



WEF, 2019

Insight Report

COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

The Global Risks Report 2019 14th Edition

In partnership with Marsh & McLennan Companies and Zurich Insurance Group



The Global Risks Report 2019, 14th Edition, is published by the World Economic Forum.

The information in this report, or on which this report is based, has been obtained from sources that the authors believe to be reliable and accurate. However, it has not been independently verified and no representation or warranty, express or implied, is made as to the accuracy or completeness of any information obtained from third parties. In addition, the statements in this report may provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to a historical fact or a current fact. These statements involve known and unknown risks, uncertainties and other factors which are not exhaustive. The companies contributing to this report operate in a continually changing environment and new risks emerge continually. Readers are cautioned not to place undue reliance on these statements. The companies contributing to this report undertake no obligation to publicly revise or update any statements, whether as a result of new information, future events or otherwise and they shall in no event be liable for any loss or damage arising in connection with the use of the information in this report.

World Economic Forum
Geneva

World Economic Forum®

© 2019 – All rights reserved.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise without the prior permission of the World Economic Forum.

ISBN: 978-1-944835-15-6

The report and an interactive data platform are available at <http://wef.ch/risks2019>

World Economic Forum
91-93 route de la Capite
CH-1223 Cologny/Geneva
Switzerland

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

contact@weforum.org
www.weforum.org

Contents

Preface	5
<hr/> By Børge Brende	

Executive Summary	6
<hr/>	

1	
Global Risks 2019	8
<hr/> Out of Control	

2	
Power and Values	20
<hr/> Evolving Risks in a Multiconceptual World	

3	
Heads and Hearts	32
<hr/> The Human Side of Global Risks	

4	
Going Viral	44
<hr/> The Transformation of Biological Risks	

5	
Fight or Flight	54
<hr/> Preparing for Sea-Level Rise	

6	
Future Shocks	65
<hr/> Weather Wars Open Secrets City Limits Against the Grain Digital Panopticon Tapped Out Contested Space Emotional Disruption No Rights Left Monetary Populism	

7	
Hindsight	76
<hr/> Security of Food Systems The Space for Civil Society Investment in Infrastructure	

8	
Risk Reassessment	86
<hr/> <i>Weighing Risks</i> by John D. Graham <i>Managing in the Age of Meltdowns</i> by András Tilcsik and Chris Clearfield	

Appendices	95
<hr/> Appendix A: Descriptions of Global Risks and Trends 2019 Appendix B: Global Risks Perception Survey and Methodology	

Acknowledgements	104
<hr/>	

Preface



Børge Brende
President
World Economic Forum

Børge Brende

We publish the 2019 edition of the World Economic Forum's *Global Risks Report* at an important moment. The world is facing a growing number of complex and interconnected challenges—from slowing global growth and persistent economic inequality to climate change, geopolitical tensions and the accelerating pace of the Fourth Industrial Revolution. In isolation, these are daunting challenges; faced simultaneously, we will struggle if we do not work together. There has never been a more pressing need for a collaborative and multistakeholder approach to shared global problems.

This is a globalized world, as a result of which historic reductions in global poverty have been achieved. But it is also increasingly clear that change is needed. Polarization is on the rise in many countries. In some cases, the social contracts that hold societies together are fraying. This is an era of unparalleled resources and technological advancement, but for too many people it is also an era of insecurity. We are going to need new ways of doing globalization that respond to this insecurity. In some areas, this may mean redoubling efforts at the international level—implementing new approaches to a range of issues: technology and climate change to trade, taxation, migration and humanitarianism. In other areas renewed commitment and resources will be needed at the national level—tackling inequality, for example, or strengthening social protections and the bonds of political community.

Renewing and improving the architecture of our national and international political and economic systems is this generation's defining task. It will be a monumental undertaking, but an indispensable one. The *Global Risks Report* demonstrates how high the stakes are—my hope is that this year's report will also help to build momentum behind the need to act. It begins with a sweep of the global

risks landscape and warns of the danger of sleepwalking into crises. It goes on to consider a number of risks in depth: geopolitical and geo-economic disruptions, rising sea levels, emerging biological threats, and the increasing emotional and psychological strain that many people are experiencing. The Future Shocks section again focuses on potential rapid and dramatic changes in the systems we rely on—topics this year include quantum computing, human rights and economic populism.

The *Global Risks Report* embodies the collaborative and multistakeholder ethos of the World Economic Forum. It sits at the heart of our new Centre for Regional and Geopolitical Affairs, which is responsible for our crucial partnerships with the world's governments and international organizations. But the breadth and depth of its analysis also hinge on constant interaction with the Forum's industry and thematic teams, which shape our systems-based approach to the challenges facing the world. I am grateful for the collaboration of so many colleagues in this endeavour.

I am also particularly grateful for the insight and dedication of the report's Advisory Board. I would like to thank our long-standing strategic partners, Marsh & McLennan Companies and Zurich Insurance Group, as well as our academic advisers at the National University of Singapore, the Oxford Martin School at the University of Oxford and the Wharton Risk Management and Decision Processes Center at the University of Pennsylvania. As in previous years, the *Global Risks Report* draws on our annual Global Risks Perceptions Survey, which is completed by around 1,000 members of our multistakeholder communities. The report has also benefitted greatly from the input of many individuals in the Forum's global expert networks.

Technology continues to play a profound role in shaping the global risks landscape. Concerns about data fraud and cyber-attacks were prominent again in the GRPS, which also highlighted a number of other **technological vulnerabilities**: around two-thirds of respondents expect the risks associated with fake news and identity theft to increase in 2019, while three-fifths said the same about loss of privacy to companies and governments. There were further massive data breaches in 2018, new hardware weaknesses were revealed, and research pointed to the potential uses of artificial intelligence to engineer more potent cyber-attacks. Last year also provided further evidence that cyber-attacks pose risks to critical infrastructure, prompting countries to strengthen their screening of cross-border partnerships on national security grounds.

The importance of the various structural changes that are under way should not distract us from **the human side of global risks**. For many people, this is an increasingly anxious, unhappy and lonely world. Worldwide, mental health problems now affect an estimated 700 million people. **Complex transformations—societal, technological and work-related—are having a profound impact on people's lived experiences. A common theme is psychological stress related to a feeling of lack of control in the face of uncertainty.** These issues deserve more attention: declining psychological and emotional well-being is a risk in itself—and one that also affects the wider global risks landscape, notably via impacts on social cohesion and politics.

Another set of risks being amplified by global transformations relate to biological pathogens. Changes in how we live have increased

the risk of a devastating outbreak occurring naturally, and emerging technologies are making it increasingly easy for new **biological threats** to be manufactured and released either deliberately or by accident. The world is badly under-prepared for even modest biological threats, leaving us vulnerable to potentially huge impacts on individual lives, societal well-being, economic activity and national security. Revolutionary new biotechnologies promise miraculous advances, but also create daunting challenges of oversight and control—as demonstrated by claims in 2018 that the world's first gene-modified babies had been created.

Rapidly growing cities and ongoing effects of climate change are making more people vulnerable to **rising sea levels**. Two-thirds of the global population is expected to live in cities by 2050 and already an estimated 800 million people live in more than 570 coastal cities vulnerable to a sea-level rise of 0.5 metres by 2050. In a vicious circle, urbanization not only concentrates people and property in areas of potential damage and disruption, it also exacerbates those risks—for example by destroying natural sources of resilience such as coastal mangroves and increasing the strain on groundwater reserves. Intensifying impacts will render an increasing amount of land uninhabitable. There are three main strategies for adapting to rising sea-levels: (1) engineering projects to keep water out, (2) nature-based defences, and (3) people-based strategies, such as moving households and businesses to safer ground or investing in social capital to make flood-risk communities more resilient.

In this year's **Future Shocks** section, we focus again on the potential for threshold effects that

could trigger dramatic deteriorations and cause cascading risks to crystallize with dizzying speed. Each of the 10 shocks we present is a "what-if" scenario—not a prediction, but a reminder of the need to think creatively about risk and to expect the unexpected. Among the topics covered this year are quantum cryptography, monetary populism, affective computing and the death of human rights. In the **Risk Reassessment** section, experts share their insights about how to manage risks. John Graham writes about weighing the trade-offs between different risks, and András Tilcsik and Chris Clearfield write about how managers can minimize the risk of systemic failures in their organizations. And in the **Hindsight** section, we revisit three of the topics covered in previous reports: food security, civil society and infrastructure investment.

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

WORLD ECONOMIC FORUM

COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

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

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

World Economic Forum
91-93 route de la Capite
CH-1223 Cologny/Geneva
Switzerland

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

contact@weforum.org
www.weforum.org