



Seminar on Reinsurance

Virtual Conference
June 13-14, 2022

Cyber Insurance

What is next after a 100% pricing increase?

Concurrent Session, June 14

10:45 AM-12:00 PM ET



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Meet the Speakers

Ho-Tay Ma

VP, SCOR Reinsurance Company



Ho-Tay is an underwriter on the US Casualty Team. Prior to SCOR, Ho-Tay has over 17 years of experience, specializing in cyber, management and professional liability. He previously held underwriting/product development roles at Partner Reinsurance, AEGIS Insurance and The Hartford.

Erica Davis

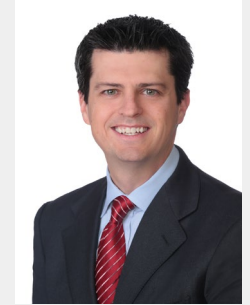
Managing Director, Guy Carpenter.



Erica Davis is Global Co-Head of Cyber at Guy Carpenter. Erica joined the Guy Carpenter team through the 2019 Marsh and McLennan acquisition of JLT Group, where she led the Cyber and E&O practice for JLT Re in North America. She serves clients by utilizing years of cyber, professional and multi-line underwriting expertise to design new products for emerging cyber risks.

Bill Hardin

VP, Charles River Associates



Bill has worked on over a thousand data incident/data breach cases along with numerous cases dealing with white collar crime and enterprise risk management. He is a Certified Public Accountant (CPA)/CFF, Certified Fraud Examiner (CFE), and a certified Project Management Professional (PMP).



What Is Cyber Insurance?

3rd Party cover

- Network Security Liability
- Privacy Liability
- Media Liability
- Technology Errors and Omissions

1st Party Cover

- Data Breach Response
- Data Breach Remediation
- Cyber Extortion (aka Ransomware)
- Business Interruption
- Contingent Business Interruption
- System Failure
- Social Engineering and Cyber Crime
- Digital Asset Recovery
- Regulatory Fines and Penalties



Unique Hard Market Conditions Accelerated into 2022

Market Taking Significant Steps to Manage to Profitability

2022 Overview



- Guy Carpenter's estimated calculation for the cyber/blended (E&O/cyber) market is **\$10B GWP globally at year-end 2021**
- **Headline-grabbing events** prompted deeper concerns about systemic risk exposure
- A higher propensity of cyber incidents, **particularly ransomware attacks**

Underwriting Activity and Rate Achievement



- Market growth was driven primarily by compounding **rate environment and new buyers**
- Ransomware and supply chain attacks resulted in **swift market response**
- Revisiting capital deployment and market standard terms and conditions

Loss Ratios Increasing



- 2021 Fitch cyber reports the **cyber industry direct loss ratio reduced from 73% in 2020** from 62% in 2021
- AM Best reported loss ratios increased to **67.8% in 2020**, up from 44.8% in 2019.
- This deterioration is reflective of broader global cyber market dynamics

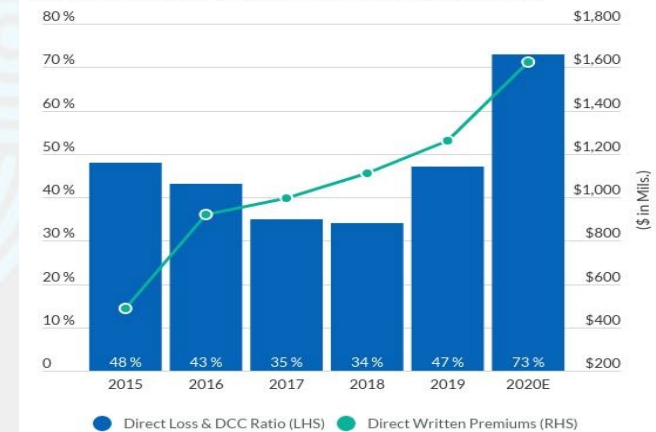


Insurers will have to achieve both significant premium rate increases and tighter coverage terms to stage a recovery in underwriting performance over the medium term



P/C Industry Aggregate Standalone Cyber Risk

2020E Direct Loss & DCC Ratios Rose to 73% vs. 47% in 2019



DCC - Defense and cost containment incurred.
Source: Fitch Ratings, S&P Global Market Intelligence.

FitchRatings

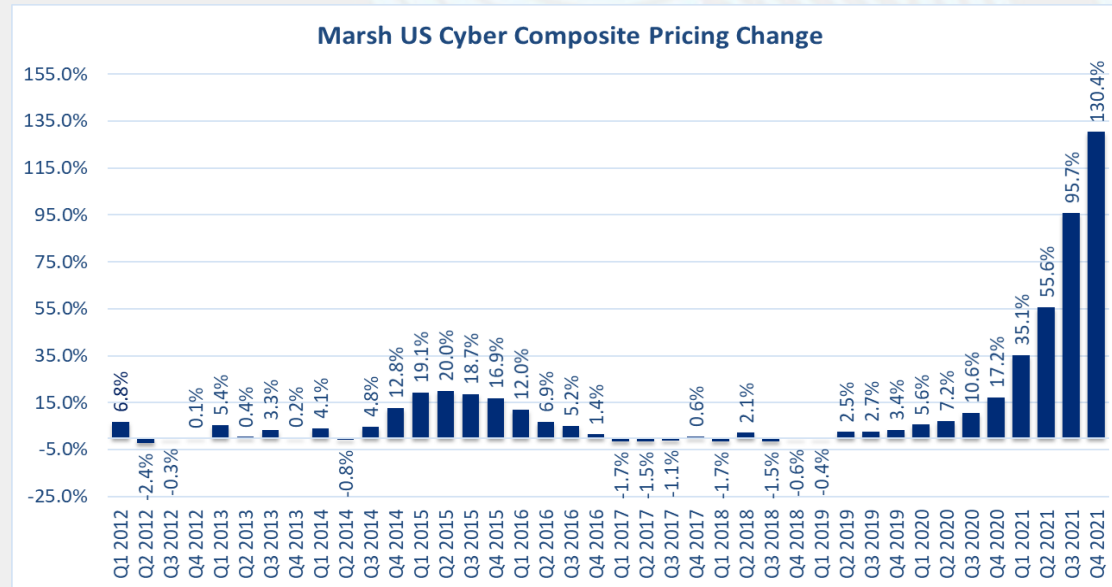
Source: Fitch Ratings & S&P Global Market Intelligence



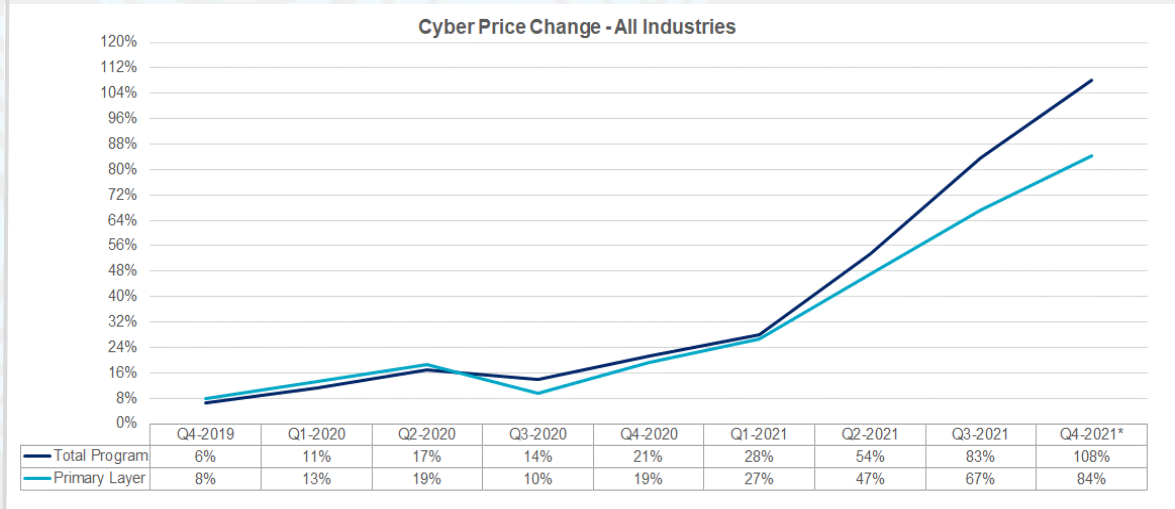
Rate Increases Helping To Offset Development Globally

Global Cyber Market Update: Q4 2021

US Cyber Clients – All Industries



UK Retail and Wholesale Cyber Clients



Rate Environment Observations:

- Rate increases for 2022 are **expected to be heavier in Q1/Q2** than in Q3/Q4 due to the accelerated rate curve in Q3 2021
- Insurers continue to **reevaluate rating models and adequate pricing** on new and renewal business
- Alongside rate increases, frequency and severity of losses have resulted in a **reduction of capacity** at large in the primary market

Beyond Rate Considerations:

- Insurers are engaging more deeply with **scanning vendors and agg models**
- Requiring answers to **MSx, SW, Kaseya, Log4j** exposure
- Ransomware coverage **restrictions** or declining deals if exposures are not mitigated
- **Re-evaluating** limits deployments

Source: Marsh Global Placement & Specialties, Data and Analytics, PlaceMAP



What comes after 100% rate increases?

Pricing is only one lever to improve loss trend, the following tools have materialized in the cyber market:

- Improved insured security posture to gain insurability and lower premiums
- New capacity seeking arbitrage opportunities
- Improved data analytics for both risk selection and portfolio modelling
- Review of current insurance conditions and exclusions



Historic Cyber Loss Trends

- Data breach loss exposure (2005-Present)
- Privacy law (2008 – present)
- Concerns over non-affirmative cyber (2014 – present)
- Systemic exposures (2016 to present)
- Ransomware loss exposure (2019 to Present)



Framing the Issue



- Ransomware Payments last year – Over \$1 Billion
- Damage from Ransomware events – Over \$50 Billion
- Rate of Return for Ransomware Gangs 100 X the investment
- Cybersecurity Spending - Over \$150 Billion
- Cyber Jobs unfilled – 2.5 Million



Crime Syndicates



HIVE

PYSA

CONTI LOCKBIT 2.0

CLOP

AVOSLOCKE MOUNTLOCKER

ASTROTEAM

RAGNAR

ETHOS

XINGLOCKER

GLADIATOR ALPHA

BLACKCAT

BLACKBYTE

KARACUT

VICE SOCIETY

QUANTUM

CUBA

LV

HELLSOCIETY

SUNCRYPT

LORENZ

PHOBO

DHARMA

DELTA



Extortion Game – Ransomware

Data Exfiltration



Encryption

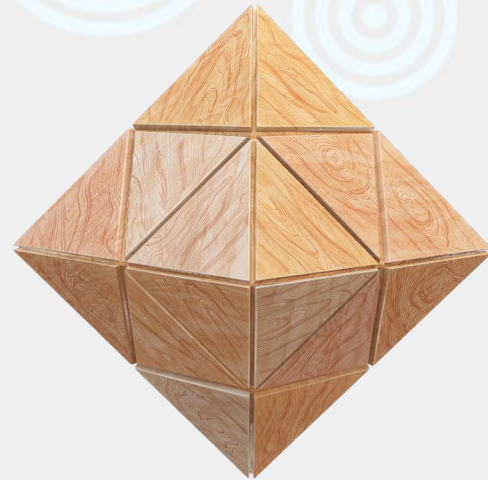


Payment



We have come to bargain

- Price is \$10,000 to \$50M
- Keys to unlock files
- Sensitive Data of the organization
- Blackmail
- Harassment Campaigns
- Data Weaponization
- Reputational Damage



- How is this possible?
- Do we need the keys? Are we secure?
- Can we protect our employees, clients?
- How do we stop this?
- Can we stop this?
- Should we hack back?
- What countermeasures are available?
- Regulators?
- Litigation?



Crime Syndicate Economics – Building Their Brand From \$0 to \$10M

Crime Syndicate Economics

01

Built targeted lists based on exploits or advertise for clients

02

Execute campaigns

03

Measure Client Behavior by pricing structure (Big Hit or Medium Hit)

04

First \$500,000 establishes a blog

05

First \$1M establishes a brand

06

\$5M then advertise for talent and campaigns on exploits

07

Scale faster by building out RAAS aspects to increase funds

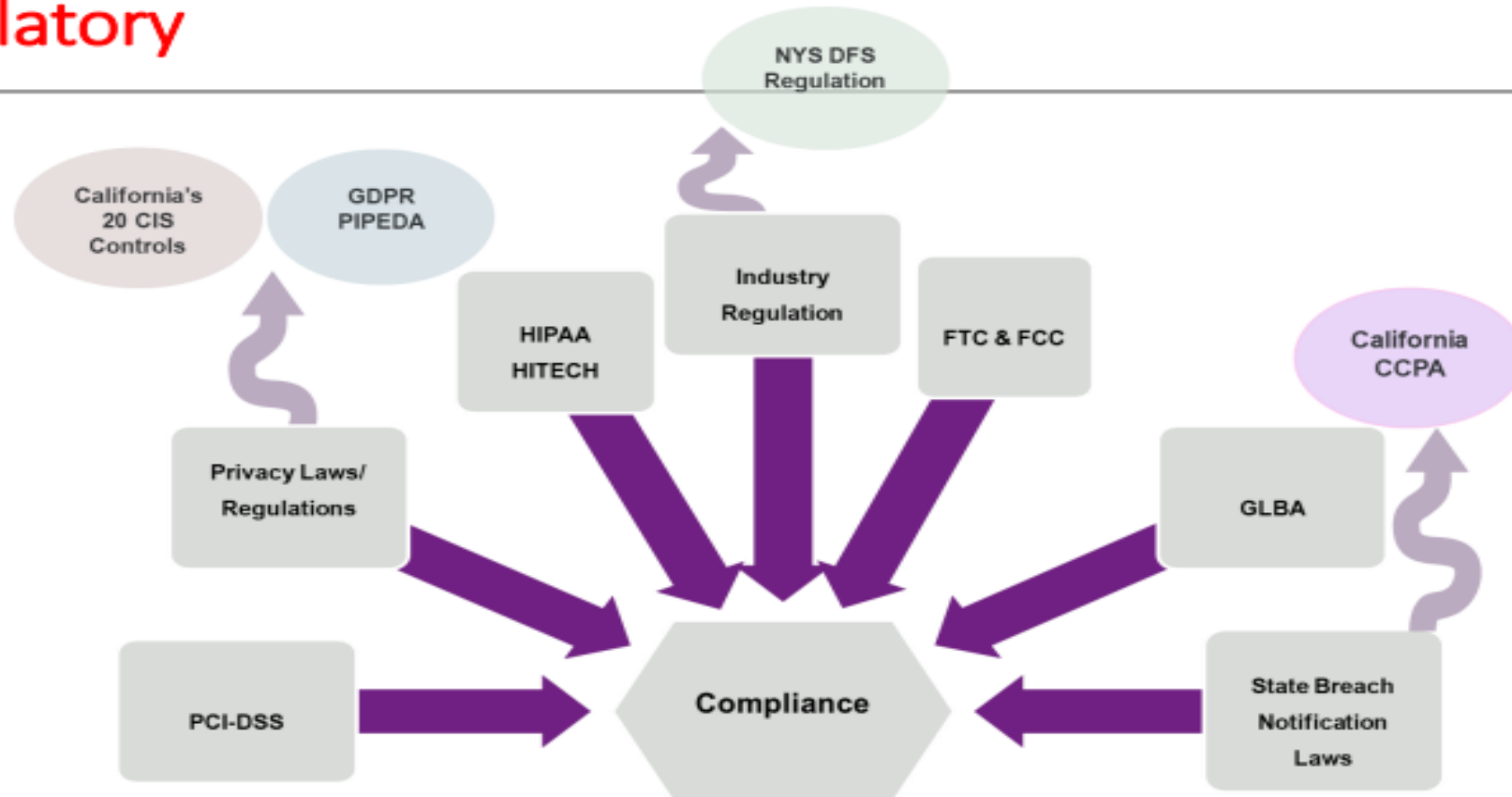


SECURITY  MATTERS



What are some potential exposures from federal governmental regulation?

Regulatory



Forward-looking



Thank you.
Questions?

