2019 CYBER LANDSCAPE:
NEW REGULATIONS, RISKS, AND MANAGEMENT EXPECTATIONS

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2019 Cyber Landscape: New Regulations, Risks, and Management Expectations

Today’s Speakers

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Poll Question #1

Which aspect of cyber risk management do you find most challenging? (select one)

- Understanding my cyber exposures
- Measuring the potential economic impact of cyber events
- Managing cyber vulnerabilities and threats
- Recovering from a cyber event
Environmental Threats Feature Strongly Among Most Likely and Most Damaging Risks, Followed by Cyber Risks and Societal Concerns

Global Risk Landscape 2019 – Top risks in terms of likelihood and impact

Note: Global Risk Perceptions Survey (885 responses worldwide): Respondents were asked to rate each risk based on its likelihood and impact on a scale from 1 to 5
Concern Over Cyber Risks Has Significantly Increased in Advanced Economies and Continues to Spread Globally

Cyber risks\(^1\): locations of greatest concern

Source: WEF EOS 2018, MMC Analysis
\(^1\): Cyber-related risks include cyber-attacks and data theft/fraud. Countries are shaded if either risk appeared in their top 3 risks of most concern. If both risks appear in the top 3, the higher risk is taken.
Concern About Malicious Action From Cyber Attackers and Data Fraud/Theft Dominates in US and Canada

North America – Overview

Top risks for doing business by country

<table>
<thead>
<tr>
<th>Rank</th>
<th>North America</th>
<th>Change vs. 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Large cyber attacks</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Data fraud/theft</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Extreme weather events</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Fiscal crises</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Energy price shock</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: WEF Executive Opinion Survey (12,548 responses worldwide). Results are based on 410 responses in the United States and Canada. Respondents could choose up to five risks which they viewed as being most important for doing business in their country. Top regional risks are calculated as the average across all countries of the proportion of respondents in each country identifying each risk as one of their five choices. Source: World Economic Forum, Global Risks Report 2019, MMC analysis
More Than 2/3 of Respondents Expect Certain Economic, Geopolitical, and Technological Risks to Get Worse in 2019

Global and regional risks expected to increase (either ‘somewhat’ or ‘significantly’), all regions (2018–2019)

<table>
<thead>
<tr>
<th>Risk (in order of % increase)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Economic confrontations/frictions between major powers</td>
<td>91</td>
</tr>
<tr>
<td>2. Erosion of multilateral trading rules and agreements</td>
<td>88</td>
</tr>
<tr>
<td>3. Political confrontations/frictions between major powers</td>
<td>85</td>
</tr>
<tr>
<td>4. Cyber-attacks: theft of data or money</td>
<td>82</td>
</tr>
<tr>
<td>5. Cyber-attacks: disruption of operation and infrastructure</td>
<td>80</td>
</tr>
<tr>
<td>6. Loss of confidence in collective security alliances</td>
<td>73</td>
</tr>
<tr>
<td>7. Populist and nativist agendas</td>
<td>72</td>
</tr>
<tr>
<td>8. Media echo chambers and ‘fake news’</td>
<td>69</td>
</tr>
<tr>
<td>9. Domestic political polarization</td>
<td>67</td>
</tr>
</tbody>
</table>

Note: Global Risk Perceptions Survey (916 worldwide responses to this question). Respondents were asked to predict how risks would change in 2018, in relation to seven key global issues.

Poll Question #1

Which aspect of cyber risk management do you find **most** challenging? (select one)

- Managing cyber vulnerabilities and threats: 40%
- Measuring the economic impact of cyber events: 35%
- Recovering from a major cyber event: 15%
- Understanding your cyber exposures: 20%
Poll Question #2

Are governments doing enough to regulate cyber risk?

• Yes

• No
Regulatory Changes Will Accelerate Cyber Exposures in 2019

1. **Expanded focus on privacy**
   - Beyond US & EU to Asia, Pacific, LAC
   - Beyond breach: Collection, use, data brokers

2. **More stringent non-privacy environment**
   - IoT: UK and California
   - More accountability for technology

3. **Regulatory “innovation”**
   - Jurisdictions acting in succession
   - US: New federal regime?
Poll Question #2

Are governments doing enough to regulate cyber risk?

[Bar chart showing 80% for 'No' and 20% for 'Yes']
Fourth Industrial Revolution

**INDUSTRIAL ERA**

- **1.0 (1784)**: Mechanical loom operated with water/steam power
- **2.0 (1870)**: First electrically powered mass production line
- **3.0 (1969)**: First programmable logic controller in manufacturing
- **4.0 (NOW)**: Cyber physical systems, connectivity and big data

**TECHNOLOGICAL REVOLUTION**
- Enabler but only limited share of value

**TRANSFORMATIONAL CHANGE**
- Substitution of labor by capital; process stability and speed
- Division of labor ("Taylorism"); process flow and throughput
- Business process reengineering; process quality and "Lean"

**Digital industry**
- Most value is captured through process transformation
**A Hyper Connected World**

**Connected Objects**: 50 billion predicted in 2020

Source: Oliver Wyman analysis
Poll Question #3

What area of cyber risk management will your organization invest the most in during 2019?

• Compliance
• Incident response and resilience
• Insurance
• Technology
• Training
Poll Question #3

What area of cyber risk management will your organization invest the most in during 2019?
Cyber Risk Takes a Seat at the Business Table

- **More strategic**, less tactical (less technical)
- Approach cyber risk as **continual problem solving**
- Look beyond the audit report at **economic impact** - quantification
- Deep dive into **supply chain risk**
- Full tool kit: **Insurance** is complementary to technology
Recommended Actions

1. Look beyond the audit report and technology heat maps; start characterizing cyber risks in terms of economic impact in local currency.

2. Dive deeper into supply chain cyber risk; capture a complete inventory, get beyond a checklist, and quantify cyber exposure by supplier.

3. Have a dedicated cyber insurance policy.

4. Get ready for the new wave of cyber regulation.
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