

Nasdaq CTA Cybersecurity Index (NQCYBR)

Securing the future from cyber threats and vulnerabilities

October 2020

 **Nasdaq** | REWRITE TOMORROW

Cyber Headlines: 2020

50,000 home cameras reportedly hacked, footage posted online

Some footage has already appeared on adult sites, with cybercriminals offering lifetime access to the

(Image Source: Welivesecurity.com, October 14, 2020)

'Resident Evil' game maker Capcom confirms data breach after ransomware attack

Zack Whittaker @zackwhittaker / 9:51 AM EST • November 16, 2020

(Image Source: TechCrunch, November 16, 2020)

Luxottica Data Leaked by Hackers After Ransomware Attack, Breach

In August, Luxottica faced a ransomware attack and an hack on its appointment scheduling app. But the subsequent notice did not disclose the initial incident, nor that hackers leaked sensitive data.



(Image Source: healthitsecurity.com, November 20, 2020)

Cryptocurrency exchange Liquid confirms hack

(Image Source: TechCrunch, November 18, 2020)

TECH

FBI Investigates Twitter Hack Amid Broader Concerns About Platform's Security

Severity of attack raises alarms among U.S. lawmakers, administration officials

COVID-19 Pandemic & Cyber Threats

US Threats - FBI's Internet Crime Complaint Center (IC3) received between 3,000-4,000 cybersecurity complaints daily – a rise from the normal average of 1,000. (Source: Security Boulevard, April 2020)

UK Cyber Attacks - “February and March 2020, UK cyber attacks rose 37% month to month in the midst of the coronavirus crisis.” (Source: Infosecurity, April 2020)

Financial Companies - Alert from Office of Compliance Inspections and Examinations (OCIE) observed an “apparent increase in sophistication of ransomware attacks on SEC registrants, which include broker-dealers, investment advisers, and investment companies.” (Source: SEC.gov, July 2020)

Remote Work – “52% of legal and compliance leaders are concerned about third-party cyber risks due to remote work since COVID-19.” and “Web application breaches account for 43% of all breaches and have doubled since 2019.” (Source: Gartner and Verizon)

Officials Warn of Cyberattacks on Hospitals as Virus Cases Spike

Government officials warned that hackers were seeking to hold American hospitals' data hostage in exchange for ransom payments.

(Image Source: New York Times, October 27, 2020)

WORLD

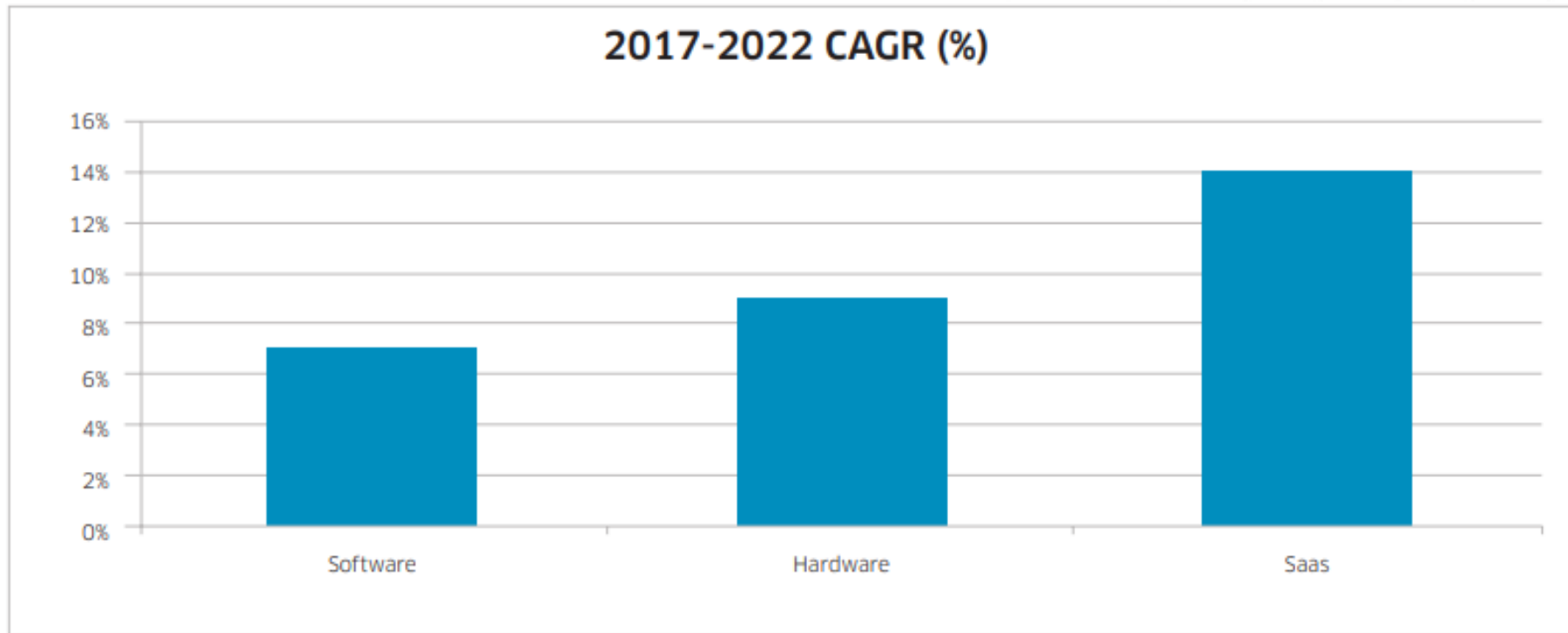
Russian Hackers Blamed for Attacks on Coronavirus Vaccine-Related Targets

Officials say adversaries tried to steal intellectual property from governments, universities, private companies and others in several countries

(Image Source: Wall Street Journal, July 2020)

Cybersecurity Industry Outlook

Global Cybersecurity Spending:



Source: Bloomberg Intelligence (Mandeep Singh - Senior Analyst), December 26th, 2019 and IDC

“The size (market cap) of the Cybersecurity industry was \$149.46 billion in 2019. The market is then expected to reach \$208.28 billion in 2023.”

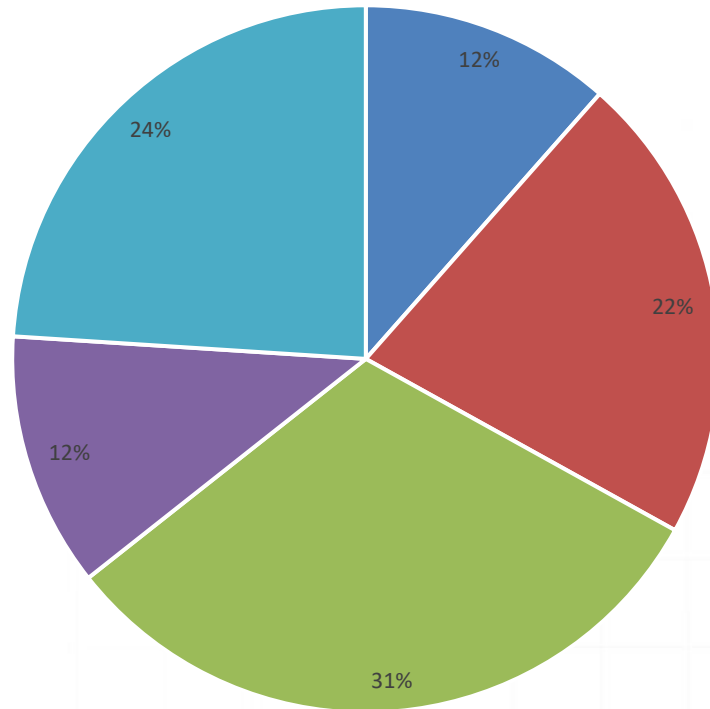
Nasdaq CTA Cybersecurity Index (NQCYBR): Description

- The Nasdaq CTA Cybersecurity Index is designed to track the performance of companies engaged in the Cybersecurity segment of the technology and industrial sectors.
- The index includes companies primarily involved in the building, implementation and management of security protocols applied to private and public networks, computers and mobile devices in order to provide protection of the integrity of data and network operations.
- The companies are selected based on classification determined by the Consumer Technology Association (CTA).

Cyber Security Index Composition

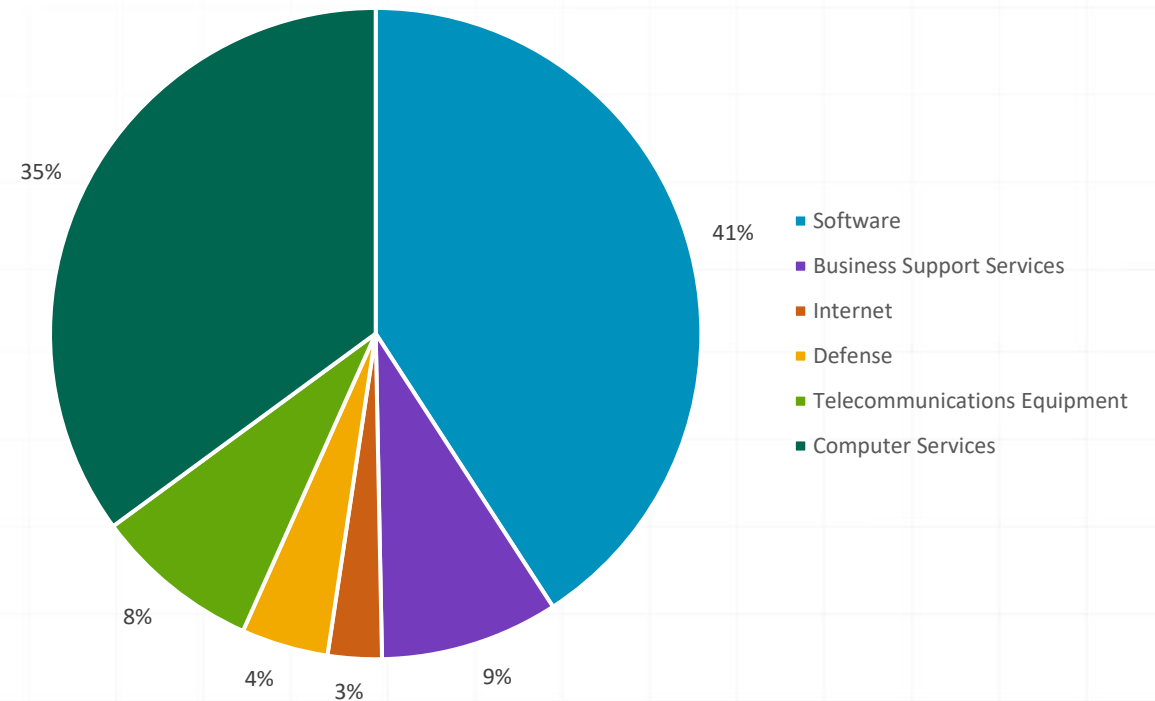
Nasdaq CTA Cybersecurity Index (NQCYBR)

Index Weight by Market Cap as of October 30, 2020



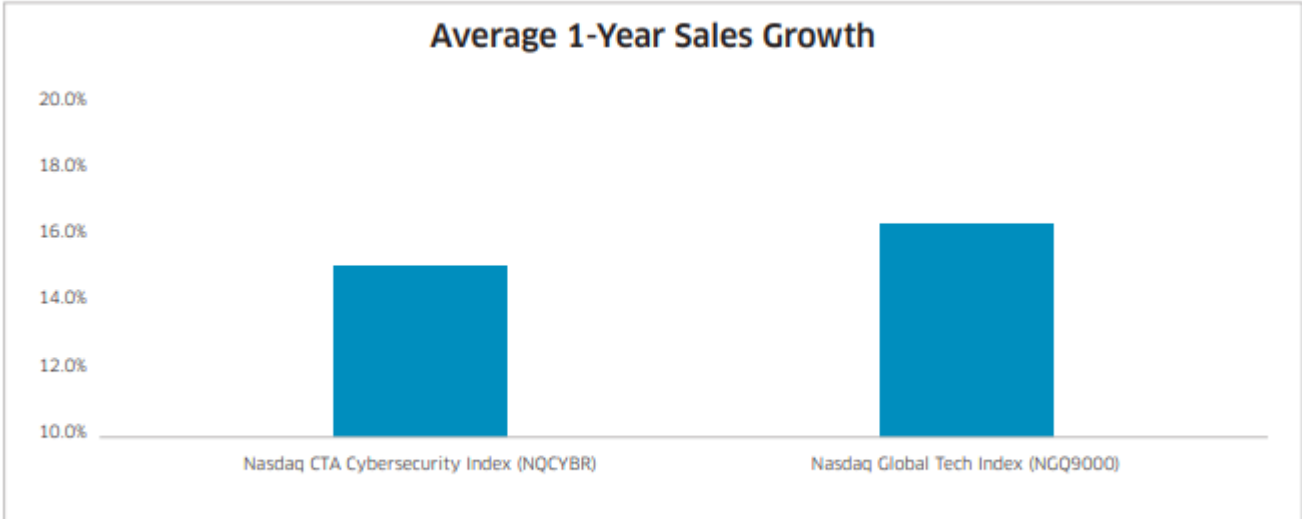
■ $\\$100B+$ ■ $\\$20-100B$ ■ $\\$10-20B$ ■ $\\$5-10B$ ■ <math>< \\$5B</math>

ICB Subsector Breakdown as of October 30, 2020

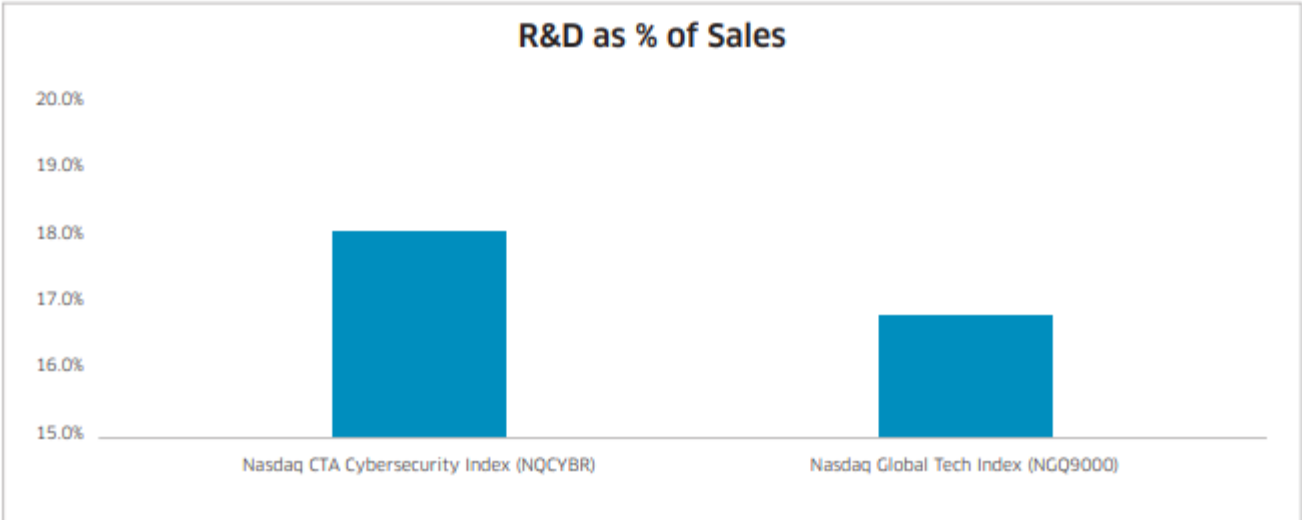


■ Software
■ Business Support Services
■ Internet
■ Defense
■ Telecommunications Equipment
■ Computer Services

Cyber Security Fundamentals



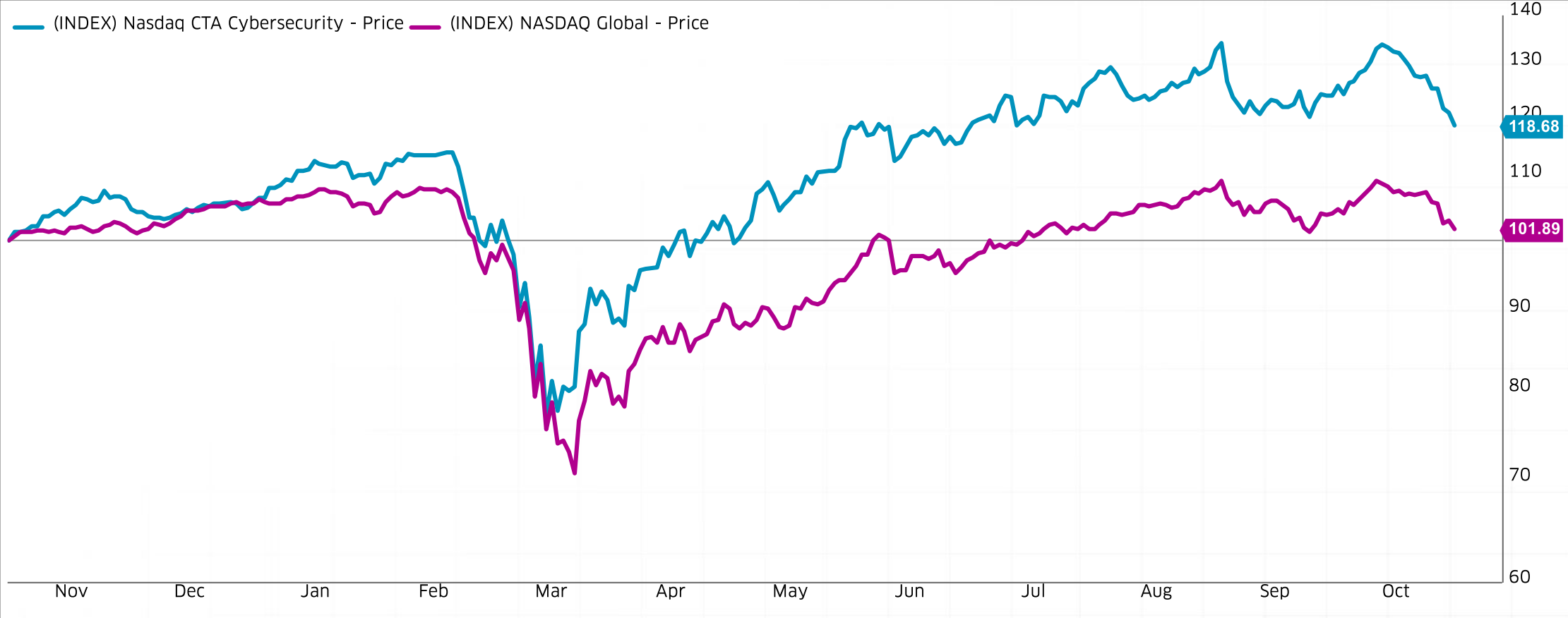
As of 3/31/2020



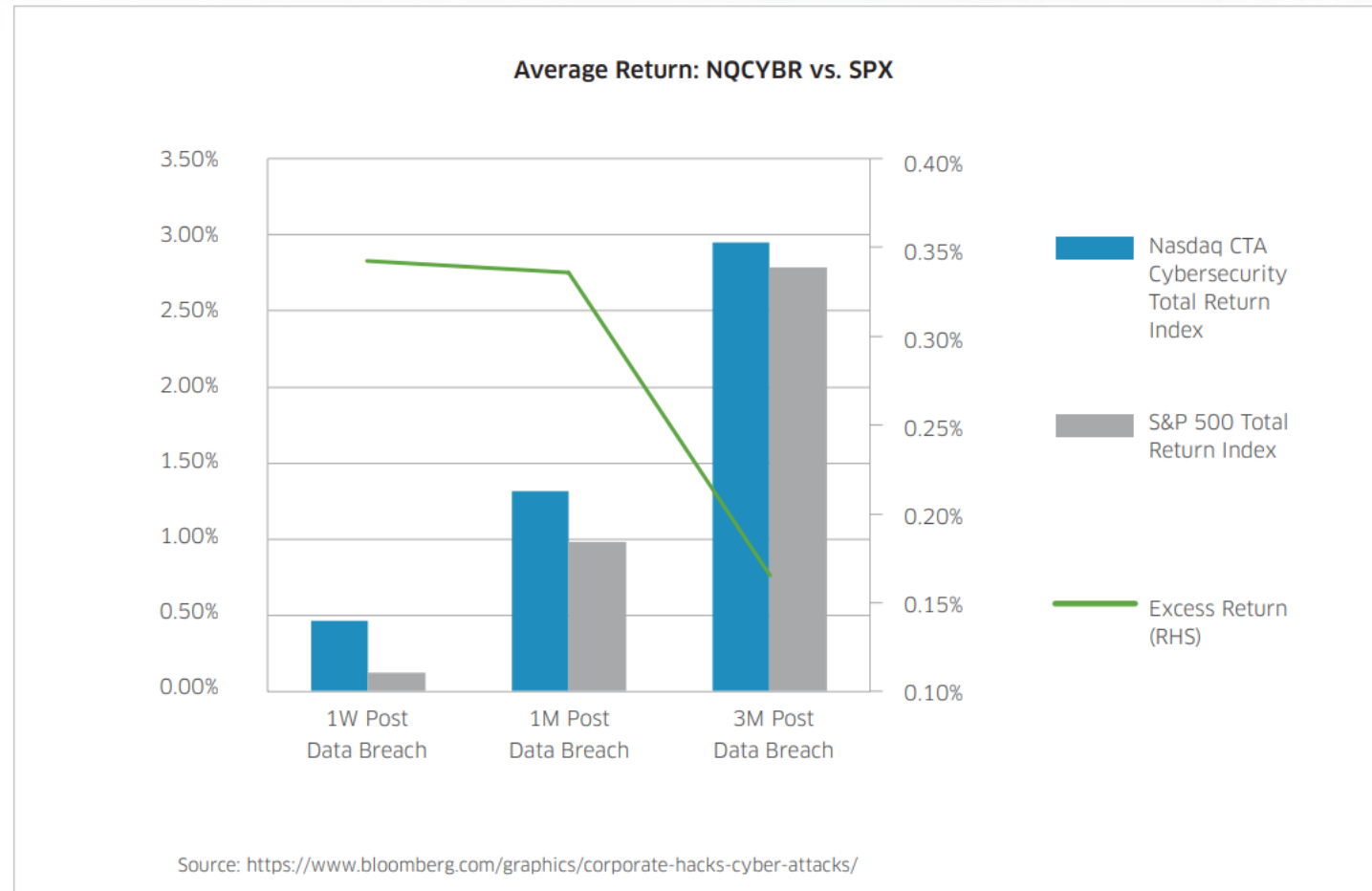
As of 3/31/2020

Cybersecurity Performance

1 Year Performance: October 2019 – October 2020



Impact of Data Breaches on Index Returns



NQCYBR has outperformed SPX 1 week, 1 month, and 3 months post-data breaches, on average. Data breaches have an immediate impact on cybersecurity companies (1-week post-data breach performance), but also that the impact of cyberattacks on the performance of cybersecurity companies can be seen over longer periods as well (at least 1-month post-data breach performance).

(Source: "The Hack Effect," Pendse, G., Nasdaq, 2019)

Disclaimer

Nasdaq® is a registered trademark of Nasdaq, Inc. The information contained above is provided for informational and educational purposes only, and nothing contained herein should be construed as investment advice, either on behalf of a particular security or an overall investment strategy. Neither Nasdaq, Inc. nor any of its affiliates makes any recommendation to buy or sell any security or any representation about the financial condition of any company. Statements regarding Nasdaq-listed companies or Nasdaq proprietary indexes are not guarantees of future performance. Actual results may differ materially from those expressed or implied. Past performance is not indicative of future results. Investors should undertake their own due diligence and carefully evaluate companies before investing. **ADVICE FROM A SECURITIES PROFESSIONAL IS STRONGLY ADVISED.**

© 2020. Nasdaq, Inc. All Rights Reserved.