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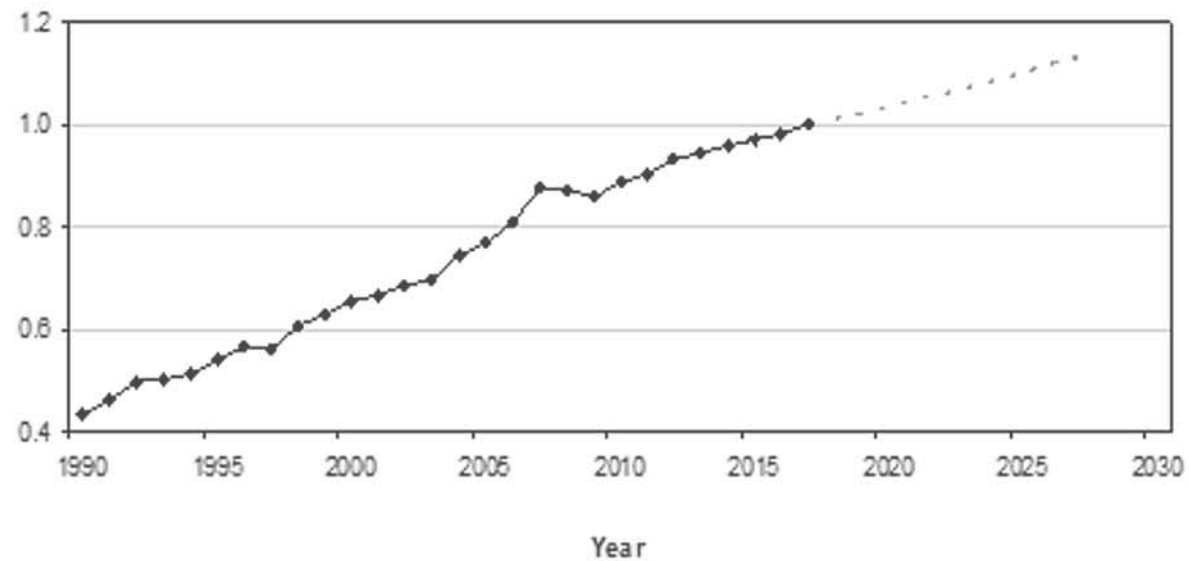
TECHNICAL CHAMBER OF GREECE (TCG)

Climate Change and Inclusive Growth

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State of the Future Index



Source: Future Index tou Millennium Project (2017) (UN)

Successes and Failures of Humanity towards the Future

Where are We Winning

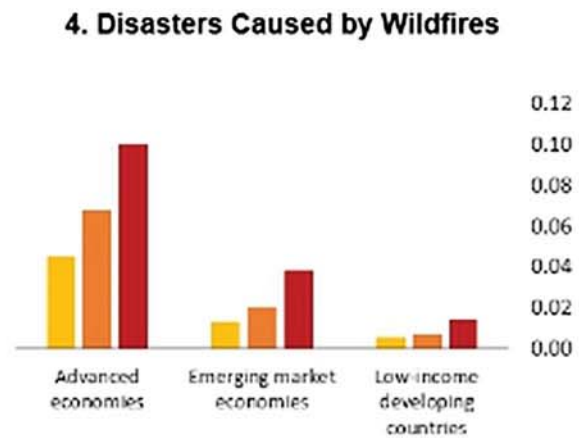
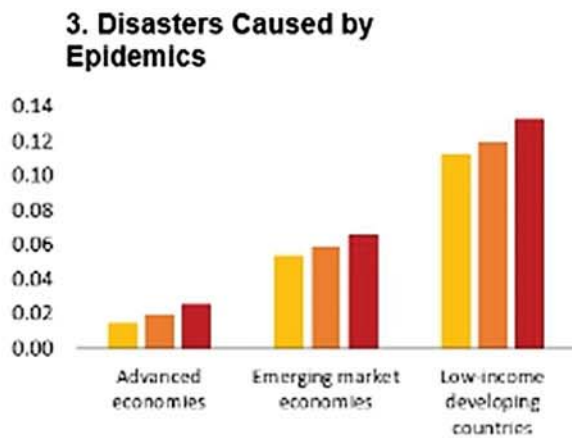
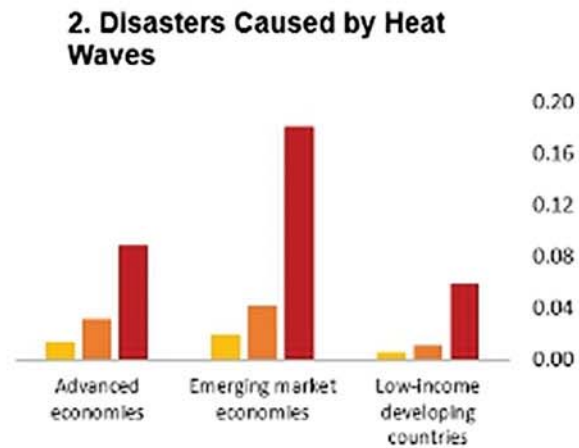
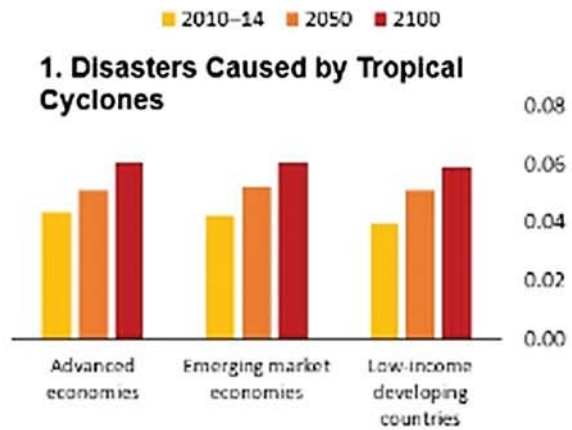
GNI per capita (PPP, 2011 international \$)
Poverty (\$1.90/day, PPP) (%)
Foreign direct investment, net inflows (US\$, billions)
Freedom (number of countries rated free)
Women in national parliaments (% of members)
Share of high skilled employment (%)
School enrollment, secondary (% gross)
Literacy rate, adult total (% of people ages 15+)
Electricity from renewables, excl. hydro (% of total)
Energy-Efficiency (GDP/unit of energy use)
Improved water sources (% population with access)
Physicians (per 1,000 people)
Health expenditure per capita (US\$)
Prevalence of undernourishment (% population)
Mortality rate, infant (per 1,000 live births)
Life expectancy at birth (years)
Population growth (annual %)
Internet Users (per 100 people)

Where are We Losing

CO₂equivalent mixing ratio (ppm)
Renewable internal freshwater resources (m³/capita)
Forest area (% of land area)
Biocapacity per capita
R&D Expenditures (% of GDP)
Social unrest indicator (Protest/Total events) (%)
Unemployment (% of world labor force)
Income inequality (share of top 10%)
Terrorism Incidents
Number of wars and serious arm conflicts
Corruption in the public sector (1=low; 6=high)

Source: Future Index tou Millennium Project (2017) (UN)

Prone to Disasters



Source: IMF (2017)

Evolving Risk Landscape, 2008-2018

Top 5 Global Risks in Terms of Likelihood

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1st	Asset price collapse	Asset price collapse	Asset price collapse	Storms and cyclones	Severe income disparity	Severe income disparity	Income disparity	Interstate conflict with regional consequences	Large-scale involuntary migration	Extreme weather events	Extreme weather events
2nd	Middle East instability	Slowing Chinese economy (<6%)	Slowing Chinese economy (<6%)	Flooding	Chronic fiscal imbalances	Chronic fiscal imbalances	Extreme weather events	Extreme weather events	Extreme weather events	Large-scale involuntary migration	Natural disasters
3rd	Failed and failing states	Chronic disease	Chronic disease	Corruption	Rising greenhouse gas emissions	Rising greenhouse gas emissions	Unemployment and underemployment	Failure of national governance	Failure of climate-change mitigation and adaptation	Major natural disasters	Cyberattacks
4th	Oil and gas price spike	Global governance gaps	Fiscal crises	Biodiversity loss	Cyber attacks	Water supply crises	Climate change	State collapse or crisis	Interstate conflict with regional consequences	Large-scale terrorist attacks	Data fraud or theft
5th	Chronic disease, developed world	Retrenchment from globalization (emerging)	Global governance gaps	Climate change	Water supply crises	Mismanagement of population ageing	Cyber attacks	High structural unemployment or underemployment	Major natural catastrophes	Massive incident of data fraud/theft	Failure of climate-change mitigation and adaptation

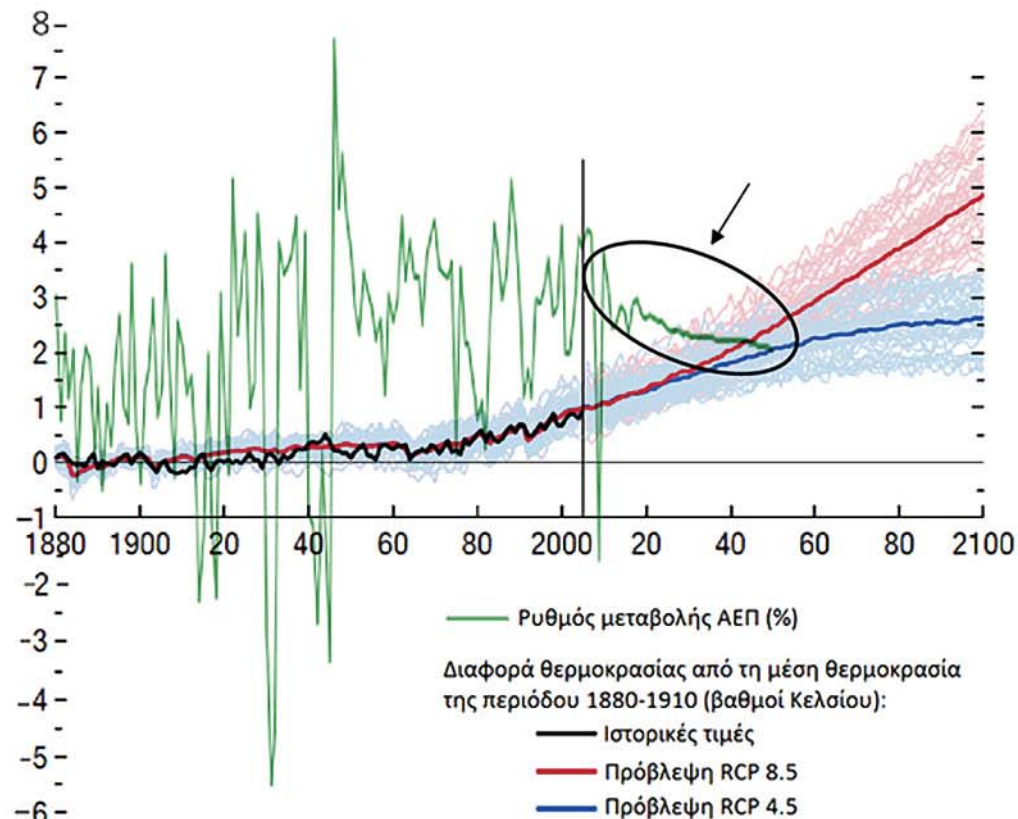
Top 5 Global Risks in Terms of Impact

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1st	Asset price collapse	Asset price collapse	Asset price collapse	Fiscal crises	Major systemic financial failure	Major systemic financial failure	Fiscal crises	Water crises	Failure of climate-change mitigation and adaptation	Weapons of mass destruction	Weapons of mass destruction
2nd	Retrenchment from globalization (developed)	Retrenchment from globalization (developed)	Retrenchment from globalization (developed)	Climate change	Water supply crises	Water supply crises	Climate change	Rapid and massive spread of infectious diseases	Weapons of mass destruction	Extreme weather events	Extreme weather events
3rd	Slowing Chinese economy (<6%)	Oil and gas price spike	Oil price spikes	Geopolitical conflict	Food shortage crises	Chronic fiscal imbalances	Water crises	Weapons of mass destruction	Water crises	Water crises	Natural disasters
4th	Oil and gas price spike	Chronic disease	Chronic disease	Asset price collapse	Chronic fiscal imbalances	Diffusion of weapons of mass destruction	Unemployment and underemployment	Interstate conflict with regional consequences	Large-scale involuntary migration	Major natural disasters	Failure of climate-change mitigation and adaptation
5th	Pandemics	Fiscal crises	Fiscal crises	Extreme energy price volatility	Extreme volatility in energy and agriculture prices	Failure of climate-change mitigation and adaptation	Critical information infrastructure breakdown	Failure of climate-change mitigation and adaptation	Severe energy price shock	Failure of climate-change mitigation and adaptation	Water crises

■ Economic
 ■ Environmental
 ■ Geopolitical
 ■ Societal
 ■ Technological

Source: World Economic Forum 2008- 2018, Global Risks Report

Temperature Difference from Mean Temperature During 1880-1910 (Celsius degrees) and the GDP Growth Rate (%) Worldwide



Source:

Maddison Project Database 2018, 1980 to 2050 Oxford Economics 25 year Global Economic Model

Ambition Level of International Climate Agreements

	Coverage	Emissions reductions, covered countries	EU reduction
Kyoto	18% of global emissions	4-5% from 1990 to 2012	2012: 8%
Doha	11% of global emissions	18% from 1990 to 2020	2020: 20%
Paris	100% of global emissions	Carbon neutrality second half of 21 st century	2030: 40% 2050: tbd

Source: Bruegel (2018)



Thank you

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