Finance for Europe

Association for Financial Markets in Europe

ESMA Consultation Paper on Market Outages

AFME Response

15 December 2022

Introductory remarks

The Association for Financial Markets in Europe (AFME) welcomes the opportunity to comment on ESMA's Consultation Paper on Market Outages.

AFME represents a broad array of European and global participants in the wholesale financial markets. Its members comprise pan-EU and global banks as well as key regional banks, brokers, law firms, investors and other financial market participants. We advocate stable, competitive, sustainable European financial markets that support economic growth and benefit society.

AFME is the European member of the Global Financial Markets Association (GFMA) a global alliance with the Securities Industry and Financial Markets Association (SIFMA) in the US, and the Asia Securities Industry and Financial Markets Association (ASIFMA) in Asia.

AFME is registered on the EU Transparency Register, registration number 65110063986-76.

ESMA's proposed guidelines would apply to all venues, and we agree that principles around clear and timely communications and robust plans for handling outages are essential, irrespective of asset class. We would note however that some of the concepts addressed in the paper relate more specifically to aspects of market structure that are more commonly associated with equities than other asset classes. Given the impact of recent market outages in equity markets, we agree with this focus. However, we would urge ESMA to continue to assess developments in non-equities markets with a view to considering whether in future it may be necessary or desirable to expand its guidelines with specific recommendations for non-equities venues.

Question responses

COMMUNICATION PROTOCOLS

Q1: Do you agree with the main communication principles identified above?

AFME is broadly is supportive of the main communications principles proposed by ESMA but we suggest some additional guidance expectations below. We also identify concerns with the one-hour communication on orders status in question 3 below.

We would regard the following as minimum guidelines for venue outage communication and outage handling process for a standard harmonised playbook across EU primary exchanges:

Pre-established procedures

- We agree with ESMA that a crisis management team should be established at each trading venue. This crisis management team would be responsible for communications around outages to all stakeholders as well as maintaining the venue's crisis playbook.

Association for Financial Markets in Europe
London Office: 39th Floor, 25 Canada Square, London E14 5LQ, United Kingdom T: +44 (0)20 3828 2700
Brussels Office: Rue de la Loi 82, 1040 Brussels, Belgium T: +32 (0)2 788 3971
Frankfurt Office: Bürohaus an der Alten Oper, Neue Mainzer Straße 75, 60311 Frankfurt am Main, Germany
T: +49 (0)69 153 258 967
www.afme.eu

- We also agree that all trading venues should develop and publish a playbook for what will occur if or when an outage takes place. Minimum principles of communication and outage handling processes should be standardised across EU trading venues and ESMA and NCAs should be empowered to ensure venues' adherence.
    - The playbook should clearly identify the mechanisms and locations (websites, protocols) for dissemination of information to stakeholders regarding the outage.
    - It should be clear what information these channels will include and in what format.
    - In addition, there should be protocols for identifying, diagnosing and resolving issues and halting and restarting trading including a minimum notification time.
    - Playbooks should outline robust contingency scenarios, including a decision waterfall illustrating solutions for such possible scenarios, in which exchanges will or will not re-open and establish clear procedures for re-opening or to determine the market closing price in the event where the market cannot reopen.
- We note that following more recent significant outages at primary markets that several venues have now published individual playbooks. Many of these follow the principles on communications outlined by ESMA in its current CP, if not all of those we propose within this response. However, most exchanges' new playbooks are yet to be tested during live outages and AFME members remain concerned, based on historic experience, as to whether primary exchanges will adhere to the standards set and whether the nature of setting only guidelines will mean that NCAs are suitably empowered to enforce better and more harmonised standards of behaviour.
- Therefore, we would instead propose that ESMA should be given a Level 1 mandate in MiFIR to develop draft regulatory technical standards to ensure a maximum convergence across the EU. These would specify, for example:
    - the requirements to ensure that trading venues comply with standard procedures for monitoring system disruption and mechanisms for market participants to raise issues during a market outage;
    - procedures for communication during an outage, including but not limited to
        - system status, whether it affects all or part of the listed securities,
        - estimated time of re-opening and orderbook status;
        - the frequency of updates;
        - the standardised and unique systems statuses used for the different types of outage and the format of these messages;
        - and communication around re-opening, including timeframes.
    - procedures setting out different types of outage and policies on the treatment of the orderbook for these types of outages;
    - procedures setting out trading venue obligations post-outage, including the provision to the relevant NCA of a root cause analysis and remedial plan after all incidents;
    - procedures for trading venues and index providers to allow for the determination of alternative closing and settlement prices in the event of an outage;
    - procedures determining the publication of the last time stamp and last reference price to be used, considerations on order validity for different order types and the last trade confirmations to affected market participants to ensure that market participants can adjust their own systems to allow for orders to be routed to an alternative venue during a market outage, if it is appropriate to do so.

During the outage

- Trading venues must be proactive and clear in their communications, giving stakeholders as much detail as is known, as soon as it is known, without speculation.
- We therefore agree with ESMA that the "notice of disruption" should be provided to all market participants ((i.e. not only its members and participants but also the general public) as soon as is technically possible.
- We agree with ESMA that all communication regarding the ongoing health of a venue's trading system and details about the outage should occur via any means which enables the trading venue to communicate simultaneously to market participants and in any case should also be published on the trading venue's public website.
- Ideally, communications regarding market status should also be in a machine-readable format, available on exchange connectivity and market data protocols, so that trading systems can automatically incorporate these notifications into their procedures, where relevant.
- We agree with ESMA that these communications should be updated on a regular fixed schedule, *for instance every 30 minutes*, giving a status update, even if the update is "no update".
- In relation to the above communication points and by way of example, our members note that during the recent NasdaqOMX outage no public communication of its outage status was publicly visible, or immediately locatable, on the exchange's website. Despite the NasdaqOMX playbook establishing that communications would be frequent and by email, members reported that communication was irregular and infrequent and often not circulated to the expected and obvious contacts within their firms. Members reported neither receiving "no update" updates meaning that members were uncertain as to any developments and in such a scenario any prior information on the outage can therefore only be presumed to be stale.. Furthermore, the subsequent incident report offered little to no insight into the root cause or remedy for the outage, noting only that "*The root cause has been identified and a resolution implemented."* This also leaves members uncertain as to whether there remains a risk of recurrence of the same or similar issues.
- AFME believes that venues should be required to support an open incident line during an outage. Open incident lines on a conference facility have historically been proven an efficient method of allowing large numbers of firms to communicate in a timely way and help find swift resolution to problems. This practice appears to have been abandoned and should be reinstated as described here:
    - All members should be able to dial-in and the venue can provide periodic updates. Members could share their experience of the system to aid diagnosis of the issue and increased confidence that the decision to reopen is not premature.
    - This "multi-cast" approach is preferable to sequential bilateral conversations and should be established as standard procedure even if venues have a preference for written communications.
    - Utilising bilateral telephone conversations to communicate to clients will inevitably be out of sync as they can only happen sequentially in an environment where understanding of the situation is constantly evolving.
- The outage market status must be initiated immediately with the "notice of disruption".
    - Since there is currently no normalised solution on how exchanges communicate outage scenarios, some markets indicate that they are entering an auction state rather than acknowledging they have an outage. SORs monitor for intra day auctions due to stock

volatility and therefore adopt cautious suspension of routing rather than routing away to the venues still operating normally.

  - Such inability to correctly identify a market with an outage results in inconsistent SOR behaviour for the market participants: some SORs will not move away from the market that is down, and, as a result, those that are able to move their flow to an alternative markets see a degradation in execution quality due to reduced volume of liquidity. The issue is compounded by the dominance of traditional primary market auctions – market participant systems are de facto pre-conditioned to trade in the primary auction and dismiss alternative venues during auction call phase.
  - A standard practice of issuing a special outage or closed status through the primary market's market data would provide significant clarity.

Status of orders

- At a minimum, any market statuses, instrument prices, outstanding order statuses, and trade feeds published by trading venues on their execution or market data feeds must be accurate and consistent during an outage, and not lead participants to believe the venue is operating in a normal state. As mentioned above, a special outage or closed status can aid this.
- This market data notification regarding status is essential for the market to know without doubt that there is a technical issue on the market, which can in turn trigger participants' automatic redundancy plans and allow participants to decide whether or not to continue trading elsewhere.
- Trading venues should make public the specific time stamps at the point at which orders were cleared and/or rejected and which trades were considered valid. This should be done as soon as is feasible**.**

Reopening

- Any planned re-opening times should be published as ESMA proposes with the same accessibility as for the "notice of disruption". Re-opening times should be communicated clearly to the market, on which we agree with ESMA that this should be at least 30 minutes prior to opening and re-open, but also on a "round" time increment (e.g., on the hour or half hour).
- Trading venues should consult with participants on whether to re-open to ensure there are no outstanding issues which might be further exacerbated by the market re-open.
- When a venue restarts it should open in a manner which avoids dependency on the primary opening and causes minimal disruption to trading.
- For response specific to bond MTFs only please see response to Question 12

After an outage

Trading venues should provide all stakeholders and members with a comprehensive post-mortem analysis and follow-up points after any major incident, which should include disclosure of the root cause and the steps taken to rectify and prevent recurrence. Please refer to our comments above, and below at our response to Question 14, regarding the recent NasdaqOMX outage.

Q2: To promote harmonisation, should the guidance include a template on what trading venues' communication notices should include?

Yes, as a minimum the template should include the following information:

- Outage status
- Outage scope
- Outage cause (technological level of the disruption) if known
- "No update", if this is the case
- A link to the venue's playbook, including highlighting where reopening information can be found
- Status of orders, (including on a bilateral basis the information proposed by ESMA at paragraph 37)
- Likely time to reopening

Q3: Do you agree that trading venues should have a maximum of one-hour to provide clarity on the status of the orders during an outage? If not, what would be an appropriate timeframe in your view and why?

No, we disagree that a maximum 1 hour time-frame would be appropriate. We understand that gaining a comprehensive view of order status' post outage can take some time, but this should be the main priority in the event of an outage. Information on the status of submitted orders is crucial to enable market participants to continue trading on alternative venues. It is imperative that participants are able to assess their risk positions before they are able to resume trading or reset routing processes as appropriate. Unfortunately, we do not feel that primary exchanges are necessarily incentivised to quickly provide a critical enabler to breaking the current watch and wait behaviour by market participants and we fear that the status of orders communication would likely be issued nearer the expiry of this maximum one-hour period rather than as soon as is technically possible. Therefore, it is possible that this guideline could inadvertently put in place a minimum hour long entire market down scenario, where the primary market outage is a serious one, ahead of the notice period to reopening.

This type of communication should be aligned with the expectation on the notice of disruption, ie as soon as technically possible and instead within a maximum timeframe of 30 minutes.

Q4: Do you think the possibility to require trading venues to offer an order book purge should be considered in the guidance? If yes, should ESMA provide further guidance on when the integrity of the orders has been largely compromised?

Yes, we broadly agree that venues should be required to offer an order book purge where appropriate but this might be limited to requiring venues to define scenarios in which order integrity is compromised such that this would be enacted. For example, an authorised person should be allowed to request a selective purge depending on the type of flow (e.g. based on trading sessions connected to the venue). It may be useful for all EU venues to offer clients functionality similar to "cancel on disconnect" already offered by some venues.

REOPENING

Q5: What is your view with regards to the conditions under which a trading venue should reopen trading?

Any planned re-opening times should be published as ESMA proposes with the same accessibility as for the "notice of disruption". Re-opening times should be communicated clearly to the market, on which we agree with ESMA that this should be at least 30 minutes prior to opening and re-open, but also on a "round" time increment (e.g. on the hour or half hour).

Trading venues should consult with participants on whether to re-open to ensure there are no outstanding issues which might be further exacerbated by the market re-open.

With regard to whether a trading venue should reopen with the normal continuous order book, without a pre-opening phase, or have an auction amongst participants before resuming the trading via the order book, we do not believe that the guidance should prescribe how venues should reopen. Instead a trading venue should be required to make an assessment based on the specific market circumstances as to how it will resume trading and that these reopening procedures should be pre-established and contained within its playbook. We have highlighted previously that certain changes introduced by MiFID II have increased the likelihood that trading will not migrate to other venues where the "most relevant market" is not operating. These concentrate financial markets' reliance on individual venues (exacerbating or contributing to disorderly markets), inhibit investors' ability to manage their investments and prevent the migration of activity to other markets (where it could safely otherwise take place in an orderly manner). In the event that an industry agreed reference price, i.e. one that is "widely published and is regarded generally by market participants as a reliable reference price", can be recognised, then a trading venue should reopen in a manner pre-established by its playbook and which causes minimal disruption to ongoing trading.

For our response specific to bond trading only please see response to Question 12.

CLOSING AUCTIONS

Q6: What is your view in relation to the closing auction being affected and the procedures that trading venues should have in place to minimise disruption?

We agree with ESMA that venues should have in place clear arrangements to ensure that the market is provided with a closing price for the day and we strongly caution against venues being able to postpone the closing auction until some unspecified time later in the day. We deem it essential that the closing action occurs within a reasonable time, e.g within 20 minutes, allowing the market to close no later than 18:00 (CET). This is necessary to avoid issues with order closing procedures for Order Management Systems. If owing to the nature of the outage venues are unable to publish market data containing close prices by 18:00 (CET), they should publish a list of close prices on a spreadsheet on their website and to market data vendors. The spreadsheet should contain ISIN, SEDOL, RIC, Currency and Price.

We agree with ESMA (at paragraph 47) that a number of challenges arise in relation to mandating that trading venues have an alternative venue to perform the closing auction, not least a possibly prohibitive build cost for an alternative venue. Please see our response to Question 7 for further comments.

Please see our response to Question 9 for our views regarding closing price procedures.

Q7: Do you agree not to mandate trading venues to have an alternative trading venue capable of running the closing auction for them? If not, please explain.

We agree that ESMA should not mandate trading venues to have an alternative trading venue capable of running the closing auction. Owing to the relative infrequency of outages, particularly during the close, we note that the economic driver to build expensive infrastructure for such scenarios is likely to be very low for alternative venues while at the same time market participants are likely to have low confidence in relatively untested infrastructure.

An achievable solution for now would be for primary exchanges to pre-establish in their playbooks our proposed closing price waterfall provided in our response to Question 9 below. Solutions in the longer term must weigh carefully the utility-like function of this section of the trading day to the wider market and in doing so consider how closing auctions are currently run by primary exchanges and whether they need be regulated accordingly.

Q8: Do you agree that trading venues should have a cut off time (30 minutes before the normal schedule) to inform market participants on whether or not they intend to hold a closing auction?

Yes, AFME agrees that that trading venues should notify market participants 30 minutes before the normal schedule whether or not they intend to hold a closing auction. Recent events demonstrate that market operators could avoid uncertainty and disruption near the close if they can provide reasonable notice. This is valid particularly for exchange groups experiencing technological issues in one market where their connected markets close a little later in the day.

Q9: Do you agree that the use of the last traded price is an appropriate solution in those cases that a trading venue cannot run the closing auction? If not, what alternative would you propose?

While we agree with ESMA the Consolidated tape (CT) cannot be a solution to this issue in short term, we do believe it will introduce new possibilities to enhance resilience for markets and may provide a more stable benchmark to set a closing price in the longer term. Absent the CT, it may be difficult to achieve a benchmark which is easily formed across all venues while the primary is suffering an outage or which is universally agreed by market participants. In addition, it should be borne in mind that the price type chosen or timing of its dissemination will impact market behaviour, not least participants' decisions on whether they can continue to trade. Last traded price can be an appropriate solution provided that it is a valid and reasonable price, i.e. a price that has been executed and in normal circumstances would be in line with trading venues' existing price controls. This last traded price should be formed when, incontrovertibly, it was not during a period when there were disorderly trading conditions (including for example, when many or all participants were unable to trade on the venue).

We would also encourage ESMA to include in its guidance expectations more robust contingency scenario planning by primary exchanges, including a decision waterfall illustrating solutions for such possible scenarios. ESMA should provide guidance to NCAs that, in the event that a market outage has prevented the establishment of a closing reference price in the usual manner, the closing price should be determined by following this cascade:

- Last traded price

- Opening price, where continuous phase has not commenced
- Prior closing price, where the market has not opened

We believe that setting these out ex-ante would provide for a viable close and should in most cases negate the need to mandate an alternative closing mechanism. We agree with ESMA (at paragraph 47) that a number of challenges arise in relation to mandating that trading venues have an alternative venue to perform the closing auction, not least a possibly prohibitive build cost for an alternative venue. In the event of the CT being established, any existing processes for setting the closing price should be reviewed and optimised.

REFERENCE PRICE

Q10: Is the lack of a reference price an issue in an outage context? If so, please provide details

Yes, certain changes introduced by MiFID II have increased the likelihood that trading will not migrate to other venues where the "main" market (i.e. the market where the instrument is admitted to trading) is not operating. These concentrate financial markets' reliance on individual venues (exacerbating or contributing to disorderly markets), inhibit investors' ability to manage their investments and prevent the migration of activity to other markets (where it could safely otherwise take place in an orderly manner):

a) We believe that the definition of the most relevant market in terms of liquidity (Article 4, RTS 1) should be amended and its use reviewed. This definition is important as it currently drives the reference price for the reference price waiver, provides a reference price for SI quoting (Article 10 RTS 1) and is relied on for the material market definition to determine the venue that communicates announcements on trading halts (Article 1 RTS 12).

b) In calculating the most relevant market in terms of liquidity, the opening and closing auction turnover should be excluded from the calculation (as are other forms of trading such as negotiated and large in scale transactions). These are trading phases which do not take place on other venues and so decrease the likelihood that a market other than the main market will be the most relevant market. It prevents like-for-like comparison of the continuous trading phase (that happens on multiple markets).

c) There is no reason that reference price waiver (Art 4(1)(a) of MiFIR) should rely on the most relevant market in terms of liquidity. Choosing to retain such a definition impedes the orderly migration of trading to alternative venues when the most relevant market in terms of liquidity has an outage. In other words, the existing definition removes resilience from European financial markets, which, as a result of the rule, cannot rely on existing alternative venues that are not suffering an outage at moment. For once, increasing resilience of EU equity markets can be done without long lead times and expensive investment: all that is needed is to return to a definition similar to the one that existed in MiFID I (e.g. a price that is "widely published and is regarded generally by market participants as a reliable reference price").

d) SIs should be able to formulate their quotes on the basis of prices other than that most relevant market where that market is not in operation. An amendment should be made to Article 10 of RTS 1 to permit this (e.g. by adding "unless the most relevant market in terms of liquidity is not operating or not operating in an orderly fashion, in which cases the SI may use other reference prices that it determines reflect prevailing market conditions"). This will minimise disruption to SI market and other segments when the primary market is down.

NON-EQUITY TRADING VENUES

Q11: Do you agree with the proposed approach for non-equity instruments? Do you agree that provisions on par. 37-39 can be exempted for those trading venues that do not provide CLOB?

AFME believes that there may be a narrower scope of operational and potential market risk attached to bond execution orders that are released to RFQ-style bond trading venues than might be the case with equity orders released to a CLOB. However in cases of severe market outage there remains a material risk of order / trade duplication in cases where the status of bond orders released to an MTF from a buy-side OMS or EMS is unclear to the order submitter because of the outage. This risk is potentially heightened when the buy-side client is using the automated trading functionalities that have been pioneered by certain platforms in recent years. A buy-side client using automated trading functionalities, which sit entirely within the broader technical structure of the FI MTF, will flag within the trade submission order from the OMS or EMS that that specific trade should be executed using the automated trading functionality. The MTF platform will then automatically launch RFQs to dealers / SIs and then potentially execute on one of the quote responses according to criteria and rules that have been predefined by that client in the MTF system. If the progress or status of such orders is unclear to the buy-side client because of the market outage it creates the potential for duplication if the client assumes the order has not been executed and proceeds to execute the trade on another venue.

For these reasons AFME believes that the following provisions *should* apply to bond trading MTFs: 37a, 37b, 37c, 38 – with the amendment that the time period referred to should be amended to 30 minutes as per our response to Question 3 above and also, from a fixed income perspective only, that communications be in both machine readable AND e-mail formats – and 39.

Q12: Is there any particular issue relating to trading of non-equity instruments that should be taken into account in the case of an outage? Where possible please differentiate between bonds and derivatives.

In reference to paragraph 41 of this CP, and noting the first sentence of paragraph 57, in the context of RFQ based bond trading venues only AFME believes that the requirement for a minimum of 30 minutes notice prior to a venue reopening after a market outage may be excessive. Notwithstanding the contents of our response to Question 11 above, in bond trading workflows the levels of technical complexity employed by third party applications in the transmission and management of orders to the trading venue are typically lower than that of those connected to and managing execution in a CLOB. For this reason, the time required for full operational recovery of third party OMS and EMS systems connected to a bond trading venue can typically be less. For this reason AFME believes a more appropriate minimum notice period before market reopening can occur would be in the order of 10 minutes.

Q13: Is there a direct link/connection between an outage on an equity primary market and those derivatives that have these instruments as underlyings?

Yes, there is a direct link between an outage on an equity primary exchange and those derivatives that have these instruments as underlyings. For example, the Nasdaq playbook at section 3.4 on "Monitoring of fair and orderly markets" makes clear that "*derivatives with traded underlying assets are halted if the underlying contracts are halted. This is primarily relevant for equity and index related derivatives such as stock and index future and options, warrants and ETPs"*[1]*.*

In line with our response to question 10 above, the regulatory framework is such that trading will be disrupted for equity derivatives where the market for the underlying instrument is not operating. This linkage could be broken if alternative trading venues were able to continue trading without reliance on the "most relevant market" as currently defined, and then derivatives markets would be able to reference prices other than those now unavailable from the primary exchange in halt.

Q14: In your view is there any further element ESMA should consider in the proposed guidance?

We note that with regard to expectations following the outage that ESMA proposes at paragraph 43 that "NCAs should ensure that trading venues undertake a post-mortem exercise to understand what caused the disruption, evaluate their response, and identify any potential areas for improvement along with a concrete timeline for remediation and allocation of 'ownership' of the necessary improvements. NCAs should require trading venues to communicate to them the results of this exercise. NCAs should subsequently inform ESMA."

In our view this does not go far enough because it confines any obligation or communication of this expectation to between the trading venue and the NCA. As noted in our response to Question 1 above, it is AFME's view that trading venues should provide all stakeholders and members with a comprehensive post-mortem analysis and follow-up points after any major incident: it should include disclosure of the root cause and the steps taken to rectify and, importantly, prevent a recurrence of the same issue. Taking the recent Nasdaq outage as an example, in the post mortem report regarding its root cause, members were informed only that *"The root cause has been identified and a resolution implemented."*

ESMA may also wish to consider the nature and impact of partial outages for market resilience and efficiency. If, owing to a fault at the venue, a number of participants are unable to connect to the venue across all channels, a venue could 1) make an assessment about the need to announce to the market more broadly that not all members or participants are able to participate, and 2) make an assessment about whether orderly trading conditions are possible if a significant number of participants (or participants representing a significant portion of overall activity) are unable to connect. The venue should create and publish criteria by which they would make such assessments.

[1] https://www.nasdaq.com/docs/2022/07/01/Nasdaq_Incident_Playbook_1.0.pdf

AFME Contacts
April Day

April.day@afme.eu

+44 (0)20 3828 2682

Victoria Webster
Victoria.webster@afme.eu

+44 (0)20 3828 2689

Published
December 2022