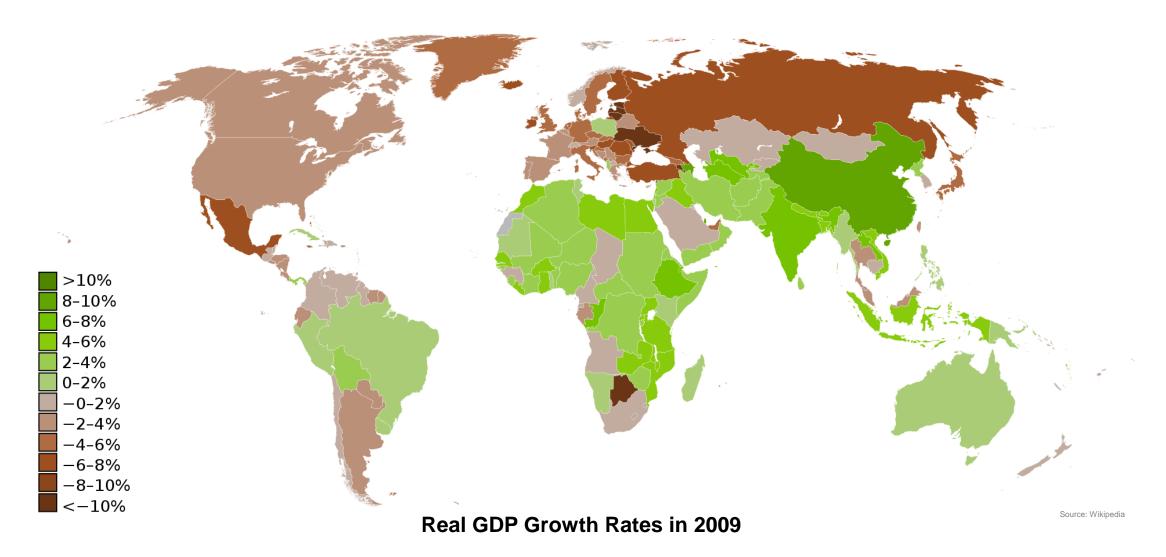
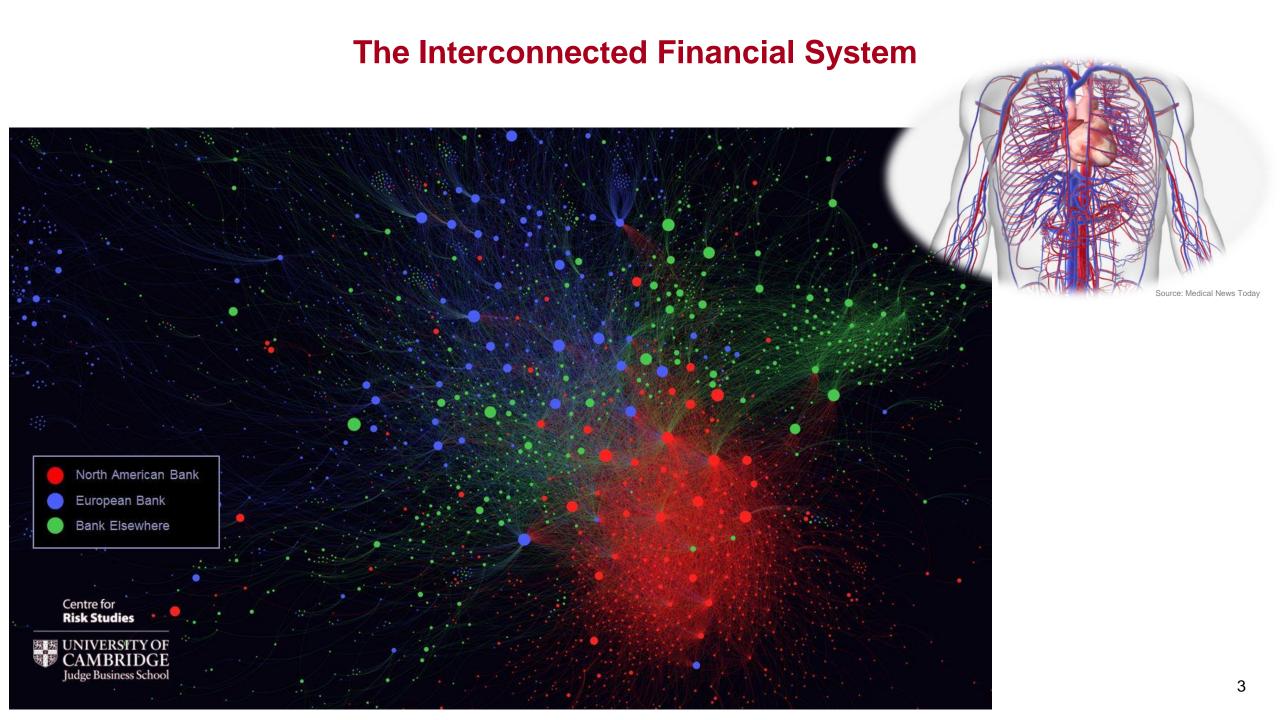


## **A Journey Started From Crisis**

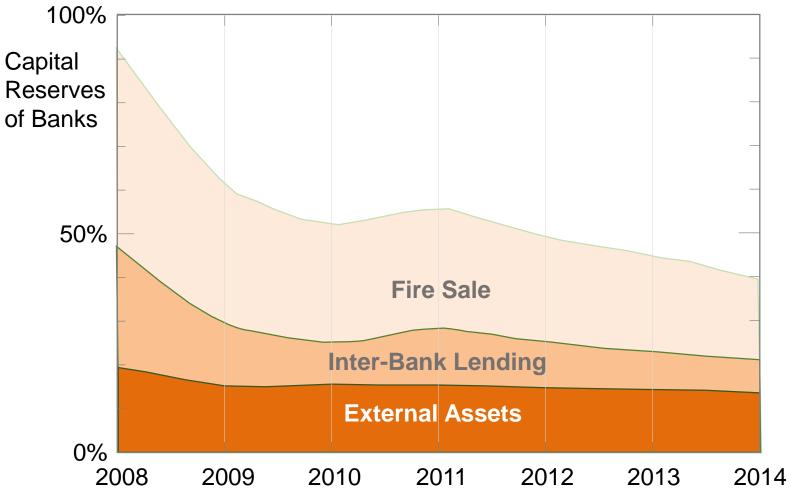






## **Financial Contagion**

#### For a shock of 0.5% asset devaluation



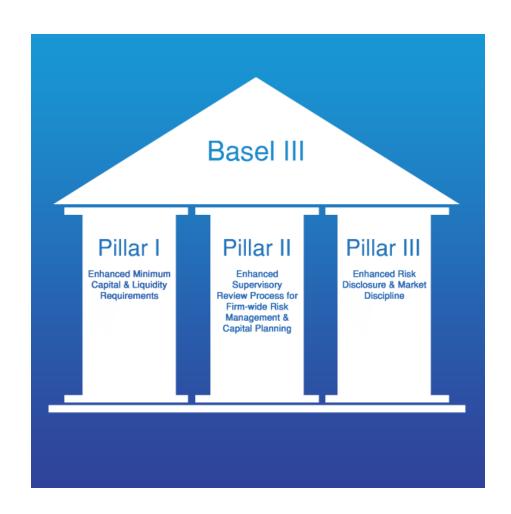


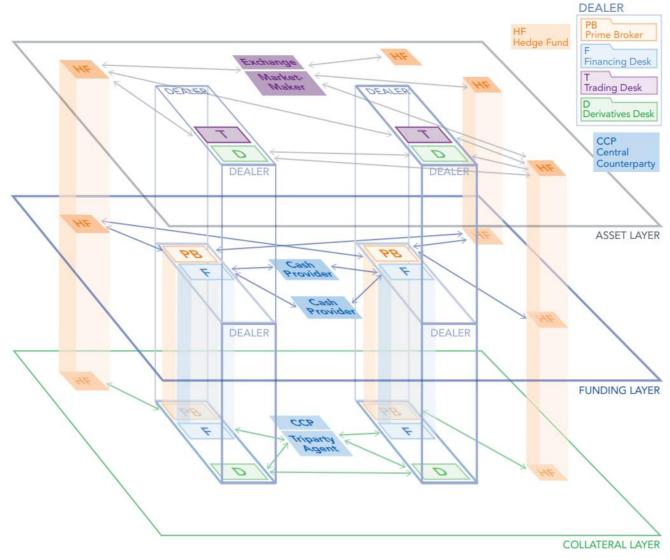
Source: Roger Beale





## **Macroprudential Regulation**







Source: Office of Financial Research

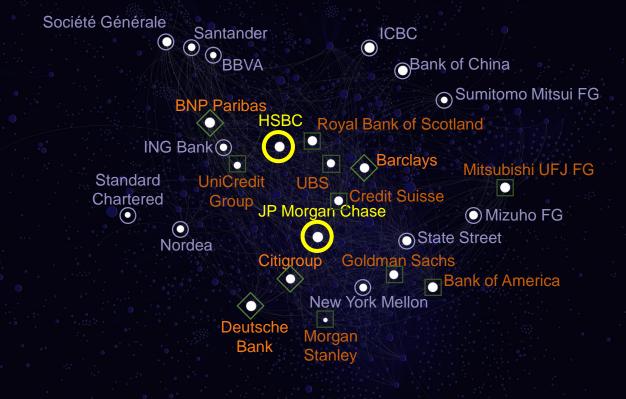
## FINANCIAL STABILITY SOARD



## Global Systemically Important Banks (G-SIBs)

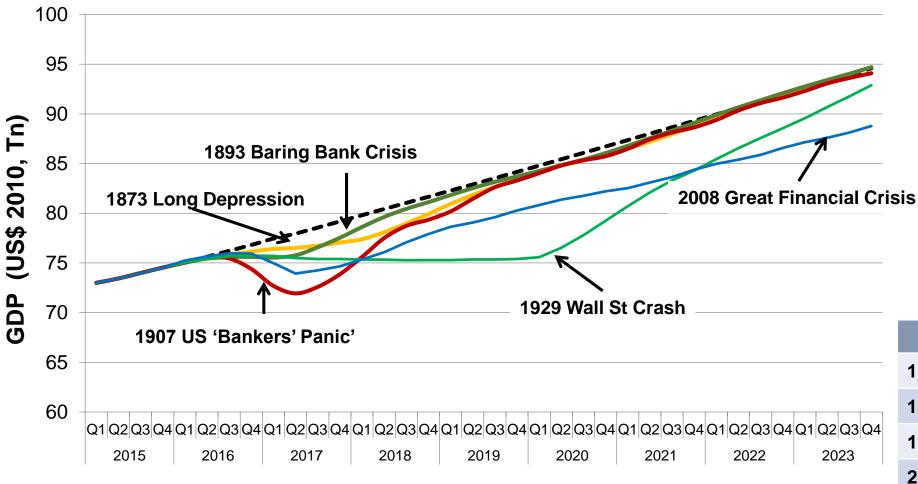


Wells Fargo





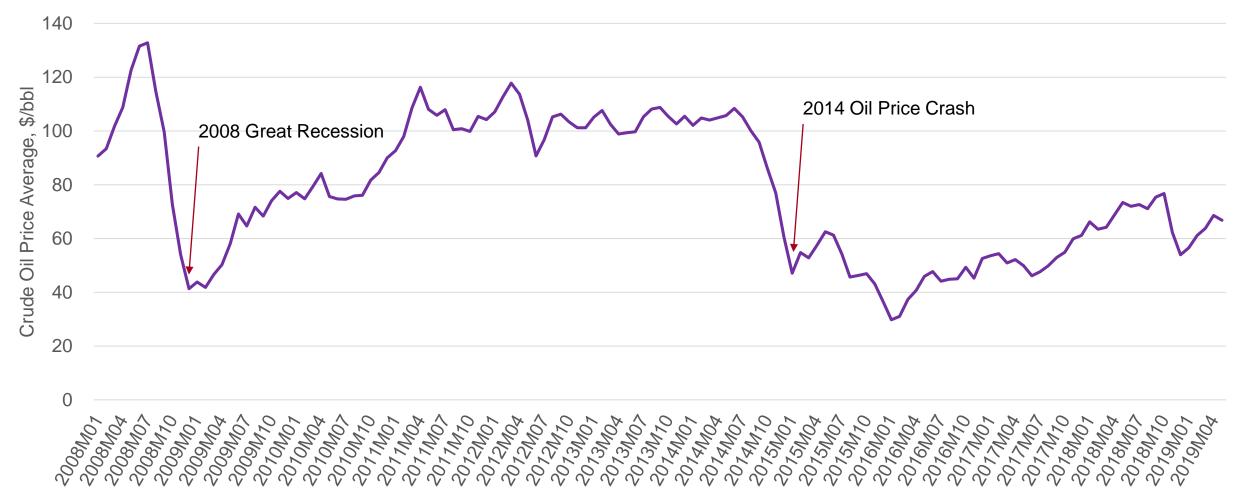
## **Beyond Financial Markets**



GDP@Risk US\$ Trillion	
1893 Baring Bank Crisis	5
1873 Long Depression	7
1907 US 'Bankers' Panic'	14
2008 Great Financial Crisis	20
1929 Wall Street Crash	30



#### Oil Price in the Past Decade







## "Energy" in the Next Decade



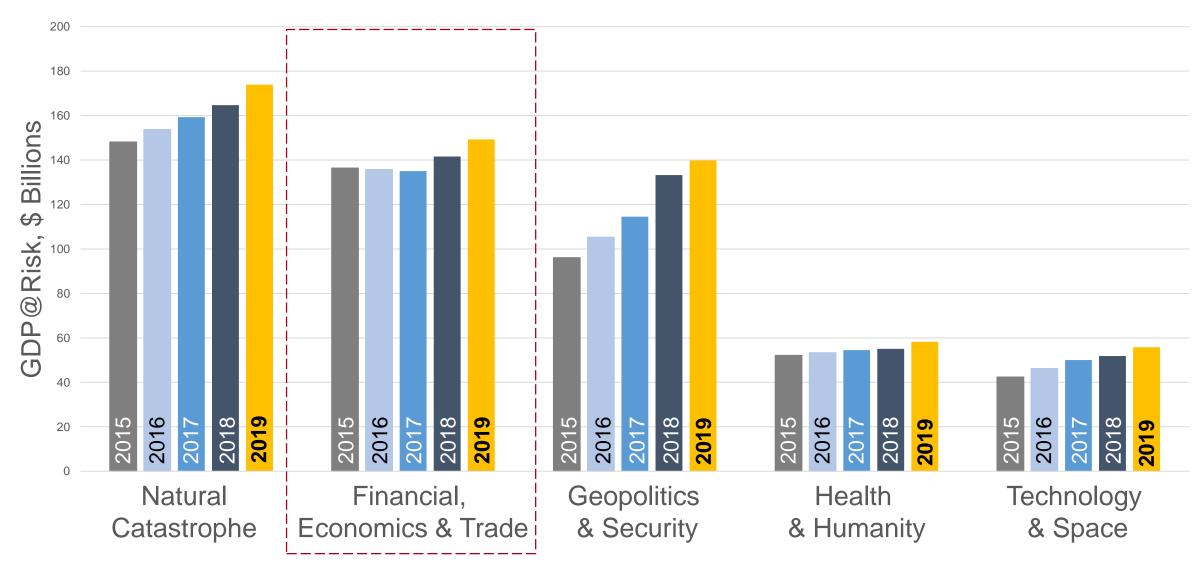








### Cambridge Global Risk Index (CGRI)





#### **Financial & Economic Threats**

#### **Macroeconomic**

- Market Crash
  - Asset Bubble
  - Financial Irregularities
- Economic Recession
- Economic Restriction
- Trade Sanctions
- Tariff War
- Commodity Price Fluctuations
- Sovereign Crisis Default
- Investor Sentiment
  - Negative Market Outlook
- Low Carbon Transition

#### Competition

- Disruptive Competitor
- Aggressive Competitor
  - Price War
- Counterfeit Products

#### Counterparty

- Creditor Failure
- Customer/Client Failure
- Government Failure
- Supplier Failure
  - Bargaining Power Against Suppliers
  - Supply Chain Disruption



## **Stress Testing the Future in Scenarios**

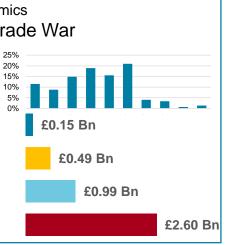






Trade tariffs imposed on imports between **US** and Europe

- **S1** 10% tariff on products
- **S2** 20% tariff on products
- \$3 40% tariff on products
- **X1** 140% tariff on products



#### **Geopolitics & Security**



Geopolitics and Security India-Pakistan Conflict

Military conflict in India subcontinent causes market depression and loss of assets in India subsidiary

£0.06 Bn

- \$1 Regional war
- **S2** National conflict
- X1 High casualty nuclear



£0.28 Bn

£1.41 Bn

#### **Technological**



**Technological** 

Cyber Attack Contagious Malware

Diskwiper payload infects many endpoints in the company's network and central ERP system



**S1** Infection disables ERP 4 days

S2 All systems down 10 days

X1 System rebuild 3 wks

£0.04 Bn £0.41 Bn

£1.05 Bn

#### **Environmental**



Environmental Flooding of Key Facilities

Key distribution and production facility for major lines of products are made unserviceable by floods

- \$1 0.8 m depth, 2 weeks, clean
- **S2** 1.3 m, 3 mths, mod contam
- **X1** >1.5 m, 12 mths, high contam



- £0.38 Bn
- £0.88 Bn
  - £2.45 Bn

#### Severe Pandemic Extended staff absenteeism from illness and fear, with economic demand shock

Social & Humanitarian

Social & Humanitarian

- \$1 Standard response
- **S2** Slow response
- not effective



- £0.52 Bn
- £0.78 Bn
- Slow response and vaccine is £1.78 Bn

#### **Governance & Liability**



Governance & Liability Gender Pay Dispute

Company's pay disparity between genders gives rise to employee action and to reputational loss



- \$1 Class action and protests
- **S2** Strikes affect production
- X1 Consumer demand reduces









Centre for **Risk Studies** 

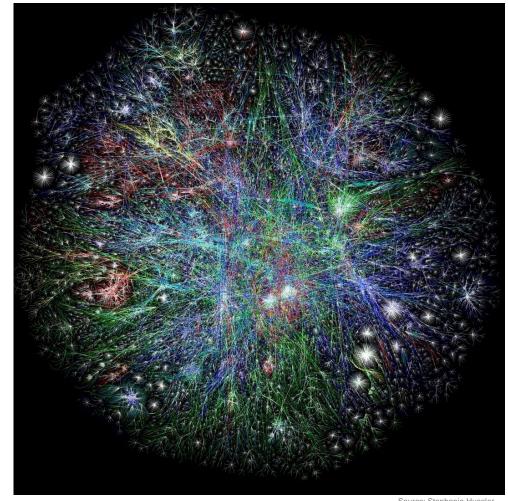
## **Connecting the Past to the Future**

"An emerging risk is a new risk, changing risk, or novel combination of risks where the broad impacts, costs and optimal management strategies are not yet well understood."

**CCRS** 

"Anything that can go wrong will go wrong."

Murphy's Law



Source: Stephanie Huesler



## **Session Speakers**



Discussant: Dr Andrew Pitt Head of Global Research, Citi



Financial Crises of the Future: the Lessons of History
Dr Duncan Needham, Director, Centre for Financial History

- Case studies of financial crises in history
- Fundamental changes over time within western banking
- Discussion about the next major financial crisis



Challenges in Managing Financial Risk in the Future: A Practitioner's Perspective Dr Alessandra Mongiardino, outgoing Head of Enterprise-wide Risk Management, Nordea Bank Abp

- Non-financial risks in financial risk management
- Risks and opportunities of digitalisation
- Commercial risks to a financial firm's future profitability and viability



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