

Megatrends

Five global shifts reshaping the world we live in
September 2024



Introduction

More than a decade has passed since the PwC network identified five Megatrends – Climate change, Technological disruption, Demographic shifts, Fracturing world, Social instability – and we have been tracking them since then. These are deep and profound trends, global in scope and long-term in effect, touching everyone on the planet and shaping our world for many years to come.

It is now clear that these Megatrends are transforming our world faster than anyone predicted. Largely this is due to feedback loops within individual Megatrends, or to the interaction between the trends that is turbocharging both the speed and pervasiveness of change.

Ten years ago, people generally thought of the Megatrends as something that could be addressed in a somewhat leisurely way. But since then, it's become increasingly clear that that is no longer true (and probably never was).

Estimates about how fast the Megatrends would have meaningful impact seem to have been way too conservative:

- Average global temperatures are expected to exceed the 1.5°C threshold above pre-industrial levels in at least one of the next 5 years¹.
- The launch of generative AI applications like ChatGPT and GPT4 propelled AI from hype to reality.
- Tensions between nation states have been growing for a while, but now turned into hot wars in Eastern Europe and the Middle East.
- Effects of demographic shifts have been further amplified by other factors like restrictive immigration policies to create shrinking workforces and severe labour shortages in many countries.
- And social instability has led to severe polarisation and political uncertainty in many countries.

¹World Meteorological Organization, June 2024

The Megatrends have been building like a tidal wave that is now hitting the shore, and they are being felt in a stream of short-term crises: war in Ukraine and Gaza, energy crisis in Europe, worldwide chip shortage, NHS crisis in the UK, European migration crisis, widespread wildfires in Canada and the Mediterranean, extreme heat in India, cost of living crisis in most of the world, house price bubble in Australia and New Zealand, and many more.

While dealing with these short-term crises could be all consuming, we can't postpone our answer to the Megatrends until after the short-term crises are under control. Since these crises are being caused or accentuated by the Megatrends, managing them in a way that doesn't recognise this relationship will inevitably backfire – and create more numerous and more acute crises. We therefore must deal with the short-term and the long-term *together*.

Given the disruptive nature of the Megatrends, governments, businesses and individuals need to reinvent what they do and how they do things. *Governments* need to rethink the value they create for their citizens and the world at large. Many of the locational advantages a country or region used to enjoy (e.g., oil and gas resources, proximity to the sea) might become less relevant in a world dominated by the Megatrends; other factors (e.g., abundant wind or sun, trusted institutions), however, can be turned into real advantages, but only if actively managed. *Businesses*, on the other hand, will

see their legacy ways of creating value become unsustainable while many new growth opportunities will appear. Organisations in every industry and every country will need to reinvent their business models, while managing the many new risks that come their way and building trust with a larger number of stakeholders around a broader range of topics. *Individuals*, as well, need to evolve, driving change by voting with their feet and changing their day-to-day behaviours.

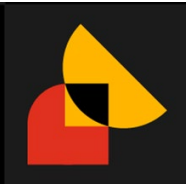
Getting these Megatrends under control is the task of this generation. They can feel overwhelming, but there are very practical things that all of us – individuals, businesses, and governments – can do. Let's start by understanding the Megatrends so we can get to work on them. If we get it right, we have the opportunity to build a great world for future generations.

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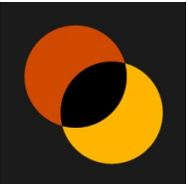
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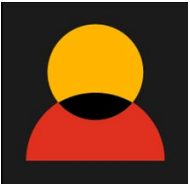
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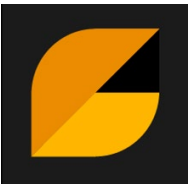
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Megatrend One

Climate change

While humanity is trying to figure out ways to reduce carbon emissions, greenhouse gas levels in the atmosphere are worsening, global temperatures are rising, and extreme weather events are becoming more frequent and more severe.

Existential question:

What will it take to solve the climate crisis before the damage is irreparable?



Climate change is increasingly impacting all aspects of our lives, and the massive efforts that humanity needs to undertake to mitigate and adapt to climate change will be highly disruptive and are likely to have significant unintended consequences. Global temperatures will continue to rise and are expected to reach 1.5°C over pre-industrial levels in the first half of the 2030s¹. This level of global warming will trigger more frequent and more severe climate hazards, disrupting supply chains and partially submerging several major cities around the world. Biodiversity will continue to decrease, seriously jeopardising our food systems and nutrition, and water resources will dwindle².

The urgent need for humanity to reconfigure almost everything we do³ – how we move around, feed ourselves, build, produce, and power things – in order to transition to a more sustainable way of life and to address the physical risks of climate change is increasingly understood as visible effects of climate change are becoming more acute. This transition, however, will most likely not be orderly and will have unintended consequences. Production of hydrocarbons may decrease faster than

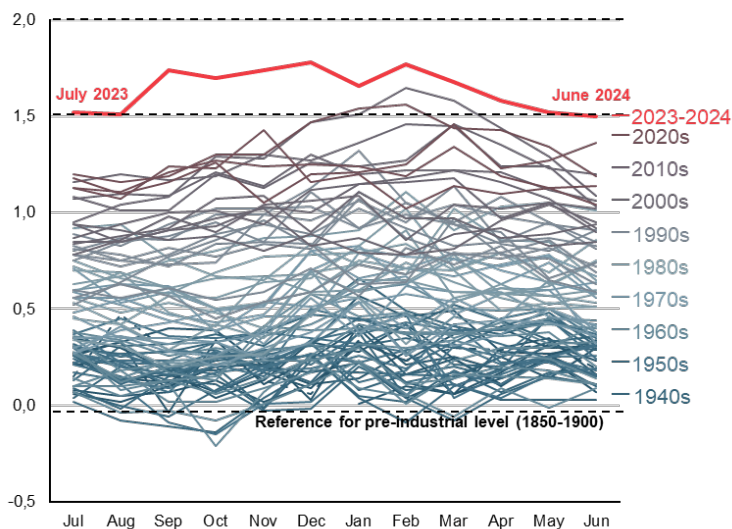
demand, creating shortages and price volatility. Corporations will increasingly compete over critical resources, which will lead to a race to acquire companies controlling those resources (e.g., lithium, cobalt).

Governments and consumers will increasingly hold organisations accountable for CO2 emissions and other non-sustainable behaviours, be it through regulatory changes, incentives, or shifts in buying behaviour. And shareholders, concerned about the financial risks attributable to deteriorating-climate hazards embedded in their portfolios, will put increasing pressure on businesses to assess and respond to these hazards throughout their value chain, thereby contributing to accelerating the pace of decarbonisation.

By the end of the decade, based on the choices humanity will have made, we will have laid the groundwork for a sustainable world, or an era of climate catastrophe.

Temperature rise has been accelerating

Monthly global surface temperature increase (°C) above pre-industrial level (1850-1900)



Source: Copernicus Climate Change Service /ECMWF based on ERA5 data.






¹IPCC, 2023, Climate Change 2023: Synthesis Report

²ibid

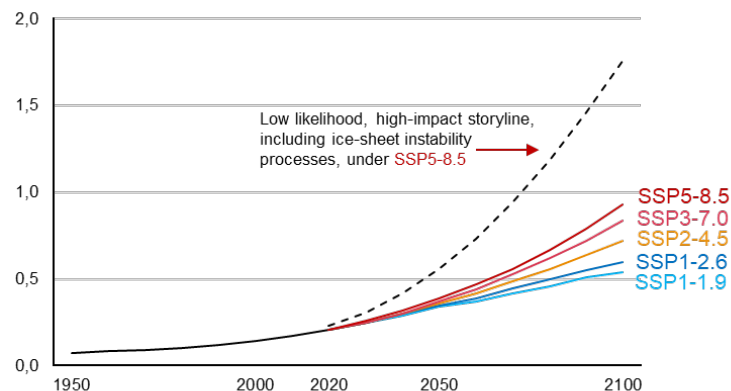
³PwC, 2023, The Reconfiguration Imperative

Rising sea levels endanger major cities and countries

Cities expected to be at least partially submerged by 2030, if no coastal defences are employed:

- | | |
|--|---|
|  Amsterdam, Netherlands |  Ho Chi Minh City, Vietnam |
|  Bangkok, Thailand |  New Orleans, USA |
|  Basra, Iraq |  Venice, Italy |

Global mean sea level (m) change relative to 1900

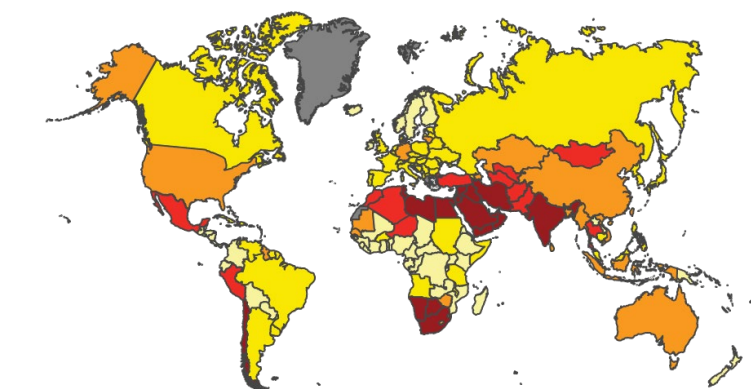
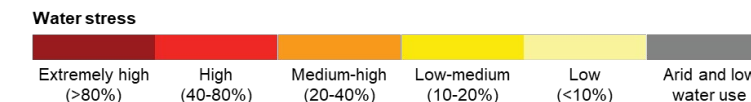


Source: Climate Central; Fyfe, J., Fox-Kemper, B., Kopp, R., Garner, G. (2021): Summary for Policymakers of the Working Group I Contribution to the IPCC Sixth Assessment Report - data for Figure SPM.8 (v20210809). NERC EDS Centre for Environmental Data Analysis, August 2024. doi:10.5285/98af2184e13e4b91893ab72f301790db. Note: SSPs = Shared Socioeconomic Pathways, a set of future scenarios described by the IPCC.

By 2050, an additional 1 billion people are expected to live with extremely high water stress

Populations living in areas of water stress

2050



Source: Kuzma, S., M.F.P. Bierkens, S. Lakshman, T. Luo, L. Saccoccia, E. H. Sutanudjaja, and R. Van Beek. 2023. "Aqueduct 4.0: Updated decision-relevant global water risk indicators." Technical Note. Washington, DC: World Resources Institute. Available online at: doi.org/10.46830/wri.n.23.00061.

Possible implications for organisations, governments, and individuals

Implications for organisations

- **Business failure:** Businesses may not survive unless they fundamentally rethink what they do, reconfigure how they do things, and actively manage their ecosystems, e.g., how will they make their products sustainable, how will they make sure their supply chains are resilient so they can deliver what they promise when it's expected?
- **Resource insecurity and cost increase:** Energy, water, rare earth elements, sand, and many other critical raw materials are getting increasingly scarce, driving prices up.
- **Supply chain disruption:** Extreme heat, flooding, storms, and wildfires are destroying production sites, warehouses, assets, and transportation routes.
- **Job creation through investments in climate tech:** Just like digital transformation created many jobs in IT-related areas, green transformation is creating a wealth of new jobs in areas we don't yet understand, know how to teach, or are helping people to learn.

Implications for governments

- **Looming financial catastrophe:** Countries most affected by climate change face many challenges, including huge cost for protecting their land and infrastructure against extreme weather events and/or repairing it, lost revenue and jobs in agriculture and related sectors, and reduction in foreign investment because multinationals redesign supply chains.
- **Threat to global food security and agricultural exports:** Extreme weather events put harvests at risk, leading to food crises at national – and increasingly international – levels.
- **Mass migration:** With climate change destroying people's lives and livelihoods in countries most affected, mass migration toward countries less affected is going to accelerate, generally from the south to the north and from coastal to mountainous regions.
- **New economic dependencies:** With climate change driving the fundamental reconfiguration of how people move around, feed themselves, build things, manufacture things, and many other activities, economic relationships are changing, e.g., weaker dependency on countries exporting oil and gas and stronger dependency on countries exporting hydrogen, lithium, nickel, or cobalt.

Implications for individuals

- **Loss of housing:** Climate change increases the severity and frequency of flooding, storms, and wildfires destroying people's lives and livelihoods. This is no longer restricted to certain countries and regions – it is happening everywhere and is affecting people of all walks of life.
- **Increased cost of living:** Rising temperatures and extreme weather events destroy harvests, lead to droughts, and interrupt supply chains, making food, water, energy, and other supplies more insecure and expensive. Efforts to decarbonise the economy are also costly and exacerbate the issue.
- **Increased violence:** With food, water, and energy supplies increasingly scarce, conflicts are growing – within and between communities and countries.
- **Healthcare risks:** Thawing of permafrost may unlock deadly diseases from the distant past that could take pandemic extent; with certain parts of the globe becoming unliveable, humans and wildlife are moving closer together, increasing the risk of zoonotic diseases; diseases (e.g., malaria) are at risk of spreading to regions previously not affected.



How is the world dealing with this Megatrend?

Most of the world now acknowledges the severity of the climate crisis and the need to change to more sustainable behaviours across the entire economy. Many countries are increasing their share of renewable energy production. More and more organisations are making net-zero commitments (though many take too long given the urgency of the climate crisis and rely heavily on carbon offsets). Some companies are starting to electrify their production processes, and progress is being made in the area of carbon capture technologies. People are starting to shift their behaviours.

But the transition to a carbon-neutral economy is going to be hard. There are many interdependencies between players. Getting the reconfiguration right therefore depends on having a holistic picture and on new trusted partnerships between these actors. If not managed well, these interdependencies risk slowing down progress or backfiring. The investment need is huge. There are significant unintended consequences; for example, stranded assets whose owners or other beneficiaries might try to block progress. Key technologies are not yet developed or not at scale. Many regulatory changes are needed but are difficult to get through polarised parliaments. Humanity is in a race against time – and the stakes are high. There is no time to lose for all of us to take action.



Megatrend Two

Technological disruption

Transformative technology changes how we function in the world and how we understand humanity. It enables huge value creation, but harmful consequences are – and will increasingly be – difficult to mitigate.

Existential question:

What does it mean to be human in a world in which technology increasingly overlaps with what humans do and creates massive unintended consequences?

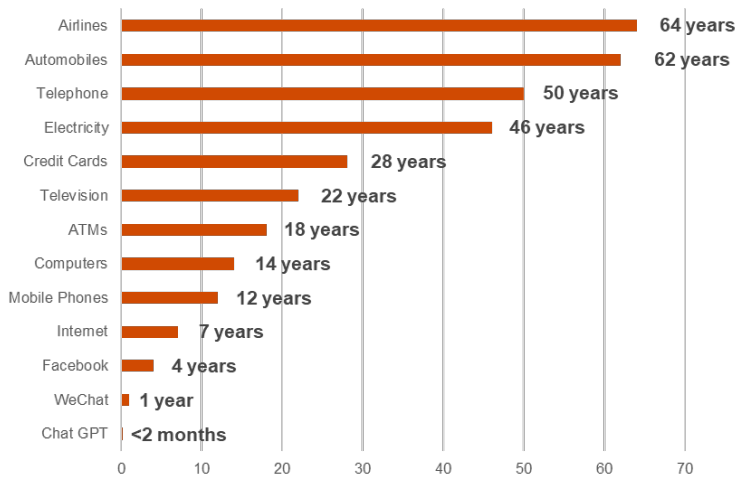


Transformative technologies are driving huge value creation. Technological innovation continues at breathtaking speed. A host of new technologies¹ – across areas as diverse as artificial intelligence (AI), robotics, energy storage, DNA sequencing, synthetic biology, blockchain technology, and materials sciences – are approaching tipping points over the next five to ten years, when dropping costs unleash demand across sectors and geographies, which will encourage even more innovation. Organisations' focus is expanding rapidly from technologies aimed at improving the efficiency of back-office processes to sector-specific applications that have the potential to revolutionise many sectors.

The launch of ChatGPT 3.5 in November 2022 has dramatically accelerated the Industrial Revolution of knowledge work. AI transforms how all workers can apply information, create content, and deliver results at speed and scale, leading to a real revolution in productivity and value creation. While different industries are being impacted in different ways, overall, a shift of value pools from companies relying heavily on knowledge work (e.g., software companies, education, professional services) to AI and related tech companies seems inevitable. And, while democratising skills like coding or creative writing, AI is further deepening the divide between organisations and countries that have access to this technology and those that don't.

The pace of technological innovation is increasing

Time it took to hit 50 million users



Source: Visual Capitalist

¹ARK, Big Ideas 2024; Greg Satell, Materials Science May Be the Most Important Technology of the Next Decade. Here's Why

AI isn't the only general-purpose technology that's revolutionising the world. By applying engineering principles to biology, synthetic biology enables humanity to redesign organisms in a way that's useful for human life. It will disrupt virtually every industry, including human health and performance, agriculture and food, consumer products and services, materials, and energy production.

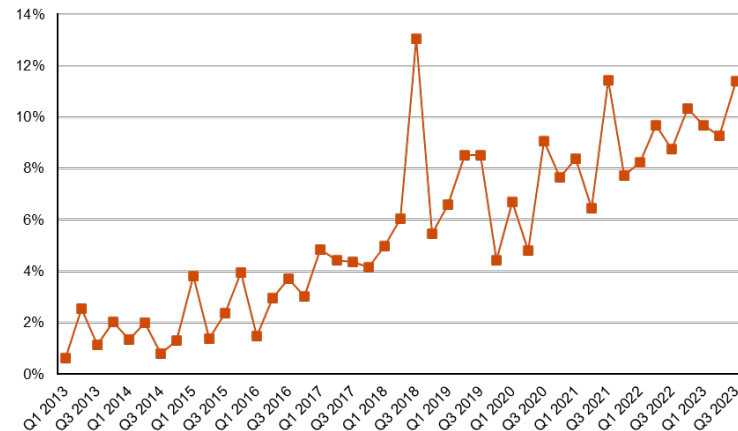
There's a wealth of other critical technologies too. In fact, it's hard to imagine how humanity could address any of the challenges caused by the Megatrends without the help of technology: just think about the role of climate tech to combat global warming, for example.

However, technology can also lead to significant problems, including cyber and other security issues, rise and spread of disinformation and misinformation, mental health issues, job loss/insecurity. Institutions are increasingly struggling to keep up with the pace of change, which creates a mismatch between the context in which people and businesses operate and what is feasible from a technology standpoint. Regulators and select companies continue to attempt to mitigate some of the harmful effects, but it is difficult to see how solutions will scale up fast enough.

Technology is dramatically enhancing the capacity of individuals and organisations, but the more it overlaps with and augments what humans do, the more it blurs the notion of what it means to be human.

Technology is key for addressing the challenges caused by the Megatrends, e.g., climate change

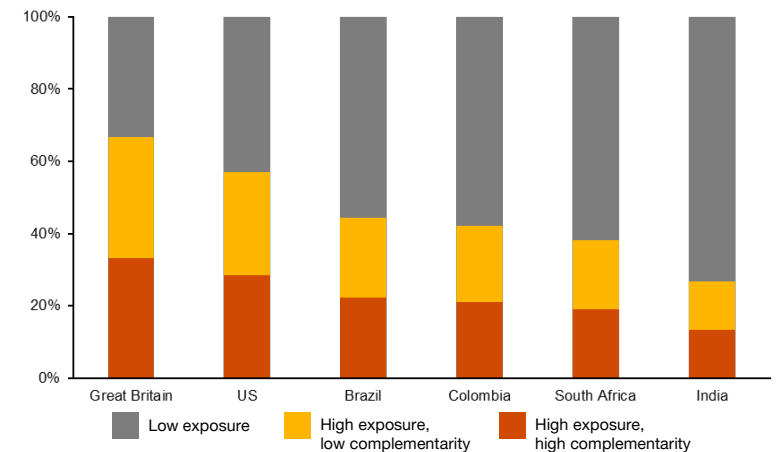
Climate tech investment % of venture capital and private equity investment



Source: PwC State of Climate Tech 2023, Pitchbook

Technology has serious unintended consequences, e.g., massive disruption of labour markets

Employment share by AI exposure and complementarity



Source: Mauro Cazzaniga et al., "Gen-AI: Artificial Intelligence and the Future of Work" (IMF staff discussion notes)

Possible implications for organisations, governments, and individuals

Implications for organisations

- **Competitive differentiation:** Organisations can differentiate from the competition and grow significantly by redefining the value they are going to create for their customers and society at large – and using the full power of technology to do so.
- **Business failure:** Businesses that aren't able to digitally transform, reinvent how they work through AI, and speed up their execution may fail, becoming less relevant to stakeholders and losing customers.
- **Concentration of power:** Many small businesses are going to struggle, unable to benefit from network effects and afford the huge technology investment needed to compete in the digital world. Job loss from automation will drive the development of some local businesses — but they will have a hard time competing against their larger counterparts.
- **Mismatch between required and available skills:** Organisations are increasingly struggling to find enough talent to help them become fit for a world powered by technology, making the war for talent in Science, Technology, Engineering, and Mathematics (STEM) areas even fiercer. At the same time, they have many people with legacy skills on their payroll whose jobs are going to be automated.
- **Increased fraud and cyber risk:** Vast Internet of Things (IoT) environments attract sabotage, 5G and 6G connectivity drive more sophisticated attacks, and “everything as a service” turns cloud providers into hugely lucrative targets for cyber-attackers.

Implications for governments

- **Governments struggling to evolve:** Institutions designed to provide stability in the world are struggling to keep up with the pace of technological change. Many are trying to replicate what has worked in a legacy world rather than designing for the digital world – and risk falling short of expectations.
- **Creation of technology-based institutions:** Struggling to make legacy institutions fit for the digital age, governments will create new technology-based institutions to deal with the looming challenges.
- **Pressure to mitigate unintended consequences of technology:** Governments are issuing new regulations to contain the harmful effects of technology, but are often running behind, lacking talent and funds to keep up with big tech companies.
- **Changing economic dependencies:** Access to critical technologies (e.g., 5G/6G technology, AI, climate tech, nanotechnology, synthetic biology) is becoming as important as access to natural resources and is therefore driving new alliances, protectionist moves, and fractures in the world.

Implications for individuals

- **Significant capacity enhancement:** Technology is making information more available, processing information and collaboration smoother and more effective, boosting sensorial input, improving operations, helping self-actualisation, thereby allowing individuals and teams to achieve more, with less effort.
- **Massive disruption of work:** A significant share of jobs is at risk of automation. And although AI will likely create many new jobs, the transition will be disruptive for many people, requiring them to upskill to maintain employability.
- **Loss of privacy:** The value of data is further increasing given the pressure to feed AI with real-life data, and the technology to capture, process, and combine data in real time is ubiquitous, making it more difficult for people to protect their digital identities.
- **Increasing disinformation, misinformation and fraud:** Distinguishing truth from fiction gets more difficult in a world where everyone can publish content, AI-powered deep fakes are increasingly impossible to differentiate from reality, and social media algorithms feed people with what they want to hear or what others may want them to believe.
- **Growing mental health issues:** The prevalence of digital technology in all aspects of our lives will accentuate its harmful effects on brain health, including attention-deficit symptoms, impaired emotional and social intelligence, technology addiction, social isolation, stunted brain development and disrupted sleep.



How is the world dealing with this Megatrend?

Technology is having a meaningful positive impact at all levels of society and will play a major role in solving some of the challenges the world is facing. Just think about the importance of climate technology to fight climate change or health technology to support ageing populations. A lot of work is being done around “Tech for Good,” using technology to affect deliberate, positive social benefit.

However, there generally isn’t sufficient consideration of the unintended consequences of technology in the design process, and, given the ubiquitous nature of technology, those unintended consequences are likely to happen quickly, be more severe, and affect more people. Without intense focus on preempting those unintended consequences before they appear, there is great potential for negative implications of technology to outweigh positive ones. The impact on other Megatrends will be disastrous if this slows innovation.



Megatrend Three

Demographic shifts

The median age in all countries around the globe is increasing, but at different rates and from a different starting position. This demographic change is causing some countries' social systems to break down and a lack of workers in critical areas, whereas other countries face skyrocketing un- and under-employment, weakening economies from emigrating citizens, and strain on social safety nets.

Existential question:

How to help groups of people with different needs when money, experience, power, ambition and capacity are distributed differentially?



Several demographic factors, including gender, ethnicity, and origin, impact the world, for example by changing the composition of the workforce or driving polarisation. But there are two factors that stand out as potent forces that can accelerate the dynamics and negative consequences of the other Megatrends: age and population growth.

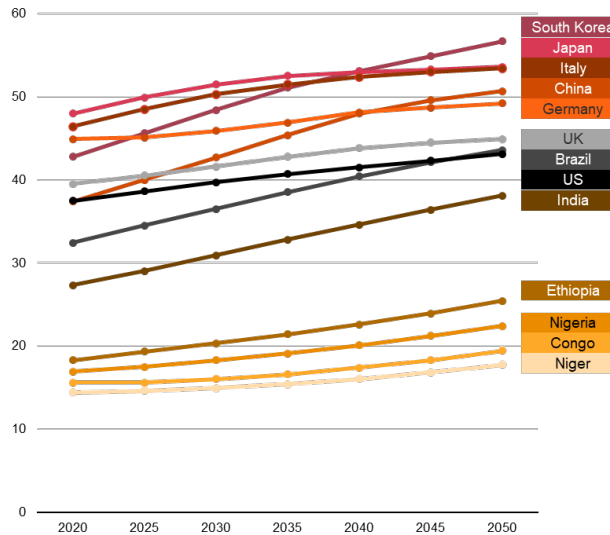
Some societies are ageing rapidly, and their workforces are shrinking as a share of the total population. The growing old-age dependency ratio puts increasing strain on social welfare systems and is increasing the pressure to implement a profound and life-altering overhaul. Age segregation – for example, driven by younger workers moving to cities to pursue job opportunities and leaving rural areas hollowed out – increases disparity in the world views and political beliefs of different age groups. However, with the older population outnumbering the younger one in these societies, the older generation is increasingly winning the vote and deciding on the future of the younger generation who may hold an opposing view¹. Consumption patterns are shifting quickly as societies age, challenging businesses and governments to work differently to make sure that they are providing what their constituents actually need. Critical workers are going to be in short supply, especially in professions that don't have a large influx of new talent (e.g., construction) and those that are in higher demand because society is ageing (e.g., home care). Other societies have a younger demographic and are growing, which will create larger labour forces and consumer markets. Growing populations must be fed, housed, educated, and employed for productive potential to be realised. Countries with low median age are increasingly struggling with chronically high youth unemployment and underemployment, no matter what level of education has been achieved by these individuals² – and, if unsuccessful in addressing this issue, they are likely to face increasing social unrest. Rising emigration of the most entrepreneurial among the young who are seeking opportunities is weakening the economies of these countries with low median age.

Countries with high and low median age are struggling with the challenges posed by demographic change. Taking a more holistic view of the world can be part of the solution to make societies more resilient (e.g., controlled migration, remote working, building of local economies).

Median age in all countries around the globe is increasing, but at different rates and from a different starting position

Median age of population

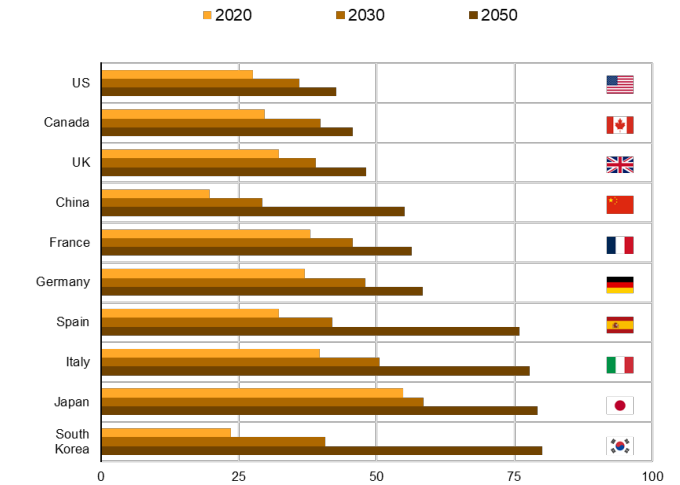
2020-2050, select countries



In countries with high median age, the old-age dependency ratio is increasing quickly, putting massive strain on social welfare systems.

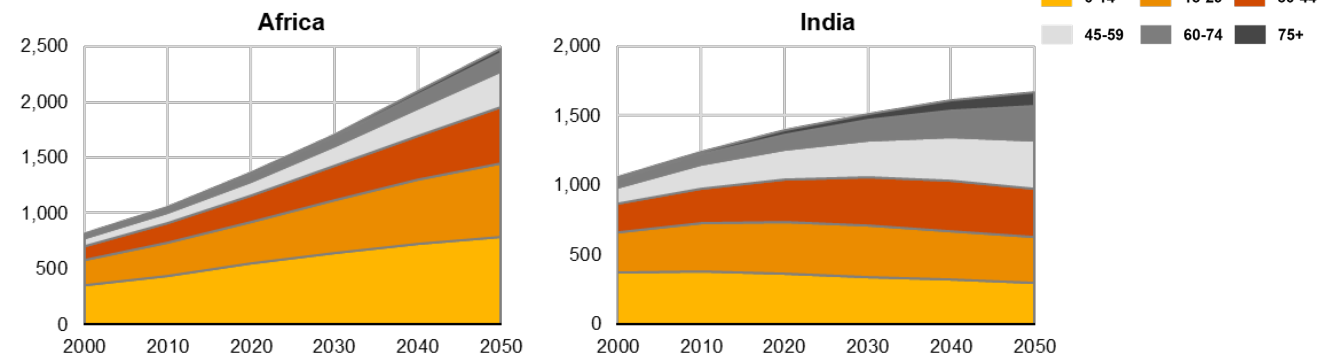
Old-age dependency ratio

Number of people aged 65+ per 100 people of working age (aged 20-64), select countries



In countries with low median age, the number of people ready to enter the workforce will grow massively

Number of people by age group (million)



¹Blair Sheppard, Infinite Variety: Why We Need to Take a Broader Look at the Social Challenges Caused by Our Aging Populations

²International Labour Organization, Report on Employment in Africa: Tackling the Youth Employment Challenge

Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects: The 2022 Revision, custom data acquired via website; PwC analysis

Possible implications for organisations, governments, and individuals

Implications for organisations

- **Shift in consumption patterns:** With populations ageing, their consumption patterns are shifting (e.g., from food away from home toward food at home, from home building toward home renovation, from education toward healthcare). Organisations need to adapt to these new needs, especially those in consumption-based sectors that will experience an overall slowdown.
- **Mismatch between available and required skills:** Organisations will have an even harder time recruiting and retaining workers, especially in those essential services mentioned above.
- **Conflicts at work:** There are now five generations in the workforce – traditionalists, baby boomers, generation X, millennials and generation Z – with oftentimes different views on work and the world, which can create challenges in aligning the workforce around a shared endeavour.
- **Lack of highly skilled people:** In countries with low median age, the top talent and most entrepreneurial people will increasingly seek more promising job opportunities abroad, leaving companies struggling to recruit and retain the talent needed to grow the local economy.

Implications for governments

- **Capacity mismatch across countries:** While countries with high median age are typically rich in financial resources, they increasingly lack the workforce to keep their economies going and serve their ageing population. Countries with low median age, on the other hand, have abundant human resources but are struggling to build strong local economies.
- **Mass emigration or unrest:** Since countries with low median age will be struggling to address the youth unemployment crisis, the top talent and most entrepreneurial people will increasingly want to emigrate, weakening the economies of their home countries. If they can't, discontent will increase and could lead to unrest.
- **Unwieldy social polarisation:** Given the number and severity of the challenges brought by these shifts, different demographic groups – younger/older generations, native-born/immigrants, racially/ethnically diverse communities – are going to increasingly focus on their own needs, accelerating social polarisation.
- **Failing welfare systems and erosion of tax base:** In countries with high median age, more seniors are drawing on the social system, while fewer people are paying into the system, causing social welfare systems to struggle. Countries with low median age will find it hard to build a strong tax base that could fund their welfare systems, because there won't be enough job opportunities for younger populations to earn money and pay taxes.

Implications for individuals

- **Unaffordable retirement:** With social welfare systems being challenged like never before, people in countries with high median age can no longer expect their pension to pay for a decent living. And with the younger population in countries with low median age increasingly leaving the family home in pursuit of job opportunities, the traditional model of the young looking after the older population is on the decline. People either need to start saving money from an early age or work longer – and many have to do both. Poverty among the older population is growing rapidly.
- **Shortage of essential services:** As workforces in countries with high median age decrease, there's a shortage of services, especially those that are geared toward the older generation and that are therefore in higher demand (e.g., home care) and those that are essential but haven't had a lot of influx (e.g., construction) because young nationals have been pushed toward university or knowledge-based jobs. The situation will be exacerbated by the fracturing world, e.g., restrictions on visas that will make it more difficult for immigrants to help cover the need.
- **Massive youth unemployment:** In countries with low median age, millions of additional people every year will be of an age to enter the workforce. Many will not have received the education that matches the needs of the economy. Independent of the education these individuals will have achieved, job opportunities will be few, and youth unemployment will be chronically high.
- **Extreme poverty:** Given high unemployment, many families will fall into extreme poverty, not being able to afford food, basic commodities, or education for their children or younger siblings.



How is the world dealing with this Megatrend?

The public discourse in countries with high median age is starting to broaden from a narrow focus on the future of pension and social welfare systems to now also include the lack of workers in critical areas. Some governments are starting to strengthen bonds to select countries with a young median age, trying to attract talent to fill gaps at home. Some countries are also considering lowering the minimum required age for voters to have a broader representation of generations participating in the democratic process.

However, organisations' increased focus on localising supply chains exacerbates the youth unemployment challenge in countries with low median age and the talent gap in their high-median-age counterparts. Fair migration practices – that fill the talent gaps of countries with high median age without hollowing out the economies of countries with low median age by depriving them of their top talent – are needed. Countries with low median age need to focus on building thriving local economies, for which they need help from mature economies.



Megatrend Four Fracturing world

The world is fracturing and becoming multi-nodal as more nation states are competing for influence, with the rest of the world aligning around them and some states acting as destabilisers. Countries are increasingly turning their focus inwards, prioritising their national resilience and further localisation.

Existential question:

What does it mean to live and thrive in a multi-nodal world?



The world order is fundamentally shifting. More nation states are competing for influence, creating a larger number of spheres of interest. They use competing civilisational narratives and aim to win the race by proving the superiority of their political, economic, or societal model. They contend for influence in other parts of the world: to gain control over critical resources, untapped markets, and transport routes¹. Other countries find themselves caught in the middle, forced to either align with the dominant actors or find strength to forge their own path in the new world order. This dynamic makes the world more difficult to navigate, but in some ways healthier as diversity and competition will make individual actors stronger.

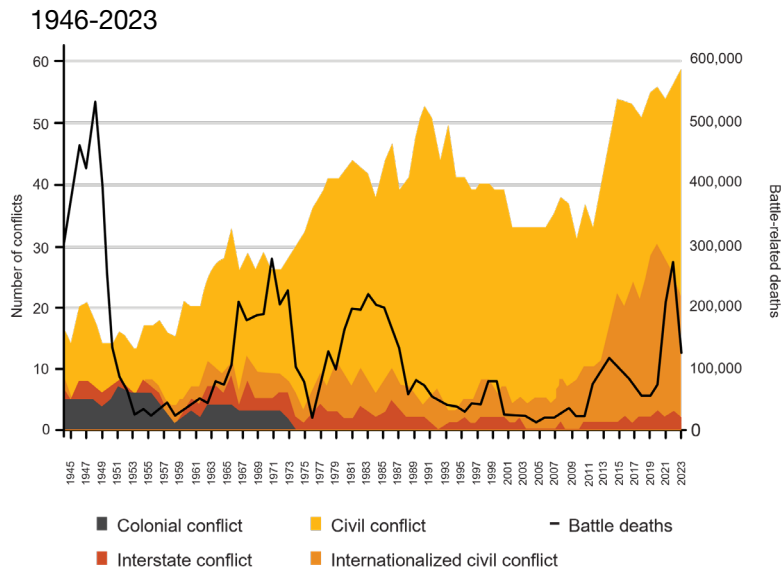
However, competition between countries is increasingly leading to major tensions – and in some cases hot wars that tend to further accelerate and deepen the fracturing. In addition, unresolved issues of the past flare up time and time again and, with the world distracted by and divided

over so many conflicts, they risk spiralling out of control. The emerging world order is much more complex and chaotic than during the period after World War II., and the growing number of clashes between and within nations is very difficult to navigate.

Growing risk in global supply chains, concerns about dependencies and access to critical resources (particularly in the energy space, but also semiconductors, pharmaceuticals and more) contribute to making nation states focus on their national resilience and on being “local first” by building internal capacity and “friend-shoring.” While such localisation is beneficial to economic development of countries – it creates a sense of agency and speeds up the development and roll out of solutions in locales of manageable size – recent challenges in global cooperation are likely to affect the world’s ability to address its truly global problems.

The number of state-based conflicts has risen significantly over the past decade

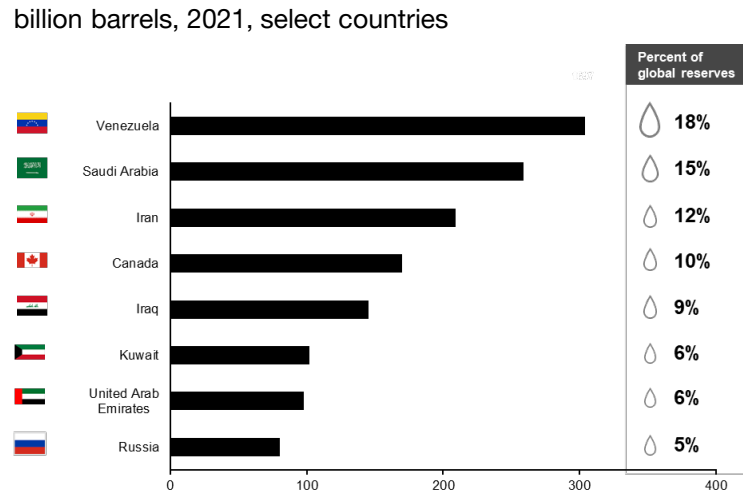
Number of conflicts and battle-related deaths 1946-2023



Source: From "Conflict Trends: A Global Overview, 1946–2023," PRIO paper 2024, based on Lacina and Gleditsch Battle Death Dataset (2005), UCDP/PRIO Armed Conflict Dataset, and UCDP Battle-Related Deaths Dataset (Pettersson, Davies, Engström, and Öberg, 2024)

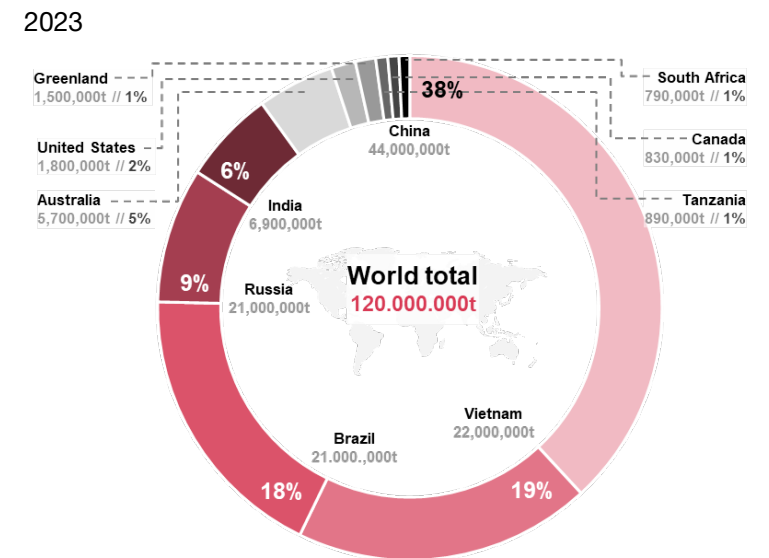
The transition from old world power to new world power: Rare Earth Elements (REEs) are critical for high technology

Total proved reserves (crude oil including lease condensate) billion barrels, 2021, select countries



Note: Reserves include gas condensate and natural gas liquids (NGLs) as well as crude oil. Source: U.S. Energy Information Administration (July 2024)

Rare earth elements reserves 2023



Source: U.S. Geological Survey, Mineral Commodity Summaries 2024

¹Global Commission on the Geopolitics of Energy Transformation, A New World: The Geopolitics of the Energy Transformation; The Arctic Institute, Geopolitical Implications of New Arctic Shipping Lanes

Possible implications for organisations, governments, and individuals

Implications for organisations

- **Pressure for boycotts and taking a stand on issues:** Governments and other stakeholders pressure companies to use levers of economic warfare (e.g., withdrawal of investment and other capital flow). Organisations will have to decide where and how to operate and be agile in how they take a stand or comply with stakeholder requests.
- **Disruption of global supply chains:** Discontinuation of operations in areas of armed conflicts but also politically motivated import or export restrictions disrupt supply chains – the more globally distributed they are, the bigger the risk.
- **Difficulty of doing business in a world of conflicting rules and regulations:** Staying up to date on ever changing regulations, tariffs, and sanctions adds burden to businesses. In some cases, following the laws of one country makes organisations violate the rules of another.
- **Pressure for global businesses to be deeply embedded in key countries:** With the fracturing world making it more difficult to run a global business, there is increased pressure for companies to maintain intimate connections with their local communities, to have a home to which they feel morally obligated to protect and sustain, to deliver public goods, and support local development.

Implications for governments

- **Rise in international conflict, insecurity, and migration, and increasingly struggling multilaterals:** The number of international conflicts – armed, economic, cyber, or other – is increasing and involves a growing swath of countries. Multilaterals are increasingly inefficient at avoiding or resolving conflicts because of a less clear basis of international cooperation in which they can operate.
- **Countries and regions destabilised by the rise of sub-national proxies and shadow actors:** Competing dominant powers, rather than confronting each other directly, engage in proxy conflicts (e.g., in Africa, Middle East, East Asia), providing shadow actors with weapons, infrastructure, commodities, and financial aid which leads to more, longer, and deadlier local and regional conflicts.
- **Increasingly parochial political decisions:** With the world increasingly dividing into spheres of influence, the political discourse focuses more narrowly on optimising the country's own sphere, often at the expense of others, making it all the more difficult to tackle enormous global challenges like climate change or mass migration.
- **Pressure to increase defence budgets:** In times of conflict, nation states tend to increase defence budgets at the expense of other areas, e.g., education, healthcare, or international aid. The reduction of international aid is particularly troublesome because it risks leading to further fracturing between countries.

Implications for individuals

- **Declining personal safety due to conflicts:** Civilians are harmed in armed conflicts or terrorist acts, forced to flee, or threatened because they don't comply with the party line of the country in which they live.
- **People's local concerns become more acute:** Geopolitical tensions and conflicts create severe (and country-specific) challenges in each country, which take focus from global issues that seem too overwhelming to address, such as the climate crisis.
- **Loss of freedoms and transparency in more countries:** In more countries, people's freedoms are being limited (e.g., freedom of press, opinion and expression, taking part in the government, free movement) by governments seeking to control the narrative and strengthen their country's position vis a vis enemy states.
- **Increase in human rights abuses:** Human rights are lost in times of conflict, e.g., the right to security of person, freedom of movement, education, property.



How is the world dealing with this Megatrend?

The tariff war between China and the United States, Brexit, and the war in Ukraine have dramatically raised awareness of the increasing fracturing of the world and the dangers and challenges it bears for governments, organisations, and individuals. Together with the Covid-19 pandemic, these crises have greatly accelerated organisations' and governments' efforts to implement a local-first strategy. Businesses across sectors are redesigning their supply chains to make them more resilient, and governments are reassessing their dependencies on foreign actors and looking for national or other alternatives.

This local-first approach, however, while beneficial in many areas, makes it difficult for the world to tackle the massive challenges that can be addressed only at a global level, for example, climate change and mass migration. Global cooperation in those areas needs to be maintained, and strengthened. Nation states need to work collaboratively to develop a new basis for international collaboration and redesign or create new multilaterals corresponding to the needs of the evolved world.



Megatrend Five

Social instability

Massive pressure – resulting from social and economic asymmetry, polarisation, and eroding trust – leads to greater social unrest.

Existential question:

How to create a thriving economy and simultaneously remediate the significant social issues in the world?



Social issues are becoming more prevalent and pernicious across all facets of our world and will increasingly challenge the decisions people make about their lives. They are at the heart of our existence and as such are among the most challenging issues to address.

Asymmetry of all types – money, power, education, and more – will continue to grow, driven by disparity between remuneration for physical/industrial work vs. knowledge work and by high returns on assets and other forms of wealth that are accessible to fewer people. With labour wages stagnating and cost of houses or flats going up, wealth has increasingly concentrated in the hands of fewer and older people¹, contributing to the generational wealth gap and erosion of the middle class. Poverty, including the number of working poor and those in extreme poverty, continues rising. The gap between those individuals, organisations, and nations that can adapt to the Megatrends and those that can't will continue to grow. Governments that are already weighed down by pandemic debt, slow economic growth, and inflation will be especially at risk of not being able to adapt and

meet the needs of their citizens. For corporations, the gap between winners and losers will continue to grow. For individuals, initial disadvantage will be exacerbated, and resilience will be a premium.

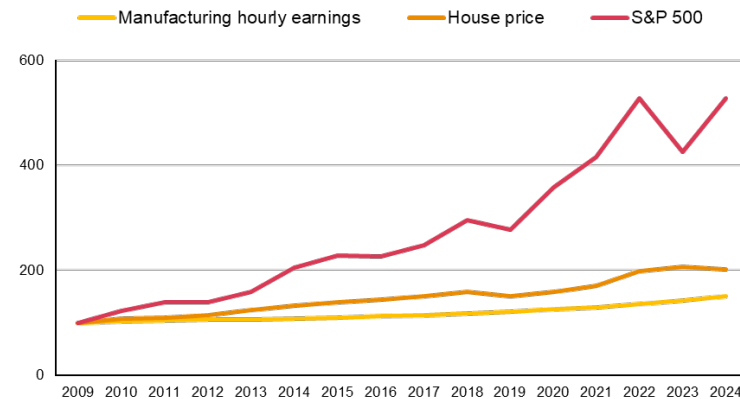
Polarisation in society grows as people feel that their governments are failing them. They are increasingly distrustful and intolerant of others who are different, and they are unable to achieve a perceived or expected quality of life given high levels of asymmetry in education, skills, jobs, and resources.

Trust in institutions continues to decline, particularly in governments and social institutions, making governance increasingly difficult and more fractured. And the world's problems cannot be solved without people trusting the institutions.

With labour wages stagnating and returns on assets exploding, wealth will increasingly concentrate in fewer and older people

Manufacturing wages vs. price of a home vs. S&P 500

US, 2009-2024, 2009=100, Jan 1 of each year

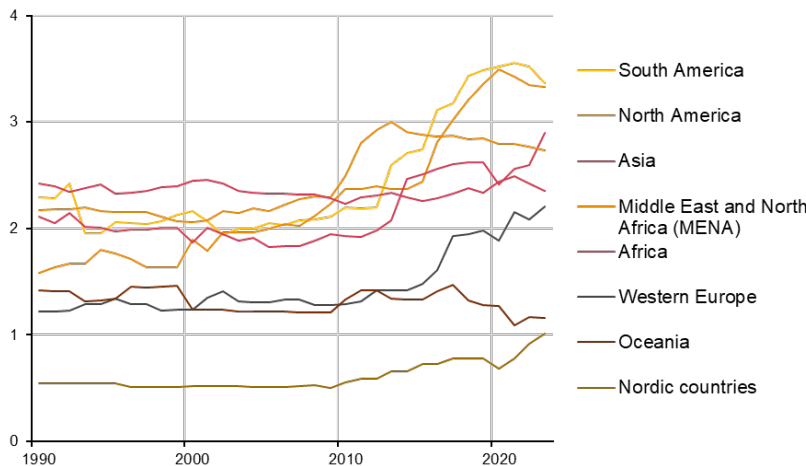


Source: U.S. Bureau of Labor Statistics, Average Hourly Earnings of Production and Nonsupervisory Employees, Manufacturing [AHEMAN], retrieved from FRED, Federal Reserve, July 18 2024; U.S. Census Bureau and U.S. Department of Housing and Urban Development, Median Sales Price of Houses Sold for the United States [MSPUS], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/MSPUS>, July 18, 2024. Chart by PwC.

Polarisation is increasing around the world

Political polarisation

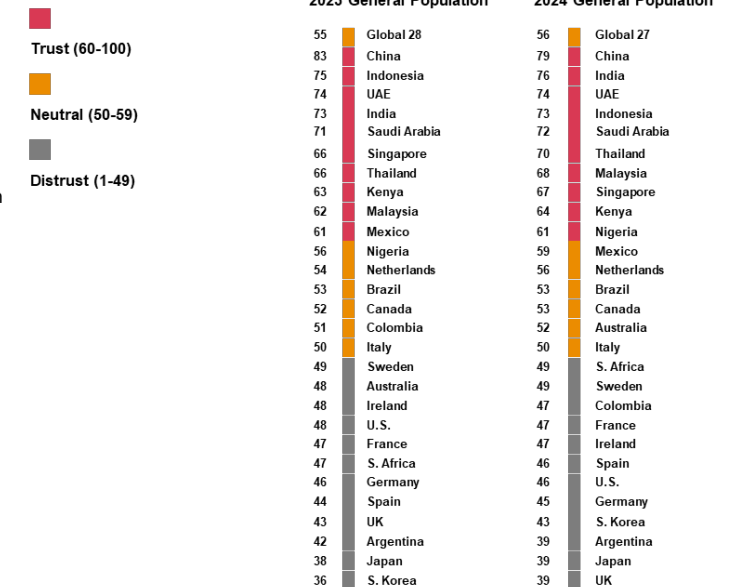
1990-2023



Note: Rating based on the question "Is society polarized into antagonistic, political camps?" with responses "0: Not at all"; "1: Mainly not"; "2: Somewhat"; "3: Yes, to noticeable extent"; "4: Yes, to a large extent"
Source: Coppedge, Michael et al. 2024. "V-Dem Dataset v14" Varieties of Democracy (V-Dem) Project. <https://doi.org/10.23696/mcwt-fr58>. (Population-weighted data)

The general population's trust in institutions remains at a low level

Average trust in institutions (government, business, NGO and media)



Source: 2024 Edelman Trust Barometer

¹Credit Suisse, Global Wealth Report 2023; US Federal Reserve, Survey of Consumer Finances

Possible implications for organisations, governments, and individuals

Implications for organisations

- **Need to reconcile divergent needs of multiple stakeholders:** Leaders of organisations today need to balance a much broader set of factors than just financial returns. They need to deliver value to customers, invest in employees, deal fairly and ethically with suppliers, drive for environmental sustainability, and support the communities in which they work, all while generating long-term value for shareholders.
- **Pressure to increase transparency while managing reputational risk:** Stakeholders want to know how organisations are addressing their concerns, pressuring them to expand their reporting to the areas that matter to them. While a helpful tool for organisations to stay focused and show progress, these reports may result in some less than desirable revelations.
- **Increased need to take care of all needs of employees:** With social safety nets reduced by financially stretched governments and institutions increasingly struggling to take care of their people, organisations will be relied on to make sure their employees can make a decent living, afford healthcare, and save toward their retirement.
- **Greater need to invest in the creation of trust:** Stakeholders have many concerns (e.g., product safety, fair pay, climate change) and organisations need to provide confidence that they are trustworthy in these areas. Almost any organisation will need to reconfigure to remain relevant amidst disruption and they need to build a foundation of trust with their ecosystem to be able to transform successfully; since trusted companies tend to enjoy higher market value, organisations need to manage trust as an asset.

Implications for governments

- **Erosion of the middle class:** With labour wages stagnating and many people not able to accumulate wealth nor afford a decent life, nation states increasingly lose the middle class as solvent consumers and the backbone of their economy.
- **Mass poverty in certain nation states:** Nation states that are most affected by the Megatrends – for example, those that are most impacted by climate change, that are losing the technology battle, that can't serve their rapidly ageing or massively growing populations, or that find themselves caught in the middle of the fracturing world – increasingly face a financial catastrophe and mass poverty as a result.
- **Real risk for social unrest and political instability:** The gap between people, regions, and generations is larger than ever before, to the point where peace is at risk in many more places.
- **Continuing devaluation of institutions:** People increasingly lose trust in institutions that are unable to adapt to an age of fast technological change, have difficulty reaching consensus in an increasingly polarised world, and struggle to combat corruption – and that loss of trust makes it even more difficult for them to remain relevant.
- **Rising scepticism getting in the way of driving meaningful change:** With people perceiving governments to fail them by not preventing the worst implications of the Megatrends, they become increasingly sceptical and cynical, which makes it even more difficult for governments to drive the required change and may give rise to populist movements.

Implications for individuals

- **Declining ability to afford a decent life:** With labour wages stagnating, people increasingly can't afford to buy a house/flat or other assets, precluding them from the security once enjoyed by the middle class.
- **Shrinking upward mobility:** People who can just about make ends meet can't accumulate wealth and therefore can't benefit from the higher returns on wealth (e.g., increase of house/flat prices, stock market, private equity) to fuel their social rise.
- **Difficulty to understand and trust other people:** Increasing asymmetry of wealth, different worldviews among different demographic groups, growing polarisation fuelled by social media and other factors make it more difficult for people to find common ground that could form the basis of trust.
- **Declining personal safety due to unrest:** Social insecurity increases the danger of social unrest and political instability. Civil war, looting, and increasing violence are probable consequences.



How is the world dealing with this Megatrend?

In the past few years, social issues have come to the front of public conscience with greater ferocity, gaining recognition that it is the collective actions of all citizens and institutions that have led to the issues our societies are facing and therefore, they are the collective responsibility of all to address, mitigate, and fix.

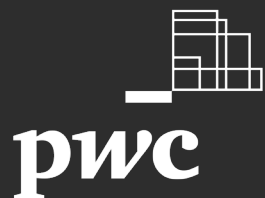
Fixing them, however, is a far greater challenge than it was just a few decades ago, given the growth of economic disparity, the rise in social and political polarisation, and the growing lack of trust that the public has in institutions. It is precisely because of this, however, that organisations can play an outsized role in addressing these challenges. Business is increasingly being expected to do so by consumers, employees, and other stakeholders, and to serve as the vanguard of a new economic system in which value creation and increased growth improve the lives of individuals and the health of societies. By getting ahead of these issues now, and taking a lead on how to do business in a way that does well and does good at the same time, companies are exercising not only a moral duty at a time when they bring in record levels of profit – but securing their future in a world in which their existence depends on society's willingness to let them exist.

The five Megatrends we have discussed – Climate change, Technological disruption, Demographic shifts, Fracturing world, and Social instability – have already and will continue to change the world for many years to come. Each one of them bears existential questions and has the potential to bring humanity to a tipping point.

But it's the interaction between these Megatrends that makes them particularly hard to deal with. Each Megatrend is exacerbating the social challenges the world faces, and the magnitude of the social challenges makes it difficult for societies to come together and fight the negative effects of Climate change, Technological disruption, Demographic shifts, and Fracturing world.

There is no equivocating: We are in a race against time.

We hope this point of view will help you better understand the Megatrends, the interdependencies between them, and the issues they are creating so that you can augment your actions to drive towards a positive outcome for yourself, your organisation, and the society of which you are a part. There is massive potential to create a positive future for us all, but it will not work unless we do it together.



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