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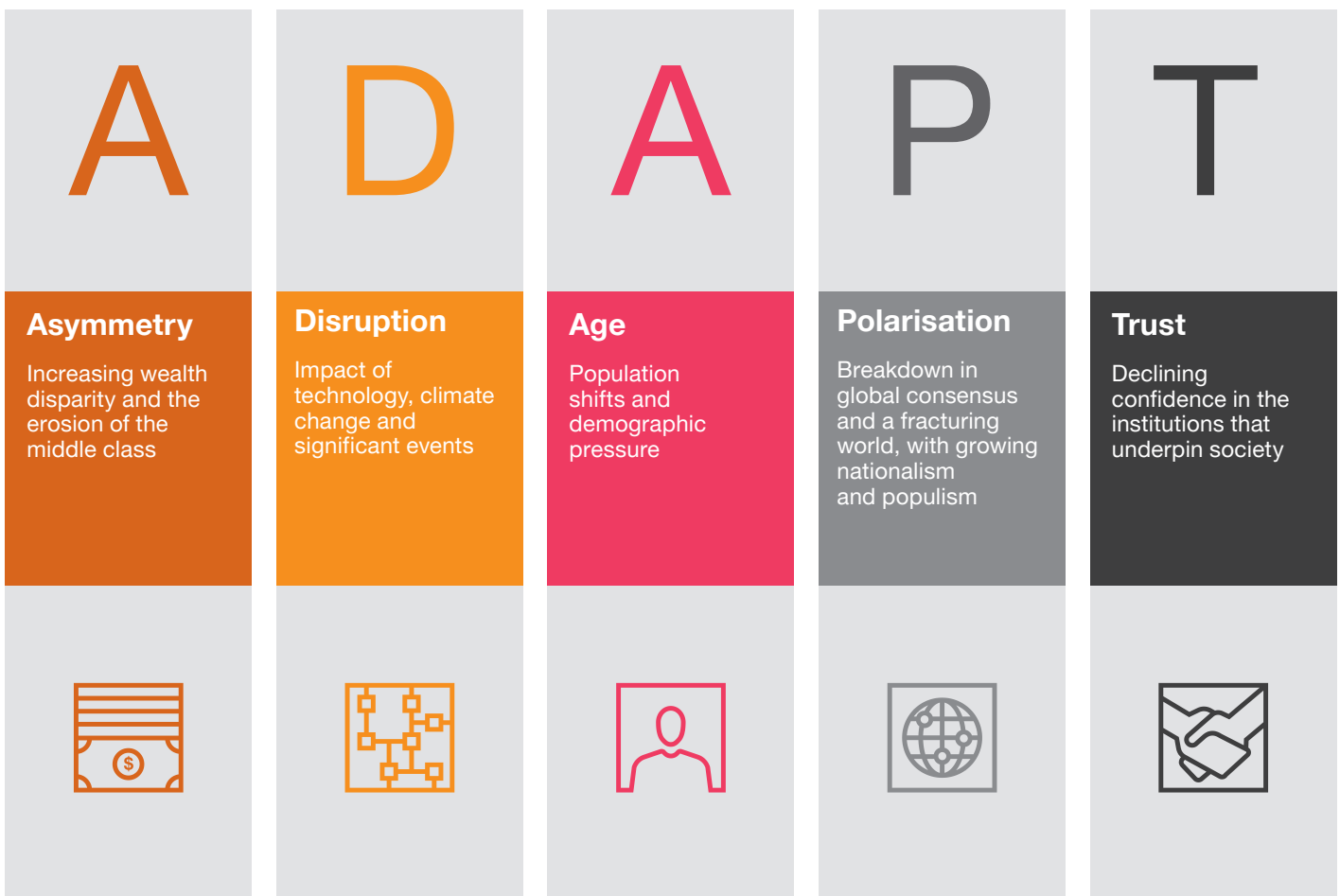
Five urgent global issues and implications

March 2022

Introduction

The five Megatrends we identified ten years ago continue to be pervasive and impact society at all levels.

In 2016 we defined a system of thinking that described the immediate manifestations of these trends. The goal was to provide business, governments and institutions with a framework to think about their strategy and navigate into an uncertain future. We called this the ADAPT framework. ADAPT covers the five urgent global issues facing the world today and their implications at all levels of society.



Originally created through in-depth data analysis and many conversations with a diverse set of stakeholders from around the world, we have continued to review and dynamically adjust ADAPT to ensure it keeps describing the most relevant and pervasive issues of our time. Many of the implications identified in the ADAPT framework overlap; this is to be expected because the five issues form a mutually-reinforcing system. We are talking about intersections, collisions and magnifiers.

While you could interrogate ADAPT and emerge feeling overwhelmed, we see huge opportunities in these challenges. Not least, the opportunity to reframe the way you see the world and take action to drive towards a positive outcome for yourself, your organisation and the society of which you are a part.

We hope you are similarly inspired by the potential, and that you will join us in acting upon it.

The Global Strategy and Leadership Team, PwC

Asymmetry

Increasing wealth disparity and the erosion of the middle class

Global wealth disparity has reached such a significant level that, as of 2020, 46% of the world's wealth was held by just 1.1% of the population, including over 215,000 individuals with a net worth over USD 50 million.¹ According to UBS/PwC, the number of billionaires in the world exceeded 2,100 individuals in 2020 and total billionaire wealth globally climbed to USD 10.2 trillion in July 2020, surpassing the previous peak of USD 8.9 trillion reached at the end of 2017.²

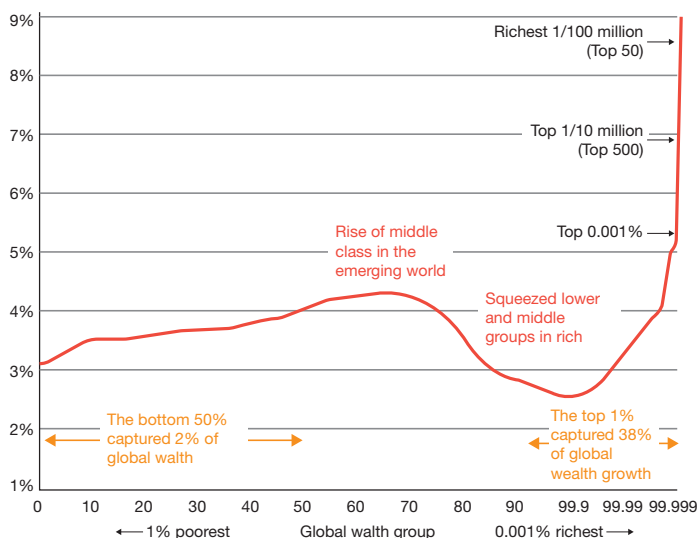
At the same time, there is a continued erosion of the middle class in both developed and developing economies, driven predominantly by two trends: technology replacing jobs and a lack of investment in innovation to create jobs.

Inequality is present at two levels: within countries and between countries. While global income inequalities between countries have declined, inequalities have increased significantly within countries, over the past two decades. The gap between the average incomes of the top 10% and the bottom 50% of individuals within countries has almost doubled, from 8.5x to 15x. This sharp rise in within-country inequalities has meant that despite economic catch-up and strong growth in the emerging countries, the world remains particularly unequal today.³

Wealth growth rates by wealth group

The poorest half of the world population only captured 2.3% of overall wealth growth since 1995. The top 1% captured 38% of total wealth growth.

Average annual wealth growth rate, 1995–2021
(per adult, net of inflation)



Source: Chancel, L., Piketty, T., Saez, E., Zucman, G. et al., World Inequality Report 2022, World Inequality Lab

¹ Credit Suisse, Global Wealth Databook 2021

² UBS/PwC, Billionaires Report 2020

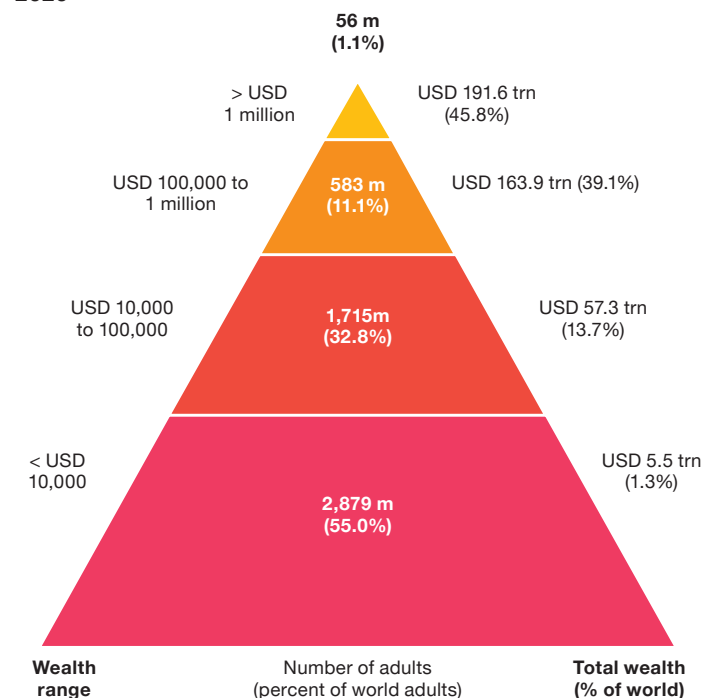
³ World Inequality Lab, World Inequality Report 2022

Implications:

- Disparities in opportunity will grow, with a likely decline in social mobility.
- Regional disadvantage is at risk of getting larger (within and between countries).
- Traditional sources of money will decline.
- The number and relative importance of private businesses will increase.
- Combined with disruption, capital markets will decline in importance.
- Technological capability will create greater disparity.
- The tax base will shrink and there will be increased demands on welfare.
- Society and governments will increase scrutiny on compensation practices.
- Governments are likely to invest in job-creating industries and position State Owned Enterprises for job growth.
- Consumption will bifurcate between luxury and low-end.
- Risk of social unrest is increasing.

The global wealth pyramid

2020



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2021

Disruption— Technology

Impact of technology, climate change and significant events

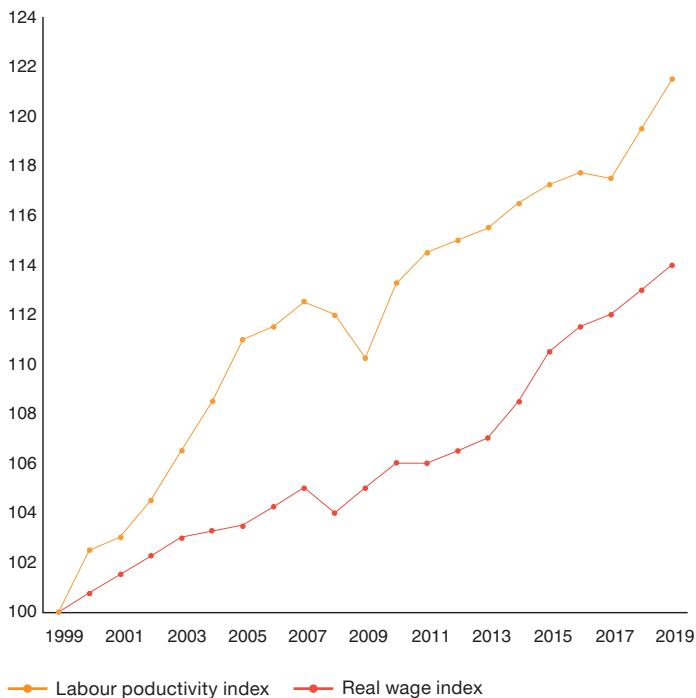
The proliferation and impact of breakthrough technologies – ranging from artificial intelligence and robotics to augmented reality and blockchain – are occurring, and at a faster rate than ever anticipated. Moreover, these new technologies are leading to the creation of new business models, especially for start-ups unencumbered by the infrastructure of the previous century. Once new business models are developed, they are often applied across industries, leading to the blurring of traditional boundaries (e.g. Amazon, Tencent).

As new, technology-driven models transform industries, capital replaces people and we estimate 30% of UK jobs, 38% of US jobs, 35% of German jobs and 21% of Japanese jobs could be at high risk of automation by the early 2030s.¹

The social and political implications of this transformation are as vast as the business implications for industry incumbents: economies literally will not be able to afford themselves as tax bases erode and the jobless can no longer consume goods without some form of income.

Growth in average wages and labour productivity in developed economies

(index: 1999=100)



Source: International Labour Organization (ILO), Global Wage Report 2020–2021, ILO estimate

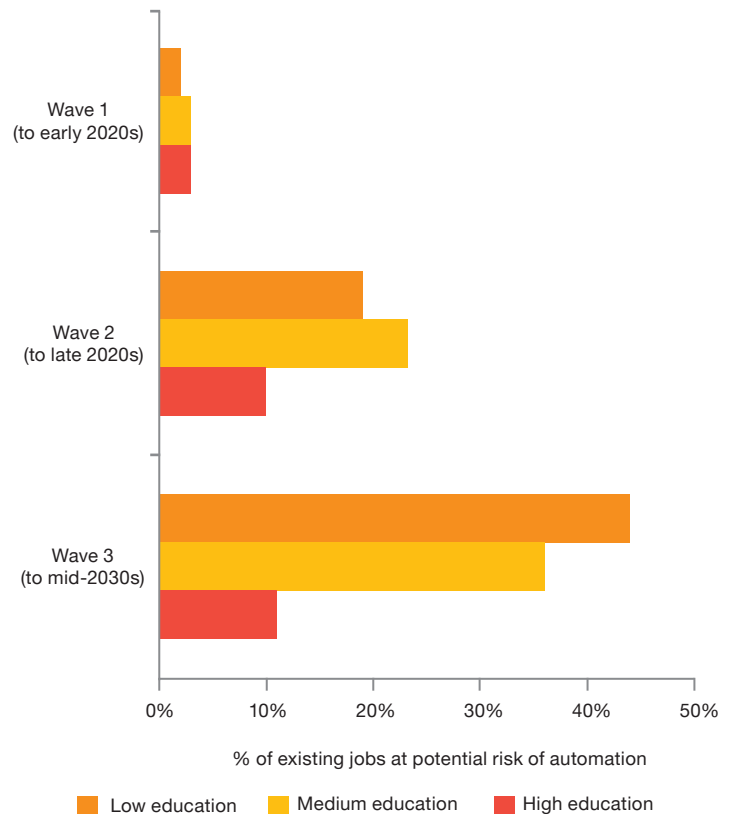
¹ PwC UK Economic Outlook March 2017

Implications:

- Market dynamics are changing and business models will need to adapt or fail.
- Digital transformation and speed of execution will be a survival requirement for most organisations.
- Organisations will fail as they are disrupted by others.
- Massive loss of work and transformation of work will lead to regional shifts as industry sectors are disrupted.
- Huge technology spend required to compete in the digital world and network effects drive concentration of power and threaten the survival of small businesses.
- At the same time, job loss from automation will drive the development of local businesses.
- There will be a continuous change in the relationship between people and technology.
- Technology capital will increasingly be a differentiator.
- Institutions will struggle to evolve and be at risk of failing.

Potential job automation rates by education level across waves

(median values for 29 countries)



Source: PwC estimates based on analysis of OECD PIAAC data

Disruption— Climate change

Impact of technology, climate change and significant events

Scientists are observing changes in the Earth’s climate in every region and across the whole climate system. Many of the changes are unprecedented in thousands of years, and some of the changes already set in motion – such as continued sea level rise – are irreversible over hundreds to thousands of years. Unless there are immediate, rapid and large-scale reductions in greenhouse gas emissions, limiting warming to 1.5°C or even 2°C will be beyond reach.¹ Climate-related risks to health, livelihoods, food security, water supply, human security and economic growth are projected to increase with global warming of 1.5°C.²

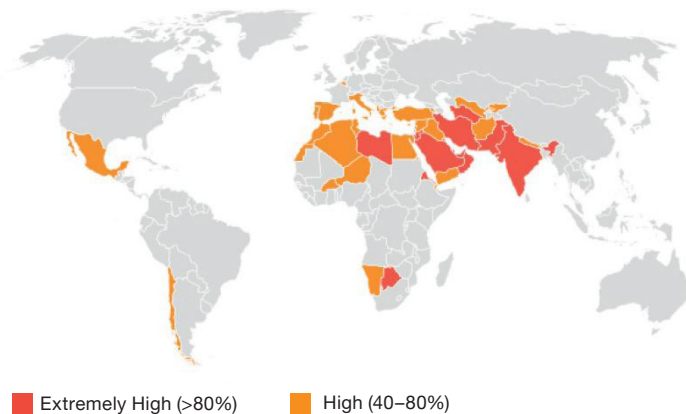
Pressure on resources will increase dramatically. The global population is expected to demand 35% more food by 2030. The types of food in demand – vegetable oils, dairy, meat, fish and sugar – have a high impact on energy and water. Plant disease is predicted to have a drastic effect on crop growth and cultivation, posing a threat to global food security.³

Interconnectivity between climate change and resource scarcity amplify the impact: climate change could reduce agricultural productivity by a third across Africa over the next 60 years. Globally, demand for water will increase by 40% and for energy by 50%. The world’s economic model is pushing beyond the limits of the planet’s ability to cope.⁴

Disruptive forces from technology and climate change are closely connected: while climate change and environmental damage are largely caused by the ubiquitous industrial technology system, technology advancements will need to play a major role in fighting the crisis.

Basic water stress

(ratio of withdrawals to supply)

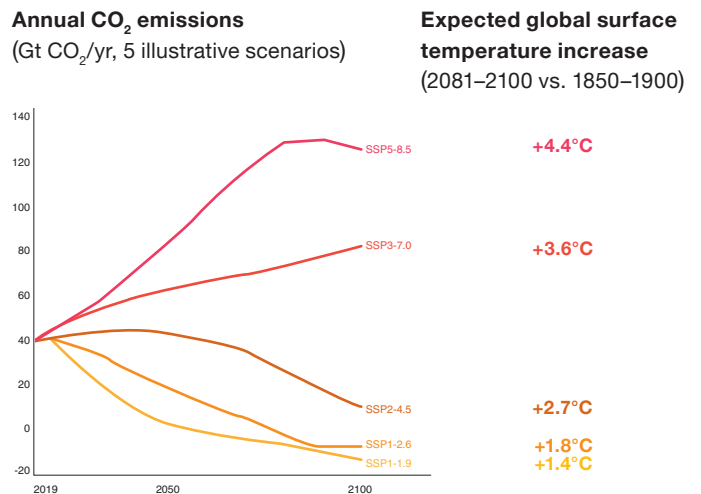


Source: WRI Aqueduct, www.wri.org

Implications:

- Rising sea levels will displace thousands of people, destroy millions of acres of land and cause potentially trillions of dollars in losses.
- A propensity towards drought in Central America, Northwest South America, Central and South Asia, and almost all of Africa will likely influence agricultural exports and global food security, calling for innovation or massive changes in how people live their everyday lives.
- Countries most impacted by climate change will have an increasingly precarious financial situation; they will almost certainly need to invest heavily to protect themselves. Governments and the public sector will have to address the tension between green regulations and growth for industries and the economy.
- A transition to renewable energy will be demanded but will require more time and funding than is available.
- Healthcare systems may struggle with an increased risk of pandemics, perhaps from previously unknown diseases.
- Investment in climate tech will experience strong growth, leading to an increasing number of jobs in green industries.

Global surface temperature change



Parallel assumptions for other key non-CO₂ drivers taken into account too
Source: IPCC, 2021, Climate Change 2021: The Physical Science Basis

¹ IPCC, 2021, Climate Change 2021: The Physical Science Basis

² IPCC, 2018: Global Warming of 1.5°C

³ National Intelligence Council: Global Trends 2030: Alternative Worlds

⁴ ibid.

Disruption— Significant events

Impact of technology, climate change and significant events

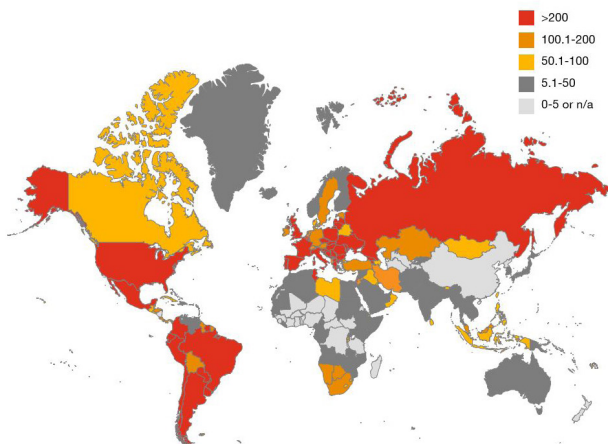
COVID-19 has shown the world that major one-time events can have just as large an impact as the disruption coming from technology and climate change.

The COVID-19 pandemic has wrought enormous personal, economic and social damage. It has upended countless lives, and exacerbated the many disruptions afoot, laying bare the unviability of many business models and the fragility of our economic and political systems and our global supply chains. Beyond that, it has provided a new set of acute shocks to seemingly sturdy businesses and principles that have guided our thinking for decades. Having resulted in more than 435 million known infections and more than 5 million known deaths as of March 2022,¹ the new coronavirus is unpredictable and lethal. The pandemic has caused a supply shock and a demand shock. It is causing economic turbulence of indeterminate length and severity, leading governments to grow public debt to unknown levels. It is stoking competition among countries to secure supplies and vaccines, while also serving as an occasion for greater national solidarity and regional cooperation. The pandemic is primarily a public healthcare problem, but one with immense immediate implications for business, and for economic, fiscal, and monetary policy. This virus is both accelerating powerful existing trends (such as automation and inequality) and slamming the brakes on trends that had, until recently, possessed tremendous momentum (such as globalisation).

COVID-19 is one such example of a significant, disruptive event. Armed conflicts, natural disasters or other incidents could have equally large effects.

Cumulative COVID-19 death rate

(per 100,000), by March 11, 2022



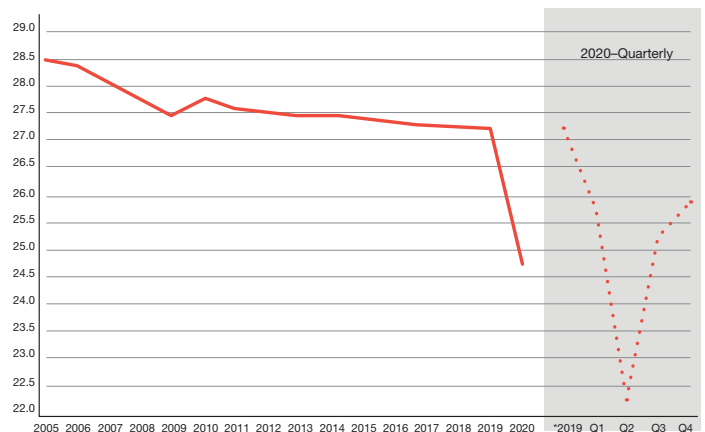
Source: WHO COVID-19 Dashboard. Geneva: World Health Organization, 2020

Implications:

- The pandemic lays bare pre-existing fragility of economies and societies.
- It is hitting poor people, and poor countries hardest.
- Public debt is rising dramatically, increasing pressure on pensions and social welfare systems.
- Small businesses are failing on a massive scale.
- The power of big tech platform companies is further increasing.
- The acceptance of e-everything (including e-health, e-government, e-education, e-commerce) has grown significantly
- Cyber risk has grown.
- Supply chain disruptions affect all regions and products and drive record levels of inflation.
- Economies are becoming more localized owing to the reconfiguration of supply chains.
- Polarisation is increasing over COVID containment and vaccine mandates.
- Distrust in institutions' ability to respond fairly and effectively is growing.
- Remote working / flexible working is becoming the norm in many regions of the world.
- COVID is a major factor driving the great resignation.
- Mental health issues have exploded.
- School closures have accentuated unequal educational opportunities.

Hours worked per person in the working-age population

(aged 15 to 64) worldwide



Source: ILO Monitor: COVID-19 and the world of work (Seventh edition), International Labour Organization, 2021

¹ WHO (<https://covid19.who.int/>)

Age

Population shifts and demographic pressure

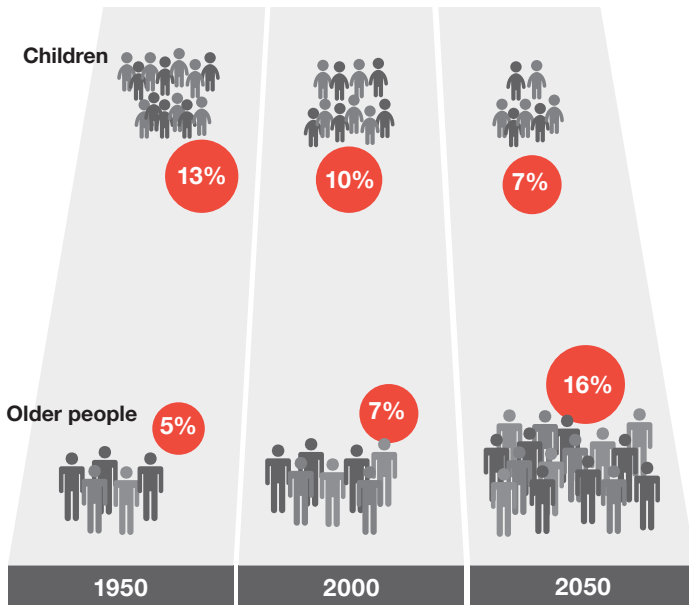
The global population is on track to reach 8.5 billion before 2030, and the average age is increasing.¹ There will be stark contrasts in the challenges faced by older versus younger nations: in 2030, the median age in Japan will be 52, while in Nigeria it will be 19.²

In the aging economies, older workers will need to work longer and learn new skills to remain relevant. Moreover, governments may seek to supplement the workforce with migrant populations and, in some cases, higher participation by women. At the same time, the numbers of the very old will increase too, putting a strain on healthcare, pensions, entitlement programmes and public debt.

In younger economies, governments will be faced with chronically high youth unemployment – no matter what level of education has been achieved by these individuals – and, if unsuccessful in addressing these issues, they may face increasing social unrest.

Young children and older people as percentage of global population

1950–2050



Note: Young children are those aged 0–4; older people are those aged 65 and over.

Source: United Nations, World Population Prospects 2019

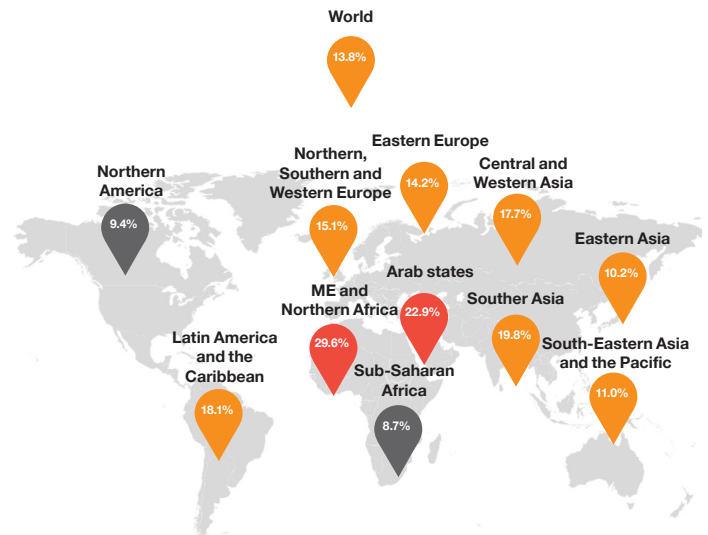
¹ United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019

² *ibid.*

Implications:

- Needs and consumption patterns will shift significantly.
- There will be a capacity mismatch across countries (infrastructure, investment, organisational capability and people).
- Dramatic job creation will be needed in countries with younger populations.
- People will not be able to afford to retire and will be a significant drain on the system.
- Managing new welfare programmes in conjunction with an erosion of the tax base will put increasing pressure on governments.
- Consumption-based sectors will experience a slowdown in countries with older populations.

Unemployment among youth 2021



Note: Youth is defined as the world's labor force aged 15–24

Source: ILO, Global Employment Trends for Youth 2020, ILO modelled estimates, November 2019

Polarisation

Breakdown in global consensus and a fracturing world, with growing nationalism and populism

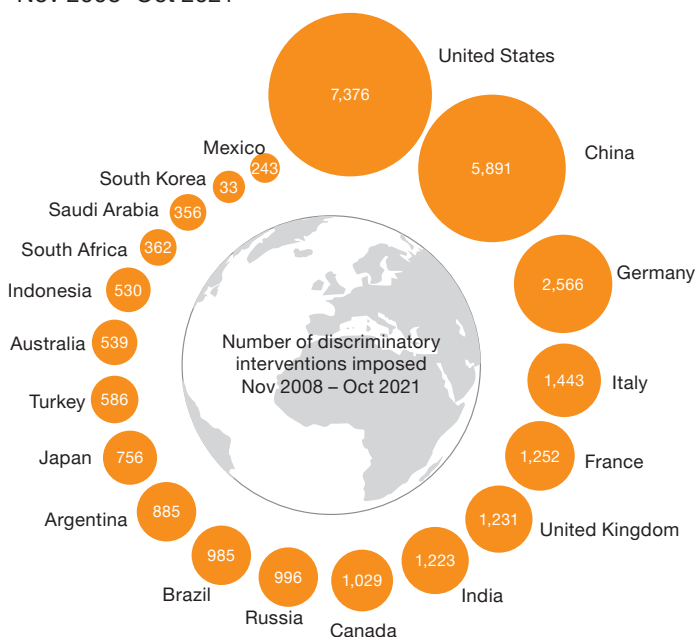
Economic growth has become disconnected from social progress leading many people to re-examine long-standing assumptions relating to their country's role in the world.

As people have become disillusioned, the impacts of globalisation, automation and economic shifts have led to a rise in populism. This has typically manifested itself as an opposition of a self-defined "common people" against the elites they believe are in control of national and international governance and commerce.

In this environment, a new nationalism is taking hold, with many countries prioritising their own interests. One manifestation is in corporate tax reduction, with countries increasingly competing to lure back corporations. At the same time, changes in bilateral trade agreements – including the imposition of protectionist tariffs – will cause companies to re-think their manufacturing practices. Many governments are restricting immigration and access to work visas and increasing data-localisation requirements. Overall, there is a growing tension in cross-border business.

Protectionism by the G20

Number of discriminatory interventions imposed
Nov 2008–Oct 2021



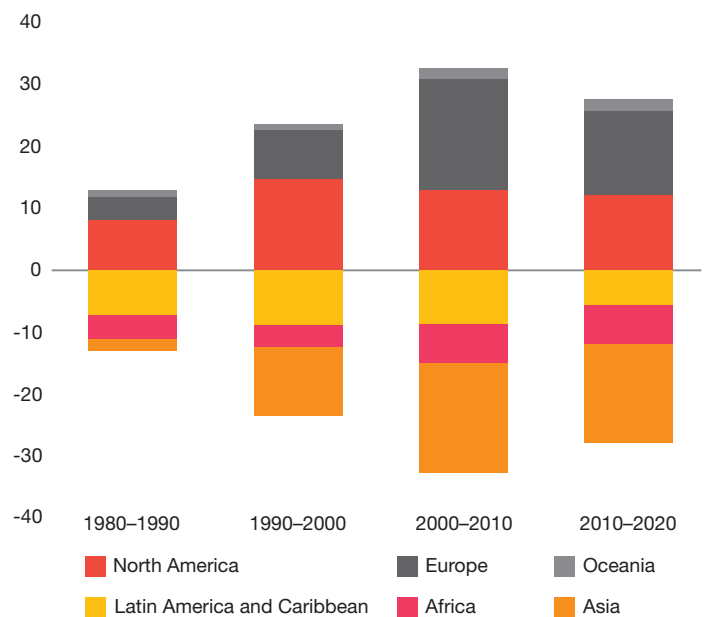
Source: The 28th Global Trade Alert Report, St.Gallen Endowment

Implications:

- International organisations will find it harder to be effective as consensus is more difficult to build.
- People's local concerns will become more acute and crowd out other issues.
- Political decisions will become increasingly parochial.
- Societal polarisation will become more extreme.
- Countries will compete for capital and talent.
- There will be an increase in international conflict, insecurity and immigration.
- Global businesses will need to be deeply embedded in key countries.

Net migration by region

1980–2020 (millions of people)



Source: United Nations, World Population Prospects 2019

Trust

Declining confidence in the institutions that underpin society

The erosion of trust in institutions began years ago as organisations and governments grew larger and became increasingly detached from the societies they represent. This trend accelerated with the financial crisis and the increasing politicisation of institutions.

The general population’s trust in institutions remained at a low level in 2021, based on a survey of 28 countries. Almost two-thirds of people are now inclined to distrust organisations.

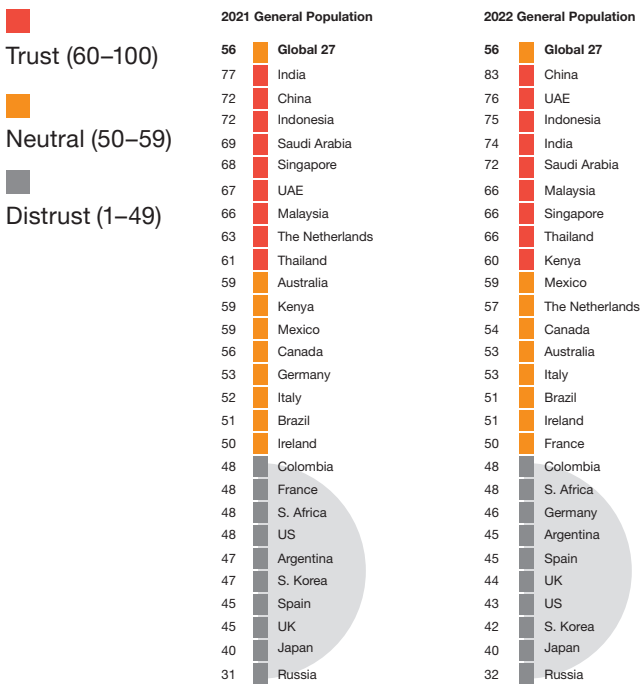
At first, technology appeared to offer a way to build trust: large, impersonal institutions could offer something close to a personalised service or a way to interact through peer-to-peer platforms. However, as we learn more about the implications of technology, trust is increasingly eroding. Data security breaches, the manipulation of social media and the spread of fake news are all leading individuals to question the organisations responsible.

If governments, business and institutions can’t find a way to rebuild trust, they will struggle to drive the level of change needed in such a dynamic world.

Implications:

- Institutions will continue to be devalued and suffer the corrosive effects of corruption.
- Concerns about personal and digital security will increase.
- The rise of tribalism and distrust of those outside own identity group will continue.
- Rising scepticism will make it harder to drive meaningful change.
- The growing debate over truth, alongside a lack of understanding of the real impact of social media on societal trust, will cause increased opportunities for misinformation.
- Governments will increase regulations to keep data in territory.
- New, technology-based institutions will be created, many based on a peer-to-peer model.

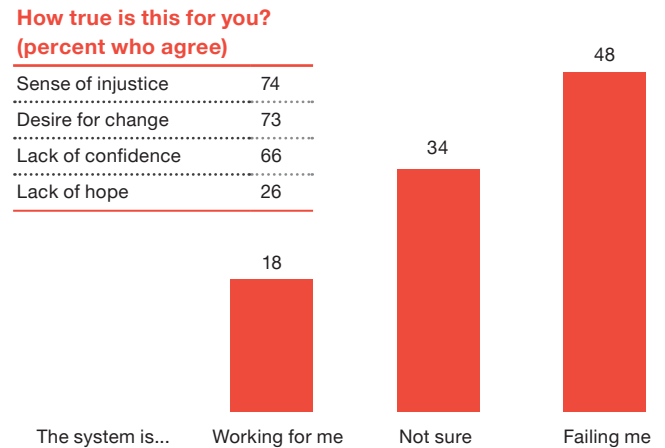
Trust index: average trust in institutions (government, business, NGO and media)



Source: 2022 Edelman Trust Barometer

¹ 2022 Edelman Trust Barometer

Percentage of population who feel the system is working for them



Source: 2020 Edelman Trust Barometer

Challenges facing society, business and individuals as a result of ADAPT

As a result of ADAPT, the world is at an inflection point: inaction will lead to the dramatic acceleration of negative effects, but the appropriate actions and right choices can produce a better future. Society at large, including its institutions and individuals, must address four major crises.¹ Business, in particular, must focus on achieving sustained outcomes and building trust to preserve and create financial and social value in a world of increasing risk and opportunity.

Challenges for society and individuals: managing four urgent crises

Crisis of prosperity

- Young people falling behind (indebtedness, unaffordable housing, growing tax burden, inadequate preparation for work)
- Elderly retiring broke (underfunded retirement, quality and cost of healthcare)
- Those in the middle stuck (risk of job loss, parental care, growing tax burden)

Crisis of technology

- Harmful impact of 21st century industrial system on the atmosphere and climate
- Impact of large technology platforms on society
- Dramatic changes to the human brain and behaviour
- Invasion of privacy
- Job losses to automation

Crisis of institutional legitimacy

- Inability of institutions to keep up with the pace of technology change
- Governance mechanisms designed to ensure consistency and trustworthiness slowing institutions down
- Difficult decision making in a polarised world
- Insufficient investment capacity given weakened balance sheets

Crisis of leadership

- Current leaders not prepared to lead in this new world
- Difficulty to make decisions and reach agreement

Challenges for business: creating sustained outcomes and building trust

Financial: creating and preserving the value necessary for growth and investment

- Preserving value by transforming to address the ADAPT issues
- Uncovering new ways of creating value
- Creating sufficient investment capacity while capital markets are fragile and financial resources are concentrated in a few areas

Fracturing world: operating in an increasingly polarised world that lacks global consensus

- Managing business complexities arising from global fracturing
- Operating across countries and regions that are conflicting with each other
- Facing business and government pressures to localise and increase resilience
- Managing the mismatch between markets and resources

Atmosphere: adapting business models and operations to reduce the negative impact on climate while creating value for all stakeholders

- Reducing CO₂ equivalents in the value chain
- Managing the physical risks of climate change
- Creating value when climate is a critical factor to customers, investors and society
- Mitigating resource scarcity and biodiversity loss

Social: rethinking operations to help address the negative social impacts of business models and decisions

- Reducing systemic inequality
- Managing issues arising from demographic trends
- Dealing with and reducing polarisation
- Reducing and managing unintended consequences of technology

Technology: creating value from technology investments via new business models, products and services

- Dealing with massive industry disruption and leveraging sector-specific technology
- Competing in a post-digital world
- Increasing efficiency and effectiveness via technology
- Building organisational and individual capabilities to compete in a digital world

Trust: getting the organisation's important stakeholders to firmly believe in its reliability or ability to deliver the outcomes they expect

- Building trust with a growing number of stakeholders
- Increasing breadth and depth of reporting
- Putting in place effective governance on complex transformations

¹ Blair H. Sheppard et al., *Ten Years to Midnight: Four urgent crises and their strategic solutions* (San Francisco: Berrett-Koehler Publishers, 2020)

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