

Cost of cyber fraud in Russia: a compensating variation approach

Extended abstract

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THE THREAT OF CYBER CRIME LOOMS LARGE IN MODERN RUSSIA. The volume of transactions without the consent of bank customers amounted to some 9 bln rubles in 2020¹ while Russians reported to have been victims of 3.6 mln wire fraud crimes in 2021 [Serebrennikov and Titaev, 2022]. The cost of such crimes can be both tangible and intangible: from monetary losses due to successful attempts to defraud to dissatisfaction from unwanted robocalling. This note estimates the cost of cyber crime in Russia through an indirect approach. Using a national victimization survey conducted in 2021, I estimate the elasticity of respondents' life satisfaction with respect to cyber crime victimization and income. With estimated elasticities, I calculate the compensating variation: the increase in household income which would compensate for the decrease in life satisfaction due to cyber crime victimization.

This compensating variation approach stems from happiness economics [Frey and Stutzer, 2002] and is well-known in economics of crime [Moore, 2006, Cohen, 2008, Braakmann, 2012, Ambrey et al., 2013, Cheng and Smyth, 2015, Johnston et al., 2018, Brenig and Proeger, 2018]. My identification rests on the assumption that risk of cyber crime victimization is random. Current crime technology is such that criminals call random phone numbers in an effort to exploit those who pick up the phone.

Using this method, I estimate the gross losses of the Russian society from remote fraud. Given the low reporting and registration of this type of crime and the fact that cyber fraud can be committed outside the banking system, this estimate complements official data. I disaggregate the obtained estimates by respondents' observables such as age, reported income, education, or computer literacy.

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¹Bank of Russia. An overview of reporting information security incidents in the transfer of funds. During the Q1-Q3 of 2020 the volume was to 6.7 bln rubles, which was linearly extrapolated to the entire calendar year. URL: https://cbr.ru/analytics/ib/review_1q_2021/, https://cbr.ru/analytics/ib/review_2q_2021/, https://cbr.ru/analytics/ib/review_3q_2021/.