills, Technological readiness, and Innovative capacity* scores, (hereafter WSTI scores) will best be able to mitigate against the Global Demographic Drought. Based on country level trends, we reason that a combined score of 65 or greater—well above the world average of 53—serves as an effective benchmark of a country's ability to offset working-age population slowdown.

At a global level, 76% of all countries, and 44% of more developed ones, have WSTI scores below 65—meaning they don't have either the skill proficiency, technology, or the innovative capability to mitigate for declining working-age population growth.

Regionally, we find that North America, Western and Northern Europe, Australia and New Zealand, and East Asia have skilled, tech ready, and innovative workforces that can best mitigate the slowdown in their working-age populations. In Southern and Eastern Europe, significantly lower levels of innovation capability compared to other developed geographies make these regions much more vulnerable to a shortage of people.

Chart 7. Regions with a combined score of 65 and above—well above the world average of 53—will have a greater ability to offset a slowdown in their working age population

Workforce Skills, Technological Readiness, and Innovative Capacity Scores, 2017-2019 average



Note: Scores range from 0 to 100, where 0 refers to the “worst performance” possible and 100 to the “best possible outcome” for each indicator. Countries included in each global region follow [UN location definitions](#).

Source: World Economic Forum [Global Competitiveness Index 4.0](#), 2017-2019; and calculations by Lightcast

BOX 5: Calculating Workforce Skills, Technological Readiness, and Innovative Capacity scores

Lightcast’s measure of Workforce Skills, Technological readiness, and Innovative capacity, or WSTI score, for a particular country or region is calculated as the average of individual “progress scores” for (1) Skills, (2) ICT Adoption, and (3) Innovation Capability published by the [World Economic Forum](#). Each progress score is itself an average score of several underlying indicators (Table 1).

All scores—from the underlying components to the high-level progress scores—range from 0 to 100, where 0 refers to the “worst performance” possible and 100 to the “best possible outcome.” For each country and region, the average WSTI score for 2017-2019 reflects the average of 2017, 2018, and 2019 reported values. We calculate WSTI scores for 139 countries. Regional scores are calculated as a weighted average of country scores.

Table 1. Underlying measures of Workforce Skills, Technological readiness, and Innovative capacity scores

Skills	ICT Adoption	Innovation Capability
Average years of schooling Pupil-to-student ratios Quality of on-the-job and vocational training Skill sets of graduates Digital skills among the workforce Ease of finding skilled employees etc.	Number of mobile telephone/ broadband subscriptions Number of fixed broadband/fiber internet subscriptions Number of internet users	Total national R&D expenditure Number of patent and trademark applications Number of citations of published research Diversity of the workforce Presence and depth of regional innovation clusters Degree of domestic and international collaboration on R&D etc.

Source: World Economic Forum, [Global Competitiveness Index 4.0 Methodology and Technical Notes](#)

Countries and regions can be grouped into one of four risk and opportunity categories

To better understand the risks and opportunities different geographies face, Chart 8 compares a country or region’s projected growth of its working-age population over the next 20 years (x-axis) against its calculated WSTI score (y-axis). We then group 139 countries and their regional averages into two “risk” and two “opportunity” categories:

Higher Risk regions/countries with declining working-age populations and skill, tech, and innovation gaps;

Lower Risk regions/countries with declining working-age populations, but with skilled, tech ready, and innovative workforces;

Higher Opportunity regions/countries with both growing working-age populations and skilled, tech ready, and innovative workforces; and

Lower Opportunity regions/countries with growing working-age populations, but with skill, tech, and innovation gaps.

“Risky” geographies are associated with shrinking working-age populations while “opportunity” geographies are associated with working-age populations that are projected to continue growing. Given the projected shift in demographics, regions with skilled, tech ready, and innovative workforces (i.e., with WSTI scores above 65) have an opportunity to partially offset the forces of aging, while regions with skill, tech, and innovation gaps (i.e., with WSTI scores below 65) are at greater risk of economic fallout from the **Global Demographic Drought**.

Regionally (Chart 8a), North America, Northern Europe, and Australia and New Zealand—each with growing working-age populations and workforces that are skilled and tech ready—have the highest opportunities for mitigating demographic risks. At the other end of the spectrum, Southern and Eastern Europe, with dwindling working-age populations and workforces that are less tech ready and innovative, are most at risk of future economic hardship. Western Europe and East Asia have the human and technological capital, but lack the people, while the opposite is true in most developing regions.

At a national level (Chart 8b), we find that 38% of more developed countries fall into the “higher risk” category, including Portugal, Greece, Russia, Poland, and Romania. In contrast, only 13% of less developed countries are considered high risk, including Thailand, Mauritius, and Chile. Unless employers take mitigating steps, those operating in these high-risk economies won’t have sufficient people, skills, nor technology to sustain growth levels over the next 20 years.

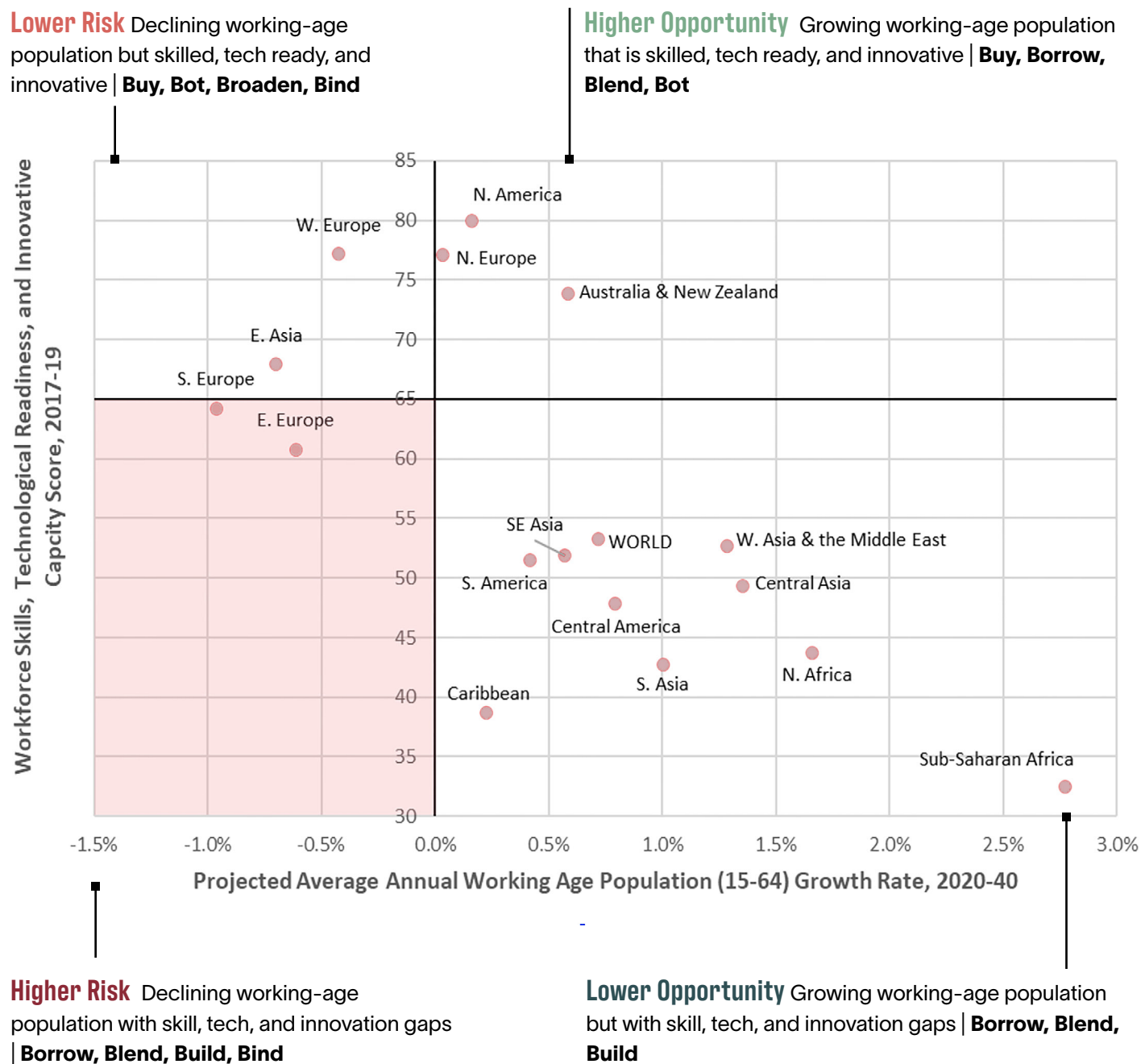
Overall, 9 out of 10 countries fall outside the “higher opportunity” quadrant, signaling that employers in almost all parts of the world will have to act to offset business environments with not enough people, not enough skills and technology, or both.

Even in high opportunity geographies that will manage to avoid a shrinking working-age population and labor shortages as severe as in other regions, companies must act to minimize the impact of demographic shifts and ensure they stay at the frontier of skill and technological adoption.



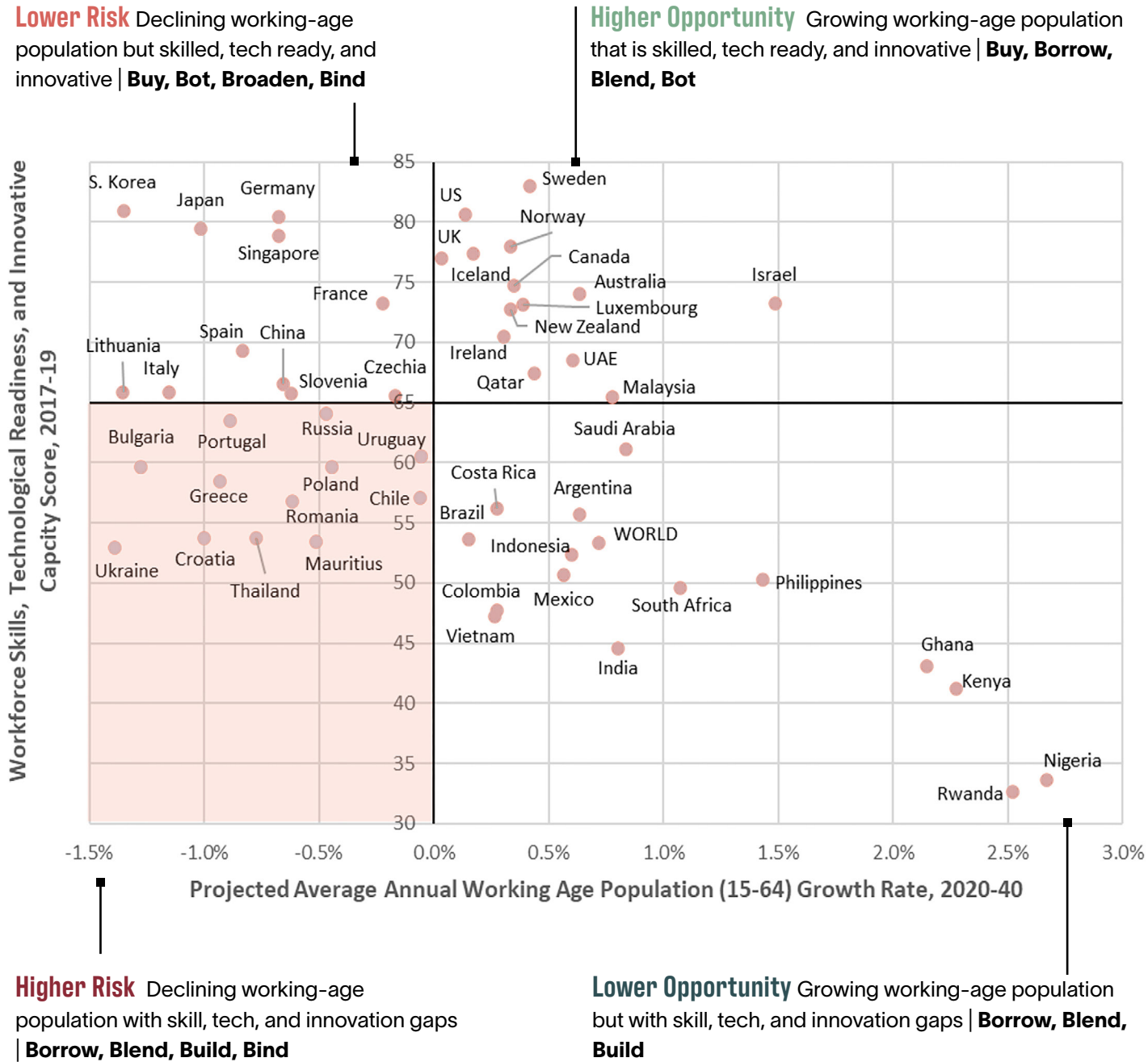
Southern and Eastern Europe are most at risk of economic fallout from a Demographic Drought due to less skilled, tech ready, and innovative workforces

Chart 8a. Global regions by demographic risk and opportunity categories



Note: Countries included in each global region follow [UN location definitions](#). **Source:** [UN World Population Prospects 2022](#); World Economic Forum [Global Competitiveness Index 4.0, 2017-2019](#); and calculations by Lightcast

Chart 8b. Select countries by demographic risk and opportunity categories



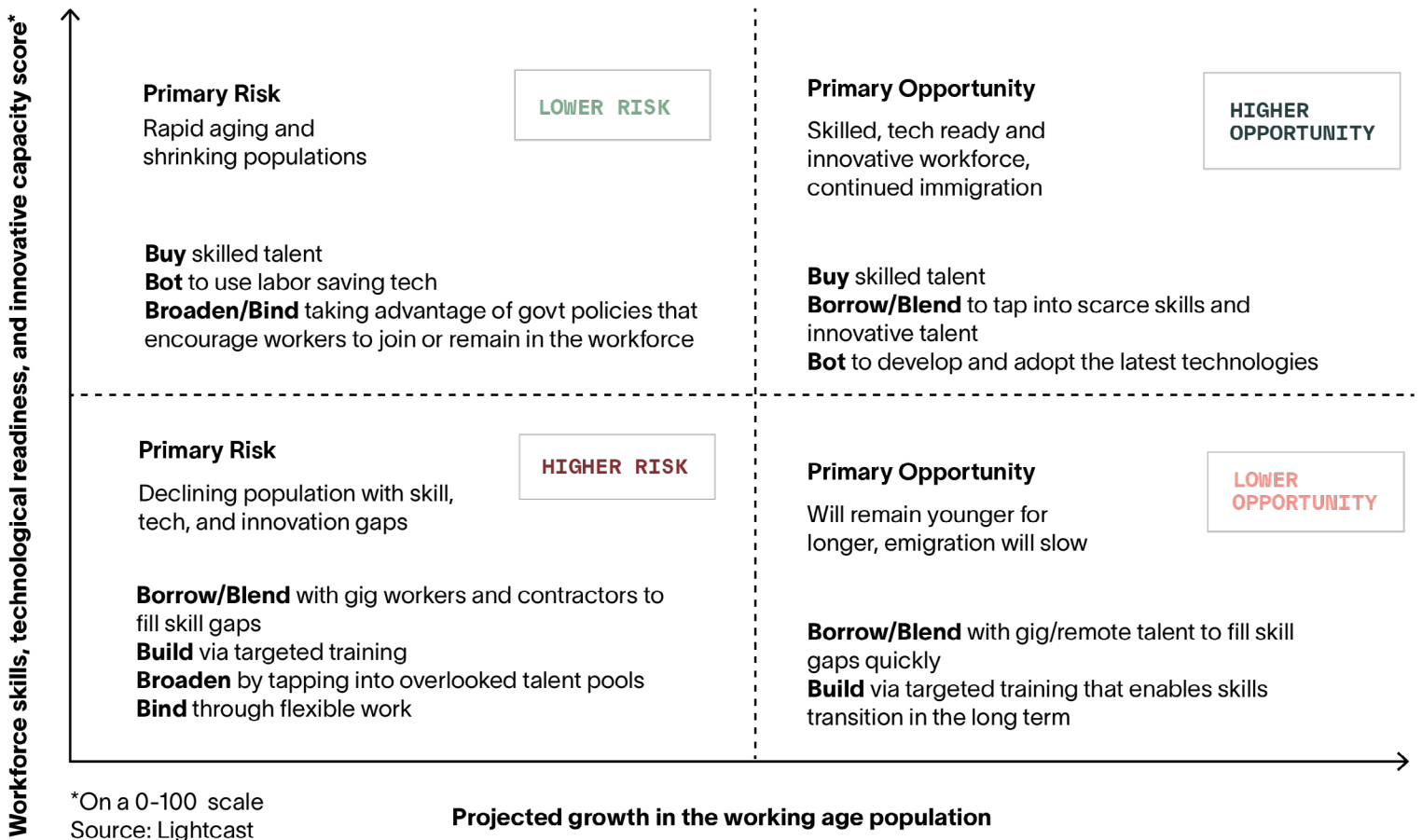
Note: Countries included in each global region follow [UN location definitions](#). **Source:** [UN World Population Prospects 2022](#); World Economic Forum [Global Competitiveness Index 4.0, 2017-2019](#); and calculations by Lightcast

IV. STRATEGIES TO MITIGATE SLOWING WORKING-AGE POPULATION GROWTH

Each country’s relative demographic risk or opportunity will determine the possible strategies an employer can take to avoid running out of workers. To implement those strategies, employers must have a detailed understanding of the unique offerings of the local labor market—that is, the specific array of skills and technological and innovative capabilities of the local workforce. Acquiring this knowledge through a data driven approach will enable employers to tailor their “B” recruitment strategies (Build, Buy, Borrow, Blend, Bind, Broaden, or Bot) to labor markets in different geographies and more successfully compete for talent internationally.

Figure 2 summarizes the primary risks or opportunities countries in each category face and the “B” strategies that will be most effective in that context.

Figure 2. Demographic risks and opportunities will determine talent acquisition strategies



STRATEGIES FOR DEMOGRAPHICALLY “RISKY” GEOGRAPHIES

In risky areas, fueling the growth of the workforce and retaining it is an economic imperative. Here, risky geographies are those associated with rapid aging and a shrinking working-age population, and they can occur regardless of whether an area is well-developed. Here are key workforce strategies for those regions.



Broaden

Broadening the recruitment demographic in different regions will require employers to reach out to untapped workers who want to work but face barriers getting into the labor force. This means first identifying underused or traditionally marginalized populations, which can differ across geographies, and then understanding their reasons for not working and providing accommodations to get them on the payroll.

In **Latin America**, for example, a high share of youth are not in employment, education or training. High dropout and repetition rates at the secondary and tertiary levels contribute to difficult school-to-work transitions and make lowering hiring requirements and offering on the job training essential for hiring youth in the region. In **the Middle East**, a growing share of women are poised to take on professional and technical jobs as employers offer greater inclusivity and flexibility in the workplace. And in **Asia**, where employers have historically avoided hiring persons with disabilities due to lack of awareness and prevailing stereotypes, there is room for greater disability inclusion.

But raising participation across different geographies will not be easy. Employers operating in more developed economies with shrinking working-age populations can also take advantage of government policies that help encourage workers to join or remain in the workforce. For example, parental leave policies throughout Europe that help mothers remain in the labor force; policies that raise the retirement age and lengthen working lives in Singapore; or policies that encourage increased immigration in Japan.

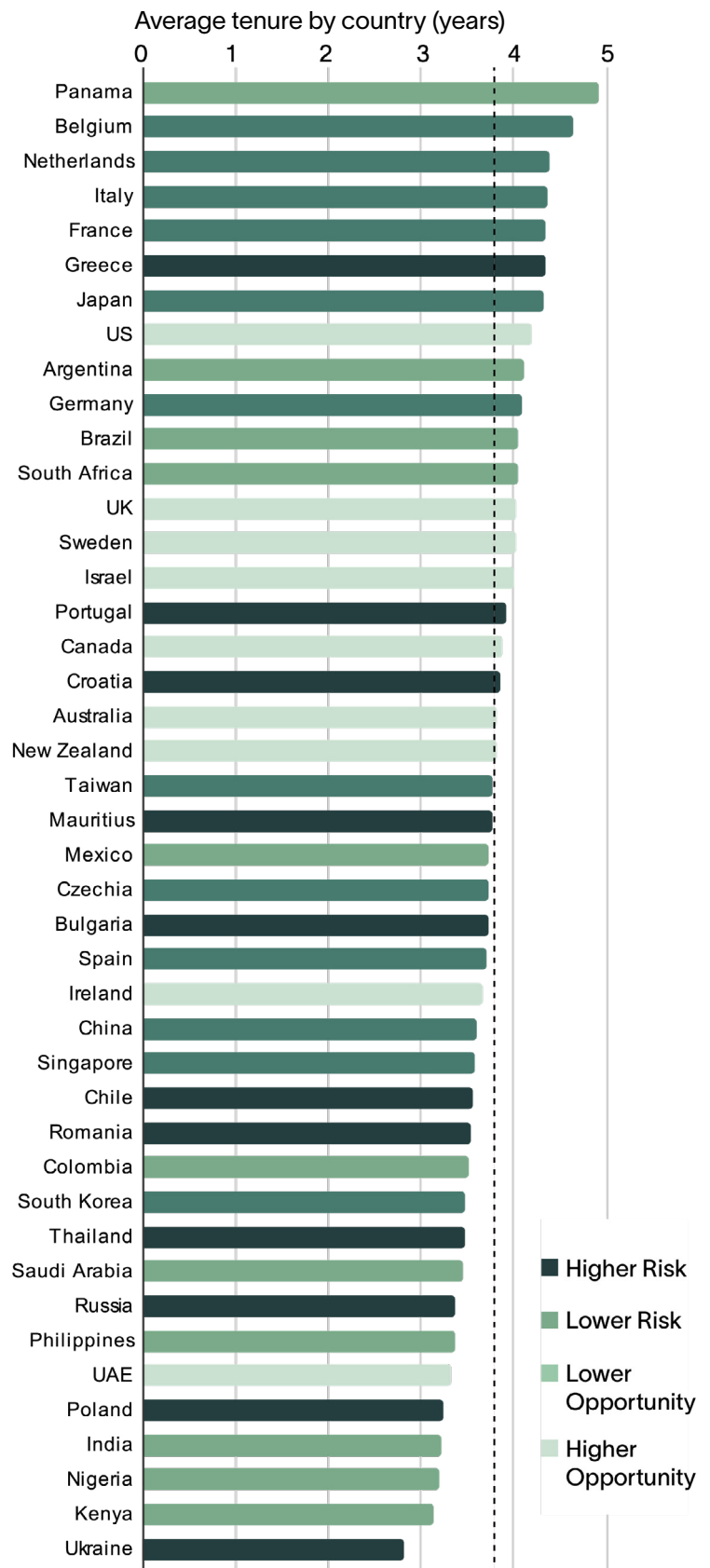
Bind

The Great Resignation is not happening only in the US—it is a global phenomenon. One [study](#) found that one in five workers across 44 countries plans to quit their job in 2022. Lightcast data also show that many demographically risky geographies have high employee turnover: workers in higher risk countries tend to stay in their current positions for a shorter amount of time (Chart 9). In contrast, average tenure of workers in several higher opportunity countries, where people and skills are more abundant, is above the global average. Aggressively retaining talent will be necessary to lessen the economic blow of fewer people and ongoing retirements.

To start, multinational employers must be aware of cultural differences in each geography that drive employee engagement and retention. For example, in a global study of [attrition among nurses](#), the ability to work remotely was more important to nurses in the UK and Brazil than to those in Japan, the US, and France. Employers that consciously work to retain employees by understanding and accommodating workers' unique needs—whether by providing higher pay, greater flexibility, or more fulfilling roles and inclusive workplaces—will have a competitive advantage in the labor market.



Chart 9. Employers operating in countries with low average tenure must double down on employee retention



Source: Lightcast

Global average: 3.8

STRATEGIES FOR GEOGRAPHIES WITH SKILL, TECH, AND INNOVATION GAPS

Geographies with lower educational attainment and quality of training, less digital connectivity and proficiency, and a limited innovation and R&D ecosystem will inevitably develop skill and technology gaps that will hinder the ability of employers to overcome worker shortfalls. Augmenting the existing workforce through training and by sourcing contingent workers can help offset some of these challenges.

Build

Companies that build talent can focus on developing the skills and experience they need, both among entry-level talent and incumbent employees. Yet for those operating in less developed economies with both skill and tech gaps, increasingly complex technologies, such as robotics and artificial intelligence, have made technological catch-up—and the training and skills needed to achieve it—more difficult than before.

As a first step, employers must identify the unique skill sets and gaps in each geography, including the strengths and weaknesses of public and private training and education systems. Armed with this knowledge and their own plans for future technology integration, companies can identify their future skill, job, and training needs. Organizations must communicate these needs to employees so they are aware of the skills required to advance and can take a more active role in managing their own learning journeys. Investing in employees' future success is also a way to engage and retain employees.

Finally, given slow growing and dwindling working-age populations, a build strategy must include a long-term plan for skills transition, such as pre-retirement programs that give older workers an opportunity to train and mentor younger colleagues.



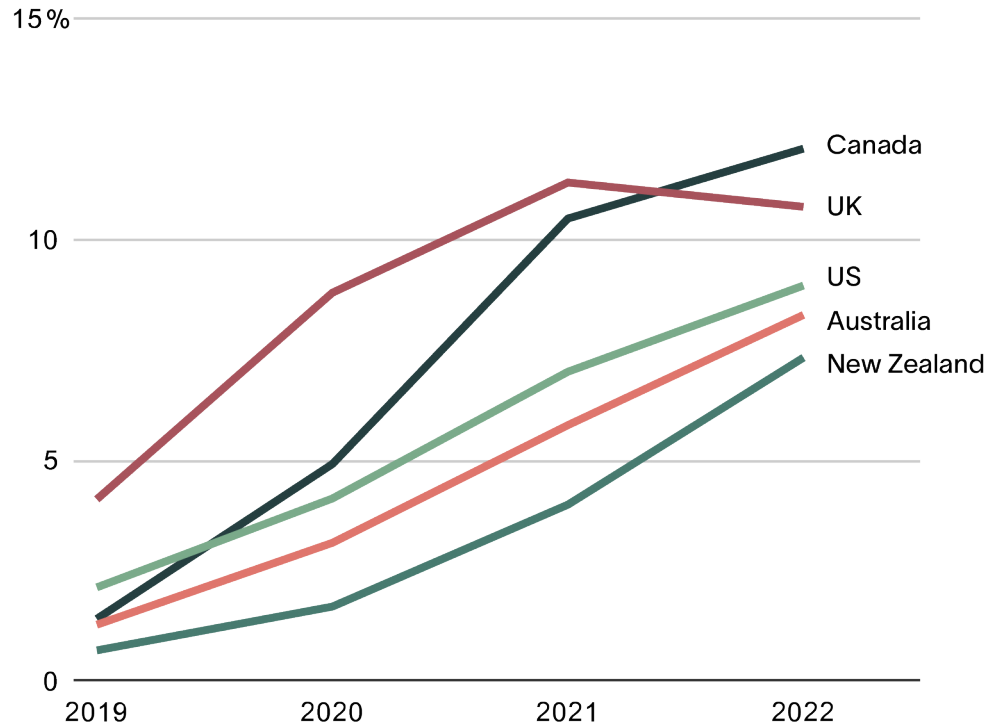
Borrow and Blend

Contingent workers should be an essential piece of every staffing strategy, especially when companies require specialized or hard-to-find talent. In geographies where skill gaps are pervasive and finding qualified people could take weeks or months, sourcing gig talent or third-party contractors can result in a faster match at a reduced cost compared to hiring a full-time employee.

The surge of remote work in response to the pandemic has also unlocked a global and diverse talent pool of candidates with skills, backgrounds, and perspectives often not found locally. With fewer people crossing borders, recruiting remote talent globally—both regular employees and contingent workers—will be more important than ever. A recent Conference Board [survey](#) found that 14% of US-based companies are now willing to hire 100% virtual employees globally, compared to just 2% of companies prior to the emergence of COVID-19.

[IT departments](#), in particular, are increasingly using global remote talent as a way to outsource and offshore operations. Data from Lightcast show that the share of job postings offering remote work has increased rapidly worldwide, especially among IT occupations (Chart 10).

Chart 10. The share of job postings offering remote work has increased rapidly worldwide, especially among IT occupations



Note: Data for 2022 are through September 1.

Source: Lightcast

Share of remote job postings in IT occupations

STRATEGIES FOR HIGHLY SKILLED, TECH READY, AND INNOVATIVE GEOGRAPHIES

Geographies with advanced skills and technological and innovative knowhow can use these assets to counterbalance the economic drag from a diminishing working-age population. Or in locations where working-age populations are slowing but still growing, companies can continue to shore up their human capital and technological prowess to get ahead of further population slowdowns.

Buy

Every organization must have some degree of “buy” as part of its recruiting strategy. In geographies where workers are highly skilled, companies have the advantage of being able to bring in specialized skills and experience that are not readily available in other areas. Employers in higher opportunity countries with both skilled workers and growing working-age populations will have a relatively easier time filling critical positions. But the severe shortage of workers in lower risk countries means companies operating in these regions will pay a premium for skilled talent.

Bot

One critical response to dwindling working-age populations is the use of automation, artificial intelligence, robotics, and other advanced technologies to increase labor productivity. [A global IBM study](#), for example, found that nearly 1 in 4 companies are adopting AI because of labor or skills shortages, and two-thirds are specifically using AI to reduce manual or repetitive tasks.

The study also found that AI adoption differs markedly across geographies (and firms). Adoption rates are highest in China, Italy, Singapore, and the United Arab Emirates—all countries with shrinking working-age populations—while usage rates are significantly lower in Australia, the US, and the UK where populations are projected to continue to grow. India also topped the list, suggesting that there are pockets of digital readiness in lower opportunity regions.

Because different firms and geographies have adopted the latest technologies to differing degrees, using a “bot” strategy to ease labor demand will require employers to identify the extent of technological adoption in their locations and further invest in transferring or developing automation technologies in those areas.

Borrow and Blend

Companies can source freelance workers or third-party contractors to tap into scarce skills and innovative talent. Organizations that treat contingent workers as an extension of their regular workforce have continuous and trusted access to unique skill sets capable of developing new technologies, platforms, and business models that will drive efficiencies in the long-term. Companies can also turn to their retirees for specialized consulting work, which further extends working lives and knowledge transfer.



CONCLUSION

Our global workforce is more important than ever. In the absence of sustained global productivity gains, companies must continue to add more and more workers to achieve growth. But faster-than-expected demographic shifts pose extraordinary risks—and opportunities—for governments and employers.

Global labor shortages are now a big problem for businesses around the world...

Population aging due to sustained low fertility and increasing life expectancy, coupled with falling immigration, has resulted in insufficient workers to maintain current levels of economic activity in many regions. Particularly in North America where baby boomers are such a large cohort, but in other geographies as well, the single most significant driver of the aging population trend is the ongoing retirement of baby boomers.

Declining immigration has already begun to weigh on the labor market. Developed economies will continue to benefit from immigration but the influx of immigrants into these regions has slowed in the last decade and will continue to slow further. Even though the waning of working-age populations in developed economies can be slowed through immigration, in most cases even a large increase in immigration would not significantly curb the projected drop.

... but there is hope.

Despite both working-age population and labor force growth slowing almost universally, there

is some evidence that proactive governments and employers are increasingly expanding talent pools, a trend primarily seen in developed economies. Employer efforts to broaden the labor force demographic, coupled with national policies, can help maintain higher rates of labor force participation to partially offset the economic impact of a declining labor supply.

Companies can also more successfully compensate for a dearth of workers if those that are available are highly skilled, have access to new technologies, and can operate in dynamic environments rich in R&D and organizational innovations.

And where people are most scarce, employers not only need to tap into overlooked populations and productivity-enhancing skills and technologies, but also value and retain the workers they have.

Most importantly, easing the business and economic challenges associated with an older workforce and declining working-age populations will require robust data sets and an understanding of the local context to identify the most effective recruitment strategies in each location. Demographics are nothing if not predictable, so a rich and data-driven approach to regional and local labor markets will be key to successfully competing for talent around the world.

Lightcast

Lightcast provides trusted global labor market data, analytics, and expert guidance that empowers communities, corporations, and learning providers to make informed decisions and navigate the increasingly complex world of work. With a database of more than one billion job postings and career profiles, our team provides best-in-class customer service with robust data, clear analysis, and expert guidance on skills, jobs, and opportunities.

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