



Cyber Insurance and Reinsurance

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Solutions

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SorS

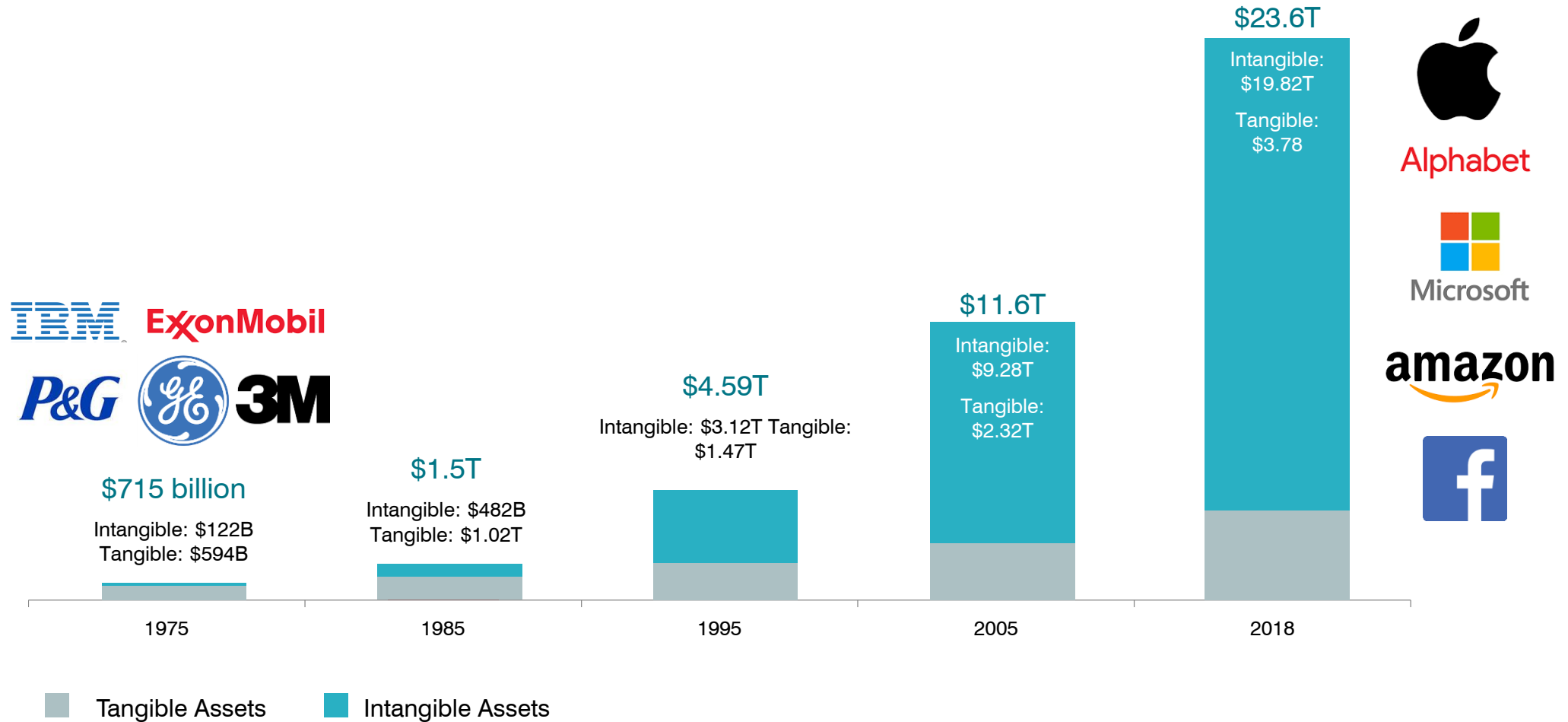
9 June 2022

Agenda

- Section 1** Relevance: why Cyber?
- Section 2** Cyber threats and attacks
- Section 3** Cyber Insurance Market Trends

Why Cyber?

Tangible Assets vs. Intangible Assets for S&P 500 Companies, 1975-2018



Why Cyber in 2022?

Cyber/Data breach –
No 1 threat as per Aon's
2021 Global Risk
Management Survey

Home offices as surface
for attacks

Attacks on supply chain as a
systemic risk

Ransomware attacks up
by 323% from 2019

Cyber risks have evolved over the past two years posing new strategic threats

What is the Cyber Threat?

Every business relying on IT and/or confidential data is at risk

Who is attacking these businesses?

In order of skill / threat

- States
- Criminals
- Hacktivists
- Hobbyists

What do they want?

- IP (incl. Trade Secrets)
- Financials
- M&A Information
- Employee Records
- Medical Records
- Addresses & Security Details

What do they do?

- Observe
- Steal
- Block
- Destroy

What is their motive?

- Financial Gain
- Commercial Advantage
- Political Advantage
- Activism

Small / medium-sized businesses are often the targets.
They are often used as the 'launchpads' to large corporations

Notable Data Breach / Privacy Commercial Impacts

Organization	Approximate Disclosure Date	Commercial Impact	Financial Components	Source
British Airways	10/25/2018	£20 million	ICO Fine	ICO Enforcement
Bank of Montreal (BMO)	05/28/2018	\$21.2 million	Class Action Settlement	Settlement Agreement
Blackbaud	07/16/2020	\$45.7 million	Gross Expenses	Q3 2021 Earnings
Capital One	07/29/2019	\$138 million \$80 million	Gross Expenses to Date excl. OCC OCC Civil Penalty	Q4 2020 Earnings OCC Consent Order
Desjardins Group	06/20/2019	CA\$108 million CA\$200 million	Gross Expenses excl. Class Action Class Action Settlement	Q4 2019 Earnings Settlement Agreement
Equifax	09/07/2017	\$2.188 billion £500,000	Gross Expenses to Date ICO Fine (DPA 1998)	Q3 2021 Earnings ICO Notice
Facebook	03/16/2018	\$5 billion \$100 million £500,000	FTC Civil Penalty SEC Settlement ICO Fine (DPA 1998)	FTC Press Release SEC Press Release ICO Notice
Marriott	11/30/2018	\$181 million	Gross Expenses Includes £18.4 million ICO Fine	Q3 2021 Earnings Q2 2021 Earnings Q1 2021 Earnings 10-K Filing 2020 10-K Filing 2019 10-K Filing 2018
Yahoo! Inc. (Altaba Inc.)	09/22/2016 12/14/2016	\$350 million \$117.5 million \$35 million \$80 million \$29 million £250,000	Reduced Acquisition Price Customer Class Action SEC Fine Securities Class Action Shareholder Derivative ICO Fine (DPA 1998)	Verizon Press Release U.S. District Court SEC Press Release U.S. District Court U.S. District Court ICO Notice

Notable Business Interruption Commercial Impacts

Organization	Approximate Disclosure Date	Commercial Impact	Financial Components	Source
Ardagh Group	05/17/2021	\$34 million	Gross Expenses	Q2 2021 Financials
Cognizant (Maze)	04/20/2020	\$36 million \$24 million	Q2 Revenue Impact (90 BPS) Q2 Additional Expense	Q2 2020 Financials
CompuCom (DarkSide)	03/01/2021	\$5-8 million \$15 million	2021 Lost Revenue 2021 Additional Expenses	Q3 2021 Financials Press Release
Demant A/S	09/03/2019	~\$95-103 million ~\$84.6 million ~\$11 million	2019 and 2020 EBIT Reduction 2019 Sales Reduction 2019 Direct Costs	2019 Annual Report
Eurofins	06/02/2019	€75 million €69 million	2019 EBITDA Reduction 2019 Revenue Reduction	2019 Annual Report
Groupe Beneteau	02/19/2021	€45 million	2021 Revenues	H1 2021 Financials
Ireland HSE Health Service Executive	05/14/2021	€100 million+	Gross Expenses	Joint Committee on Health Transcript
ISS World	02/20/2020	~\$118 million (DKK 778 million)	2020 Net Profit Reduction	Q2 2021 Financials
JBS USA	05/30/2021	\$11 million	Ransomware Payment	Press Release
Norsk Hydro (LockerGoga)	03/19/2019	~\$68-79 million	Lost Output, Margin, & IT Costs	Q4 2019 Earnings Release
Scripps Health	05/01/2021	\$91.6 million \$21.1 million	2021 Revenue 2021 Added Expenses	Press Release
SolarWinds (Orion Hack)	12/13/2020	\$43.3 million	Gross Expenses	Q3 2021 Financials 10-K Filing 2020
Sopra Steria (Ryuk)	10/21/2020	~€40-50 million	Operating Margin Reduction	Press Release
UHS (Malware)	09/27/2020	\$67 million	2020 EBITDA Reduction	10-K Filing 2020
Westrock (Ransomware)	01/23/2021	\$50 million \$29 million	Lost Sales Recovery Costs	Q3 2021 Financials

NotPetya – Fear of a Systemic Threat



March 2017
 Microsoft released a patch (MS17-010) to mitigate this weakness but patching not always on time



April 2017
 Exploit developed by the NSA entitled "ETERNALBLUE" leaked online by the Shadow Brokers Group



June 2017
 Entities across the globe suffer ransomware attack identified by Kaspersky as "NotPetya" a variant of Petya



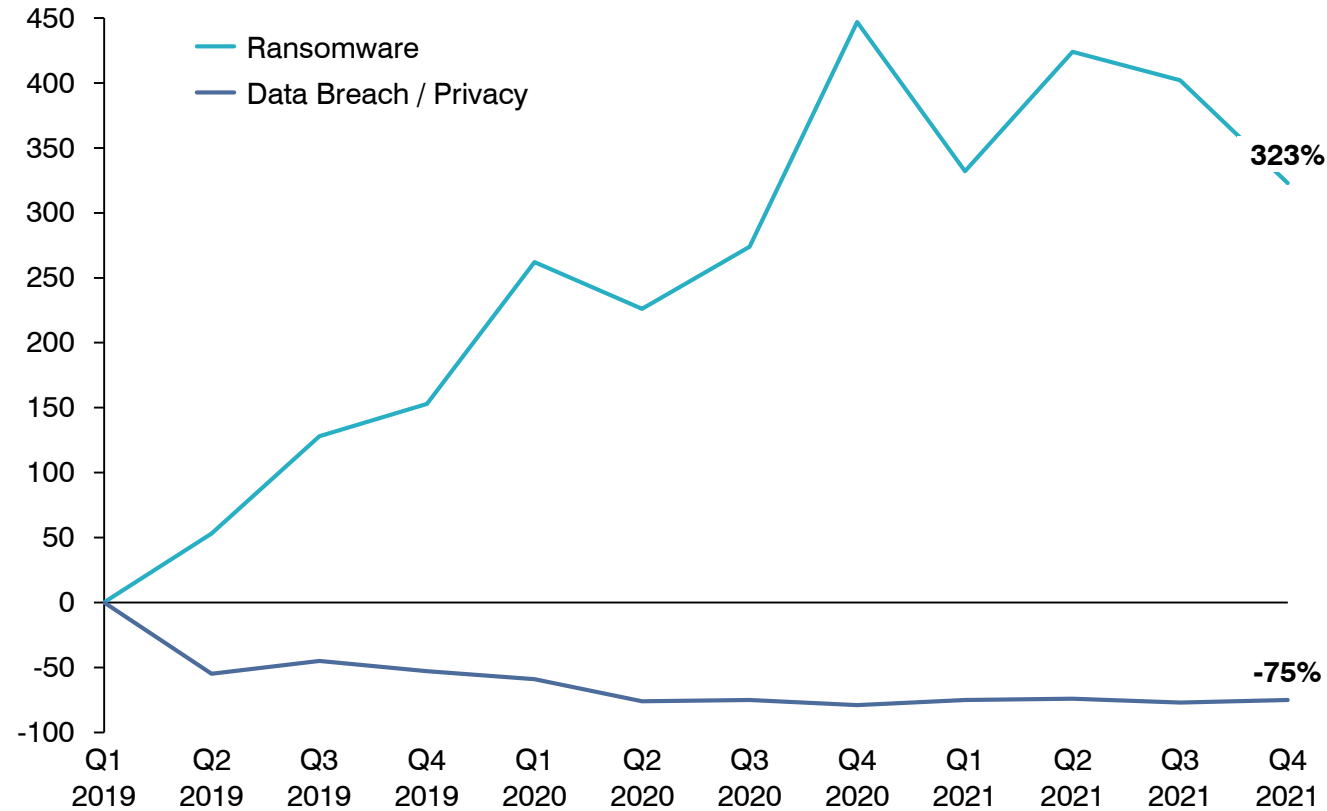
July 2017
 Medoc identified as a vector for the spread of NotPetya by Ukrainian Police



Cyber Loss Trends since 2019

Ransomware attacks outpaced Data Breach

Index in %



Source: Risk Based Security, analysis by Aon. Data as of 1/31/2021; Ransomware data exfiltration and downtime per Coveware Quarterly Ransomware Report as of 10/21/2021.

Key observations

- Ransomware activity up 323% from Q1 2019 to Q4 2021
- Largest loss component: Business interruption
- Data exfiltration occurred in 83% of ransomware cases
- Average days of business interruption in Q3 2021 was 22 days

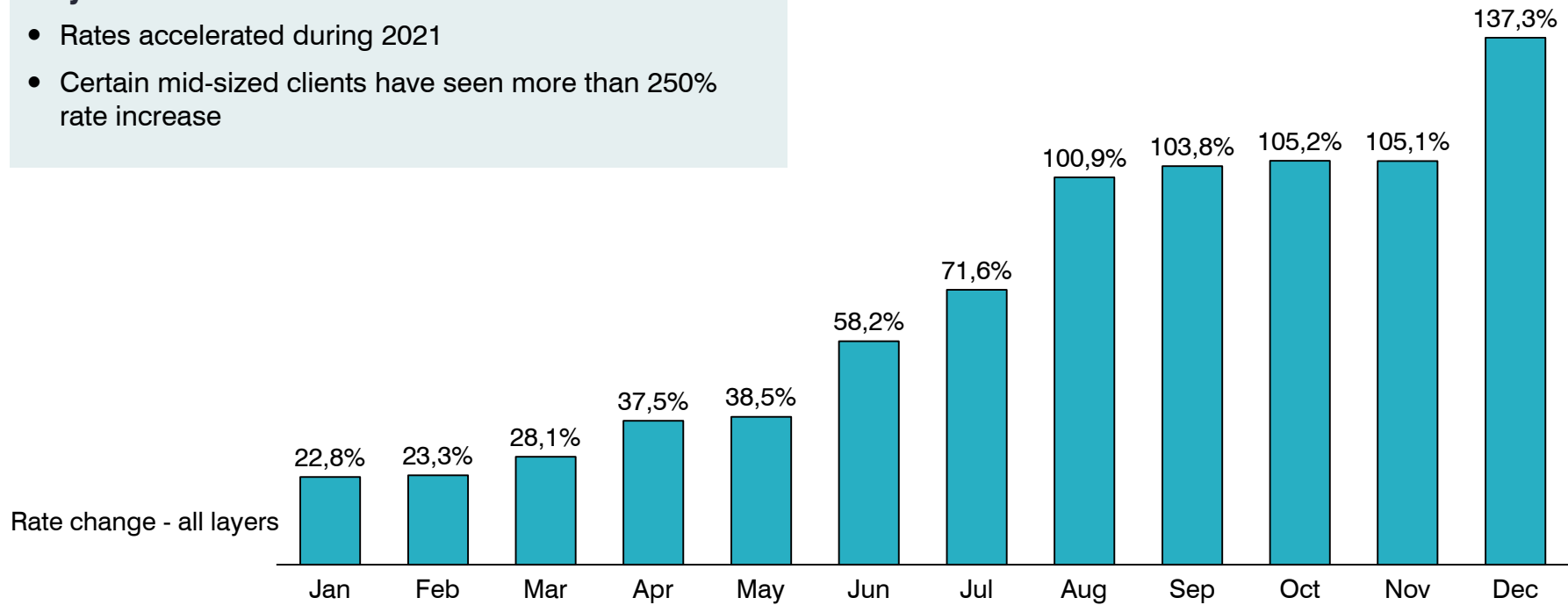
Loss severity increased on all fronts
Eight-digit loss amounts are widely common

Cyber / E&O Pricing All Layers 2021

Average Year-over-Year Change (Same Clients)

Key observations

- Rates accelerated during 2021
- Certain mid-sized clients have seen more than 250% rate increase



We expect the trend to continue throughout 2022

2022 Cyber Insurance Market Trends

Climbing Rate Environment

- Significant rate increases 1HY 2022
- Potential stabilization 2HY 2022.

Increased Underwriting Rigor

- new scrutiny, applications and underwriting questions
- focus on “real time” issues related to new attack methods or emerging tactics

Client Segment Differentiation

- Increased loss activity for
 - industries with decentralized security strategies
 - companies with heavy merger and acquisition growth strategies
- Specific security controls are critical

Aggregation Risk

- systemic and correlated risk concerns rather than risk-by-risk protection
- limits on aggregated exposure
- war exclusions brought by supply chain attack strategies

Challenging market for the buyers of Cyber insurance

Cyber Insurance Market – Going Forward

FOCUS ON: Long Term Program Goals

- Cyber exposures will pose material risk also 10 years from now
- Clients to develop long-term vision for their cyber insurance strategy

FOCUS ON: Ransomware and Business Interruption

- Largest growth in number of attacks
- Focus on key security controls
- Prepare for the discussion with the underwriters

Aon is best positioned to support the growing client needs





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