



#### Disclaimer

This document is published by the World Economic Forum as a contribution to a project, insight area or interaction. The findings, interpretations and conclusions expressed herein are a result of a collaborative process facilitated and endorsed by the World Economic Forum but whose results do not necessarily represent the views of the World Economic Forum, nor the entirety of its Members, Partners or other stakeholders.

© 2024 World Economic Forum. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying and recording, or by any information storage and retrieval system.

## Chief Economists Outlook January 2024

This quarterly briefing builds on the latest policy development research as well as consultations and surveys with leading chief economists from both the public and private sectors, organized by the World Economic Forum's Centre for the New Economy and Society.

It aims to summarize the emerging contours of the current economic environment and identify priorities for further action by policymakers and business leaders in response to the compounding shocks to the global economy from geoeconomic and geopolitical events.

The survey featured in this briefing was conducted in November-December 2023.

# Contents

Executive summary		5
1.	Global conditions remain subdued	7
	Growth momentum is slowing across regions	7
	Tightening cycle may be nearing the end	10
2.	Geopolitical rifts compound uncertainty	12
	Fragmentation clouds the outlook	12
	Governments continue to turn inward	15
3.	Artificial intelligence takes the spotlight	18
	Al may expand the productivity frontier	18
	Navigating the societal impact	20
References		23
Contributors		28
Acknowledgements		29

## Executive summary

The January 2024 Chief Economists Outlook launches amid protracted weakness in global economic conditions and widening regional divergence. Uncertainty that dominated the outlook over the last year continues to cloud near-term economic developments: 56% of chief economists expect the global economy to weaken over the next year, but another 43% foresee unchanged or stronger conditions.

While there are positive developments, such as easing inflationary pressures and advances in the field of artificial intelligence (AI), businesses and policy-makers face persistent headwinds and continued volatility as global economic activity remains slow, financial conditions remain tight and geopolitical rifts and social strains continue to grow.

Regionally, the results highlight diverging growth patterns. The most buoyant economic activity is still expected in South and East Asia. China remains an exception, with the previous combination of strong and moderate growth expectations being replaced with largely moderate (69%) expectations for 2024. In the US and the Middle East and North Africa, the outlook has weakened since the September 2023 edition of the *Chief Economists Outlook*, with about six out of ten respondents expecting moderate or stronger growth this year. In Europe, 77% expect weak or very weak growth in 2024.

Elsewhere in the world, the expectations are for broadly moderate growth.

The survey results reflect the improvement in the inflation outlook for 2024, with expectations for high inflation being pared back across all regions. The majority also expect that labour markets (77%) and financial conditions (70%) will loosen.

This edition of the outlook focuses on two key phenomena impacting the global economy - geopolitical developments and advancements in generative Al. Almost seven out of ten chief economists expect the pace of geoeconomic fragmentation to accelerate this year. The majority of respondents say it will stoke volatility in the global economy (87%) and in stock markets (80%). There appears to be equally strong consensus that recent geopolitical developments will increase localization (86%) and strengthen geoeconomic blocs (80%). Almost six out of ten (57%) also expect it to increase inequality and widen the North-South divide in the next three years.

Growing global fragmentation is closely intertwined with the resurgence in industrial policies. About two-thirds expect these policies to enable the emergence of new economic growth hotspots and vital new industries, with the majority warning of rising fiscal strains (79%) and divergence between higher- and lower-income economies (66%).

Respondents are almost unanimous in expecting these policies to remain largely uncoordinated between countries, with a different mix of defensive and enabling approaches in high- and low-income economies.

The rapid advances in the field of artificial intelligence put it on top of business and policy agendas in 2024. Respondents are notably more optimistic about Al-enabled benefits in high-income economies than in developing economies, including an increase

in the efficiency of output production (79%) and innovation (74%), with a more mixed picture regarding standards of living (57%). Chief economists are almost unanimous (94%) in expecting productivity gains to become economically significant in high-income economies in the next five years, compared to only 53% for low-income economies. The views are somewhat more divided on the likelihood of generative AI resulting in a decline in trust across high-income (56%) and low-income (44%) economies this year.

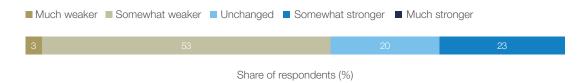
# Global conditions remain subdued

## Growth momentum is slowing across regions

Global economic prospects remain subdued and fraught with uncertainty, according to the latest survey of chief economists. Although 56% of chief economists expect the global economy to weaken over the next year, 20% foresee unchanged conditions and nearly a quarter expect stronger conditions (see Figure 1). These somewhat divided results highlight that the ambiguity that dominated the outlook over the last year continues to cloud near-term economic developments.

Figure 1. The global economic outlook

Looking at the year ahead, what are your expectations for the future condition of the global economy?



Note: The numbers in the graphs may not add up to 100% because figures have been rounded up/down.

Source: Chief Economists Survey, November-December 2023

The relative resilience of the world economy in the recent years will continue to be tested entering 2024. Global economic activity is stalling with signs of slowdown in both the manufacturing and services sectors. Tight financial conditions weigh on consumer and business sentiments, while fiscal and monetary policy-makers are assessing trade-offs and sequencing for careful policy calibration.

The economic backdrop is marked by protracted weakness in global growth and widening divergence. The International Monetary Fund (IMF) forecasts a slight decline in global growth to 2.9% in 2024, down from 3% in 2023. The relative resilience in global figures continues to rely on the growth performance of emerging economies, while the momentum in advanced economies is fading.

<sup>1</sup> S&P Global, December 2023b.

<sup>2</sup> Lane, April 2023.

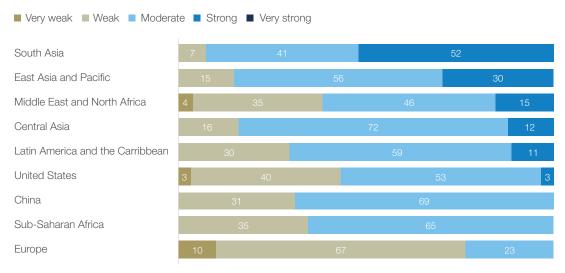
<sup>3</sup> IMF, October 2023.

However, growth forecasts remain vulnerable to an increased risk of shocks. The geopolitical rifts highlighted as a source of global economic volatility in the last survey<sup>4</sup> have since increased with new conflicts erupting or worsening in Africa, the Middle East<sup>5</sup> and Latin America.<sup>6</sup>

While economic headwinds remain contained, these escalations risk rupturing supply chains and sending shockwaves beyond the commodity markets. Further uncertainty hinges on the outcomes of election cycles in the coming year.

Figure 2. Growth expectations

What is your expectation for economic growth in the following geographies in 2024?



Share of respondents (%)

Source: Chief Economists Survey, November-December 2023

Regional performance expectations are highly varied (see Figure 2). Chief economists continue to see the most buoyant economic activity in the economies of Asia, although no region is slated for very strong growth in 2024. The outlook for South Asia and East Asia and Pacific remains positive and broadly unchanged compared to the last survey, with 93% and 86% expecting moderate or stronger growth for South Asia and East Asia

and Pacific, respectively. China is a notable exception as weak consumption, lower industrial production and distress in property markets weigh on the prospects of a stronger rebound in 2024.<sup>7</sup> The views of chief economists have also shifted, with strong (19%) and moderate (38%) expectations in the previous survey replaced with largely moderate (69%) expectations for 2024.

<sup>4</sup> World Economic Forum, September 2023a.

<sup>5</sup> Livni et al., November 2023.

<sup>6</sup> Delcas, December 2023.

<sup>7</sup> IMF, October 2023.

The change in the outlook for Europe is particularly stark, with the share of respondents expecting weak or very weak growth almost doubling to 77% since September. In the US, the expectations are significantly weaker too, with 56% foreseeing moderate or higher growth in 2024, compared to 78% in the previous survey. Both economies confront tight lending conditions, a slowdown in manufacturing and exposure to geopolitical rifts.

Expectations for growth have strengthened in Latin America and the Caribbean and Sub-Saharan Africa, with a slight uptick in the share of respondents expecting at least moderate growth to 70% and 65%, respectively. In Central Asia, the improvement is more pronounced with about 84% of respondents expecting at least moderate growth in 2024, up from 66% in the previous survey.

In the Middle East and North Africa, the expectations have slightly weakened reflecting broader uncertainty about the trajectory of the Israel-Hamas war and its implications for the wider region. Although 61% still foresee moderate or stronger growth in 2024, regional prospects remain clouded by weak oil demand<sup>8</sup> and a sharp contraction in tourism.<sup>9</sup>

The near-term outlook for the regions discussed arrives after a protracted

slowdown of growth momentum across all geographies. According to one estimate, average annual growth has declined from 2.0% in the early 2000s to 1.4% in the post-COVID-19 period in advanced economies and from 5.8% to 1.7% in emerging and developing economies.<sup>10</sup> The prospects of a rebound to pre-pandemic trajectory appear elusive: the IMF foresees 3.1% average annual growth over the next five years, the weakest medium-term outlook in decades. Moreover, in its latest World Economic Outlook, the IMF points out that rates of convergence are slowing too, with the time needed to close half the gap in income per capita between emerging and developing economies and advanced economies increasing from 80 years in 2008 to 130 vears in the latest estimates.11

While technological advances may give new impetus to global productivity, 12 policies that enhance good-quality growth are needed to revive global momentum and balance the impact across the income groups. When asked about growth strategies available to developing economies in the current context, chief economists highlighted five in particular: laying a sound institutional framework for long-term growth, improving integration into global value chains, tapping into green transition opportunities, strengthening innovation capacity, digital infrastructure and a sound investment climate, and investing in human capital and basic services.

<sup>8</sup> IEA, December 2023.

<sup>9</sup> S&P Global, November 2023.

<sup>10</sup> World Economic Forum, January 2024.

<sup>11</sup> IMF, October 2023.

<sup>12</sup> Pizzinelli et al., October 2023.

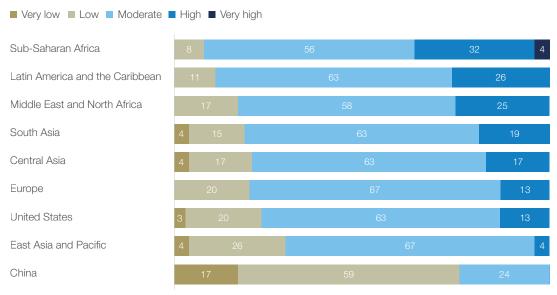
### Tightening cycle may be nearing the end

At the start of 2024, global inflation continues to ease, propping expectations of mild ebbing in interest rates this year.<sup>13</sup> The global headline rates of inflation are projected to

reach 4.8%,<sup>14</sup> a sharp decline from 5.9% in 2023 and 9.2% in 2022. Core inflation is decelerating too, albeit at a slower pace, and is expected to reach 4.5% in 2024.<sup>15</sup> The easing is reflected in the latest survey results, with expectations for high inflation being pared back across all regions.

Figure 3. Inflation expectations

What is your expectation for inflation in the following geographies in 2024?



Share of respondents (%)

Source: Chief Economists Survey, November-December 2023

The improvement in expectations is particularly marked for Europe and the US (see Figure 3), with the share of respondents expecting high or very high inflation declining from, respectively, 71% and 47% in September to only 13% in the latest survey. However, two-thirds of chief economists still expect moderate inflation in Europe and the US. China remains an outlier in the other direction, with 76% of respondents still expecting low or very low inflation.

Elsewhere in the world, the expectations for lower inflation strengthened, including East Asia and Pacific (30%), Central Asia (21%), and South Asia (19%), with the majority expecting moderate inflation. Despite a significant improvement in the outlook and broadly moderate expectations, more than a quarter of respondents still expect high or very high inflation in Sub-Saharan Africa (36%), Latin America and the Caribbean (26%), Middle East and North America (25%).

<sup>13</sup> Smith, December 2023.

<sup>14</sup> IMF, October 2023.

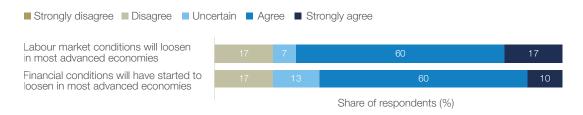
<sup>15</sup> Ibid.

In the latest survey the majority of chief economists also expect labour markets (77%) to loosen in advanced economies – a higher number than in September.

They also expect financial conditions (70%) to loosen in the advanced economies (see Figure 4).

Figure 4. Global conditions

Looking at the year ahead, do you agree/disagree with the following statements?



Source: Chief Economists Survey, November-December 2023

These factors are reflected in the evolving monetary policy patterns. A notably more dovish communication of the US Federal Reserve at the December 2023 meeting<sup>16</sup> signalled a possible pivot in the tightening cycle following a prolonged pause. While markets are pricing as many as six interest rate cuts by the Federal Reserve<sup>17</sup> and the European Central Bank<sup>18</sup> this year, the policy stance remains cautious on both sides of the Atlantic<sup>19</sup> as policy-makers navigate challenging domestic and global conditions. The unusually high degree of uncertainty over economic and financial developments means the timing and extent of easing will pose a dilemma for policy-makers that continue to navigate trade-offs between tightening too much and too little.

Accumulated societal strains from domestic price pressures, protracted slowdown in

economic activity and financial stability concerns will weigh on policy decisions in 2024. In the meantime, high interest rates continue testing the resilience of economies, with the number of corporate debt defaults rising above long-term averages across both advanced and emerging economies<sup>20</sup> at the end of 2023. The World Bank also points to rising risks to sovereign debt sustainability, with debt servicing costs in low-income economies projected to rise by 39% over the next two years.<sup>21</sup>

It is also worth noting that inflation remains vulnerable to shocks in commodity markets and supply chains. A prolonged disruption in the Red Sea,<sup>22</sup> escalation of regional conflicts, excessive redundancy and rising climate volatility<sup>23</sup> weigh on the outlook. For example, the arrival of El Niño alone could increase global food prices by up to 9%.<sup>24</sup>

<sup>16</sup> Federal Reserve, December 2023.

<sup>17</sup> Clarfelt et al., December 2023.

<sup>18</sup> McDougall et al., December 2023.

<sup>19</sup> European Central Bank, December 2023.

<sup>20</sup> S&P Global, December 2023a.

<sup>21</sup> World Bank, December 2023.

<sup>22</sup> Eavis, December 2023.

<sup>23</sup> Kuik et al., December 2023.

<sup>24</sup> Adolfsen et al., September 2023.

# 2. Geopolitical rifts compound uncertainty

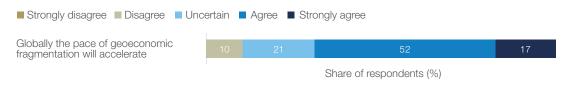
#### Fragmentation clouds the outlook

Global economic developments are being profoundly shaped by deepening

fragmentation. Almost seven out of ten (69%) chief economists are expecting the pace of geoeconomic fragmentation to accelerate this year (see Figure 5).

#### Figure 5. Fragmentation outlook

Looking at the year ahead, do you agree/disagree with the following statements?



Source: Chief Economists Survey, November-December 2023

Geoeconomically driven restructuring of the global economy has been evident for some time. The recent years have been marked by greater rivalry in the US-China relationship, partial splintering of international trade flows, <sup>25</sup> and a sharp tilt towards protectionist policies. <sup>26</sup> At the start of 2024, various alliances and simmering global conflicts are buoying concerns that global economic cooperation is faltering. The gravity of the current momentum is not lost on leaders, however, with many warning of hardening cold war rhetoric and costly outcomes of fragmentation. <sup>27</sup>

When asked about the implications of recent developments (see Figure 6), chief economists continue assigning a prominent role to geopolitical factors across macroeconomic and financial developments. About 87% expect recent geopolitical developments to stoke global economic volatility in the next three years, and eight out of ten expect it to heighten volatility in stock markets.

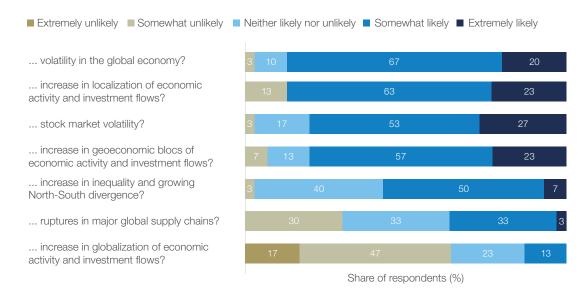
<sup>25</sup> WTO, September 2023.

<sup>26</sup> WTO, December 2023.

<sup>27</sup> Gopinath, December 2023.

Figure 6. The impact of geoeconomic fragmentation

In light of recent geopolitical developments, how likely is it that the next three years will lead to significant...



Source: Chief Economists Survey, November-December 2023

There is strong consensus that geopolitical developments will continue to impact economic activity and investment flows, with 86% expecting an increase in localization and 80% saying geoeconomic blocs will strengthen. On the flipside, two-thirds of respondents say an increase in globalization is unlikely over the next three years. This is in line with the developments in supply chain strategies in recent years, marked by a notable shift in narrative and action to reshoring, nearshoring, friendshoring, and, more recently, de-risking strategies.<sup>28</sup> The potential loss in global economic output from increased trade restrictions could reach up to 7%<sup>29</sup> according to the IMF. The signs of retreat are emerging, with global trade declining by 5%30 in 2023. On the other

hand, trade within allied blocs has been gaining momentum, with 6.2%<sup>31</sup> growth in the third quarter of 2023.

The costs of fragmentation are projected to be significantly higher for low-income economies, reaching up to 4% of global domestic product (GDP),<sup>32</sup> and almost double that of advanced economies. Although even a partial retreat in globalization will result in sizeable contraction for various blocs, any third-party countries' gains are largely offset by the headwinds from the contraction in major trade partners.<sup>33</sup> Besides the direct impact through trade channels, a retreat in cooperation risks stalling, if not rolling back, decades of progress towards development targets.

<sup>28</sup> The Economist, May 2023.

<sup>29</sup> Bolhuis et al., March 2023.

<sup>30</sup> UNCTAD, December 2023.

<sup>31</sup> Ibid.

<sup>32</sup> Bolhuis et al., March 2023.

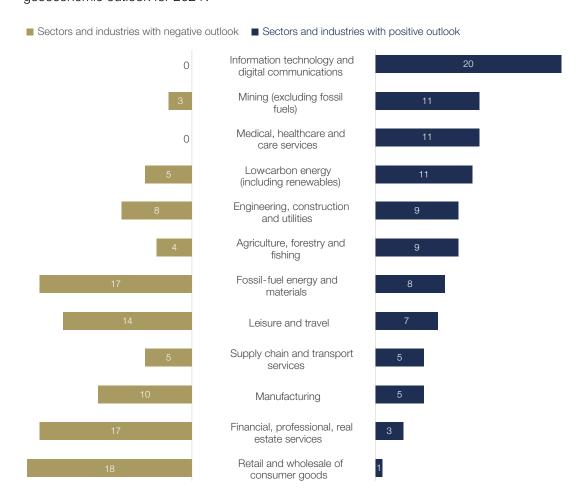
<sup>33</sup> Cerdeiro et al., October 2023.

Looking at the next three years, six out of ten chief economists said geopolitical developments will increase inequality and widen North-South divide.

One notable point of disagreement among the chief economists is the likelihood that geopolitical tensions will result in a significant rupture of global supply chains in the next three years. Only 36% of respondents think potential disruptions are likely, another third are uncertain and a third believe they are unlikely. This is likely to reflect in part the effectiveness of restructuring strategies and increased resilience of supply chains in recent years.

#### Figure 7. Industry outlook

Which sectors and industries are likely to be at an advantage or disadvantage in the geoeconomic outlook for 2024?



Source: Chief Economists Survey, November-December 2023

When asked about the sectoral impact of the geoeconomic outlook, chief economists highlighted a range of industries where they expect a more negative outlook in 2024, including retail

and wholesale of consumer goods, fossil-fuel energy and materials, financial, professional and real estate services, leisure and travel, and manufacturing. The respondents are significantly more optimistic about the impact of recent developments on the outlook for other industries, including information technology and digital communications, mining, medical, healthcare and care services, and low-carbon energy (see Figure 7).

Technology, mining and low-carbon energy, in particular, are expected to benefit from the projected 11%<sup>34</sup> increase in the global demand for renewable energy and strategic competition between the geoeconomic blocs as new industrial policies ramp up investments and demand for critical materials and components.<sup>35</sup>

The survey also asked chief economists what strategies businesses might adopt in the face of rising geoeconomic fragmentation in 2024. Three patterns feature prominently. First, diversification, rather than isolation, remains the surest way to resilience in the times of heightened volatility. Second, investments in gradual de-risking and localization could unlock new supply chain opportunities. Lastly, search for talent and agility will be at the core of strategy planning and execution, with many multinationals having to juggle and adjust strategies across the geographies.

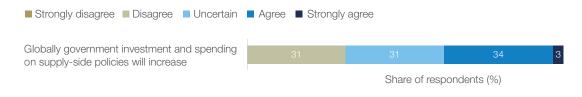
### Governments continue to turn inward

The mounting concerns of deeper global fragmentation are closely intertwined with the resurgence in industrial policies over the recent years. Technological competition and the race to secure supply chains for critical materials and other goods are blurring the lines between economic and national security objectives. This shift has been associated with a spike in the number of protectionist measures – such as export restrictions – that quadrupled to almost 35,000 over the last decade.<sup>36</sup>

After more than a year since the launch of the Inflation Reduction Act (IRA) and CHIPS Act sparked a global uptick in such largescale initiatives, tens of billions are being funnelled into infrastructure, manufacturing, semiconductors and low-carbon solutions across geographies.<sup>37</sup> The results of the latest survey reveal uncertainty about the extent of investment and spending on supply-side policies – such as tax credits and subsidies – this year (see Figure 8), with 31% expecting no increase, 31% uncertain and only a slightly higher proportion of respondents (37%) expecting an increase.

Figure 8. Government support for supply-side policies

Looking at the year ahead, do you agree/disagree with the following statements?



Source: Chief Economists Survey, November-December 2023

<sup>34</sup> Economist Intelligence Unit, October 2023.

<sup>35</sup> IMF, October 2023.

<sup>36</sup> The Economist, July 2023.

<sup>37</sup> Agarwal, March 2023.

As governments experiment with industrial policy tools, the initiatives have multiplied in number and scale over the recent years, and at least 84 countries, accounting for 90% of world GDP, have adopted some form of industrial strategy since 2013.<sup>38</sup> Two-thirds of chief economists say these policies are likely to enable the emergence of new economic growth hotspots and vital

new industries (see Figure 9). While the efficiency of the approaches will take time to be gauged, regions are scoping opportunities to attract capital and talent. For example, the investments into the development of new semiconductor chip plants – \$20 billion in Ohio<sup>39</sup> and \$28 billion in Arizona<sup>40</sup> – have already sparked hopes about a new growth impetus to US manufacturing clusters.<sup>41</sup>

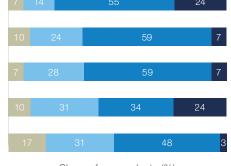
Figure 9. The impact of industrial policy

Looking ahead to the next three years, do you agree/disagree with the following statements?



An increase in competing industrial policies will lead to significant redundancies in global value chains

Source: Chief Economists Survey, November-December 2023



Share of respondents (%)

The survey results suggest that keeping up with global competition and sustaining the policies in the future will come at a substantial cost, with 79% of chief economists saying that policy-makers will face an increasing trade-off between maintaining fiscal stability and building national industry champions. These economic costs risk becoming entrenched if the policies result in protracted market

distortion. Looking at the next three years, 58% foresee the possibility of industrial policies to create inefficiencies and unfair distortions within countries. The views are somewhat more divided on the impact on global supply chains. Only a slight majority (51%) expects a global tilt towards competing industrial policies to cause significant redundancies in global supply chains.

<sup>38</sup> UNCTAD, June 2018.

<sup>39</sup> Intel, September 2023.

<sup>40</sup> Kinery, December 2022.

<sup>41</sup> McGahey, October 2023.

Among the chief economists surveyed, two-thirds also expect industrial policies in advanced economies to increase financial and technological divergence between higher-income and lower-income economies. This reflects the dual-track nature of the global return to industrial policy, with high-income economies implementing five times as many industrial policies as lower-income economies. The difference is evident in the scope and scale of the initiatives too, as lower-income economies navigate tighter fiscal space.

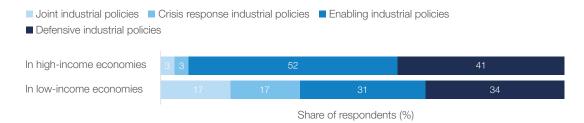
The survey also asked chief economists for their views on the future approaches to industrial policy. The respondents expect governments to remain largely inward-focused across both high- and low-income economies, with divided views on whether they will focus on defensive or enabling approaches in the next three years (see Figure 10).

About half of chief economists (51%) expect an increase in enabling policy approaches – focusing on technological development and widespread use of incentives and investments – in high-income economies. Another 41% said high-income economies will focus more on achieving economic security with protective measures, including export restrictions. The results for low-income are almost equally split, with a slightly higher share of respondents (34%) expecting countries to focus on defensive rather than enabling (31%) policies.

The expectations of a wider adoption of joint industrial policies between countries are extremely low across both high- and low-income economies, despite its potential to mitigate the extent of the North-South divergence.

#### Figure 10. Industrial policy outlook

Looking at the different approaches to industrial policy globally, which do you expect to see more of over the next three years?



Source: Chief Economists Survey, November-December 2023

<sup>42</sup> UNIDO, March 2023.

# 3. Artificial intelligence takes the spotlight

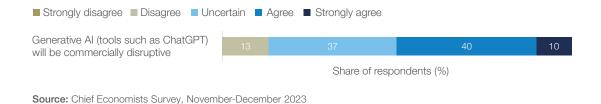
#### Al may expand the productivity frontier

The rapid advances in the field of Al represent another potentially profound change to global economic activity. Despite a multitude of use cases<sup>43</sup> – from precision farming to automotive industry and logistics – the uptake of Al has remained limited in scale since the deep learning boom of the 2010s. The launch of large language models (LLMs) and generative Al tools, like ChatGPT and Bard, at the end of 2022 introduced drastically new possibilities<sup>44</sup> by opening the technology to the general public.

In the May 2023 edition of the *Chief Economists Outlook*, <sup>45</sup> generative AI was already touted as a major technological shift posing structurally new challenges to businesses and policy-makers, with 42% of respondents expecting the technology to become commercially disruptive by the end of 2023. Although that figure has increased to 50% for 2024 in the latest survey (see Figure 11), the results reflect an overarching ambiguity about the trajectory and the extent of businesses uptake of generative AI, with 37% of respondents remaining uncertain and another 13% disagreeing.

Figure 11. Generative Al adoption

Looking at the year ahead, do you agree/disagree with the following statements?



Previous waves of innovation have also traditionally been accompanied with excitement about potential economic gains. The onset of generative AI is similar, with high

expectations, although the full effect of the technology can take time to be realized and translated into economic data.<sup>46</sup>

<sup>43</sup> Economist Intelligence Unit, June 2023.

<sup>44</sup> The Economist, April 2023.

<sup>45</sup> World Economic Forum, May 2023.

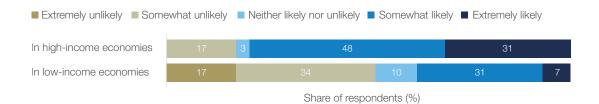
<sup>46</sup> Brynjolfsson et al., December 2023.

The latest survey points to a divergence in the outcomes between different income groups when it comes to the impact of generative AI on productivity within the

year, with 79% expecting an increase in the efficiency of output production in highincome economies, compared to only 38% for low-income economies (see Figure 12).

Figure 12. The impact of generative AI on productivity

Looking at the year ahead, how likely is it that generative AI will lead to increased efficiency of output production?



Source: Chief Economists Survey, November-December 2023

The timelines within which Al-enabled productivity gains are expected to become tangible are vastly different too (see Figure 13). The chief economists are almost unanimous (94%) in expecting productivity improvements to become economically significant in high-income economies within the next five years, including 57% expecting the benefits to emerge within the next three years. This is in sharp contrast with more conservative views about the prospects for low-income economies, where only a slight majority (53%) expect benefits to be visible within the next five years, and

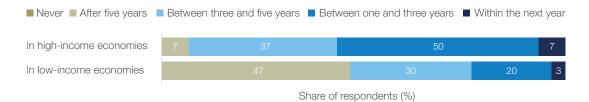
another 47% say it will take more than five years. No respondents said productivity benefits will never materialize, reflecting an expectation that AI will have a sustained and far-reaching impact on the global economy. One estimate suggests that generative AI alone could boost global productivity growth by 1.5 percentage points a year and increase global GDP by 7% over a 10-year horizon.<sup>47</sup> According to the most optimistic scenarios,<sup>48</sup> a widespread deployment of AI could enable as much as a 30% increase in global output by the end of the century.

<sup>47</sup> Goldman Sachs, April 2023.

<sup>48</sup> Davidson, June 2021.

Figure 13. The timeline of the Al-enabled productivity benefits

Considering the pace of Al adoption to date, when do you think Al-enabled productivity benefits will become economically significant?



Source: Chief Economists Survey. November-December 2023

The geopolitics of Al and different approaches to regulation<sup>49</sup> will define the scale and geography of Al uptake in the coming years. When asked about the regions poised to see significant increase in productivity from higher AI adoption, chief economists are unambiguous in expecting the US, China, Europe, and East Asia and Pacific to benefit the most in the next three years. This is broadly in line with the geography of digital penetration and estimates suggesting that advanced economies are, on average, better poised to reap Al-enabled benefits. 50 Although definitive leaders are yet to be established, the Al scene has been largely dominated by the US with the Al-related startups in the country attracting \$26 billion in venture capital in 2023, six times more than those based in China, its nearest competitor.<sup>51</sup>

In terms of the potential impact on productivity across sectors and industries, the chief economists foresee widespread benefits across all industries. The most notable improvements are expected in knowledge-heavy industries, including information technology and digital communication, financial and professional services, medical and healthcare services, retail, manufacturing,

engineering and construction, energy and logistics. The views of chief economists are echoed across industry estimates, suggesting a possible increase in annual revenue in banking and pharmaceutical industries by as much as 5%.<sup>52</sup> Almost three-quarters of Al-enabled productivity gains across industries will be enabled by improvements in research and development, customer services, marketing and sales, and software engineering.<sup>53</sup>

#### Navigating the societal impact

Positive predictions about the economic gains from AI have been accompanied by broad-based anxiety about the possible societal, jobs and inequality implications of the technology.<sup>54</sup> While any estimations may be rapidly outstripped by the pace of change in the sophistication of LLMs and breadth of AI adoption, the latest survey of chief economists gauges the scope of possible impact of the recent development in generative AI. The results reveal a notable divergence in the outcomes between highincome and low-income economies (see Figure 14), consistent with the different prospects of productivity benefits.

<sup>49</sup> The Economist, December 2023.

<sup>50</sup> Pizzinelli et al., October 2023.

<sup>51</sup> Zakaria, December 2023.

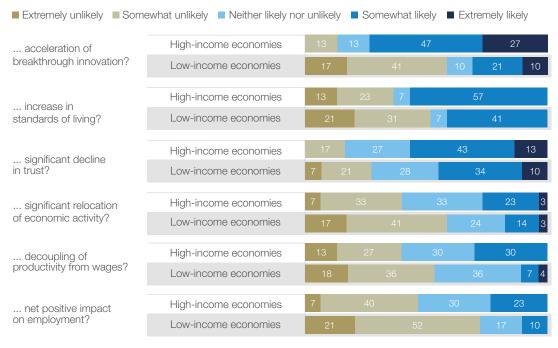
<sup>52</sup> McKinsey, August 2023.

<sup>53</sup> McKinsey, June 2023.

<sup>54</sup> Blackman, August 2023.

Figure 14. The impact of generative Al

Looking at the year ahead, how likely is it that generative Al will lead to...



Share of respondents (%)

Source: Chief Economists Survey, November-December 2023

Almost three-quarters of respondents expect generative AI to accelerate the pace of innovation (74%) in high-income economies, compared to only 31% expecting similar effect in low-income economies. As innovation and productivity gains from AI attract higher investments, the slower pace of progress in low-income economies risks widening the technological and economic divide. <sup>55</sup> The gap is visible when looking at the standards of living too: 57% expect an AI-enabled increase in high-income economies, compared to only 41% for low-income economies.

The potential gains from productivity benefits are in sharp contrast with concerns about the risks of automation, job displacement

and degradation. Almost three-quarters (73%) of chief economists surveyed do not foresee a net positive impact on employment in low-income economies, while another 17% are uncertain. In other words, the majority expect displacement. The views for high-income economies are slightly more divided, with 47% saying net job creation is unlikely this year and another 30% uncertain. One estimate suggests that up to 18% of work could be automated by Al globally, with advanced economies<sup>56</sup> and occupations with predominantly routine and repetitive tasks<sup>57</sup> facing higher exposure thus far. While the evidence of the broader effect on the workforce is still evolving, there are signs of consensus that Al is likely to transform rather than destroy

<sup>55</sup> Alonso et al., September 2020.

<sup>56</sup> World Economic Forum, September 2023b.

<sup>57</sup> Goldman Sachs, March 2023.

work in the near term,<sup>58</sup> with a potentially detrimental impact on job quality.<sup>59</sup> Such shifts in consumer power are likely to dampen growth across economies, although it is unclear if the magnitude would offset gains through productivity benefits.

Another area of uncertainty is in the prospects of generative AI resulting in a significant relocation of economic activity or a decoupling of productivity from wages. Chief economists are almost equally divided for high-income economies. When it comes to low-income economies, a slight majority said that both relocation of economic activity (58%) and decoupling of productivity from wages (54%) were unlikely. The recent evidence suggests that workers with Al exposure have thus far benefited from higher wage premiums. 60 The long-term impact on wages at different skill levels will depend on the extent of productivity benefits and changes to job quality.

Perhaps the most immediate and acute impact will be seen in the public and political

space, with one estimate suggesting that up to 90% of online content could be Algenerated by 2026.61 While the regulation of Al is lagging behind the pace of adoption, generative AI tools have been found to reproduce historical patterns of inequality and social biases.<sup>62</sup> The concerns about the risks of misinformation also spiked ahead of elections across the globe in the next year. For example, the number of websites posting Al-created misinformation has already increased by more than 1,000% since May 2023.63 The survey results reveal this concern, with 56% and 44% saying the generative AI will lead to a significant decline in trust in, respectively, high-income and low-income economies this year.

The lack of consensus on some of the prospects discussed above reflects the ambiguity about the trajectory and full extent of the AI impact on workers and economies. Decisions made today will change this trajectory and their impact will be felt by individuals, societies and economies in the years to come.

<sup>58</sup> Lawrence et al., December 2017.

<sup>59</sup> OECD, July 2023.

<sup>60</sup> Ibid.

<sup>61</sup> Europol, April 2022.

<sup>62</sup> Nicoletti et al., June 2023.

<sup>63</sup> Verma, December 2023.

## References

- Adolfsen, Jakob Feveile, Lappe, Marie-Sophie, "Risks to global food prices from El Niño", ECB Economic Bulletin, Issue 6/2023, *European Central Bank*, 28 September 2023, <a href="https://www.ecb.europa.eu/pub/economic-bulletin/focus/2023/html/ecb.ebbox202306">https://www.ecb.europa.eu/pub/economic-bulletin/focus/2023/html/ecb.ebbox202306</a> 01~36e78cc75e.en.html.
- Agarwal, Ruchir, "Industrial Policy and The Growth Strategy Trilemma", Finance & Development, International Monetary Fund, 21 March 2023, <a href="https://www.imf.org/en/Publications/fandd/issues/Series/Analytical-Series/industrial-policy-and-the-growth-strategy-trilemma-ruchir-agarwal">https://www.imf.org/en/Publications/fandd/issues/Series/Analytical-Series/industrial-policy-and-the-growth-strategy-trilemma-ruchir-agarwal</a>.
- Alonso, Cristian, Berg, Andrew, Kothari, Siddharth, Papageorgiou, Chris, Rehman, Sidra, "Will the Al Revolution Cause a Great Divergence?", IMF Working Paper No. 2020/184, International Monetary Fund, 11 September 2020, <a href="https://www.imf.org/en/Publications/WP/Issues/2020/09/11/Will-the-Al-Revolution-Cause-a-Great-Divergence-49734">https://www.imf.org/en/Publications/WP/Issues/2020/09/11/Will-the-Al-Revolution-Cause-a-Great-Divergence-49734</a>.
- Blackman, Reid, "Generative Al-nxiety", *Harvard Business Review*, 14 August 2023, https://hbr.org/2023/08/generative-ai-nxiety.
- Bolhuis, Marijn, Chen, Jiaqian, Kett, Benjamin, "Fragmentation in Global Trade: Accounting for Commodities", IMF Working Paper No. 2023/073, *International Monetary Fund*, 15 December 2023, <a href="https://www.imf.org/en/Publications/WP/Issues/2023/03/24/Fragmentation-in-Global-Trade-Accounting-for-Commodities-531327">https://www.imf.org/en/Publications/WP/Issues/2023/03/24/Fragmentation-in-Global-Trade-Accounting-for-Commodities-531327</a>.
- Brynjolfsson, Erik, Unger, Gabriel, "The Macroeconomics of Artificial Intelligence", *Finance & Development*, International Monetary Fund, December 2023, <a href="https://www.imf.org/en/Publications/fandd/issues/2023/12/Macroeconomics-of-artificial-intelligence-Brynjolfsson-Unger">https://www.imf.org/en/Publications/fandd/issues/2023/12/Macroeconomics-of-artificial-intelligence-Brynjolfsson-Unger</a>.
- Cerdeiro, Diego, Kothari, Siddharth, Muir Dirk, "Harm From 'De-Risking' Strategies Would Reverberate Beyond China", *IMF Blog*, International Monetary Fund, 17 October 2023, <a href="https://www.imf.org/en/Blogs/Articles/2023/10/17/harm-from-de-risking-strategies-would-reverberate-beyond-china">https://www.imf.org/en/Blogs/Articles/2023/10/17/harm-from-de-risking-strategies-would-reverberate-beyond-china</a>.
- Clarfelt, Harriet, Duguid, Kate, "Investors ditch notion that interest rates will stay 'higher for longer'", *Financial Times*, 17 December 2023, <a href="https://www.ft.com/content/5ce5a5a6-8788-4928-a9ee-cc828b0298fb?shareType=nongift">https://www.ft.com/content/5ce5a5a6-8788-4928-a9ee-cc828b0298fb?shareType=nongift</a>.

- Davidson, Tom, "Could Advanced Al Drive Explosive Economic Growth?", *Open Philanthropy*, 25 June 2021, <a href="https://www.openphilanthropy.org/research/could-advanced-ai-drive-explosive-economic-growth/">https://www.openphilanthropy.org/research/could-advanced-ai-drive-explosive-economic-growth/</a>.
- Delcas, Marie, "Tensions ramp up between Venezuela and Guyana over oil-rich region", Le Monde, 1 December 2023, <a href="https://www.lemonde.fr/en/international/article/2023/12/01/tensions-ramp-up-between-venezuela-and-guyana-over-oil-rich-region\_6304760\_4.html">https://www.lemonde.fr/en/international/article/2023/12/01/tensions-ramp-up-between-venezuela-and-guyana-over-oil-rich-region\_6304760\_4.html</a>.
- Eavis, Peter, "Red Sea Attacks Pose Another Threat to Global Economy", *The New York Times*, 19 December 2023, <a href="https://www.nytimes.com/2023/12/19/business/red-sea-suez-canal-shipping.html">https://www.nytimes.com/2023/12/19/business/red-sea-suez-canal-shipping.html</a>.
- Economist Intelligence Unit, *Energy outlook 2024,* 24 October 2023, <a href="https://www.eiu.com/n/campaigns/energy-in-2024/">https://www.eiu.com/n/campaigns/energy-in-2024/</a>.
- Economist Intelligence Unit, "How companies use artificial intelligence", 5 June 2023, <a href="https://www.eiu.com/n/how-companies-use-artificial-intelligence/">https://www.eiu.com/n/how-companies-use-artificial-intelligence/</a>.
- European Central Bank, *Monetary policy decisions Press Release*, 14 December 2023, <a href="https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp231214~9846e62f62.">https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp231214~9846e62f62.</a> en.html.
- Europol, "Facing reality? Law enforcement and the challenge of deepfakes", *An Observatory Report from the Europol Innovation Lab*, 28 April 2022, <a href="https://www.europol.europa.eu/publications-events/publications/facing-reality-law-enforcement-and-challenge-of-deepfakes">https://www.europol.europa.eu/publications-events/publications/facing-reality-law-enforcement-and-challenge-of-deepfakes</a>.
- Federal Reserve, Federal Reserve issues Federal Open Market Committee (FOMC) statement Press Release, 13 December 2023, <a href="https://www.federalreserve.gov/newsevents/pressreleases/monetary20231213a.htm">https://www.federalreserve.gov/newsevents/pressreleases/monetary20231213a.htm</a>.
- Goldman Sachs, "Generative AI could raise global GDP by 7%", 5 April 2023, <a href="https://www.goldmansachs.com/intelligence/pages/generative-ai-could-raise-global-gdp-by-7-percent.html">https://www.goldmansachs.com/intelligence/pages/generative-ai-could-raise-global-gdp-by-7-percent.html</a>.
- Goldman Sachs, "The Potentially Large Effects of Artificial Intelligence on Economic Growth (Briggs/Kodnani)", *Global Economics Analyst*, 26 March 2023, <a href="https://www.gspublishing.com/content/research/en/reports/2023/03/27/d64e052b-0f6e-45d7-967b-d7be35fabd16.html">https://www.gspublishing.com/content/research/en/reports/2023/03/27/d64e052b-0f6e-45d7-967b-d7be35fabd16.html</a>.
- Gopinath, Gita, Plenary Speech by IMF First Managing Deputy Director Gita Gopinath on Cold War II? Preserving Economic Cooperation Amid Geoeconomic Fragmentation, 11 December 2023, speech presented at the 20th World Congress of the International Economic Association in Colombia, <a href="https://www.imf.org/en/News/Articles/2023/12/11/sp121123-cold-war-ii-preserving-economic-cooperation-amid-geoeconomic-fragmentation">https://www.imf.org/en/News/Articles/2023/12/11/sp121123-cold-war-ii-preserving-economic-cooperation-amid-geoeconomic-fragmentation</a>.

- Intel, "Intel Invests in Ohio", 29 September 2023, <a href="https://www.intel.com/content/www/us/en/newsroom/resources/intel-invests-ohio.html">https://www.intel.com/content/www/us/en/newsroom/resources/intel-invests-ohio.html</a>.
- International Energy Agency (IEA), *Oil Market Report*, December 2023, <a href="https://www.iea.org/reports/oil-market-report-december-2023">https://www.iea.org/reports/oil-market-report-december-2023</a>.
- International Monetary Fund (IMF), *World Economic Outlook*, October 2023, "*Navigating Global Divergences*", <a href="https://www.imf.org/en/Publications/WEO/Issues/2023/10/10/world-economic-outlook-october-2023">https://www.imf.org/en/Publications/WEO/Issues/2023/10/10/world-economic-outlook-october-2023</a>.
- Kinery, Emma, "TSMC to up Arizona investment to \$40 billion with second semiconductor chip plant", *CNBC*, 6 December 2022, <a href="https://www.cnbc.com/2022/12/06/tsmc-to-up-arizona-investment-to-40-billion-with-second-semiconductor-chip-plant.html">https://www.cnbc.com/2022/12/06/tsmc-to-up-arizona-investment-to-40-billion-with-second-semiconductor-chip-plant.html</a>.
- Kuik, Frederike, Modery, Wolfgang, Nickel, Christiane, Parker, Miles, "The price of inaction: what a hotter climate means for monetary policy", *The ECB Blog*, European Central Bank, 18 December 2023, <a href="https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog231218~6291e67d1e.en.html#:~:text=Continued%20global%20warming%20makes%20inflation,is%20lower%20demand%20for%20heating...">https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog231218~6291e67d1e.en.html#:~:text=Continued%20global%20warming%20makes%20inflation,is%20lower%20demand%20for%20heating...</a>
- Lane, Philip, Keynote address by Philip R. Lane, Member of the Executive Board of the ECB on monetary policy tightening and the financing of firms, 19 April 2023, speech presented at the Enterprise Ireland Summit 2023 in Dublin, <a href="https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230419~09fe9b3295.en.html">https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230419~09fe9b3295.en.html</a>.
- Lawrence, Mathew, Roberts, Carys, King, Loren, "Managing Automation Employment, inequality and ethics in the digital age", The Institute for Public Policy Research Commission on Economic Justice, 28 December 2017, <a href="https://www.ippr.org/publications/managing-automation">https://www.ippr.org/publications/managing-automation</a>
- Livni, Ephrat, Gupta, Gaya, "What We Know About the War between Israel and Hamas", The New York Times, 20 November 2023, <a href="https://www.nytimes.com/article/israel-gaza-hamas-what-we-know.html">https://www.nytimes.com/article/israel-gaza-hamas-what-we-know.html</a>.
- McDougall, Mary, Arnold, Martin, "Investors bet on rapid ECB rate cuts as economic outlook darkens", *Financial Times*, 6 December 2023, <a href="https://www.ft.com/content/e4fc88bd-d59d-45f4-b9b2-5f69a9dbc466">https://www.ft.com/content/e4fc88bd-d59d-45f4-b9b2-5f69a9dbc466</a>.
- McGahey, Richard, "How Biden's Industrial Policy Can Help Economically Distressed Places", Forbes, 31 October 2023, <a href="https://www.forbes.com/sites/">https://www.forbes.com/sites/</a> richardmcgahey/2023/10/31/will-industrial-policy-help-economically-distressed-places/.
- McKinsey, "The economic potential of generative AI: The next productivity frontier", 14 June 2023, <a href="https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier">https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier</a>.

- McKinsey, "The state of AI in 2023: Generative AI's breakout year", 1 August 2023, <a href="https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2023-generative-ais-breakout-year#/">https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2023-generative-ais-breakout-year#/</a>.
- Nicoletti, Leonardo, Bass, Dina, "Humans Are Biased. Generative Al Is Even Worse", *Bloomberg*, 8 June 2023, <a href="https://www.bloomberg.com/graphics/2023-generative-ai-bias/">https://www.bloomberg.com/graphics/2023-generative-ai-bias/</a>.
- Organisation for Economic Co-operation and Development (OECD), *Employment Outlook 2023*, 11 July 2023, "Artificial Intelligence and the Labour Market", <a href="https://www.oecd-ilibrary.org/employment/oecd-employment-outlook-2023\_08785bba-en">https://www.oecd-ilibrary.org/employment/oecd-employment-outlook-2023\_08785bba-en</a>.
- Pizzinelli, Carlo, Panton, J Augustus, Mendes Tavares, Marina, Cazzaniga, Mauro, Li, Longji, "Labor Market Exposure to Al: Cross-country Differences and Distributional Implications", IMF Working Paper No. 2023/216, International Monetary Fund, 4 October 2023, <a href="https://www.imf.org/en/Publications/WP/Issues/2023/10/04/Labor-Market-Exposure-to-Al-Cross-country-Differences-and-Distributional-Implications-539656">https://www.imf.org/en/Publications/WP/Issues/2023/10/04/Labor-Market-Exposure-to-Al-Cross-country-Differences-and-Distributional-Implications-539656</a>.
- S&P Global, "Default, Transition, and Recovery: November Defaults Rise Well Above Long-Term Averages", December 2023a, <a href="https://www.spglobal.com/ratings/en/research/articles/231212-default-transition-and-recovery-november-defaults-rise-well-above-long-term-averages-12942983">https://www.spglobal.com/ratings/en/research/articles/231212-default-transition-and-recovery-november-defaults-rise-well-above-long-term-averages-12942983</a>.
- S&P Global, "MENA Tourism Likely To Take A Hit From Israel- Hamas War", 6 November 2023, <a href="https://www.spglobal.com/ratings/en/research/articles/231106-mena-tourism-likely-to-take-a-hit-from-israel-hamas-war-12904008">https://www.spglobal.com/ratings/en/research/articles/231106-mena-tourism-likely-to-take-a-hit-from-israel-hamas-war-12904008</a>.
- S&P Global, Monthly PMI Bulletin, December 2023b, "Global employment near-stalls alongside output in November", https://cdn.ihsmarkit.com/www/pdf/4944979\_4944986\_0.1.pdf.
- Smith, Colby, "Fed official says markets a 'bit ahead' of central bank on rate cuts", *Financial Times*, 18 December 2023, <a href="https://www.ft.com/content/ad029db4-d758-49a5-a38a-e505956e6784">https://www.ft.com/content/ad029db4-d758-49a5-a38a-e505956e6784</a>.
- The Economist, "Europe, a laggard in Al, seizes the lead in its regulation", 10 December 2023, <a href="https://www.economist.com/europe/2023/12/10/europe-a-laggard-in-ai-seizes-the-lead-in-its-regulation">https://www.economist.com/europe/2023/12/10/europe-a-laggard-in-ai-seizes-the-lead-in-its-regulation</a>.
- The Economist, "Large, creative AI models will transform lives and labour markets", 22 April 2023, <a href="https://www.economist.com/interactive/science-and-technology/2023/04/22/large-creative-ai-models-will-transform-how-we-live-and-work">https://www.economist.com/interactive/science-and-technology/2023/04/22/large-creative-ai-models-will-transform-how-we-live-and-work</a>.
- The Economist, "Subsidies and protection for manufacturing will harm the world economy", 13 July 2023, <a href="https://www.economist.com/leaders/2023/07/13/subsidies-and-protection-for-manufacturing-will-harm-the-world-economy">https://www.economist.com/leaders/2023/07/13/subsidies-and-protection-for-manufacturing-will-harm-the-world-economy</a>.

- The Economist, "What does "de-risking" trade with China mean?", 31 May 2023, <a href="https://www.economist.com/the-economist-explains/2023/05/31/what-does-de-risking-trade-with-china-mean">https://www.economist.com/the-economist-explains/2023/05/31/what-does-de-risking-trade-with-china-mean</a>.
- United Nations Conference on Trade and Development (UNCTAD), *Global Trade Update*, 12 December 2023, <a href="https://unctad.org/publication/global-trade-update-december-2023">https://unctad.org/publication/global-trade-update-december-2023</a>.
- United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2018*, June 2018, "Investment and New Industrial Policies", <a href="https://unctad.org/publication/world-investment-report-2018">https://unctad.org/publication/world-investment-report-2018</a>.
- United Nations Industrial Development Organization, *Global Industrial Policy: Measurement and Results*, March 2023, <a href="https://www.unido.org/sites/default/files/files/2023-04/">https://www.unido.org/sites/default/files/files/2023-04/</a>
  <a href="https://www.unido.org/sites/default/files/files/2023-04/">https://www.unido.org/sites/default/files/files/files/2023-04/</a>
  <a href="https://www.unido.org/sites/default/files/files/files/2023-04/">https://www.unido.org/sites/default/files/
- Verma, Pranshu, "The rise of Al fake news is creating a 'misinformation superspreader'", The Washington Post, 17 December 2023, <a href="https://www.washingtonpost.com/technology/2023/12/17/ai-fake-news-misinformation/">https://www.washingtonpost.com/technology/2023/12/17/ai-fake-news-misinformation/</a>.
- World Bank, *International Debt Report*, 13 December 2023, <a href="https://www.worldbank.org/en/programs/debt-statistics/idr/products">https://www.worldbank.org/en/programs/debt-statistics/idr/products</a>.
- World Economic Forum, *Chief Economists Outlook*, May 2023, <a href="https://www.weforum.org/publications/chief-economists-outlook-may-2023/">https://www.weforum.org/publications/chief-economists-outlook-may-2023/</a>.
- World Economic Forum, *Chief Economists Outlook*, September 2023a, <a href="https://www.weforum.org/publications/chief-economists-outlook-september-2023/">https://www.weforum.org/publications/chief-economists-outlook-september-2023/</a>.
- World Economic Forum, Jobs of Tomorrow: Large Language Models and Jobs, September 2023b, <a href="https://www.weforum.org/publications/jobs-of-tomorrow-large-language-models-and-jobs/">https://www.weforum.org/publications/jobs-of-tomorrow-large-language-models-and-jobs/</a>.
- World Economic Forum, *The Future of Growth Report*, January 2024, https://www.weforum.org/publications/the-future-of-growth-report/.
- World Trade Organization (WTO), "G20 trade policy direction becoming more restrictive amid continued slow trade growth", 18 December 2023, <a href="https://www.wto.org/english/news\_e/news23\_e/trdev\_18dec23\_e.htm">https://www.wto.org/english/news\_e/news23\_e/trdev\_18dec23\_e.htm</a>.
- World Trade Organization (WTO), *World Trade Report 2023*, September 2023, https://www.wto.org/english/res\_e/publications\_e/wtr23\_e.htm.
- Zakaria, Fareed, "The Self-Doubting Superpower", Foreign Affairs, 12 December 2023, <a href="https://www.foreignaffairs.com/united-states/self-doubting-superpower-america-fareed-zakaria">https://www.foreignaffairs.com/united-states/self-doubting-superpower-america-fareed-zakaria</a>.

## Contributors

The World Economic Forum would like to thank the members of the Community of Chief Economists for their thought leadership and guidance. We also thank the members of the broader core community of the Centre for the New Economy and Society for their ongoing commitment and contributions to addressing several of the factors presented in this outlook.

Figures are based on 30 survey responses. We would like to thank, in particular, all community members who completed the survey and contributed to this edition of the *Chief Economists Outlook* through community discussions.

We are grateful to our colleagues in the Centre for the New Economy and Society for helpful suggestions and comments, in particular to Jesse Caemmerer, Roberto Crotti, Philipp Grosskurth and Sriharsha Masabathula, in the Economic Growth and Transformation team, and Silja Baller, Attilio Di Battista and Eoin Ó Cathasaigh. Thank you to Martha Howlett and Laurence Denmark for copyediting, graphic design and layout.

The views expressed in this briefing do not necessarily represent the views of the World Economic Forum nor those of its Members and Partners. This briefing is a contribution to the World Economic Forum's insight and interaction activities and is published to elicit comments and further debate.

#### **World Economic Forum**

**Aengus Collins,** Head, Economic Growth and Transformation, Centre for the New Economy and Society

Kateryna Karunska, Insight Specialist, Economic Growth and Transformation, Centre for the New Economy and Society

Saadia Zahidi, Managing Director, World Economic Forum and Head, Centre for the New Economy and Society

# Acknowledgements

#### Members of the Community of Chief Economists

André Almeida, SONAE

Mansueto Almeida, Banco BTG Pactual

Musaab Almulla, Saudi Aramco

**Shusong Ba**, Hong Kong Exchanges and Clearing Limited (HKEX)

Rima Bhatia, Gulf International Bank BSC (GIB)

Marieke Blom, ING Group

Philipp Carlsson-Szlezak, Boston Consulting Group

Tomas Castagnino, Accenture

Juan Cerruti, Banco Santander SA

Samy Chaar, Bank Lombard Odier

Ahmet Çimenoglu, Koç Holding

Pedro Conceição, United Nations Development Programme (UNDP)

Gregory Daco, EY-Parthenon

Eralp Denktas, Eczacibaşı Holding

Erica Diniz Oliveira, Ifood.com

Paul Donovan, UBS

**Carsten Fink**, World Intellectual Property Organization (WIPO)

David Folkerts-Landau, Deutsche Bank

Indermit Gill, The World Bank

**Pierre-Olivier Gourinchas**, International Monetary Fund (IMF)

Svenja Gudell, Indeed

Jérôme Haegeli, Swiss Re Management

Karen Harris, Bain & Company

Janet Henry, HSBC Holdings

**Fernando Honorato Barbosa**, Banco Bradesco

**Beata Javorcik**, European Bank for Reconstruction and Development (EBRD)

Ira Kalish, Deloitte

Seisaku Kameda, Sompo Institute Plus

Christian Keller, Barclays

**Steffen Kern**, European Securities and Markets Authority

Razia Khan, Standard Chartered Bank

Raja Asad Khan, Saudi National Bank

Karin Kimbrough, LinkedIn

Kyle Kretschman, Spotify

Valérie Lemaigre, The Swiss Bank of Geneva (BCGE)

Gordon Liao, Circle Internet Financial

Mario Magalhães Carvalho Mesquita, Itaú Unibanco

Giulio Martini, Lord, Abbett & Co. LLC

Huw McKay, BHP Group

Guy Miller, Zurich Insurance

Gilles Moëc, AXA Investment

**Millan Mulraine**, Ontario Teachers' Pension Plan

Dhiraj Nayyar, Vedanta Resources

Jason Newton, Nutrien

**Dirk-Jan Omtzigt**, United Nations Office for the Coordination of Humanitarian Affairs (OCHA)

**Ralph Ossa**, World Trade Organization (WTO)

Eric Parrado, The Inter-American

Development Bank

Erik Peterson, Kearney

Sandra Phlippen, ABN AMRO

Saad Rahim, Trafigura

Debora Revoltella, European Investment

Bank (EIB)

Nela Richardson, Automatic Data

Processing (ADP)

Nadir Salar Qureshi, Engro

Michael Schwarz, Microsoft

Jorge Sicilia, BBVA

Graham Slack, A.P. Møller-Maersk

Ludovic Subran, Allianz

Hal R. Varian, Google

Eirik Waerness, Equinor

Coram Williams, Adecco Group



## COMMITTED TO IMPROVING THE STATE OF THE WORLD

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

World Economic Forum

91–93 route de la Capite CH-1223 Cologny/Geneva Switzerland

Tel.: +41 (0) 22 869 1212 Fax: +41 (0) 22 786 2744

contact@weforum.org www.weforum.org