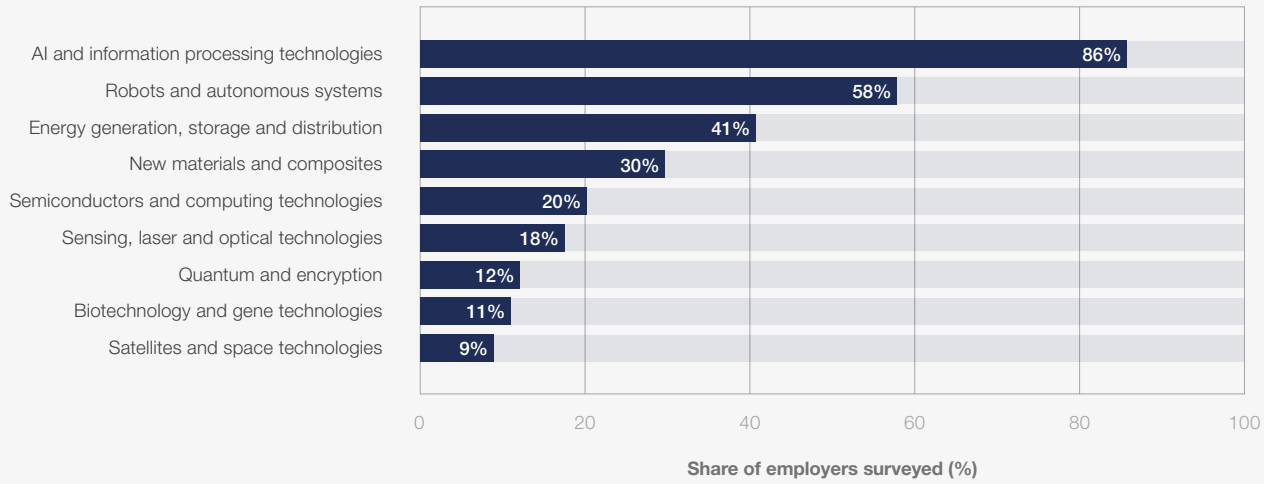
their business. Of the nine technologies, three stand out as being expected to have the greatest impact. Robots and autonomous systems are expected to transform 58% of employers' businesses, while energy generation and storage technologies are expected to transform 41%. But it is artificial intelligence (AI) and information processing technologies that are expected to have the biggest impact – with 86% of respondents expecting these technologies to transform their business by 2030 (Figure 1.2).

FIGURE 1.2

Technology trends driving business transformation, 2025-2030

Share of employers surveyed that identify the stated technology trend as likely to drive business transformation



Source

World Economic Forum, Future of Jobs Survey 2024.

Generative AI (GenAI), in particular, has witnessed a rapid surge in both investment and adoption across various sectors. Since the release of Chat GPT in November 2022, investment flows into AI have increased nearly eightfold.[3] This influx of capital has been accompanied by investment in the physical infrastructure needed to support these emerging technologies, including servers and energy generation plants. By leveraging natural language processing technology, GenAI enables users to interact with it as though they were conversing with a human, considerably reducing barriers to usage and the need for specialized technical knowledge.[4] Accordingly, the demand for GenAI skills by both businesses and individuals has also grown significantly (Box B1.1).

Although more generalized adoption of AI applications remains comparatively low, with only a small fraction of firms using it in 2023, adoption is growing rapidly, albeit unevenly across sectors. The information technology sector is leading the way in AI adoption, while industries such as construction are lagging behind.[5] This disparity mirrors broader trends, with advanced and middle-income economies experiencing unprecedented diffusion of generative AI technologies among individual users, while low-income economies remain largely on the margins, with currently minimal use of this technology.[6]

While the full extent of long-term productivity gains from the technology remains uncertain, workplace studies have identified various initial ways for generative AI to enhance human skills and performance. Some of these studies have highlighted ways for generative AI to enhance human core skills, or to substitute for tacit knowledge among newer or average performing workers.[7,8] Other studies have shown generative AI can enhance knowledge work if applied appropriately within its capability, but risks producing adverse outcomes where users unknowingly stretch it beyond its capability.[9]

Looking further ahead, some observers argue generative AI could empower less specialized employees to perform a greater range of "expert" tasks – expanding the possible functions of roles such as Accounting Clerks, Nurses, and Teaching Assistants.[10] Similarly, the technology could equip skilled professionals such as Electricians, Doctors or Engineers with the world's forefront knowledge – enabling them to solve complex problems more efficiently.[11] Outcomes such as these – which create genuine shifts in the quantity or quality of output – are more likely to come about if technology development is focused on enhancing rather than substituting for human capabilities.[12] However, without appropriate decision-making frameworks, economic incentive structures and, possibly, government regulations, there remains a risk that technological development will be focused on replacing human work, which could increase inequality and unemployment.

While currently seen as less transformative than GenAI, robots and autonomous systems have seen steady growth of around 5-7% annually since 2020.[13] In 2023, global average robot density reached 162 units per 10,000 employees, double the number measured seven years ago.[14] Currently robot installations are heavily concentrated, with 80% of installations occurring in China, Japan, United States, the Republic of Korea, and Germany.[15] This is partially reflected in Future of Jobs Survey data, which shows significant expectations for the transformative impact of these technologies in these five countries (more than 60% of respondents in each); but much lower expectations among employers headquartered in Sub-Saharan Africa (39%), Central Asia (45%) and the Middle East and North Africa (44%).

BOX 1.1

Demand for generative AI skills

In collaboration with Coursera

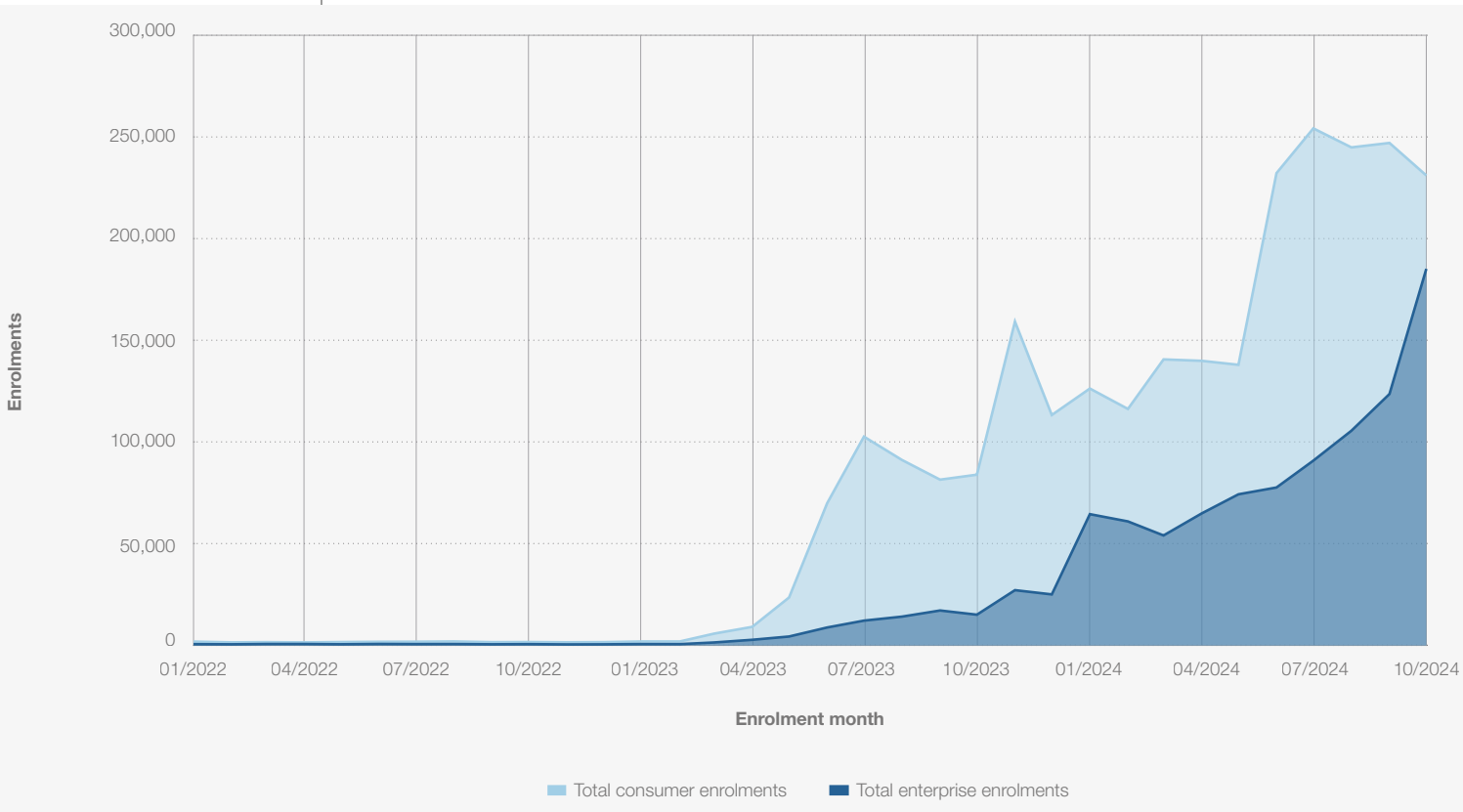
Coursera data generated for the *Future of Jobs Report 2025* reveals significant growth in demand for Generative AI training among both individual learners and enterprises (Figure B1.1). Demand for AI skills has accelerated globally, with India and the United States leading in enrolment numbers. However, the drivers of demand differ. In the United States demand is primarily driven by individual users, whereas in India, corporate sponsorship plays a significant role in boosting GenAI training uptake.

Globally, individual learners on Coursera have focused on foundational GenAI skills and conceptual topics, such as prompt engineering, trustworthy AI practices, and strategic decision-making around AI. Institution-sponsored learners, on the other hand, emphasize practical applications within the workplace, including leveraging AI tools to enhance efficiency in Excel or leveraging the technology to develop applications. These trends reflect a tailored approach to GenAI learning, where individuals focus on foundational knowledge-building while organizations prioritize training that delivers immediate workplace productivity gains.

FIGURE B1.1

Demand for generative AI skills

Generative AI enrolment trend 2022-2024.



Source

Coursera analysis.

Economic uncertainty

As of early 2025, the global economic outlook appears to be shaped by a combination of cautious optimism and persistent uncertainties. According to the World Economic Forum's September 2024 Chief Economists Outlook,[16] while there are signs of improving global conditions, vulnerabilities persist. Most surveyed chief economists (54%) expect economic conditions to hold steady in the short term. However, among those anticipating change, more expect conditions to worsen rather than strengthen.

The 2024 economic performance was marked by a global decrease in inflation and an unusually resilient economy throughout the disinflationary process. While easing inflation and looser monetary policy offer some optimism, slow growth and political volatility keep many countries at risk of economic shocks. The International Monetary Fund (IMF) projects growth to hold steady at 3.2 percent in 2025, despite sizable downward growth revisions in a few economies, particularly low-income developing ones.[17]

Despite this comparatively steady outlook, price pressures persist in many economies. Inflation remains particularly high in services – at almost twice pre-pandemic levels – and is especially persistent in low-income countries. Low-income countries are disproportionately affected by rising inflationary pressures because of elevated food prices due to supply disruptions influenced by climate shocks, regional conflicts and geopolitical tensions.[18]

Against this backdrop, companies expect economic pressures to be among the most transformative drivers. Figure 1.1 shows rising cost of living remains a top concern, with half of all surveyed employers expecting it to drive transformation, making it the second-most influential trend. Slower economic growth is also a major concern, with 42% of respondents expecting it to impact their operations.

Views on the impact of inflation and economic growth notably vary across regions. For example, in Sub-Saharan Africa, six in 10 respondents cite inflation as a key factor, whereas in Eastern and South-Eastern Asia, slower economic growth is seen as the more important issue.

Finally, stricter anti-trust and competition regulations, though a lower priority overall, are expected to impact one in six employers globally

Geoeconomic fragmentation

Intensifying geoeconomic tensions threaten trade and supply chains, with lower-income economies particularly vulnerable, given that essential goods like food and energy comprise a larger share of household expenditures in these countries.[19] Globally, governments are responding to geoeconomic challenges by imposing trade and investment restrictions, increasing subsidies, and adjusting industrial policies. The World Trade Organization (WTO) reports that trade restrictions doubled between 2020 and 2024, with the value of import restrictions reaching nearly 10% of global imports in 2024.[20] These increasing protectionist measures may pose a medium-term risk to global economic growth, as they reduce opportunities for open innovation and technology transfer – factors that historically fuelled growth in emerging economies during periods of globalization.[21]

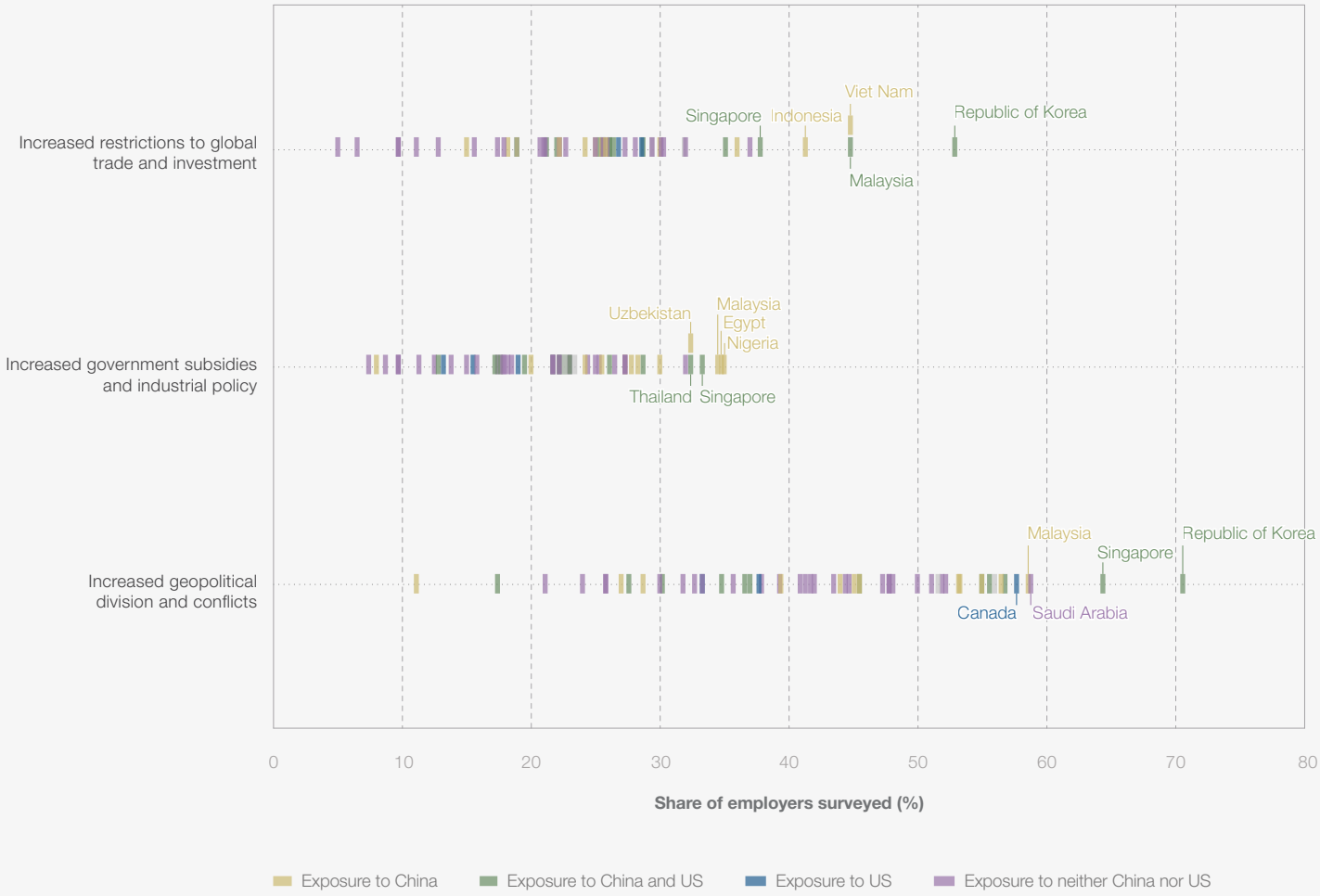
This shift toward geoeconomic fragmentation carries substantial macroeconomic implications, with the IMF estimating potential global output losses from trade fragmentation ranging from 0.2% to 7% of GDP, and losses deepening in scenarios of technological decoupling.[22] Emerging and developing economies are particularly vulnerable to such disruptions. For example, Sub-Saharan Africa could see long-term welfare losses of approximately 4% of GDP due to declining global integration.[23]

The Future of Jobs Survey reveals that around one-third (34%) of surveyed employers see heightened geopolitical tensions and conflicts as a key driver of organizational transformation. Meanwhile just over one-fifth of surveyed organizations identify increased restrictions on trade and investment (23%), as well as subsidies and industrial policies (21%), as factors reshaping their operations.

Geoeconomic concerns vary by economy. Employers in Eastern Asia and Northern America identify rising geoeconomic fragmentation as a key driver shaping labour markets, with nearly half of surveyed employers in these regions citing this trend. These regions also show significant concern about restrictions on global trade and investment, though to a lesser extent than in the Middle East and North Africa. Economies with comparatively high trade volumes with the United States, China, or both – such as Singapore (64%) and the Republic of Korea (71%) – tend to expect greater transformation from each of these geoeconomic trends, as shown in Figure 1.3 below.

FIGURE 1.3 **Geoeconomic trends, by economy**

Share of employers surveyed that expect the stated geoeconomic trend to transform their business.



Source

World Economic Forum, Future of Jobs Survey 2024.

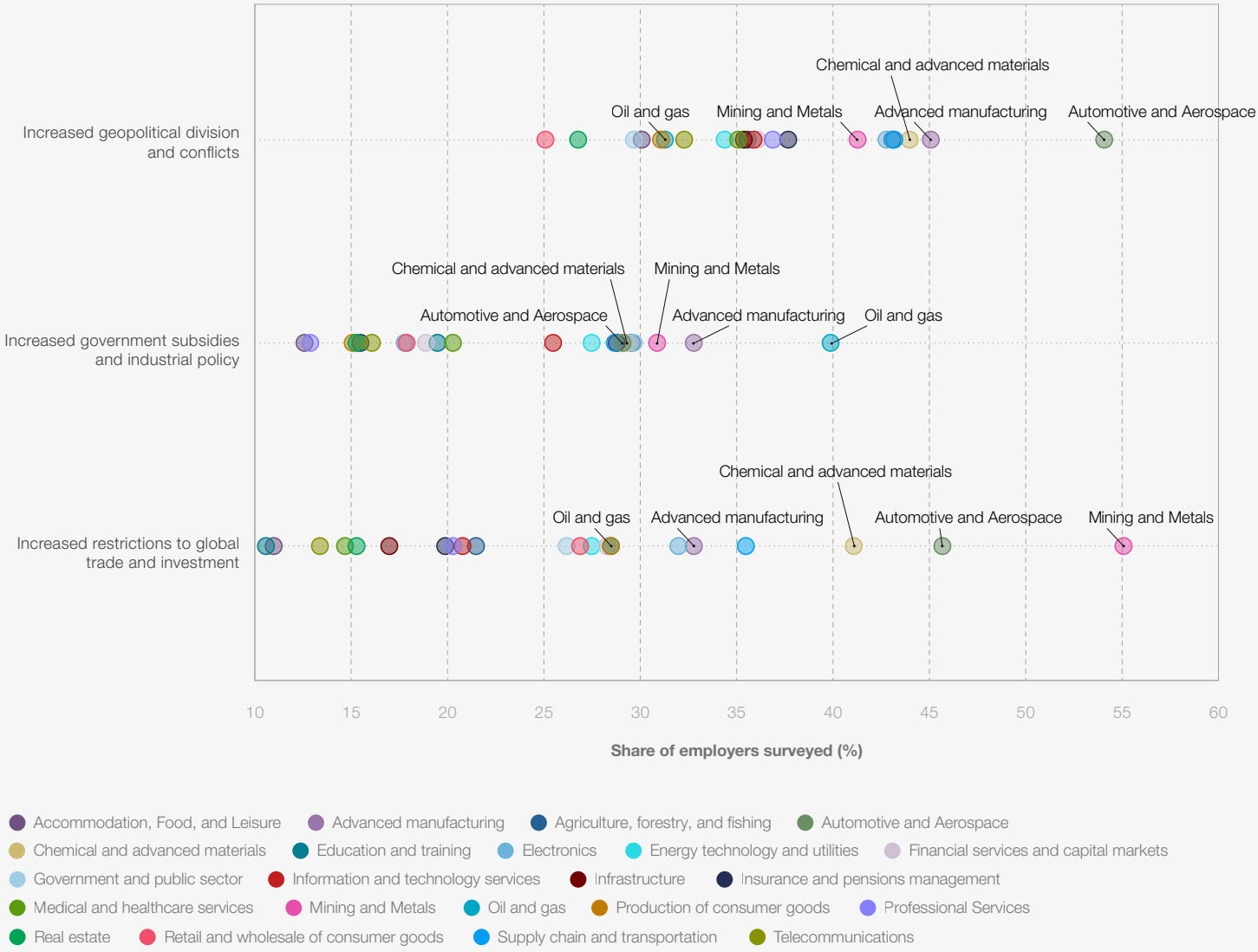
On an industry level, as shown in Figure 1.4, sectors with a high degree of dependence on global supply chains, such as Automotive and Aerospace (46%), and Mining and Metals (55%), expect industry transformation driven by trade restrictions. By contrast, industries with less exposure to global markets, such as Education, are less focused on this trend, with fewer than 14% of surveyed employers seeing trade restrictions as disruptive. Mining and Metals, Advanced Manufacturing, and Oil and Gas anticipate industry transformation stemming from increased government subsidies and industrial policies, with, respectively, 31%, 33%, and 40% of employers across these industries citing these factors; whereas more domestic-focused sectors such as Accommodation, Food, and Leisure expect minimal impact from such policies.

The broader implications of geoeconomic fragmentation extend beyond individual business strategies to long-term economic stability and growth, and limit multilateral cooperation on critical issues such as climate change and pandemic preparedness.[24]

FIGURE 1.4

Geoeconomic trends, by industry cluster

Share of employers surveyed that expect the stated geoeconomic trend to transform their business.



Source

World Economic Forum, Future of Jobs Survey 2024.

Green transition

Despite an increasingly complex outlook for global climate negotiations, the green transition remains a priority for many organizations globally. Nearly half of surveyed employers (47%) anticipate the ramping up of efforts and investments to reduce carbon emissions as a key driver for organizational transformation. Similarly, 41% expect that increased efforts and investments to adapt to climate change will drive significant organizational changes. These two trends rank 3rd and 6th, respectively, among the drivers of business transformation identified by the Future of Jobs Survey. These priorities have enabled green jobs to demonstrate resilience in recent years, with hiring rates in green sectors remaining relatively stable even throughout the pandemic-related disruptions of 2020.[25]

The Future of Jobs Survey finds that the industrial sector – encompassing industries such as Automotive and Aerospace, and Mining and Metals – anticipates significant organizational transformation as companies ramp up efforts to decarbonize: 71% of employers in the Automotive and Aerospace industry and 69% of those in the Mining and Metals industry expect carbon emissions reductions to transform their organizations. Given the carbon-intensive nature of these industries,[26] decarbonization will significantly transform these industries and their workforces, with workers requiring upskilling and reskilling to transition to alternative jobs.

A similar picture emerges across regions. For example, in South-Eastern Asia, 72% of employers expect climate mitigation efforts to transform their

organizations by 2030, while over half expect climate adaptation to do so. By contrast, in Central Asia, only 19% of respondents see climate trends as relevant to their business activities.

As countries seek to meet climate goals, questions arise regarding whether their workforces are equipped with the necessary skills to meet the demands of a net-zero future. The shift toward sustainable practices will require specialized expertise which will incur transition costs, particularly for those working in production occupations such as assemblers and fabricators.[27] Despite a global 12% increase in workers acquiring green skills between 2022 and 2023, demand continues to outpace supply, with the number of job postings requiring at least one green skill rising by nearly 22% over the same period. To fully capitalize on opportunities created by the green transition and harness them in a way that is fair and inclusive, prioritizing green skilling is essential.

Demographic shifts

The world is currently experiencing two fundamental demographic shifts: an aging and declining working-age population predominantly in higher-income economies, due to declining birth rates and longer life expectancy, and a growing working-age population in many lower-income economies, where younger populations are progressively entering the labour market. In higher-income nations, aging populations are increasing dependency ratios, potentially putting greater pressure on a smaller pool of working-age individuals and raising concerns about long-term labour availability. In contrast, lower-income economies may benefit from a demographic dividend.

These demographic shifts have a direct impact on global labour supply: currently balanced between lower-income (49%) and higher-income (51%) working-age populations, this distribution is expected to shift by 2050, with lower-income countries projected to hold 59% of the global working-age population.[29] Geographies with a demographic dividend, such as India and Sub-Saharan African nations, will supply nearly two-thirds of new workforce entrants in the coming years.[30]

Findings from the Future of Jobs Survey indicate that for 40% of employers worldwide, aging and declining working-age populations are driving transformation, while 25% are being transformed by growing working-age populations. Many high-income economies experience the combined effects of both trends. Certain countries, including Australia, Germany and Japan, experience more significant effects from declining working-age populations. While few companies operating in Sub-Saharan African countries expect to see transformation due to aging and declining working age populations, their expectations regarding the impact of growing working-age populations are also relatively tempered, illustrating relatively greater concern with other macrotrends (Figure 1.5).

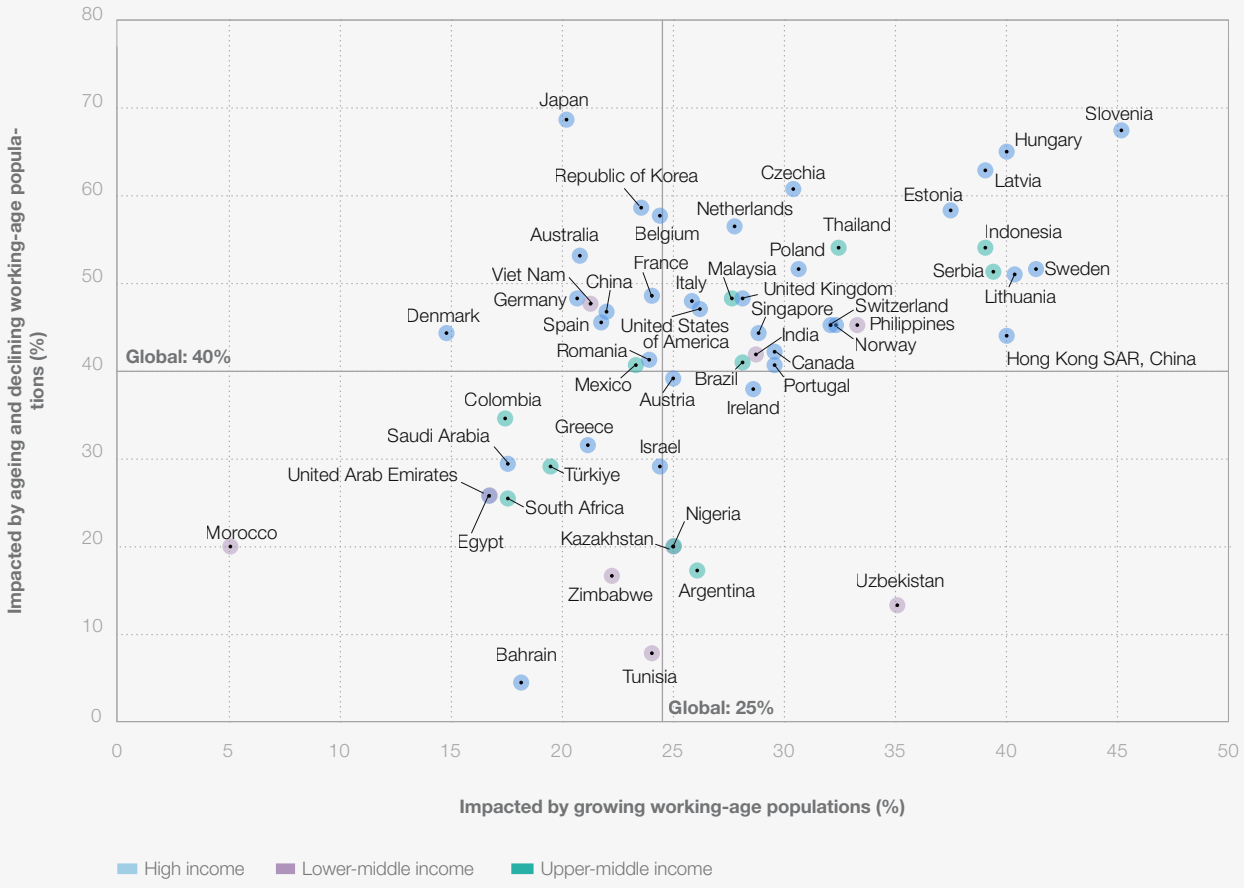
Compared to global averages, employers facing the effects of aging population are more pessimistic about talent availability and expect facing bigger challenges in attracting industry talent. More encouragingly, with a shrinking labour pool, many of these companies (60%) increasingly prioritize transitioning current employees into growing roles as a key workforce strategy. Some observers have also predicted that aging high-income economies with shrinking labour forces might increasingly look to deeper automation to counterbalance some of these demographic trends.[31] For example, the Future of Jobs Survey finds that employers expecting to be impacted by aging populations are more likely to accelerate process automation (79% versus 73% globally) and advance workforce augmentation (67% versus 63% globally) in the next five years.

Conversely, many economies' actual ability to leverage demographic dividends will depend on their accompanying success, or otherwise, in inclusive job creation. According to the World Bank, over the next 10 years, an unprecedented 1.2 billion young people in emerging economies will become working-age adults, while the job market in these economies is only expected to create 420 million additional jobs – risking leaving nearly 800 million young people in economic uncertainty.[32] Encouragingly, employers responding to the Future of Jobs Survey that identify growing working-age populations as a driver of transformation plan to prioritize reskilling and upskilling, with 92% indicating they will be focusing on these strategies by 2030.

FIGURE 1.5

Dual impact of declining and growing labour forces, by economy and income group, 2025-2030

Share of surveyed employers impacted by growing working-age populations and share of surveyed employers impacted by ageing and declining working-age populations.



Source

World Economic Forum, Future of Jobs Survey 2024.

2 Jobs outlook

Technological change, the green transition, economic uncertainty, geoeconomic fragmentation and demographic shifts are reshaping the labour market. This chapter analyses how employers expect various kinds of jobs to grow and decline in response to these macrotrends and assesses the role of each of these trends in contributing to labour-market transformation.

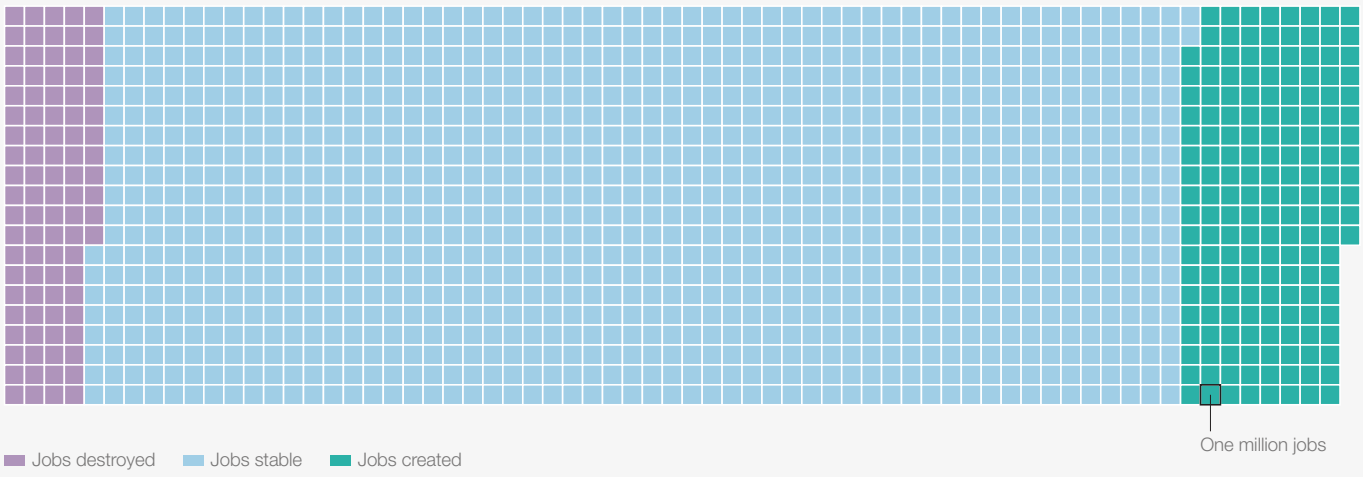
2.1 Total job growth and loss

By combining respondents' job growth and decline expectations with hard data on global employment collected by the ILO, the *Future of Jobs Report 2025* estimates that, by 2030, on current predictions, new job creation and job displacement due to macrotrends will represent a combined total of 22% of today's total (formal) jobs. Specifically, macrotrend-driven creation of new jobs is estimated to amount to 170 million jobs, equivalent to 14% of today's total employment. This growth is expected to be offset by the displacement of 92 million current jobs, or 8% of total employment, resulting in a net growth of 78 million jobs (7% of today's total employment) by 2030, Figure 2.1 illustrates the total number of jobs expected to be created and displaced due to labour-market transformation relative to total employment today.

FIGURE 2.1

Global employment change by 2030

In the next five years, 170 million jobs are projected to be created and 92 million jobs to be displaced, constituting a structural labour market churn of 22% of the 1.2 billion formal jobs in the dataset being studied. This amounts to a net employment increase of 7%, or 78 million jobs.



Source

World Economic Forum, Future of Jobs Survey 2024; International Labour Organization, *ILOSTAT.*

Note

Please refer to the Appendix for the methodology.

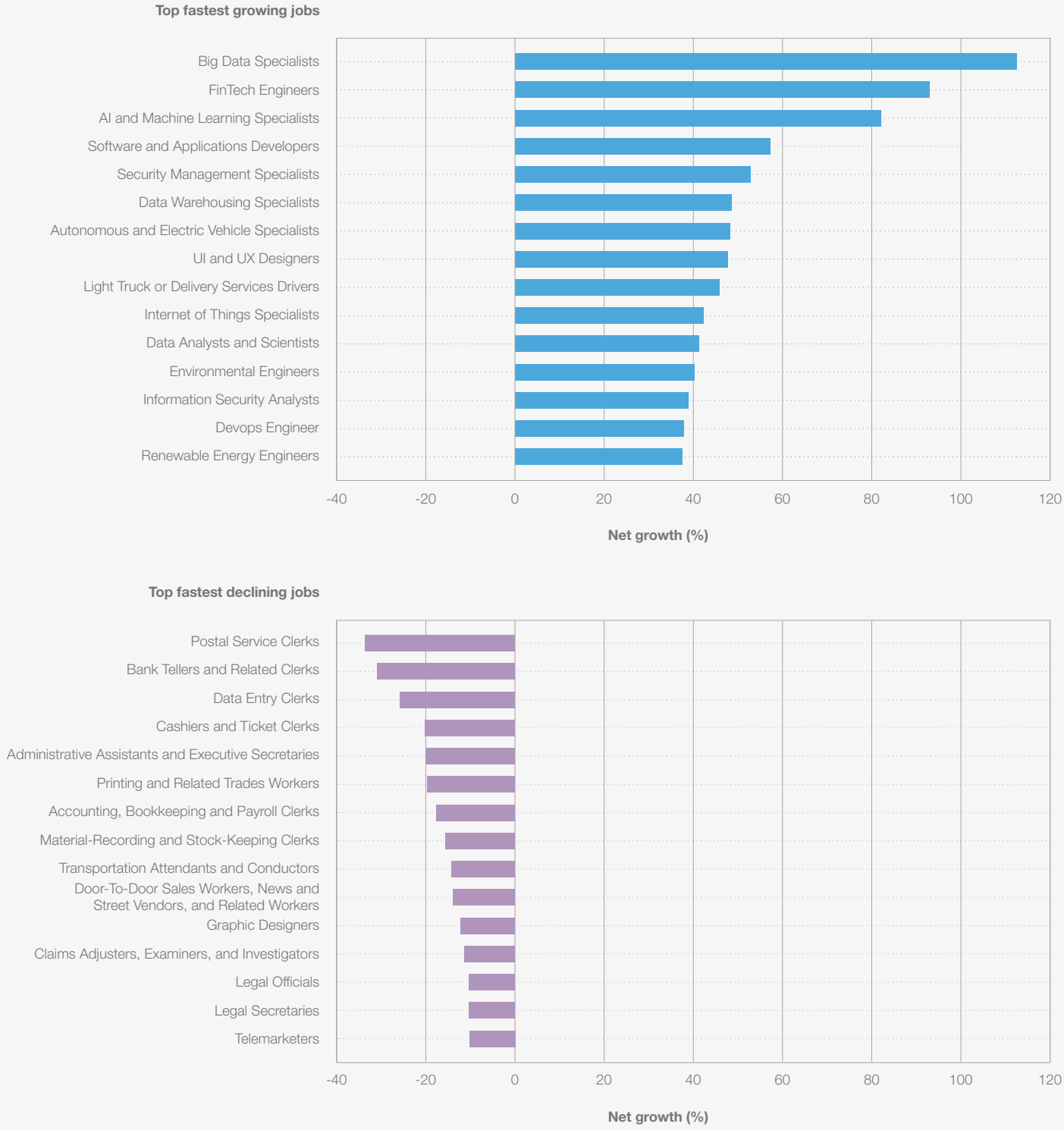
Growing and declining jobs

The Future of Jobs Survey gathered insights from employers on job roles expected to grow, decline or remain stable within their organizations over the next five years. Respondents were then asked to identify the macrotrends and technological advancements driving job growth and decline in their organizations.

According to the surveyed executives, the fastest-growing job roles by 2030, in percentage terms, tend to be driven by technological developments, such as advancements in AI and robotics and increasing digital access (See section 2.2). Leading the fastest growing jobs list are roles such as Big Data Specialist, FinTech Engineers, AI and Machine Learning Specialists and Software and Applications Developers (Figure 2.2).

FIGURE 2.2 **Fastest-growing and fastest-declining jobs, 2025-2030**

Top jobs by fastest net growth and net decline, projected by surveyed employers



Source

World Economic Forum, Future of Jobs Survey 2024.

While technology trends partly contribute to the growth of security-related roles such as Security Management Specialists, which ranks among the top five fastest-growing roles, increased geopolitical fragmentation contributes in large part to the growth of this role. Driven by the same combination of technology and geoeconomic trends, another security-related role, Information Security Analysts, also appears among the top 15.

Green and energy-transition roles, including Autonomous and Electric Vehicle Specialists, Environmental Engineers, and Renewable Energy Engineers, also feature within the top 15 fastest-growing roles. The growth of these roles is driven by increased efforts and investments to reduce carbon emissions and adapt to climate change. The growing adoption of energy generation, storage and distribution technologies, alongside other technology trends, are additional contributing factors.

By contrast, respondents expect the fastest-declining roles to include various clerical roles, such as Cashiers and Ticket Clerks, alongside Administrative Assistants and Executive Secretaries, Printing Workers, and Accountants and Auditors. Broadening digital access, AI and information processing technologies, and robots and autonomous systems are the primary drivers for this decline. Aging and declining working-age populations and slower economic growth also contribute to the decline in clerical roles.

Figure 2.3 provides the percentage growth and decline, alongside net growth outlook, for all roles featured in the Future of Jobs Survey that meet response thresholds.