



MEMORANDUM

TO: Innovation and Technology (EX) Task Force

FROM: Denise Matthews
Director, Data Coordination and Statistical Analysis

DATE: August 6, 2018

SUBJECT: Report on the Cybersecurity Insurance and Identity Theft Coverage Supplement

The purpose of this report is to provide the Innovation and Technology (EX) Task Force with the information filed by insurers in the Cybersecurity Insurance and Identity Theft Coverage Supplement (Supplement) to the property/casualty (P/C) annual financial statement for 2017.

Overview

Cybersecurity continues to be crucial to effective and efficient operation of U.S. businesses. Cybersecurity breaches are capable of causing a major drain on the U.S. economy. Insurers face cybersecurity risks in their daily operations, as do banks and securities firms. The financial services sector is susceptible to cyber threats for multifaceted reasons. Financial firms receive, maintain and store sensitive personal financial information for their customers. Insurers, in many cases, receive personal health information in addition to personal financial information. Insurers receive information from both policyholders and claimants.

Cyber criminals are interested in fraudulently obtaining and using sensitive information for financial gain. We know from observation of the dark web that personal health information continues to be more valuable than personal financial information. Nation states are also known to sponsor cyberattacks for espionage or to gain access to corporate trade secrets and business processes. Ransomware attacks are increasing and a continued area of concern because they are used to extort payments from compromised firms.

Insurers are selling cyber risk-management services and cybersecurity insurance products to businesses and individuals. It is to gain information and understanding about cybersecurity insurance markets that led regulators to design and implement the Supplement.

This year, insurers reported information based on the 2017 calendar year results. Based on the data filed, approximately 500 insurers have provided businesses and individuals with cybersecurity insurance, with 47% of the insurers writing cybersecurity insurance as part of a package policy, which is a decrease from 2016 calendar year reporting, where 75% of the insurers writing cybersecurity insurance wrote package policies.

An overview shows a cybersecurity insurance market of roughly \$1.89 billion in direct written premiums for insurers required to file the Supplement. This is a slight increase from last year's direct written premiums of \$1.78 billion. Insurers writing stand-alone cybersecurity insurance products reported approximately \$994 million in direct written premiums and those writing cybersecurity insurance as part of a package policy reported roughly \$896 million in premium writings.

The remainder of this report will provide figures filed for each category and explain assumptions used to arrive at the \$1.89 billion in direct written premiums by admitted insurers. This report will also discuss the entities' reporting data and assumptions related to entities where data on package policies is missing from the data set.

Cybersecurity Insurance Coverage

The Supplement requires insurers to report the following information on stand-alone cybersecurity insurance policies:

- Number of claims reported (first-party and third-party)
- Direct premiums written and earned
- Direct losses paid and incurred
- Adjusting and other expenses paid and incurred
- Defense and cost containment expenses paid and incurred
- Number of policies in-force (claims-made and occurrence)

The Supplement requires insurers to report the following information on cybersecurity insurance coverage sold as part of a package policy:

- Number of claims reported (first-party and third-party)
- Direct premiums written and earned, if available or estimable
- Direct losses paid and incurred
- Adjusting and other expenses paid and incurred
- Defense and cost containment expenses paid and incurred
- Number of policies in-force (claims-made and occurrence)

Stand-Alone Policies

Perhaps the most interesting information is the size of the stand-alone cybersecurity insurance marketplace. Insurers writing this coverage reported \$994,259,551 in direct written premiums spread among 45 groups of insurers (133 individual insurers). Direct earned premiums reported were \$877,246,532. Having less earned premiums than written premiums is indicative of a growing market. The top 10 insurers wrote 79.9% of the total U.S. market, with the top 20 writing 93.2% of the market. The stand-alone cybersecurity insurance written premiums for 2017 has increased by 7.99% since last year.

The majority of the loss ratios for stand-alone cybersecurity insurance ranged from zero to 67%. There were three outliers writing less than five policies with higher loss ratios. It is important to note that the cybersecurity insurance market for cybersecurity insurance products is still nascent; therefore, an element of catastrophe exposure exists. A zero loss ratio might be indicative of sound underwriting, but it might also simply indicate the selected businesses did not experience a cyber event in 2017.

Package Policies

The reported direct written premiums for cybersecurity package policies totaled \$865,049,208. This year, only 16 out of 462 reported no premiums, generally indicating they were unable to break out the premium change for the cybersecurity coverage from the remainder of the package policy. To arrive at a figure representing a complete market, NAIC staff assumed the 16 insurers writing cybersecurity package policies where premiums were not reported, would have reported premiums in the same ratio as those insurers reporting premiums.¹ The NAIC estimates \$31.4 million of direct written premiums for those 16 companies. As a result, by extrapolation the NAIC estimates the direct written premiums sold through package policies was approximately \$896 million.

Total Admitted Market

Thus, \$1,890,683,601 is the reported and estimated total of direct written premiums for cybersecurity insurance coverage on a stand-alone and package policy basis for 2017 by insurers obligated to complete and submit NAIC statutory financial statements.

¹ 16 of the 462 insurers reporting no premium represent 3.46% of direct written premiums for package policies

In order to provide perspective and context, it should be noted that \$1.89 billion in direct written premiums is a small percentage of the \$555 billion² in net written premiums reported by P/C insurers for 2017. All of these writings are supported by \$779 billion³ in policyholder surplus held by insurers.

Surplus Lines Insurers

The reported information for admitted insurers is limited to only those insurers required to file a P/C annual financial statement with the NAIC. To evaluate this limitation, one must understand the types of insurers writing P/C business in the U.S. and whether each type is required to report information to state insurance regulators. This may be well understood but it is important for readers not completely familiar with the U.S. regulatory framework to understand, from a state insurance regulator's perspective, the admitted and surplus lines markets.

Generally, the U.S. regulatory system for P/C insurance views insurers as belonging in one of three classifications: domestic; foreign; or alien. A domestic insurer is one licensed or admitted in a state it selects to be its home state. A foreign insurer is one licensed or admitted in a state that is domiciled in another state. An alien insurer is one domiciled in another country. Generally, the states insist insurers be licensed or admitted in the state as a prerequisite for selling P/C insurance products. However, state legislatures recognize not every person or business seeking coverage for unique risks can find it from a licensed or admitted insurer. Thus, state legislatures have allowed non-licensed insurers to write P/C business under certain circumstances.

The insurers doing business as non-licensed or non-admitted insurers are known as surplus lines insurers. They serve as an alternative marketplace to provide coverage for unique exposures and often serve as a testing ground for product innovations before they become mainstream. Offering coverage on a surplus lines basis allows the insurer greater freedom in pricing and does not require formal prior approval of contract language.

This year is the second year the NAIC received information filed by surplus lines insurers. Surplus lines data received indicate premiums of \$765,129,000 in cybersecurity stand-alone package policies in 2017. The surplus lines premium for cybersecurity package policies for 2017 is \$431,423,000. The total written premium for both types of policies is \$1,196,552,000.

The Overall Cybersecurity Insurance Market

For 2017, the total cybersecurity insurance market in the U.S. is approximately \$3.1 billion. This figure includes the stand-alone and package cybersecurity insurance premiums reported in the NAIC statutory financial statements, an estimate of the missing package cybersecurity premiums where insurers were unable to separate cybersecurity premiums from the package premium and the information reported by surplus lines insurers.

Another interesting observation about the cybersecurity insurance policies sold on a stand-alone basis is most (97%) of the third-party coverage was written on a claims-made basis. From a solvency risk-management perspective for insurers, the claims-made contract generally serves to limit exposure to the insurer compared to an occurrence policy by placing time limits on when the insured event must be reported to the insurer. While this is good for insurers, it is a coverage limitation from a policyholder perspective.

Identity Theft Coverage

From a market perspective, the year-end 2017 data clearly indicates that U.S. insurers' most common product related to cybersecurity is in the form of identity theft coverage, where insurers wrote approximately 19.7 million policies including identity theft coverage as part of a package policy. This compares to only 232,893 policies that were stand-alone identity theft coverage.

The year-end 2017 data for identify theft coverage indicates the stand-alone premium on the 232,893 policies was \$19 million, or approximately \$81.60 per policy. The year-end data for identity theft coverage shows reported package policy premiums of \$213.5 million and 19,456,226 million policies sold, which is approximately \$11 per policy. It is important to

² http://naic.org/documents/topic_insurance_industry_snapshots_2017_ye.pdf.

³ Ibid.

note the cost of purchasing this coverage varies from insurer to insurer depending on other coverages purchased with the homeowners policy.

Conclusion

This report summarizes some interesting findings. The data and estimates based on the data indicate the total U.S. market for cyber insurance is roughly \$3.1 billion. Having a time series will allow regulators to track market growth and pinpoint areas where further regulatory oversight may be needed.

The chart below depicts information collected from all three years of data collection.

Year	Direct Written Premium Stand-alone Cyber Policies	Direct Written Premium Package Cyber Policies	Direct Written Premium Stand-alone Surplus Lines Cyber Policies	Direct Written Premium Package Surplus Lines Cyber Policies	Stand-alone Policy Direct Written Premium Totals (admitted and surplus lines)	Package Policy Direct Written Premium Totals (admitted and surplus lines)	Total Cyber Premiums Written
2015	\$ 483,197,973	\$ 932,645,734	Not Reported	Not Reported	\$ 483,197,973	\$ 932,645,734	\$ 1,415,843,707
2016	\$ 811,057,406	\$ 863,769,169	\$ 552,226,000	\$ 156,285,000	\$ 1,363,283,406	\$ 1,020,054,169	\$ 2,383,337,575
2017	\$ 994,259,551	\$ 896,424,050	\$ 765,129,000	\$ 431,423,000	\$ 1,759,388,551	\$ 1,327,847,050	\$ 3,087,235,601

The 2017 data indicates this continues to be an evolving market. According to a recent survey conducted by the Council of Insurance Agents and Brokers, the takeup rate for cyber insurance remains flat at 32%, while capacity appears to be plentiful or is increasing.

Caveats

In the 2015 report, surplus lines premium information was not included; however, this data was collected for the 2016 and 2017 data years.

What Others are Saying about the Cybersecurity Insurance Markets

“Cyber/privacy insurance is evolving rapidly in response to high demand, a high level of claims, and an increasing level of threats.”—*The Betterley Report*

“Cyber insurance coverage will expand to address gaps in property, general liability, and special crime coverage to include perils arising from cyber risk.”—Willis Towers Watson

“Total annual cyber premiums will continue to climb as more companies seek coverage.”—Willis Towers Watson

The 2017 Ponemon Institute survey found that, although 87% of the businesses surveyed view cyber liability as one of their top 10 business risks, only 24% of these businesses admitted to having cyber insurance.

“The demand for cyber insurance will surge in 2018.”—Rhea Group

“Interest in cyber insurance continues to grow with tougher data protection laws and with increasing awareness of cyber risk at boardroom level.”—JLT Specialty

Aon’s Cybersecurity 2018 Predictions: Companies Will Make Major Enterprise-Wide Changes to Address Cyber Risk.

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