

WFE Best Practice document on Emerging Risk Management

Background

Established in 1961, the World Federation of Exchanges (WFE) is the global industry association for exchanges and clearing houses (CCPs). Headquartered in London, it represents over 250 market infrastructure providers, including standalone CCPs that are not part of exchange groups. Of our members, 34% are in Asia-Pacific, 45% in EMEA, and 21% in the Americas.

The WFE’s 90 member CCPs and clearing services collectively ensure that risk takers post some $1.3 trillion (equivalent) of resources to back their positions, in the form of initial margin (IM) and default fund requirements. WFE exchanges, together with other exchanges feeding into our database, are home to over 50,000 listed companies, and the market capitalisation of these entities is over $100 trillion; around $140 trillion (EOB) in trading annually passes through WFE members (at end 2022).

The WFE is the definitive source for exchange-traded statistics and publishes over 350 market data indicators. Its free statistics database stretches back more than 40 years and provides information and insight into developments on global exchanges. The WFE works with standard-setters, policy makers, regulators, and government organisations around the world to support and promote the development of fair, transparent, stable and efficient markets. The WFE shares regulatory authorities’ goals of ensuring the safety and soundness of the global financial system.

With extensive experience of developing and enforcing high standards of conduct, the WFE and its members support an orderly, secure, fair, and transparent environment for investors; for companies that raise capital; and for all who deal with financial risk. We seek outcomes that maximise the common good, consumer confidence, and economic growth, and we engage with policy makers and regulators in an open, collaborative way, reflecting the central, public role that exchanges and CCPs play in a globally integrated financial system.

If you have any further questions, or wish to follow-up on our contribution, the WFE remains at your disposal. Please contact:

Chhavi Sinha, Regulatory Affairs Manager: [csinha@world-exchanges.org](mailto:csinha@world-exchanges.org)

Richard Metcalfe, Head of Regulatory Affairs: [rmetcalfe@world-exchanges.org](mailto:rmetcalfe@world-exchanges.org)

Nandini Sukumar, Chief Executive Officer: [nsukumar@world-exchanges.org](mailto:nsukumar@world-exchanges.org)

Introduction

Emerging risks for exchanges and clearing counterparties (CCPs) can have significant impacts on their own operations and, by extension, those of market participants. Identifying these risks early is crucial to preventing the occurrence of events or mitigating their potential effects.

Recently, Enterprise Risk Working Group (ERWG) members at the WFE, observed that developing a WFE best practice document on emerging risk management would be helpful.

In this regard, WFE secretariat conducted a brief survey on the considerations that may help create an effective process to identify, track and report on emerging risks within WFE member organisations. Based on the response received, we have developed this Best Practice note for Emerging Risk Management.

Importance of Emerging Risk Management process

Whilst traditional risk management focuses on supporting an organisation to achieve its objectives and plans in the face of known risks, tackling emerging risks enables an organisation to build and maintain resilience to assist it in navigating during periods of uncertainty. Resilience can enable the organisation to:

1. Anticipate and prepare for possible adverse scenarios or events, prepare for them, withstand, or absorb their impacts, recover from the effects, and adapt to the changing conditions.
2. Respond and adapt to opportunities and take prompt and informed decisions with confidence.[[1]](#footnote-2)

Identifying emerging risks can be challenging, and the following techniques can be helpful. Exchanges and CCPs can benchmark their current Emerging Risk Management programme against these and, where relevant adopt the techniques below:

**1. Periodic Risk Assessment:** It is important to establish a robust risk management framework that includes regular and comprehensive risk assessments.The WFE members are encouraged to review how they measure or quantify risks. Based on the WFE survey of ERWG members, many members use a standard 5 x 5 risk matrix (based on the probability and the impact of risk) to measure emerging/horizon risks. The 5x5 Risk Matrix consists of two main dimensions: likelihood and severity. Likelihood refers to the probability or chance of an event occurring, while severity relates to the potential impact or consequences of that event. Each dimension is divided into five levels, creating a matrix with 25 cells.[[2]](#footnote-3) The WFE members are encouraged to determine if 5 x 5 risk matrix will be helpful in their risk assessment of emerging/horizon risks.

2. **The frequency of risk monitoring and reporting within the organisation:** The WFE membersare encouraged to monitor their risks on an ongoing basis and generate a consolidated report quarterly.

3. **Horizon scanning:** Horizon Scanning is the process of considering how emerging trends and developments might potentially affect current policy and practice. Horizon Risk drivers are usually changes in the political, environmental, consumer, market, technological, regulatory, or legal landscape, which, due to current business strategy or operations, would require additional control adoption or directional change to ensure ongoing business viability and success. Horizon risks are thought to be best considered over various time frames, i.e., in the short (1-3 years), medium (3-5 years) and longer term (5+ years).

The WFE survey indicated that horizon scanning is an emerging practice that has great potential value and benefits from a well-defined process. Horizon scanning is usually conducted through a combination of a mixture of desk research from data sources (i.e., traditional media, external data vendors, regulatory/risk publications) and senior management meeting input. Data analytics tools may be leveraged to monitor and analyse large datasets for patterns that may indicate emerging risks, and implement advanced data analytics techniques to enhance predictive capabilities and early detection of potential issues.

A Horizon Risk Scanning Report may be generated on a rolling semi-annual cycle, where future risks are discussed and rated. Where appropriate, all necessary mitigating actions and treatment plans could be developed. The report could be presented to the Executive Risk Committee and Audit Risk Committees.

**Three stages of ‘Horizon Risk Scanning’**

4. **Scenario Analysis:** TheWFE recommends that members consider developing and analysing various hypothetical scenarios to assess the potential impact of emerging risks on business operations, financial stability, and market integrity. Scenario analysis can be integrated into decision-making processes, as a way to enhance preparedness for what would otherwise be unforeseen events.

5. **Process maps**: Exchanges and CCPs could consider utilising process maps to understand process steps, upstream/downstream dependencies, risks, and key controls across essential operations and to identify new risks that require new controls to protect the organisation.

6. **Regular Risk Reporting and Communication** **Practice**: The WFE suggests producing a quarterly report to the Board, including Top Risks Report identified, Performance against Key Risk Indicators & Objectives**,** Incident Statistics & InformationCyber Security Event Statistics, and Emerging risk updates.

7. **Risk Culture:** It is advised to have a strongrisk culture and awareness programme within your organisation. Awareness programmes could occur at least annually . If so, there could be a mandatory risk training and testing that all employees are required to complete to ensure they are informed about emerging risks and understand their roles in risk management. Similarly, there could be strategies to strengthen the organisation's risk culture, including, encouraging open communication and the reporting of potential risks at all levels of the organisation for potential escalation.

8. **Governance of risk exposures**: Members may wish to consider assessing the maturity of the governance of risk exposures, (for example of climate risk and cyber risks). There could be an on-going risk improvement programme, in which case the risk exposures of the top risk could be assessed on an on-going basis. Members could consider conducting a periodic review and update of the risk management framework to adapt to changing market conditions, regulatory environments, and technological landscapes. It is also recommended to conduct post-event analysis to evaluate the effectiveness of risk mitigation strategies and incorporate lessons learned into future risk management practices.

9. **Collaborative Approach:** Members are encouraged tofoster collaboration with industry participants, regulators, and other stakeholders to gather diverse perspectives on emerging risks. In this regard, it will be helpful to participate in industry forums like WFE’s working groups, and information-sharing platforms to stay informed about new developments and potential threats.

10. **Cross-Functional Teams:** The WFE encourages establishing cross-functional teams responsible for identifying, assessing, and managing emerging risks. It is recommended to encourage collaboration among risk management, technology, finance, HR, legal, compliance, and business units to ensure a comprehensive understanding of potential risks.

11. **Regulatory Compliance**: Members are advised to stay abreast of changes in regulatory requirements and assess their impact on the business operations. They are urged to engage in proactive dialogue with regulatory authorities to understand their perspectives on emerging risks and to ensure compliance with evolving regulations.

**In addition to the above points, the members can consider the following questions for identifying emerging risks in different categories:**

1. **Technology Risks (including Cyber security):**

* What technological changes are occurring in the industry, and how are they impacting the exchange or CCP?
* Are there any vulnerabilities in the current technology infrastructure?
* How robust are the cybersecurity measures in place?
* What are the risks and benefits of increased adoption of artificial intelligence and machine learning in trading and clearing activities?
* Does the organization have a Cyber Insurance Policy?
* Does the Cyber Insurance Policy cover all the expenses incurred because of data loss resulting from a cyber incident or a breach?

1. **Operational Risks (including Third Party Risks):**

* What operational changes are taking place within the exchange or CCP?
* Is there any significant change in the volume or nature of transactions being processed?
* Does the organisation have tools and services that allow the Risk Management function to streamline processes, remove duplication of effort, automate remove manual processes, and ultimately improve productivity and efficiency? And what are they?
* Has the organisation deployed Artificial Intelligence (AI) and Machine Learning (ML) within its business model? What governance and risk oversight policies does the organisation have to manage extreme risks from AI and ML?
* How is the organisation managing the risks associated with the rise of cryptocurrencies and other digital assets?
* How does the organisation address reports of breaches or similar incidents involving its third (or nth) parties?

1. **Regulatory Risks:**

* Are there any upcoming regulatory changes that could impact the exchange or CCP?
* How well is the exchange or CCP prepared to comply with new regulations?

1. **Market Risks:**

* Are there any emerging trends in the markets that could impact the exchange or CCP?
* Is there any significant change in market liquidity or volatility?
* Are there any new entrants or changes in the competitive landscape?

1. **Credit and Counterparty Risks**:

* Are there any significant changes in the creditworthiness of market participants?
* Is there an increase in the concentration of exposure to a single counterparty or group of counterparties?

1. **Liquidity Risks:**

* Are there any signs of liquidity stress in the markets served by the exchange or CCP?
* How robust are the liquidity risk management practices of the exchange or CCP?

1. **Legal Risks**:

* Are there any pending legal cases or disputes that could impact the exchange or CCP?
* Are there any changes in the legal environment that could affect the operations of the exchange or CCP?

1. **Environmental, Social, and Governance (ESG) Risks**:

* Are there any emerging ESG risks that could impact the exchange or CCP?
* How well is the exchange or CCP prepared to address ESG issues?
* What is the organisation’s approach to managing risks related to climate change and other environmental, social, and governance (ESG) factors?

1. **Interconnectedness Risks**:

* How interconnected is the exchange or CCP with other financial institutions and markets?
* Are there any emerging risks in these interconnected institutions or markets that could spill over into the exchange or CCP?

1. **Global and Geopolitical Risks:**

* Are there any global economic or geopolitical developments that could impact the exchange or CCP?
* How well is the exchange or CCP prepared to navigate global uncertainties?

1. **Resources risk**

* What relative changes in staffing or management does the organisation foresee in the next 3-5 years?
* Does the organisation consider the lack of available skills as a risk?
* Are there sufficient resources for talent acquisition, access to appropriately skilled talent, and employee training?

1. **Strategic risk**

* Are there any emerging risks that could have an impact on the exchange or CCP’s strategic objectives?
* Does the exchange or CCP need to revisit the assumptions its strategy was based on?
* Are there any potential changes to the exchange or CCP business model because of the emerging risks/ trends?

1. https://www.theirm.org/media/9230/charities-sig-an-introduction-to-emerging-risks-and-how-to-identify-them.pdf [↑](#footnote-ref-2)
2. Obtained from https://www.theknowledgeacademy.com/blog/iosh-5x5-risk-matrix/#:~:text=The%205x5%20Risk%20Matrix%20consists,a%20matrix%20with%2025%20cells. [↑](#footnote-ref-3)