# Appendix A | Descriptions of Global Risks and Trends 2019

#### **Global Risks**

A "global risk" is defined as an uncertain event or condition that, if it occurs, can cause significant negative impact for several countries or industries within the next 10 years.

To ensure legibility, the names of the global risks have been abbreviated in the figures. The portion of the full name used in the abbreviation is in bold.

	Global Risk	Description
Economic	Asset bubbles in a major economy	Unsustainably overpriced assets such as commodities, housing, shares, etc. in a major economy or region
	<b>Deflation</b> in a major economy	Prolonged near-zero inflation or deflation in a major economy or region
	Failure of a major financial mechanism or institution	Collapse of a financial institution and/or malfunctioning of a financial system that impacts the global economy
	Failure/shortfall of critical infrastructure	Failure to adequately invest in, upgrade and/or secure infrastructure networks (e.g. energy, transportation and communications), leading to pressure or a breakdown with system-wide implications
	Fiscal crises in key economies	Excessive debt burdens that generate sovereign debt crises and/or liquidity crises
	High structural unemployment or underemployment	A sustained high level of unemployment or underutilization of the productive capacity of the employed population
	Illicit trade (e.g. illicit financial flows, tax evasion, human trafficking, organized crime, etc.)	Large-scale activities outside the legal framework such as illicit financial flows, tax evasion, human trafficking, counterfeiting and/or organized crime that undermine social interactions, regional or international collaboration, and global growth
	Severe <b>energy price shock</b> (increase or decrease)	Significant energy price increases or decreases that place further economic pressures on highly energy-dependent industries and consumers
	Unmanageable inflation	Unmanageable increases in the general price levels of goods and services in key economies

Extreme weather events	Major property, infrastructure, and/or environmental damage as well as
(e.g. floods, storms, etc.)	loss of human life caused by extreme weather events

Failure of climate-change mitigation and adaptation

The failure of governments and businesses to enforce or enact effective measures to mitigate climate change, protect populations and help businesses impacted by climate change to adapt

Major biodiversity loss and ecosystem collapse (terrestrial or marine)

Irreversible consequences for the environment, resulting in severely depleted resources for humankind as well as industries

Major natural disasters
(e.g. earthquakes, tsunamis, volcanic eruptions, geomagnetic storms)

Major property, infrastructure, and/or environmental damage as well as loss of human life caused by geophysical disasters such as earthquakes, volcanic activity, landslides, tsunamis, or geomagnetic storms

Man-made environmental damage and disasters (e.g. oil spills, radioactive contamination, etc.)

Failure to prevent major man-made damage and disasters, including environmental crime, causing harm to human lives and health, infrastructure, property, economic activity and the environment

weak rule of law, corruption or political deadlock

#### Failure of national governance (e.g. failure of rule of law, corruption, political deadlock, etc.)

eadlock, etc.)

# Failure of regional or global governance

Inability of regional or global institutions to resolve issues of economic, geopolitical, or environmental importance

Inability to govern a nation of geopolitical importance as a result of

Interstate conflict with regional consequences

A bilateral or multilateral dispute between states that escalates into economic (e.g. trade/currency wars, resource nationalization), military, cyber, societal, or other conflict

Large-scale terrorist attacks

Individuals or non-state groups with political or religious goals that successfully inflict large-scale human or material damage

State collapse or crisis (e.g. civil conflict, military coup, failed states, etc.)

State collapse of geopolitical importance due to internal violence, regional or global instability, military coup, civil conflict, failed states, etc.

Weapons of mass destruction

The deployment of nuclear, chemical, biological, and radiological technologies and materials, creating international crises and potential for significant destruction

#### Failure of urban planning

Poorly planned cities, urban sprawl and associated infrastructure that create social, environmental and health challenges

#### Food crises

Inadequate, unaffordable, or unreliable access to appropriate quantities and quality of food and nutrition on a major scale

### Large-scale involuntary migration

Large-scale involuntary migration induced by conflict, disasters, environmental or economic reasons

#### Profound social instability

Major social movements or protests (e.g. street riots, social unrest, etc.) that disrupt political or social stability, negatively impacting populations, and economic activity

### Rapid and massive spread of infectious diseases

Bacteria, viruses, parasites, or fungi that cause uncontrolled spread of infectious diseases (for instance as a result of resistance to antibiotics, antivirals and other treatments) leading to widespread fatalities and economic disruption

#### Water crises

A significant decline in the available quality and quantity of fresh water, resulting in harmful effects on human health and/or economic activity

# Adverse consequences of technological advances

Intended or unintended adverse consequences of technological advances such as artificial intelligence, geo-engineering and synthetic biology causing human, environmental, and economic damage

# Breakdown of critical information infrastructure and networks (Critical information infrastructure breakdown)

Cyber dependency that increases vulnerability to outage of critical information infrastructure (e.g. internet, satellites, etc.) and networks, causing widespread disruption

#### Large-scale cyber-attacks

Large-scale cyber-attacks or malware causing large economic damages, geopolitical tensions, or widespread loss of trust in the internet

## Massive incident of data fraud/theft

Wrongful exploitation of private or official data that takes place on an unprecedented scale

#### Trends

A "trend" is defined as a long-term pattern that is currently evolving and that could contribute to amplifying global risks and/or altering the relationship between them.

Trend	Description			
Ageing population	Ageing populations in developed and developing countries driven by declining fertility and decrease of middle- and old-age mortality			
Changing landscape of international governance	Changing landscape of global or regional institutions (e.g. UN, IMF, NATO, etc.), agreements or networks			
Changing climate	Change of climate, which is attributed directly or indirectly to human activity, that alters the composition of the global atmosphere, in addition to natural climate variability			
Degrading environment	Deterioration in the quality of air, soil and water from ambient concentrations of pollutants and other activities and processes			
Growing middle class in emerging economies	Growing share of population reaching middle-class income levels in emerging economies			
Increasing national sentiment	Increasing national sentiment among populations and political leaders affecting countries' national and international political and economic positions			
Increasing polarization of societies	Inability to reach agreement on key issues within countries because of diverging or extreme values, political or religious views			
Rising chronic diseases	Increasing rates of non-communicable diseases, also known as "chronic diseases", leading to rising costs of long-term treatment and threatening recent societal gains in life expectancy and quality			
Rising cyber dependency	Rise of cyber dependency due to increasing digital interconnection of people, things and organizations			
Rising geographic mobility	Increasing mobility of people and things due to quicker and better- performing means of transport and lowered regulatory barriers			
Rising income and wealth disparity	Increasing socioeconomic gap between rich and poor in major countries or regions			
Shifting power	Shifting power from state to non-state actors and individuals, from global to regional levels, and from developed to emerging markets and developing economies			
Rising urbanization	Rising number of people living in urban areas resulting in physical growth of cities			

# Top 5 Global Risks in Terms of Likelihood

5th	4th	3rd	2nd	1st	į
Retrenchment from globalization	Global governance gaps	Chronic disease	Slowing Chinese economy (<6%)	Asset price collapse	2009
Global governance gaps	Fiscal crises	Chronic disease	Slowing Chinese economy (<6%)	Asset price collapse	2009 2010
Climate change	Biodiversity loss	Corruption	Flooding	Storms and cyclones	2011
Water supply crises	Cyber-attacks	Rising greenhouse gas emissions	Chronic fiscal imbalances	Severe income disparity	2012
Mismanagement of population	Water supply crises	Rising greenhouse gas ernissions	Chronic fiscal imbalances	Severe income disparity	2013
Cyber-attacks	Climate change	Unemployment and underemployment	Extreme weather events	Income disparity	2014
High structural unemployment or underemployment	State collapse or crisis	Failure of national governance	Extreme weather events	Interstate conflict with regional consequences	2015
Major natural catastrophes	Interstate conflict with regional consequences	Failure of climate-change mitigation and adaptation	Extreme weather events	Large-scale involuntary migration	2016
Massive incident of data fraud/theft	Large-scale terrorist attacks	Major natural disasters	Large-scale involuntary migration	Extreme weather events	2017
Failure of climate-change mitigation and adaptation	Data fraud or theft	Cyber-attacks	Natural disasters	Extreme weather events	2018
Cyber-attacks	Data fraud or theft	Natural disasters	Failure of climate-change mitigation and adaptation	Extreme weather events	2019

# Top 5 Global Risks in Terms of Impact

5th	4th	3rd	2nd	1st	
Fiscal crises	Chronic disease	Oil and gas price spike	Retrenchment from globalization (developed)	Asset price collapse	2009
Fiscal crises	Chronic disease	Oil price spikes	Retrenchment from globalization (developed)	Asset price collapse	2010
Extreme energy price volatility	Asset price collapse	Geopolitical conflict	Climate change	Fiscal crises	2011
Extreme volatility in energy and agriculture prices	Chronic fiscal imbalances	Food shortage crises	Water supply crises	Major systemic financial failure	2012
Failure of climate-change mitigation and adaptation	Diffusion of weapons of mass destruction	Chronic fiscal imbalances	Water supply crises	Major systemic financial failure	2013
Critical information infrastructure breakdown	Unemployment and underemployment	Water crises	Climate change	Fiscal crises	2014
Failure of climate-change mitigation and adaptation	interstate conflict with regional consequences	Weapons of mass destruction	Rapid and massive spread of infectious diseases	Water crises	2015
Severe energy price shock	Large-scale involuntary migration	Water crises	Weapons of mass destruction	Failure of climate-change mitigation and adaptration	2016
Failure of climate-change mitigation and adaptation	Major natural disasters	Water crises	Extreme weather events	Weapons of mass destruction	2017
Water crises	Failure of climate-change mitigation and adaptation	Natural disasters	Extreme weather events	Weapons of mass destruction	2018
Natural disasters	Water crises	Extreme weather events	Failure of climate-change mitigation and adaptation	Weapons of mass destruction	2019

d Economic Forum 2009–2019, Global Risks Reports.

Source: World Economic Forum 2009–2019, Global Risks Reports.

Note: Global risks may not be strictly comparable across years, as definitions and the set of global risks have evolved with new issues emerging on the 10-year horizon. For example, cyberattacks, income disparity and unemployment entered the set of global risks in 2012. Some global risks were reclassified: water crises and rising income disparity were re-categorized first as societal risks and then as a trend in the 2015 and 2016 Global Risks Reports, respectively.

Geopolitical

Societal Technological