

COMMERCIAL BANKING

CYBER RISK – MANAGING THE CRITICAL CHALLENGES FACING TREASURERS

30th November 2016



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TECHNOLOGY REVOLUTION



Hyper - Connectivity



- Real-time interactions
- Threat propagation

Automation & Digitalisation



- Automation of processes - consolidation
- Digitalisation of Businesses - consolidation
- Cloud technology - consolidation

Big Data



- Consolidation of data
- Inherent value of data increases
- Importance of Data Analytics increases

Disruptive Technologies



- 5G Mobile technology
- Delivery drones
- Driverless cars

Financial Services



- PSD2 - Open Banking API
- Peer-to-Peer payments
- Blockchain
- Internet of things
- Equity crowdfunding

What's Next?

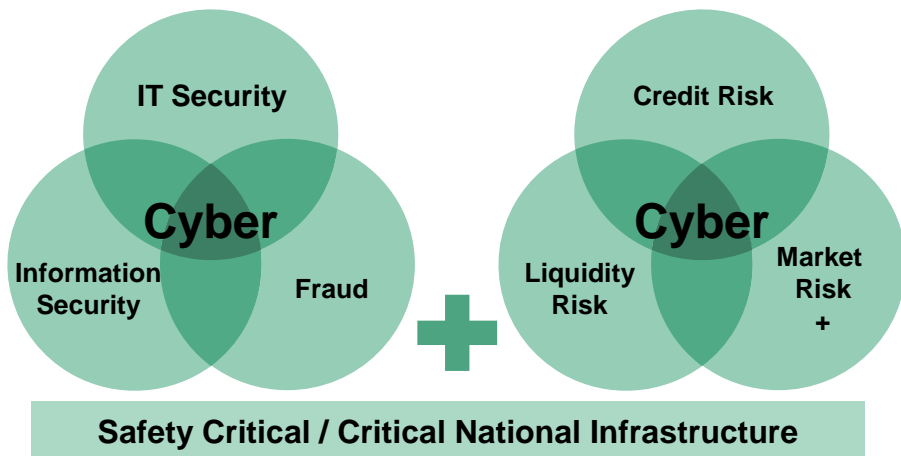
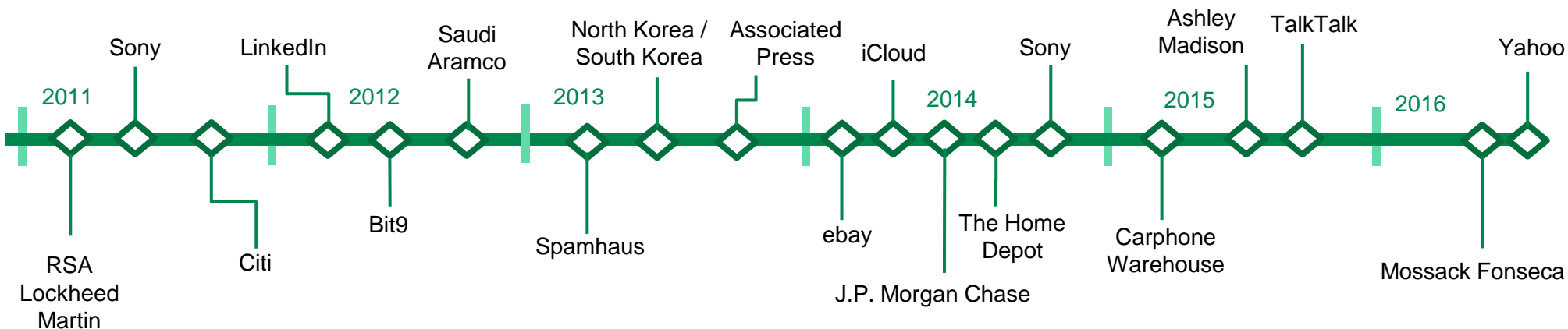


- Micro-tech?
- Medi-tech?
- Fin-tech?



CYBER ATTACKS - BLACK SWAN EVENT?

“Event or occurrence that deviates beyond what is normally expected of a situation and that would be extremely difficult to predict.”



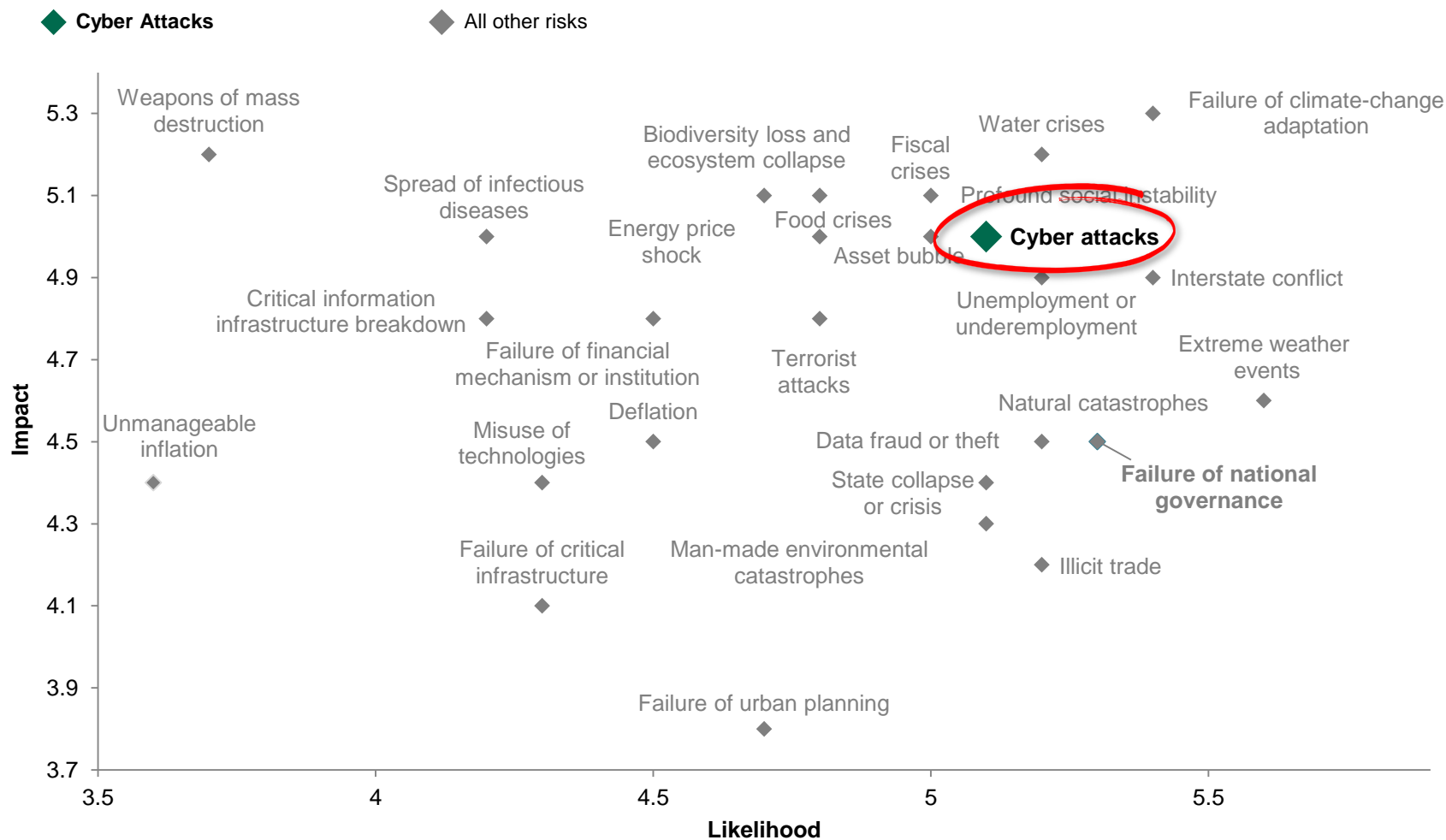
Cyber Attacks are different from traditional business risks:

- Active adversary
- Not bound by physical locations
- Speed of attack potentially much faster / media spotlight
- Impact not well understood, may shift
- Customer concern as to impacts e.g. financial loss / data theft
- Backups may be ineffective and/or DR capability may be destroyed
- Dynamic threat leads to difficulty determining strategic intent
- Attacks on suppliers/third parties may be as damaging
- Reputation costs and recovery costs may be higher
- Target may be seen as negligent

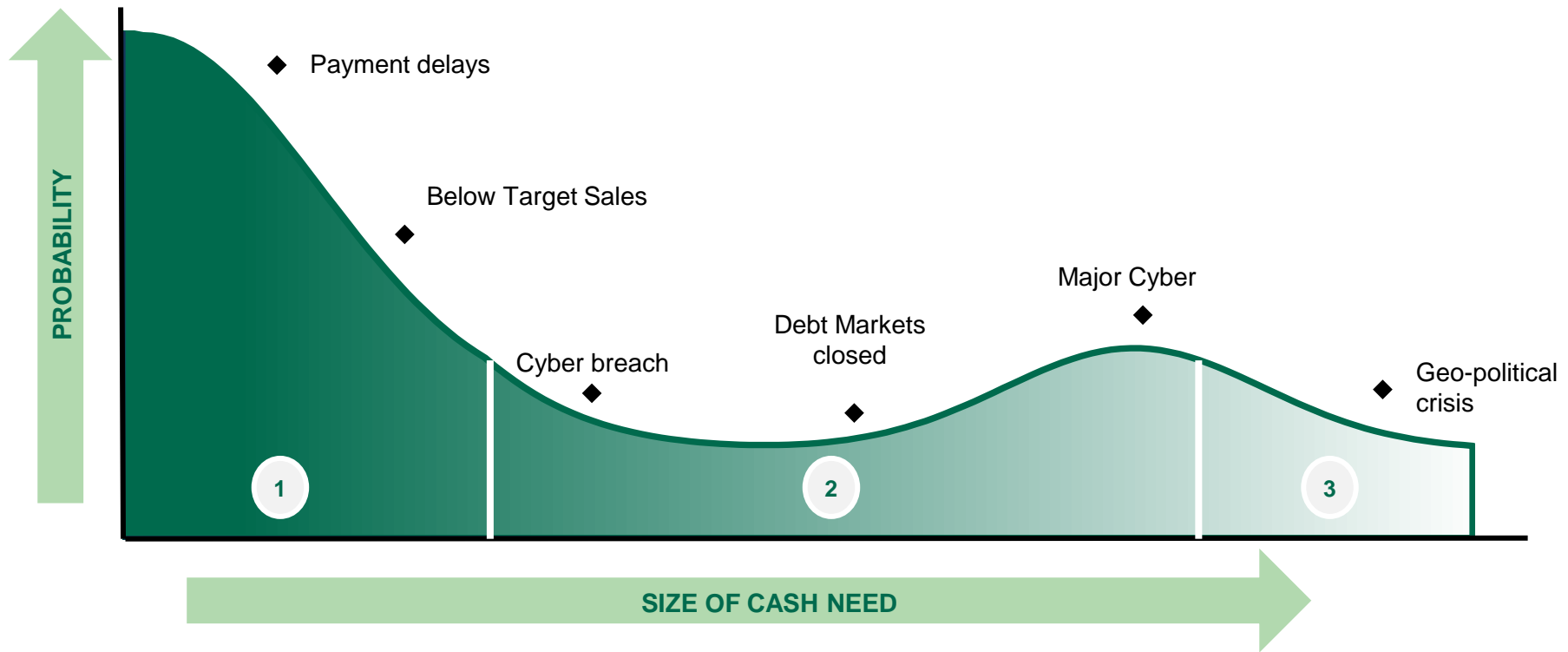


GLOBAL RISK LANDSCAPE (WEF 2016)

Global Risks by Impact and Likelihood

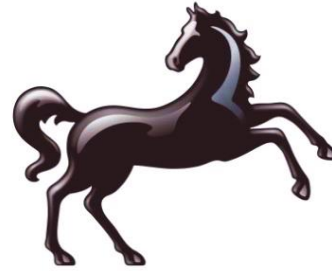


RISK PROBABILITY AND LIQUIDITY / CAPITAL IMPACT



Available	Cash	Short Term Investments	RCF & Backstop Facilities	Insurance
Additional	Working Capital Management	CP issuance	Bond Issue	Equity Issue Disposals

Liquidity & Capital Sources



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