



FESE response to the IOSCO consultation report on market outages

Brussels, 29th February 2024

Q1: Do you agree with the key findings and/or do you think there are additional aspects of recent market outages that have not been captured?

The Federation of European Securities Exchanges (FESE) agrees with the key findings in IOSCO's consultation report. We believe that the recommended good practices around outage and communication plans, the reopening of trading, the closing auction and alternative prices, and the post-outage plan are appropriate.

We would also like to thank IOSCO for acknowledging FESE's frameworks for industry-wide standard protocols. FESE Members, notably those impacted by outages in the summer and autumn of 2020, have held in the last years extensive discussions with market participants on the design of standard protocols in the case of outages. From these discussions and our assessment of other contributions from the industry, it is clear to FESE that there is a broad consensus on the range of aspects that should be covered by a standard protocol for outage procedures.

The result of these reflections, our 2022 framework, establishes principles to deal with outages, covering the notification process, the re-opening procedures, and the post-outage analysis. FESE's aim is to enhance market confidence, awareness, and transparency; our principles complement the existing regulatory framework whilst acknowledging the diversity of trading systems and the need for an industry-driven approach that reflects their characteristics. Since the publication of the principles in 2022, FESE Members have published their [individual playbooks on outage protocols](#) for equity, fixed income, and exchange-traded derivatives. As noted in the consultation report, the yearly number of outages has decreased since 2018, a trend we believe is proof of the lessons learned and improved practices of market operators.

We would like to add that the EU enjoys a comprehensive regulatory framework on outages. Articles 47 and 48 of the 2018 Markets in Financial Instruments Directive II require effective systems and procedures to ensure their systems' resilience and orderly trading, also under stressed market conditions, and ESMA issued in 2023 an Opinion on Market Outages linked to these requirements. EU Commission Delegated Regulation 2017/584 (RTS 7) further specifies the requirements to ensure trading venues' systems are resilient and have adequate capacity. Furthermore, in 2022, Regulation (EU) 2022/2554 (Digital Operational Resilience Act or DORA) introduced a consistent and streamlined approach for the financial sector towards IT incident classification, notification towards authorities, and communication to customers and the public to increase the efficiency of current communication procedures and the resilience of the overall ecosystem. Looking at the detail of some of the IOSCO findings, it is clear that one particular approach will not work in all cases. The report references that, in some jurisdictions where there are multiple trading venues, alternative trading venues can be used should a market outage occur on one of the venues. In our experience, this is not a credible or viable solution for most markets as it is too complex - namely, it creates many technical challenges to interconnect between different venues, particularly across different jurisdictions and it also raises key

points around fairness and equity, as not all firms will be able to connect to different venues. This approach would particularly impact smaller brokers who would find this far too costly and would be placed at a disadvantage vis-à-vis the larger participants.

Furthermore, we would like to highlight the more fundamental point that if the primary venue experiences a market outage, it is unlikely that other venues which generally peg or follow the prices formed on the primary would be able to continue offering trading without this primary source. These points are picked up on p. 18 of the report and we note the remarks that even where alternative trading venues were available, they contributed only to a limited extent in mitigating the effects of market outages and that efficiency is not proven in relation to alternative venues.

In addition, it is important to note that ESMA shared similar conclusions on the problematic nature of this approach in its own [Opinion](#), citing in particular the increased costs and complexity that this could imply for market participants.

Therefore, given these conclusions, we strongly believe that it is clear this is not an effective remedy for outages.

On a separate but related point, it is interesting to note the different approaches regarding an official closing price where closing auctions are impacted. In our experience, where the closing auction cannot take place for the trading session, the last traded price could indeed be considered as the closing price, or at least the reference price. This is important so there still is a reference point on the primary venue. It is indicated that certain jurisdictions may take different approaches including where an alternate exchange may be designated to determine the official closing price. However, for the reasons outlined above regarding the use of alternative venues and in particular the fact that the main model of many other alternative venues is to peg to primary market prices, we do not support this approach.

We also do not support the comment on p. 19 that a consolidated tape might assist with the resilience of markets by providing a trusted source of pricing which enables continuity of trading when there is an outage on a listing trading venue. From the experiences shown in the report concerning market outages, we do not see how a tape that consolidates prices will resolve the issues resulting from an outage. Instead, the focus has to be on ensuring the resilience of markets to reduce the possibility of significant outages occurring and requiring robust outage plans in place, communicating them effectively and re-opening trading as quickly as possible. And in this regard, we welcome the approach that has been concluded by IOSCO. Last, FESE notes that the key findings set out by IOSCO are derived from survey responses by regulatory authorities in relation to past market outages, and most of them are written for equities listing venues. Given the fundamental differences in the nature and practices between equities listing venues and derivatives listing venues, FESE is of the view that IOSCO's proposed good practices, as currently drafted, cannot meaningfully apply to derivatives listing venues.

Q2: Do you agree with the good practices that IOSCO recommends for trading venues? If not, please explain why and provide further information.

FESE agrees with the good practices identified by IOSCO. Most of these recommendations resemble FESE's principles outlined in the different [individual playbooks on outage protocols](#), namely:

- Publishing individual playbooks for equity and fixed income markets, including all principles listed hereafter. Playbooks shall be reviewed and updated on a regular basis.
- Publishing as close to real-time a market notice whenever an outage occurs.
- Updating their market status on a regular basis (even if the issues are not yet ascertained).

- Providing a notice before re-opening the market following an outage. The notice period should give the market participants sufficient time to prepare for opening, taking the trading protocols used into account.
- Ensuring a pre-opening phase prior to the resumption of trading.
- Offering an order book or product-specific purge to every trading participant, especially in cases where the integrity of orders has been largely compromised.
- Considering trades for which an acknowledgement has been sent as valid (unless conducted under improper conditions).
- In the event of the closing auction being affected, the time for running the closing auction can be postponed until a certain point to be defined by the trading venue.
- In case the closing auction cannot take place for the trading session, the last traded price will be considered as the official closing price. For non-equity instruments, the venue shall publish the methodology for determining alternative settlement or closing prices.
- Trading venues commit to run a post-mortem analysis and explain the sequence of events and share conclusions and detailed mitigating procedures via appropriate communication channels like follow-up bilateral calls.

We would like to add however that every trading system is different and it is hence important to take a high-level and principled-based approach, rather than setting out requirements that are too granular and may not be well-tailored to the different asset classes, participants, and functionalities.

FESE thus cautions against some specific recommendations:

- FESE views IOSCO's proposal for an outage plan to set out the strategy for reopening and the treatment of submitted orders as being overly prescriptive. The nature of the underlying fault that led to the market outage, remediation steps and other surrounding circumstances will differ for each market outage situation. It would be counter-productive for the outage plan to prescribe an ex-ante reopening strategy as the market operator may determine that a different strategy is more appropriate for a particular situation or instrument.
- FESE supports the implementation of a communication plan, including how and to whom information will be communicated. However, FESE is not in favour of IOSCO's overly prescriptive proposal for the communication plan to set out the contents of communication as the actions to be taken and the information to be communicated in each market outage situation will vary depending on the specific circumstances. There are several elements which determine how to best communicate an incident, including the market in question and liquidity of the contract, the time of day of the outage, and, once known, the root cause of the outage and likely resolving time.
- We would strongly advise against encompassing detailed and specific governance arrangements including assigning roles and responsibilities, escalation procedures, training requirements etc. Very sensitive internal information like identities of individuals could be used for malicious behaviour and shall only be known to regulators.
- The regular review and testing of the outage plan shall not be mandated outside of existing procedures to test the systems. Regulatory requirements would in general include system testing due to new system releases, operational resilience, etc. and would cover all aspects of the system testing from pre-trade controls to cyber-attacks or recovery systems effectiveness.
- Regarding the assessment on reopening, IOSCO advises trading venues to establish certain criteria or thresholds to be met before reopening such as number of participants connected, or the percentage of historical trading reflected in connected participants. We would not support making these kinds of criteria/thresholds public due to them being considered sensitive information that

should be treated confidentially. Making this information public might allude to a potential reopening time in advance, while being fully or partially exploited/misused by the market participants. In addition, we do not see any added value for a successful reopening in publicly disclosing this information.

- On post-outage plans, we would strongly advise against making public the results of the detailed post-mortem exercise. Those results shall be available and communicated to the regulators and can be discussed extensively with the exchange's members. We would however see a substantial risk of sharing with the public any information related to the detailed functioning of the market exposing the exchange to malicious manipulation.

Q3: Are there any other good practices that could be considered?

FESE considers that the good practices recommended by IOSCO are by and large comprehensive. We would suggest, however, that the recommendations should be extended to all execution venues considered equivalent for trading purposes in a given jurisdiction; so that all market participants are informed equally about any disruptions and are provided with regular status updates. More concretely, in the EU that is the case of regulated markets, multilateral trading facilities, and systematic internalisers. Furthermore, in some jurisdictions with a cross-border dimension like the EU, a harmonised system for outages would first require a harmonisation of several national legal constructs, such as national contract laws.

At the same time, we would like to reiterate that, in line with IOSCO's survey results, mitigating the effects of outages via the migration of order flow to alternative trading venues is challenging. The absence of a strong price formation process on alternative venues, the fragmentation of liquidity, connectivity arrangements, uncertainty, or coordination issues make it extremely difficult. In view of this, we would caution against prescriptive rules on using alternative trading venues. They would contradict the fundamental principle around the possibility of choosing where to trade. And, while switching to an alternative venue in the case of an outage is something that the most sophisticated market participants could handle, it is unlikely to be an adequate solution for smaller market participants.

Furthermore, we would like to briefly mention again that, while some might consider that a consolidated tape may improve the resilience of some markets, in some fragmented market structures like the EU, latency or connectivity issues may complicate the picture and diminish its benefits.

Q4: Do you agree that these good practices could also be useful for addressing other causes of market outages, such as those set out in Annex C? If not, please explain why and/or provide further information on what additional good practices may be relevant to these.

FESE agrees that these practices can be useful for addressing most causes of market outages. We believe that outage protocols and good practices should be in general agnostic regarding the nature of the incident.

However, FESE is of the view that IOSCO's proposed good practice on providing regular updates (especially in pre-defined time intervals) to market participants should not apply to market outages caused by cyber-attacks.

It is not feasible for market operators to provide regular updates (especially in pre-defined time intervals) to market participants because the resolution of cyber-attacks is complex and time-consuming; requiring market operators to provide updates while the resolution is ongoing may adversely impact the ability of market operators to investigate and resolve the incident. In addition, market operators have to exercise discretion in terms of the

scope of information provided in the updates as the threat actor may use the updates to further intensify or modify its attack.