

# Lloyd's City Risk Index

Launch event

6 June 2018, London



# Lloyd's City Risk Index

Inga Beale, CEO, Lloyd's

6 June 2018, London

## Event programme

Introduction Inga Beale, CEO, Lloyd's

Lloyd's City Risk Index explained Trevor Maynard, Head of Innovation, Lloyd's

Methodology behind the numbers Dr Andrew Coburn, Director of Advisory Board,

Cambridge Centre for Risk Studies

Panel discussion with Q&A Chaired by Trevor Maynard with panellists:

- Tina Kirby, Beazley Group

- Elizabeth Mercer, 100 Resilient Cities

- Professor Daniel Ralph, Cambridge Centre for Risk Studies

- Jo da Silva, Arup

Closing remarks Trevor Maynard



# Lloyd's City Risk Index explained

Trevor Maynard, Head of Innovation, Lloyd's

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## What is the Lloyd's City Risk Index?

- A unique partnership with University of Cambridge's Centre for Risk Studies
- Measures the impact of 22 risks on the GDP of 279 major cities across the world, which together generate 41% of global economic output
- Shows policymakers, businesses, and communities how risk events could affect the economy of their city
- Provides brokers and risk managers with a compelling argument for the value of insurance

# Why is it important?

- Wealth is concentrating in urban environments
- More than half of the world's population now live in cities
- Cities account for 80% of global GDP
- Perils which strike cities can also have serious national economic consequences

# What is the index measuring?

#### GDP@Risk

 is the average annual loss (also known as the 'expected loss') to a selected location's economic output from each threat or threat category

#### Total GDP@Risk

 is the expected loss to a selected city/country/region's economic output from all 22 threats

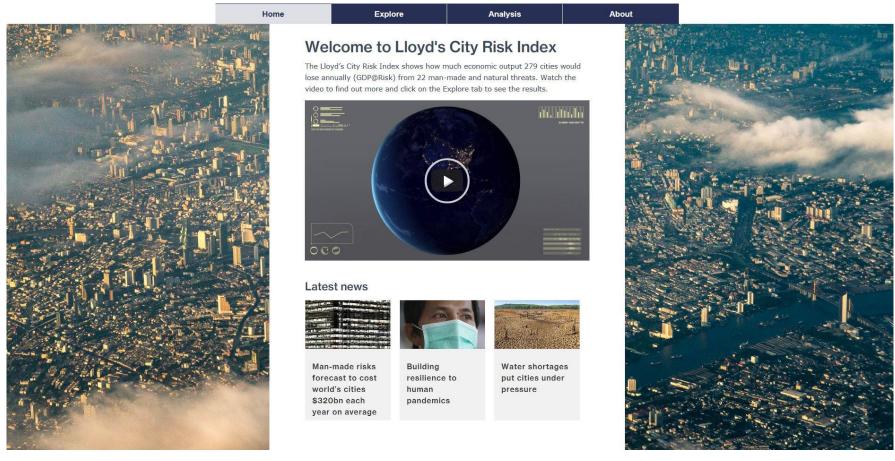
#### % of GDP@Risk

 is the percentage of annual GDP@Risk in a city as a proportion of its projected annual GDP

# Key findings

- Total GDP@Risk from all threats \$546.5bn
- Man-made threats account for 59% of all global GDP@Risk; natural threats 41%
- Market crash is the largest single threat at \$103.3bn
- The majority of risk is concentrated in a few cities: just 10 cities account for almost a quarter of all GDP@Risk
- Tokyo has the largest GDP@Risk \$24.3bn
- Climate-related risks together account for \$123.0bn GDP@Risk
- Stronger resilience could prevent cities from losing \$73.4bn

# Exploring Lloyd's City Risk Index



<u>lloyds.com/cityriskindex</u>

### Building resilience – next steps

- Improved resilience could save \$73.4bn each year
- Insurance is part of the solution by providing cash injection following a catastrophic event
- Risk mitigation pre-event is important
- Insurers and brokers must invest in developing new products
- While no city can be completely risk free, the index shows active risk management can minimise the effect on GDP



# Methodology behind the numbers

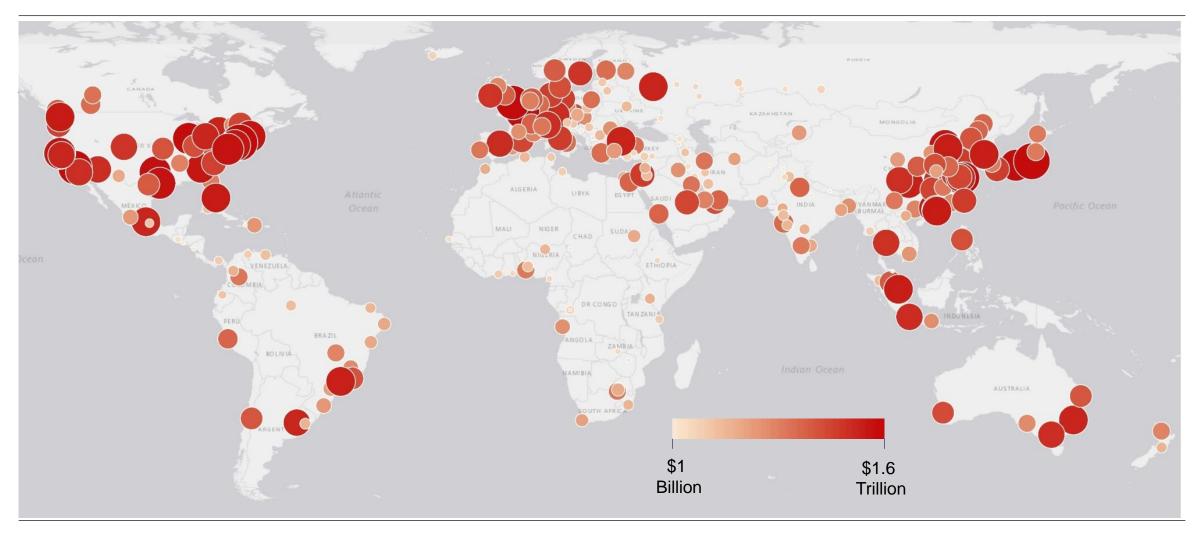
Dr Andrew Coburn,

Director of Advisory Board, Cambridge Centre for Risk Studies

Centre for **Risk Studies** 



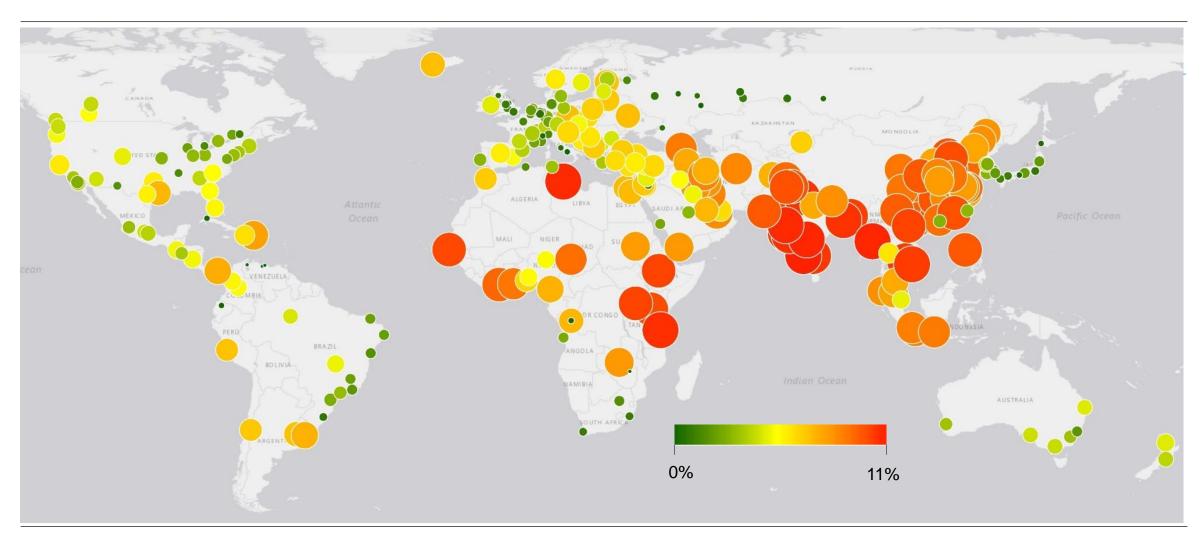
# World's cities by GDP 2018



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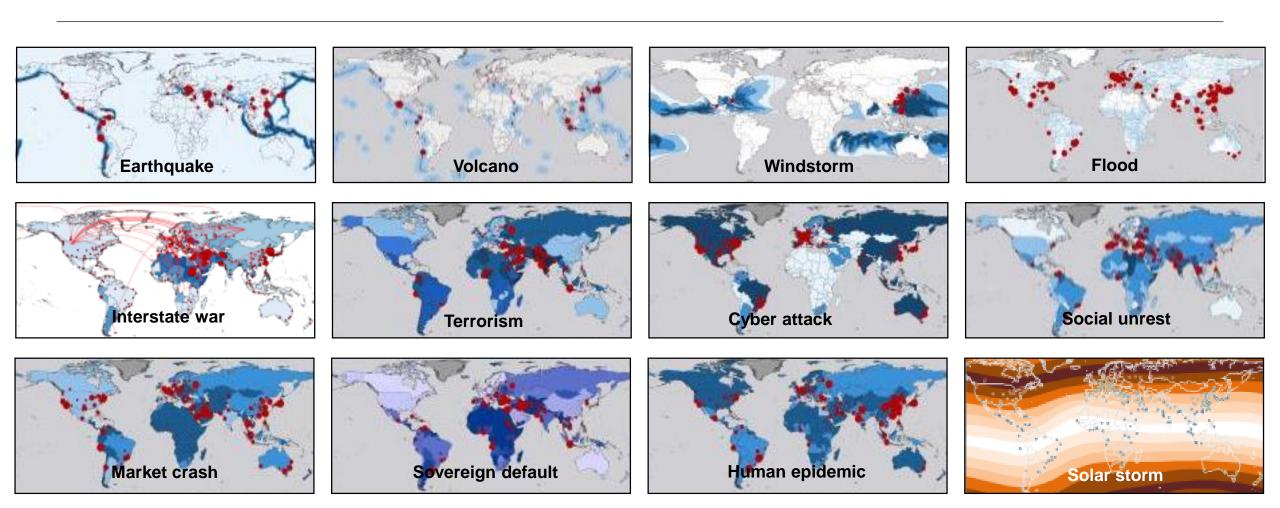
# GDP growth rates



#### **Threats**

#### Finance, economics and trade **Geopolitics and security Terrorism** Civil Social Market Sovereign Commodity Interstate crash crisis conflict conflict prices unrest **Natural catastrophe and climate** Drought Earthquake Tropical **Temperate** Tsunami Flood Volcanic Heatwave Freeze windstorm windstorm eruption **Technology and space Health and humanity** Human **Plant** Nuclear Cyber Solar Power pandemic epidemic accident outage attack storm

# Threat mapping

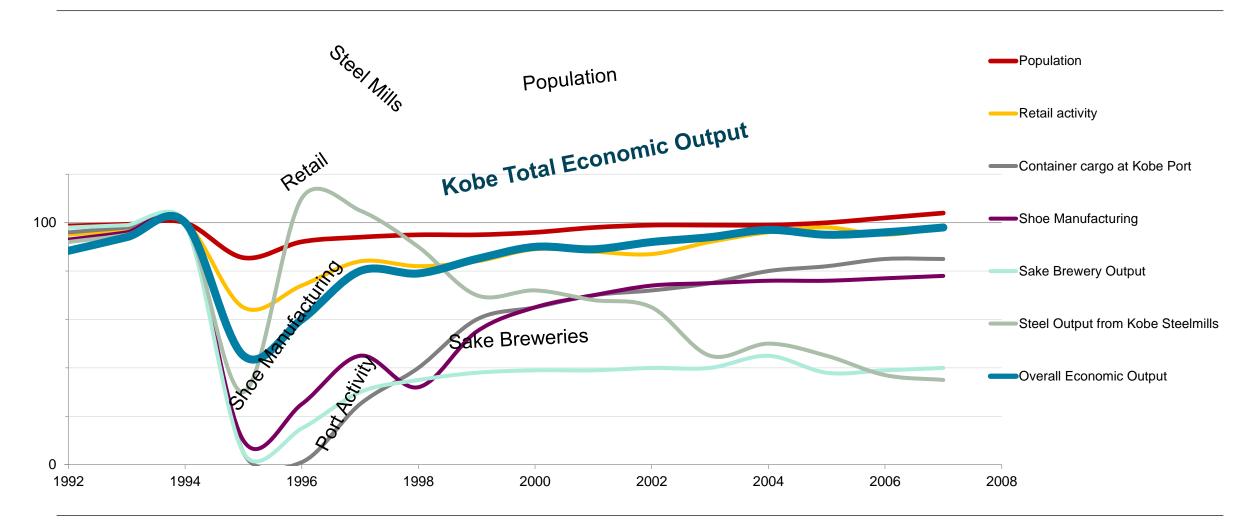


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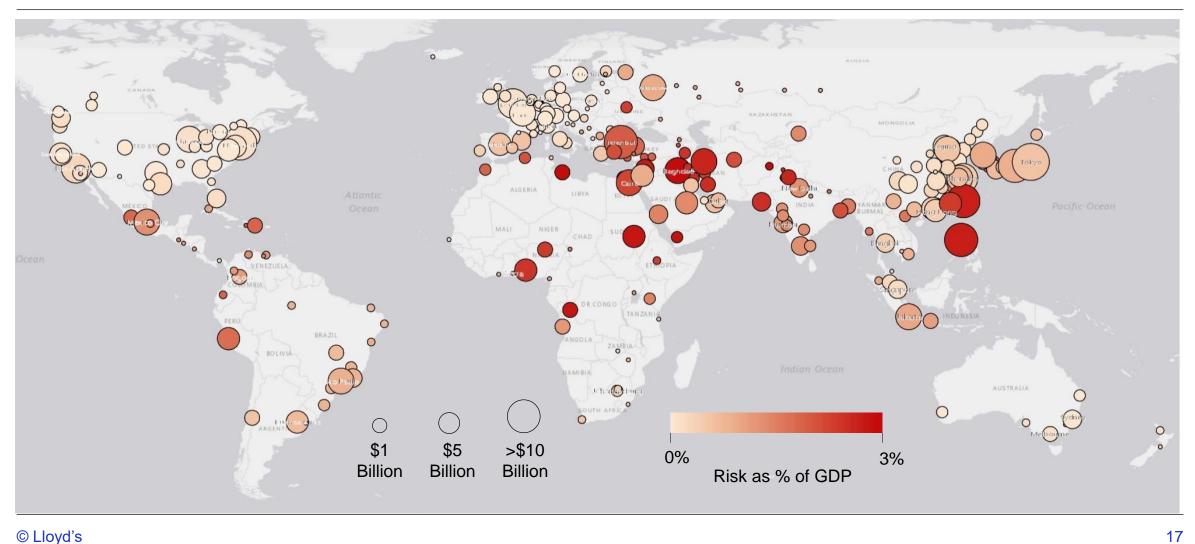
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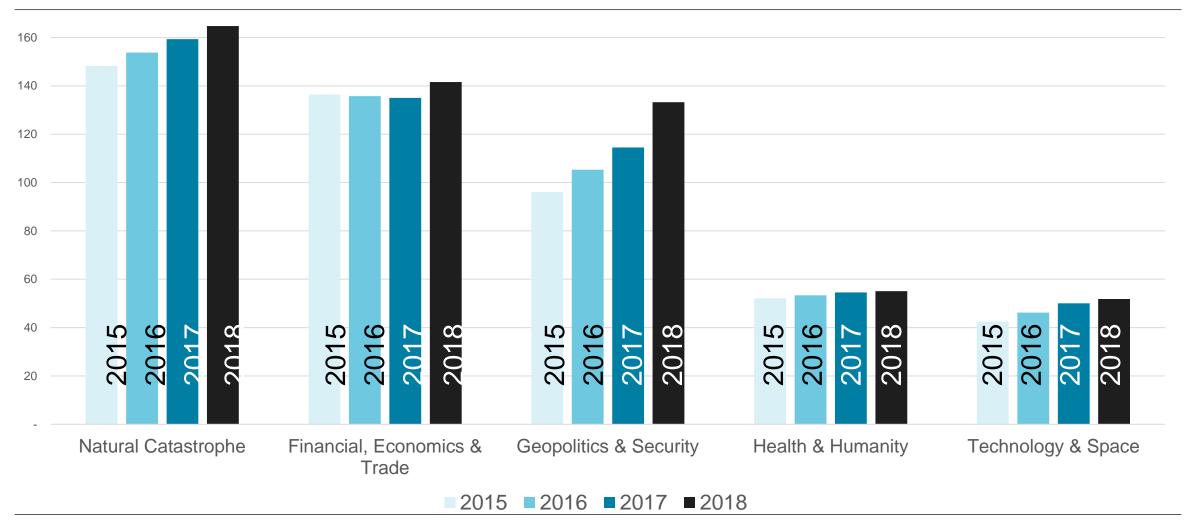
### How a catastrophe impacts a city's economy



# GDP@Risk



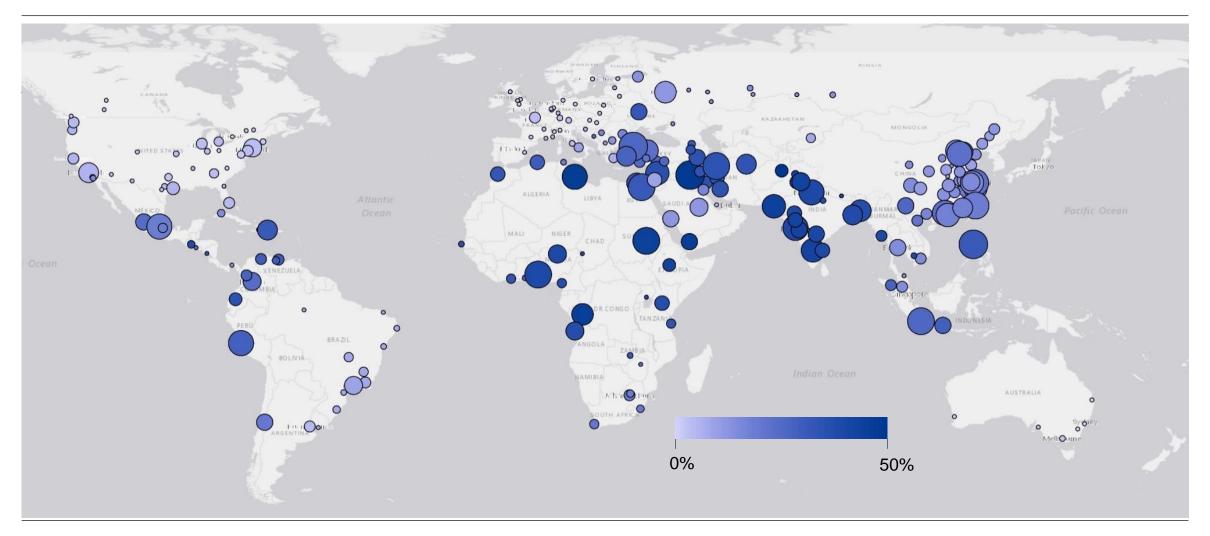
# Change in risk over time



# How risk is changing

- Increasing threat of geopolitical risk in many parts of the world
- Threat of civil conflict to emerging economies
- Potential for interstate war is higher than at any time post-WWII
- Technology threat cyber risk is spreading to all the advanced economies
- Market risk has been decreasing, with regulatory compliance, but is reemerging with potential Eurozone crises and democratic popularism on the rise
- Health risks are reducing, relative to exposure increase, because of better disease surveillance and pandemic preparedness measures

# Risk reduction from improving resilience





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Panel discussion / Q&A

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- Tina Kirby, Head of Innovation and Product Development, Beazley Group
- Elizabeth Mercer, Chief Strategy Officer, 100 Resilient Cities
- Prof Daniel Ralph, Academic Director, Cambridge Centre for Risk Studies
- Jo da Silva, Director of International Development, Arup



# Closing remarks

Trevor Maynard, Head of Innovation, Lloyd's