CURRENT & FUTURE CYBER RISKS TO IRISH CREDIT UNIONS

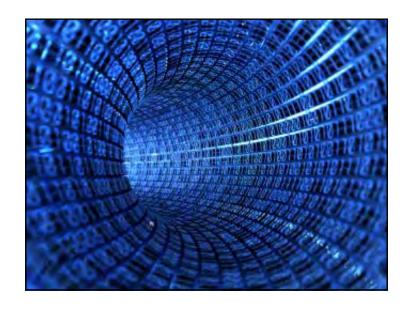


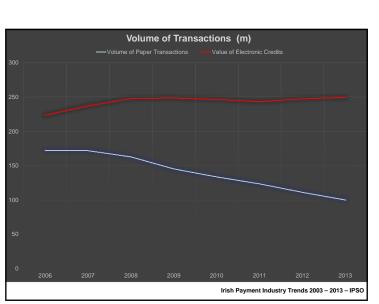
Background

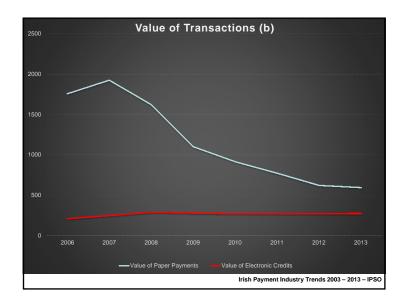
Who Am I?

- > CEO of BH Consulting Independent Information Security Firm
- > Founder & Head of IRISSCERT Ireland's first Computer Emergency Response Team
- Special Advisor on Internet Security Europol's CyberCrime Centre (EC3)
- > Adjunct Lecturer at University College Dublin
- Expert Advisor to European Network & Information Security Agency (ENISA)
- Regularly comments on media stories –
 BBC, Forbes, Bloomberg, FT, Guardian, Sunday Times













The likelihood of a "high-impact event" to the global financial system has increased over the last six months

Over 60% of risk managers at financial services frim believe there is an increased probability for a "high-impact event" in the next 12 months

Regulatory Drivers

- > Central Bank of Ireland
- > European Central Bank (ECB)
- European Banking Authority (EBA)Payment Services Directive (PSD2)
- > Payment Card Industry Data Security Standard
- ➤ Irish National Cybersecurity Strategy
- > EU General Data Protection Regulation
- > EU Network & Information Security Directive

Central Bank of Ireland

"It is the board's responsibility to ensure that a firm is properly governed and has the necessary processes and systems to protect the firm and all of its assets"

And that:

"an ethos of effective corporate governance, coupled with appropriate I.T. and cyber-security risk management, can be the foundation of successful protection against cyber-crime. The board should develop a culture of security and resilience throughout the firm and ensure that the firm has the necessary plans in place to deal with both internal and external cybersecurity breaches".

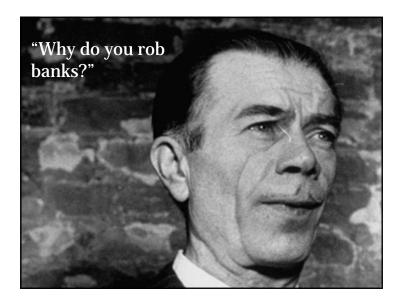
"Review of the management of operational risk around cyber-security within the Investment Firm and Fund Services Industry" - September 2015.

Central Bank of Ireland

"We do acknowledge that an effective cybersecurity programme should be reflective of the size, business model, nature and sensitivity of the firm's critical assets. That being said, there are a number of common themes that are pertinent to most or all firms:

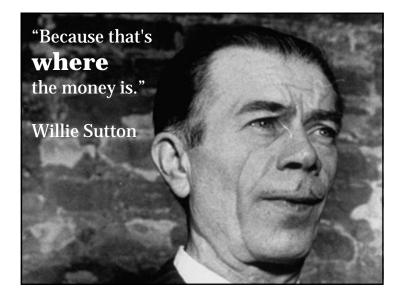
- The Board should have a good understanding of the main risks:
- > Perform risk assessments and intrusion tests:
- Prepare for the successful attacks:
- Manage vendor risk:
- Gather information and follow best practices:
- Educate staff:
- > Robust IT policies, procedures and technical controls are put in place:
- > Consider buying cyber-insurance:

Deputy Governor Central Bank of Ireland, Cyril Roux, to the Society of Actuaries in Ireland Risk Management Conference in September 2015.



Major Issues/Concerns

- DDoS Extortion
- > Ransomware
- CEO Fraud







Belgian bank Crelan loses €70 million to BEC scammers

Belgian bank Crelan has become a victim of fraudsters. According to a statement (In Dutch) published last week, the bank has lost over 70 million euros (around \$75,8 million).

Garda probe as hackers fool the Central Bank into transferring money to bogus online account

Central Bank has confirmed that up to €32,000 is still missing



Spelling mistake prevented hackers taking \$1bn in bank heist

New York Fed reveals spelling of 'foundation' as 'fandation' prompted bank to seek clarification and stop transfer, but hackers still got away with about \$80m

Billion dollar Bangladesh hack: SWIFT software hacked, no firewalls, \$10 switches The Bangladesh Bank's internal network security was sorely lacking:

Bangladesh Bank hackers compromised SWIFT software, warning issued



