CYBERHEDGE Rapid Response: Travelex/Finablr

Friday
January 10th
2020

The market's need for external cyber risk ratings. Greater transparency on cyber governance will do more than just tick boxes at the board level. It will help company leadership, equity and bondholders avoid significant market losses.

CBH Cyber Governance Rating	Type of Attack	Operational Impact	Est. Financial Impact	Similar examples
★★☆☆☆ Dec 2019 ▼ 12M trend	**Ransomware / Business Interruption**	**Lost Revenue, Increase in OpEx, Likely Customer Churn**	**$10mn EBITDA over 12M, Potential total post-breach EV loss $450mn**	**Maersk, Norsk Hydro, Mondelez, Pitney Bowes**

Latest example of why transparency on cyber governance is needed

A cyber risk rating would have mitigated some of the market losses for FIN shareholders since the public learned of the Travelex disruption.

Economic impact

Regarding economic impact, Cyberhedge estimates loss equivalent of 3% of Total EBITDA for 2020 (roughly $10mn USD based on FY20 estimates). Our estimate would include the minimum viable cost to fix and repair networks as well as lost business. Note that our economic loss estimate **does not include** any damages from lawsuits from retail customers or wholesale partners, a GDPR fine (up to 4% of revenue, est. $60mn) and any future losses due to customer churn.

Most important are the potential losses to the intangible asset value of the Travelex brand, a leading name in FX.

Weakest Cyber Governance Metric to Peers was key contributing factor

In 2019, the Cyberhedge model consistently measured FIN's weakest cyber governance metric versus peers as a **poorly managed threat surface and technology stack**. In other words, despite being a heavily tech-centric business model, Travelex had not adequately secured what turned out to be relatively easy access into its corporate network due to a vast "threat surface" of entry points including a large global network of Retail PoS, Online Apps and poorly secured network ports.

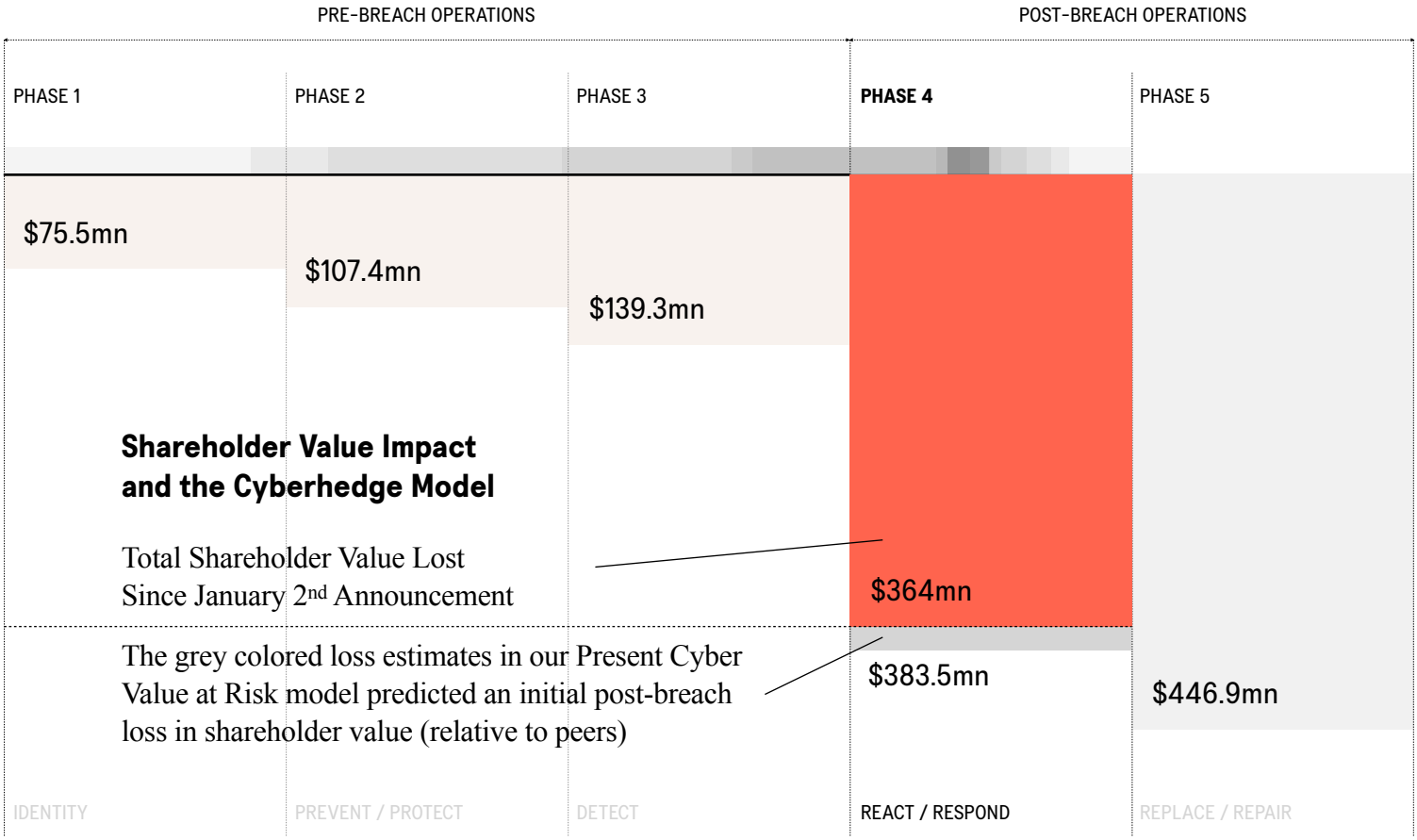
Travelex's weakness appears to have been a key contributing factor to the breach. Based on all available information, the attack vector used (i.e. how the hacker got in) was not sophisticated as they exploited a known vulnerability. The software, however, used to infect the machines **after the hacker got in** was likely complex and difficult to detect, but the "way in" was not. They left the door open (i.e. a known vulnerability left unpatched), and the hackers simply walked in and then deployed their weapons.

CYBERHEDGE Rapid Response: Travelex/Finablr

Friday
January 10th
2020

CBH CVaR model

Pre-breach value (as of Jan 1st, 2020)



Per the above chart, the potential total post-breach shareholder value loss is $446.9mn or **121p/share** if more information on damages and cost to repair networks are announced.

Why equity and bondholders should be concerned about cyber in near to medium term

Finablr and Travelex have significant financial constraints to improve their cybersecurity in the long-term. The company has **low margins versus peers on operating and net income** (even after the company reports generous "adjustments"). The company also scores below peers on important **debt metrics of EBIT/Int Expense, Interest Coverage and ROA**. This will make the necessary increased investment in cybersecurity more challenging.

CYBERHEDGE

Rapid Response: Travelex/Finablr

Friday
January 10th
2020

Two incidents of poor technology management in past two years

Parent company FIN will likely incur unexpected financial losses due to disrupted operations stemming from the attack on Travelex. This event follows a 2018 Travelex breach disclosed in FIN's 2019 prospectus.

Analysis of the breach to date has focused on an unpatched known vulnerability. But vulnerabilities and required patches exist in all corporate networks every day. In this case, what should concern bond and equity holders is that despite a tech-reliant business model, the company was not breached due to a "national security" level sophisticated attack. Rather, it was hit because it mismanaged a basic, fundamental action in good cyber hygiene: patching a vulnerability. The recent oversight is not Travelex's first.

More broadly, **investors should be concerned by the persistence of FIN's poor cyber governance amid rising global ransomware attacks and the operational disruptions that ensue**. In this case, it caused over two weeks of service outages for customers, including at least 14 global banks. Though Travelex management's response has been underwhelming and focused on claims that there is no evidence of customer data loss, **the real issue is that due to business disruption, there is a clear near-term negative financial impact and potentially even bigger future reputation and brand damage** to Travelex's business.

Bottomline: Past underinvestment in security means higher costs and lower cash flows in the near to medium term. Based on Cyberhedge cost estimates from other ransomware attacks at public corporations in recent years (attacks that disrupt business operations, like at Maersk, Norsk Hydro and Pitney Bowes), we believe fixing the problems related to the cyber attack as well as correcting the underinvestment in technology security requires Travelex (and FIN) to spend significantly more money than it has budgeted for. These higher costs could lead to lower-than-expected EBITDA in the coming quarters that will in turn likely further depress the already underperforming share price.

CYBERHEDGE Rapid Response: Travelex/Finablr

Friday
January 10th
2020

What do we mean by cyber governance?

Cyberhedge created the performance metric of a cyber governance rating as a way to compare how companies manage their technology investments and network security. The rating is used in the financial industry alongside investment metrics like Return on Equity or Assets (ROE/ROA) or Earnings per share (EPS). We define a corporation's cyber governance as 'the financial impact resulting from how companies manage the operational risks of their technology investments.' Our Cyber Governance Indexes are priced daily and demonstrate market-based proof that better cyber governance does outperform the market and vice versa. For more details, see our CBH ratings.

Research

Ryan Dodd, Founder and CEO, Cyberhedge
Chris Nolan, Senior Research Analyst, Cyberhedge

Disclaimer