



European Securities and  
Markets Authority

# Consultation Paper

**Guidelines on the calibration, publication and reporting of trading halts**



## Responding to this paper

ESMA invites comments on all matters in this paper and in particular on the specific questions summarised in Annex I. Comments are most helpful if they:

- respond to the question stated;
- indicate the specific question to which the comment relates;
- contain a clear rationale; and
- describe any alternatives ESMA should consider.

ESMA will consider all comments received by **6 December 2016**.

Respondents are invited to use the reply form also published on the ESMA website. All contributions should be submitted online at [www.esma.europa.eu](http://www.esma.europa.eu) under the heading 'Your input - Consultations'.

### Publication of responses

All responses received will be published following the close of the consultation, unless you request otherwise. Please clearly and prominently indicate in your submission any part you do not wish to be publically disclosed. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure. Public access to the responses for which a request for non-disclosure has been made and any document or information related thereto will be dealt with by ESMA in compliance with Regulation (EC) 1049/2011<sup>1</sup> and ESMA's internal rules<sup>2</sup>.

### Data protection

Information on data protection can be found at [www.esma.europa.eu](http://www.esma.europa.eu) under the heading "Data Protection".

### Who should read this paper

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<sup>1</sup> Regulation (EC) No. 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents, OJ L 145, 31.5.2001, p. 43–48

<sup>2</sup> Decision of ESMA's Management Board of 24 May 2011, ESMA/2011/MB/69

This paper may be specifically of interest to national competent authorities defined in Article 4(1)(18) of Directive 2014/65/EU<sup>3</sup>, trading venues subject to the requirements of Article 48(4) and (5) of Directive 2014/65/EU, firms considering becoming a data reporting services provider as defined in Article 4(1)(63) of Directive 2014/65/EU, investment firms as defined in Article 4(1)(1) of Directive 2014/65/EU as well as wholesale and retail investors.

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<sup>3</sup> Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EC, OJ L 173, 12.6.2014, p. 349-496  
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## Acronyms used

AVH	Volatility halt occurring during an auction
CVH	Volatility halt occurring during continuous trading
DRSP	Data reporting service provider
ESMA Regulation	Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC
HFT	High frequency trading
MiFID or MiFID I	Markets in Financial Instruments Directive – Directive 2004/39/EC of the European Parliament and the Council
MiFID II	Directive 2014/65/EU of the European Parliament and of the Council on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU
MiFIR	Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments and amending Regulation (EU) No 648/2012
MTF	Multilateral trading facility
NCA	National Competent Authority
OTF	Organised trading facility
RTS	Regulatory Technical Standards
VH	Volatility halt

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## 1. Executive Summary

### Reasons for publication

Article 48(5) of Directive 2014/65/EU (MiFID II) provides that “Member States shall require a regulated market to be able to temporarily halt or constrain trading if there is a significant price movement in a financial instrument on that market or a related market during a short period and, in exceptional cases, to be able to cancel, vary or correct any transaction”. Under Article 48(13), ESMA is mandated to develop Guidelines on the calibration of those trading halts.

The obligation for regulated markets to be able to halt or constrain trading in case there is a significant price movement in a “related market” requires implicitly regulated markets to monitor how trading evolves in those related markets. In that context, ESMA considers necessary to issue Guidelines at its own initiative on how trading halts should be communicated to market participants and other venues.

Finally, the second paragraph of Article 48(5) of MiFID II establishes that “Member States shall ensure that a regulated market reports the parameters for halting trading and any material changes to those parameters to the competent authority in a consistent and comparable manner, and that the competent authority shall in turn report them to ESMA”. In order to ensure consistency and comparability of those reports, ESMA is proposing Guidelines at its own initiative on the procedure and format of those submissions.

### Contents

The proposed Guidelines aim to provide guidance on (i) the calibration of trading halts as per Article 48(13) (section 3.2), (ii) the dissemination of information regarding the activation of mechanisms to manage volatility on a specific trading venue (section 3.3) and (iii) the procedure and format to submit the reports on trading halts’ parameters from National Competent Authorities (NCAs) to ESMA (section 3.4).

### Next Steps

ESMA will consider the responses received to this consultation paper with a view to finalising the Guidelines and publishing a final report in Q1 2017.

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## 2. Background and mandate

1. Over the past decade, the introduction of new regulatory requirements (Directive 2004/29/EC (MiFID I) in particular) and the adoption of new technologies have significantly reshaped the microstructures of financial markets. The traditional marketplaces which concentrated all trading volumes now have to compete with new types of execution venues (e.g. multilateral trading facilities (MTFs) and, after the application of MiFID II in 2018, organised trading facilities (OTFs)) resulting in more fragmented markets and facilitating the emergence of new types of trading practices based on advanced technologies such as high-frequency trading (HFT). This evolution is not confined to the equity markets but also increasingly evident in non-equity markets.
2. Those new realities of modern markets, such as fragmentation of the markets and increased reliance on algorithmic trading practices, pose new challenges from a regulatory standpoint and call for appropriate measures to ensure fair, safe and resilient markets.
3. The so-called flash crashes, whereby a sudden, significant price drop in an instrument occurs without any warning followed by a swift reversion of the price, are one topic that has attracted greater attention over recent years. Within modern markets, speed and interconnectivity appear to represent a fertile ground for price overreactions, extraordinary volatility and sudden price drops which adversely impact market orderliness and confidence. Oft-cited illustrations of flash crashes include events that occurred on 6 May 2010 on NYSE, or more recently, the flash rally in US Treasury markets which occurred on 15 October 2014 and US ETF markets on 24 August 2015.
4. Against this backdrop, certain exchanges and regulators have set in place trading halt mechanisms with the aim of preventing or limiting the occurrence of such market turmoil - some exchanges had these mechanisms long before the flash crashes in the US took place. Trading halts constrain or interrupt the trading activity during excessive volatile periods so as to create breathing space and give investors a chance to reassess their positions and strategy. These halts are triggered in case the price of an executed trade or potentially executed trade diverges or would have diverged excessively from a pre-determined price or price range.
5. At European level, the concept of trading halts was first introduced in the regulatory framework by the Guidelines published in 2012 by ESMA (Guidelines on Systems and Controls in an Automated Trading Environment<sup>4</sup>) according to which trading platforms should have in place “arrangements (for example, volatility interruptions or automatic rejection of orders which are outside of certain set volume and price thresholds) to

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<sup>4</sup> ESMA/2012/122

constrain trading or to halt trading in individual or multiple financial instruments when necessary, to maintain an orderly market”.

6. MiFID II builds on the 2012 Guidelines and introduces two types of requirements with respect to the management of volatility: whereas Article 48(4) imposes on trading venues “to have in place effective systems, procedures and arrangements to reject orders that exceed pre-determined volume and price thresholds or are clearly erroneous”, Article 48(5) demands trading venues to have the ability to “temporarily halt or constrain trading if there is a significant price movement in a financial instrument on that market or a related market during a short period”.
7. Article 48(13) of MiFID II mandates ESMA to develop Guidelines on the appropriate calibration of trading halts, taking into account the factors referred to in paragraph (5): i.e. liquidity of the different asset classes and sub-classes; nature of the market model and types of users.
8. Additionally, and in accordance with Article 16 of Regulation (EU) 1095/2010<sup>5</sup>, ESMA proposes in this paper Guidelines at its own initiative with respect to (i) the dissemination of information regarding the activation of mechanisms to manage volatility on a specific trading venue and (ii) the procedure and format to submit the reports on parameters relating to trading halts from NCAs to ESMA.
9. The Guidelines on dissemination of information regarding the activation of trading halts are instrumental to the implementation of the obligation for regulated markets to be able to halt or constrain trading in case there is a significant price movement in a financial instrument in a related market established in Article 48(5) of MiFID II.
10. The Guidelines on the procedure and format to submit the reports on the parameters used for trading halts from NCAs to ESMA are necessary to ensure the consistency and comparability of those reports as requested under Article 48(5) second paragraph.
11. ESMA has considered that those two last sets of Guidelines are closely linked to the Guidelines to be drafted as per Article 48(13) of MiFID II and, therefore, should be tackled within the same document.

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<sup>5</sup> Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending decision Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC.



## 3. Analysis and Guidelines

### 3.1. Scope

#### Entities subject to these Guidelines

12. These Guidelines apply to NCAs and trading venues (regulated markets, MTFs and OTFs).
13. The initial and ongoing calibration of the parameters of trading halts and the disclosure of trading halts is the responsibility of trading venues. Although Article 48 of MiFID II refers explicitly to regulated markets, Article 18(5) of the same Directive expands those obligations to MTFs and OTFs.
14. The mandate conferred to ESMA under Article 48(13) of MiFID II does not stipulate any restrictions in terms of trading systems and financial instrument to be covered by those Guidelines. However, Recital (64) of MiFID II indicates that trading halts are to be set in place to “ensure that algorithmic trading or high-frequency algorithmic trading techniques do not create a disorderly market”.
15. ESMA is therefore of the view that the Guidelines should apply to all trading systems<sup>6</sup> allowing or enabling algorithmic trading<sup>7</sup>.
16. ESMA considers that the Guidelines should not be restricted to certain classes of financial instruments and should, on the contrary, apply to all equity, equity-like and non-equity instruments that are within the scope of MiFID II. While, as indicated under Article 48(13) of MiFID II, the liquidity of a financial instrument has to be taken into consideration when calibrating the trading halts, the Guidelines should apply to all financial instruments regardless whether they are considered liquid or not.
17. NCAs to which these Guidelines apply should comply by incorporating them into their supervisory practices as appropriate and also by submitting the reports required under the second paragraph of Article 48(5) according to the procedure and format set out in these Guidelines under section 3.4.

#### Arrangements to manage excessive volatility

18. There are many different types of mechanisms currently in use by the market operators to address abnormal market conditions. Such mechanisms may be used to manage excessive volatility that may arise in their markets (in which case they are called “volatility

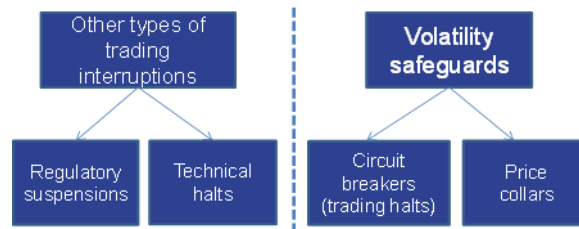
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<sup>6</sup> For the description of the different types of trading systems, see Annex I of RTS 1 on transparency requirements in respect of shares, depositary receipts, exchange-traded funds, certificates and other similar financial instruments or Annex I of RTS 2 on transparency requirements in respect of bonds, structured finance products, emission allowances and derivatives.

<sup>7</sup> A definition of algorithmic trading is provided under Article 4(1)(39) of MiFID II.

safeguards”), but also in response to regulatory requirements or other technical issues that may arise in the market. In general, ESMA categorises such mechanisms in the following way (see Chart 1 below)

**Chart 1: Types of trading halts and volatility safeguards**

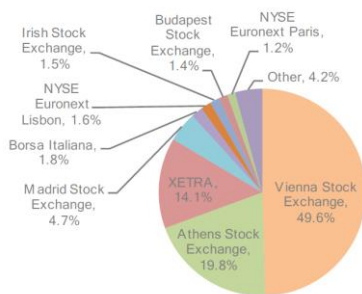


19. Under Article 48(13) of MiFID II, ESMA is required to develop Guidelines on the appropriate calibration of trading halts. The term “trading halt” encompasses mechanisms where trading is temporarily halted as well as mechanisms where trading switches to auction mode or, alternatively, extends the auction period. Article 48(5) covers both cases. Resumption of trading usually occurs subsequent to the completion of an auction to establish a market clearing price.
20. Another common distinction concerns the reference price that is used to trigger the automatic halt and which is usually calibrated in accordance with the nature of the financial instrument concerned and its volatility profile. One could distinguish here between trading halts using fixed or static reference prices (e.g. the closing price of the previous trading session or the opening price) from those based on dynamic reference prices (e.g. the price of the last transaction).
21. All the mechanisms described above should be covered in the Guidelines.
22. However, the Guidelines should neither concern:
  - i. suspensions and removals of financial instruments from trading (initiated by the market operator or the NCA as per Articles 52, 32 and 69 of MiFID II respectively);
  - ii. technical halts caused, for instance, by outages of the IT infrastructures of the venue. These trading interruptions are of technical nature in contrast with trading halts linked to price volatility in the market;
  - iii. mechanisms to reject erroneous orders such as order price (or volume) collars which are nevertheless mandatory under Article 48(4) of MiFID II.

### 3.2. Calibration of volatility parameters

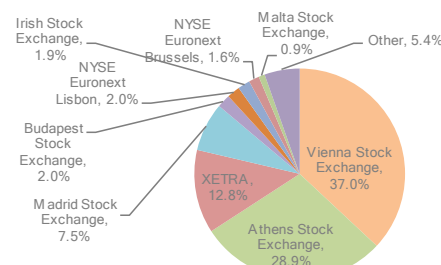
23. A recent study published by ESMA in August 2016<sup>8</sup> shows that although the vast majority of trading venues in the EU have in place volatility safeguard mechanisms, there is wide variation in the types of trading halts employed as well as in the way they are calibrated across EU trading venues.

**Chart 2: CB trigger events by trading venue (normalised) - Uneven distribution**



Note: Number of circuit breaker trigger events by EU trading venues, normalised by the financial instruments traded in the respective venues and present in our sample. Data observed in the period from 01/01/2016 to 31/03/2016. The category "Other" includes: EuroTLX, Malta Stock Exchange, NYSE Euronext Amsterdam, NYSE Euronext Brussels, OMX Copenhagen, OMX Helsinki, Prague Stock Exchange, LSE and Warsaw Stock Exchange. The number of financial instruments in our sample per trading venue concerned is: Athens Stock Exchange (15), Borsa Italiana (556), Budapest Stock Exchange (24), EuroTLX (218), Irish Stock Exchange (9), LSE (321), Malta Stock Exchange (6), Madrid Stock Exchange (37), NYSE Euronext Amsterdam (49), NYSE Euronext Brussels (27), NYSE Euronext Lisbon (19), NYSE Euronext Paris (107), OMX Copenhagen (24), OMX Helsinki (18), Prague Stock Exchange (13), Vienna Stock Exchange (16), Warsaw Stock Exchange (35), XETRA (186). Sources: Morningstar Real Time, ESMA.

**Chart 3: Financial instruments hit by CBs (normalised) - Concentrated in few trading venues**



Note: Number of financial instruments affected by circuit breaker trigger events, normalised by the financial instruments traded in the respective venues and present in our sample. Data observed in the period from 04/01/2016 to 31/03/2016. The category "Other" includes: Borsa Italiana, EuroTLX, NYSE Euronext Amsterdam, NYSE Euronext Paris, OMX Copenhagen, OMX Helsinki, Prague Stock Exchange, LSE and Warsaw Stock Exchange. The number of financial instruments in our sample per trading venue concerned is: Athens Stock Exchange (15), Borsa Italiana (556), Budapest Stock Exchange (24), EuroTLX (218), Irish Stock Exchange (9), LSE (321), Malta Stock Exchange (6), Madrid Stock Exchange (37), NYSE Euronext Amsterdam (49), NYSE Euronext Brussels (27), NYSE Euronext Lisbon (19), NYSE Euronext Paris (107), OMX Copenhagen (24), OMX Helsinki (18), Prague Stock Exchange (13), Vienna Stock Exchange (16), Warsaw Stock Exchange (35), XETRA (186). Sources: Morningstar Real Time, ESMA.

24. Such a diversity in the mechanisms employed in Europe might come from the fact that the analysis of the trading halts raises questions with respect to the underlying concept of volatility such as: how to define volatility, should volatility necessarily be regarded as something detrimental for financial markets, what should be considered as an adequate level of price volatility and, conversely, what should be considered as "excessive" volatility, etc.

25. ESMA notes that it is difficult to provide one-size-fits-all answers to those questions and believes that it is important to leverage, where appropriate, on the trading venues' expertise and on their knowledge of the financial instruments traded on them.

26. In ESMA's view, the proposed Guidelines should therefore be sufficiently broad so as to encompass all types of trading halts and avoid recommending specific and quantitative parameters while being sufficiently precise to ensure a certain degree of harmonisation and provide useful guiding principle to European venues.

<sup>8</sup> Circuit breakers in the EU – use and effects, ESMA Report on Trends, Risks and Vulnerabilities, n°2, 2016 (ESMA/2016/1234).

27. The Guidelines below recommend for the calibration of volatility parameters to be supported by a statistically representative study of the instruments' behaviour that could serve to infer the possible future price patterns.
28. The calibration of the parameters should be done at a sufficiently granular level. ESMA considers that, as a minimum, it should be done:
  - i. for non-equity financial instruments, at the level of the asset classes as defined in Annex III on RTS 2 on non-equity transparency (i.e. bonds, structured finance products, securitised derivatives, interest rate derivatives, equity derivatives, commodity derivatives, foreign exchange derivatives, credit derivatives, C10 derivatives, financial contracts for differences and emission allowances); and,
  - ii. for equity instruments at the level of the classes of financial instruments described in Table 2 of Annex III of RTS 1 on equity transparency under the field "MiFIR identifiers" (i.e. shares, depositary receipts, exchange traded funds, certificates and other equity-like financial instruments).
29. However, it might be necessary to establish the parameters at a more granular level reaching, where appropriate, a per instrument level.
30. With respect to the duration of trading halts, ESMA considers that whereas trading venues should be able to introduce an element of randomisation of the duration of each trading halt, it is important to provide their members and participants with an element of predictability as to when normal trading may resume. In view of these needs, ESMA considers appropriate for trading venues to publish information on the minimum and maximum possible length of trading halts.
31. In order to avoid situations where trading on a specific trading venue affects the price discovery process on others, ESMA recommends that trading venues take into account not only the correlation with other assets but also whether the instrument is also traded in other competing trading venues. The latter is of particular interest for referenced price systems.
32. ESMA proposes in this respect that the calibration of trading halts takes into account "external references", considering as such other financial instruments which have relevant statistical correlation with the specific instrument. However, ESMA is not proposing an alignment or coordination between the parameters of the different correlated instruments.
33. Similarly, ESMA proposes that on the basis of the public information available, trading venues should monitor the frequency of trading halts that occurred on other venues trading the same instrument (e.g. if two venues trading the same instrument with similar levels of liquidity diverge severely in terms of number of trading halts, this divergence should be

analysed for the purposes of calibration of the trading halts). Again, ESMA is not proposing an alignment between the parameters of the different venues trading the same instrument.

34. In this regard, it is important to clarify that under Article 48(5) there are different obligations to take into account:
- i. Trading venues must be able to halt or constrain trading in case of a significant price movement on a related market (including those venues that trade the same instrument as well as the venues where statistically correlated instruments to the one in question are traded), but they are not obliged to do so. As a corollary of this requirement, trading venues have to monitor the trading activity in related markets, without relying on any other communication from the NCAs regarding trading halts that occurred in other jurisdictions.
  - ii. Trading venues must ensure that the parameters for their trading halts are correctly calibrated. In doing so, they must take into account instruments that are statistically correlated, both in terms of asset and markets.
  - iii. Material markets in terms of liquidity (as defined in the draft Regulatory Technical Standard (RTS) 12<sup>9</sup> on the determination of a material market in terms of liquidity relating to trading halt notifications) must have the means to timely report to their NCA any trading halt in order to allow, where necessary, a market-wide response. Given the short timeframe in which trading halts take place, the most likely scenario is that in such situation, other NCAs will exercise their power to suspend trading in a financial instrument in accordance with Article 69(2)(m) of MiFID II (i.e. through a regulatory suspension).
35. It should be noted as well that volatility has to be managed differently depending on the specific market situation. In particular, ESMA considers that in those situations where the price move is led by information referring to the valuation of the financial instrument and where this information is public and known in advance, orderly trading can be best assured by allowing higher volatility thresholds (which is common practice when a venue declares a “fast market”). In that respect, trading venues should have procedures in place to manage situations where the parameters have to be manually overridden for ensuring orderly trading (see Article 19(4) of Draft RTS 7 on organisational requirements of regulated markets, multilateral trading facilities and organised trading facilities enabling or allowing algorithmic trading through their systems).
36. Finally, ESMA considers that the current diversity in terms of parameters to manage volatility is positive in terms of preventing market-wide events and that the implementation

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<sup>9</sup> Please note that, for ease of reference, RTS have been numbered in this document in accordance with the numbering used in the package sent by ESMA to the Commission in September 2015 (ESMA/2015/1464). Readers are nevertheless invited to consult the Commission and European Parliament websites for more updated versions of those RTS.

in Europe of mechanisms like the market-wide circuit breakers as implemented in the US would be challenging. At the same time, ESMA is mindful of the lack of instruments or mechanisms at a pan-European level beyond what is prescribed in Article 48(5) second paragraph of MiFID II to address any potential global volatility event.

37. From that perspective, ESMA is keen on gathering the views of market participants with respect to the potential improvements that could be fostered from the regulatory perspective to prevent any type of market-wide events, such as those described in paragraph 3 (“flash crashes”).

### **Proposed Guidelines**

38. Trading venues should calibrate the volatility parameters applicable to their mechanisms to manage volatility according to a methodology which takes into account the nature of the financial instrument, its liquidity and volatility profile as well as the trading mode and rules of the trading venue. The mechanisms set in place by trading venues should use reference prices which are reliable drivers of the volatility behaviour of the concerned instrument and, where appropriate, should have the ability to refer to external references.

39. Trading venues should calibrate volatility parameters according to a pre-defined, statistically supported methodology, taking the following elements into account:

- i. **The nature of the financial instrument:** trading venues should calibrate a set of parameters at least at the level of a class of financial instrument, and where necessary, at a more granular level reaching per instrument level, taking into account, in a combined manner, the other parameters described below.
- ii. **The liquidity profile and the quotation level of the financial instrument:** trading venues should calibrate their mechanisms to halt or constrain trading taking into consideration the degree of liquidity of the financial instrument, the existence of clear liquidity patterns and possible changes of the liquidity due to pre-set events such as new issuance or expected corporate actions.

Trading venues should in particular have tighter parameters for instruments considered to be liquid. The calibration should accommodate subscription rights and instruments with low quotation levels by allowing broader parameters.

- iii. **The volatility profile of the financial instrument:** The calibration should be supported by a statistical study taking into consideration past volatility with the aim to enable trading venues to infer future volatility.

Trading venues may take into consideration metrics such as the overnight volatility of the financial instrument, the absolute maximum intraday deviation and the expected frequency of activation of the mechanism.

- iv. **The order imbalance:** trading venues should identify circumstances where significant order imbalances or exceptional circumstances require the volatility parameters to be re-calibrated. Where appropriate, trading venues should be able to manually re-calibrate their volatility parameters following a pre-defined procedure and with the objective of minimising the duration of the trading interruption.
  - v. **Trading venue mode and rules:** trading venues should have tighter volatility parameters for continuous auction and quote driven systems. Trading venues may calibrate volatility parameters differently depending on the trading phase.
  - vi. **External references:** trading venues should, when calibrating volatility parameters, consider but not necessarily replicate, the statistical correlation between instruments, in particular, in cross-asset (e.g. cash and future instrument) and cross-market (e.g. multi-listed instrument) situations. For price referenced trading venues, the valid reference should be the primary market or the most liquid market.
  - vii. **Duration of the halts:** trading venues may follow a flexible approach when deciding the time length of the volatility interruptions system and introduce a certain degree of randomisation on the duration of a specific trading halt. In this case, trading venues should set and communicate to their members and participants the minimum and maximum time period for resuming trading after an interruption.
  - viii. **Newly issued instruments:** trading venues should calibrate volatility parameters through estimates taking into account a peer comparison of similar financial instruments with an expected similar liquidity pattern based on expected market capitalisation, industrial sector or issuance size.
40. When calibrating their volatility parameters, trading venues should take into consideration the number of times the mechanism was used in the previous years on their platforms and on other venues where the same instrument is traded with similar characteristics.
- Q1. Would you consider these factors discussed above to be useful? Could you identify any additional element to be factored in?**
- Q2. Do you consider that the Guidelines regarding calibration of volatility parameters should also apply to mechanisms to reject erroneous orders (i.e. order price / volume collars) and that ESMA should propose Guidelines on this issue at its own initiative?**
- Q3. Is there any other aspect which should be considered in these Guidelines so as to prevent market-wide volatility events given the current structure of European markets?**



### 3.3. External communications upon triggering of a trading halt

41. In accordance with Article 48(5) of MiFID II trading venues should not only monitor the activity undertaken through their systems but also the activity on “related markets”. As a consequence, trading venues should provide to the market accurate and timely information on the trading profile observed in their markets, and in particular on volatility events leading to trading halts. It is therefore appropriate to provide Guidelines aiming to facilitate the dissemination of information related to trading halts between venues in the Union in a convergent manner especially for those instruments that are traded on different venues.
42. Dissemination of information through external communication channel should also help promoting coordination between venues and NCAs in case of exceptional circumstances and facilitate, where appropriate, coordinated or market-wide actions.
43. These Guidelines should facilitate the interpretation of the trading status of instruments under a trading halt and the processing of that information by ensuring that the systems of European trading venues display the information in a harmonised manner.
44. Bearing in mind both the need for the information to be communicated with as little delay as possible, and the potentially high number of such messages to be displayed at the same time, it is necessary for this harmonised format to be as succinct as possible. ESMA believes that such an objective can be achieved through the inclusion of a specific code in the instrument data feed – i.e. VH (volatility halt). The proposed format would also be compatible with the one prescribed under the draft RTS 24 on the maintenance of relevant data relating to orders in financial instruments – i.e. {ALPHANUMERIC\_50}.
45. ESMA is nevertheless aware that certain market participants do not access trading related data directly through the data feed of trading venues but, indirectly, through the data feed of data vendors. ESMA acknowledges that full harmonisation would require those data vendors to re-disseminate the information generated by trading venues maintaining the same format (i.e. VH) so as to enable, where necessary, immediate reaction to this information by the recipients.
46. ESMA is also considering whether further granularity would be necessary, including additional levels of information to differentiate volatility halts occurring during auctions (AVH) from volatility halts occurring during continuous trading (CVH).
47. This additional information could be provided by using the following codes:
  - i. CVH = where a volatility halt occurs during continuous trading
  - ii. AVH = where a volatility halt occurs during an auction (i.e. extension of the auction period)



- iii. Then, if a volatility halt occurring during continuous trading is extended, further information could be provided as follows:
  - a. E\_CVH\_1 = first extension of CVH
  - b. E\_CVH\_2 = second extension of CVH
  - c. E\_CVH\_N = Nth extension of CVH
- iv. Similarly, if a volatility halt occurring during an auction is extended, the following codes could be used:
  - a. E\_AVH\_1 = first extension of AVH
  - b. E\_AVH\_2 = second extension of AVH
  - c. E\_AVH\_N = Nth extension of AVH

### **Proposed Guidelines**

- 48. Trading venues should immediately publish through their order and trade data feeds all information relating to the activation of a trading halt and, for the duration of the trading halt, use the following code as trading status: {VH}
- 49. Trading venues should additionally:
  - i. use this code as trading status in all records where trading status is a required field such as in the order book data described in draft RTS 24 on the maintenance of relevant data relating to orders in financial instruments.;
  - ii. restrict the use of the proposed code to the activation of a mechanism to manage volatility. The code “VH” should in particular not be used for regulatory suspensions, ordinary auction periods or system disruptions.
- Q4. Do you consider that the proposed order and trade feed reporting standard for trading status will contribute to facilitate a correct identification of trading halts across Europe? Do you foresee any drawback on it?**
- Q5. Would you prefer a further degree of granularity in the information provided as described in the text under paragraphs 46 and 47? Please elaborate in case you consider necessary further granularity but you disagree with the proposed approach**
- Q6. Is the code proposed above (i.e. “VH”) appropriate, or should another code be used? Please elaborate in case you consider that another code should be used**



### **3.4. Reporting of trading halts' parameters from NCAs to ESMA**

50. Article 48(5) of MiFID II requires trading venues to report the parameters for halting trading (and any material changes to those parameters) to their NCA. The NCAs are then required to report this information to ESMA. Article 48(5) further specifies that those reports must be done in a “consistent and comparable manner”. In this context, ESMA considers useful to recommend a clear terminology and reporting standards.
51. In particular, the information on parameters for halting trading should be communicated as efficiently as possible and to facilitate this, it is proposed to develop a pre-defined machine-readable reporting template and procedure. This should allow NCAs (and trading venues, if so requested by their NCAs) to submit the relevant information in a consistent and comparable format, facilitating the processing of information by both NCAs and ESMA.

#### **Proposed Guidelines**

52. NCAs should communicate to ESMA the parameters for halting trading (and any changes to those parameters) used by the trading venues under their jurisdiction at least annually and in accordance with the predefined reporting template below.

**Chart 4: Template for reporting trading halts parameters to ESMA**

Identification variables					Information variables												
Trading venue	Instrument or class of financial instrument	Type of trading system*	Trading phase (if different rules apply)	Add any other relevant information (e.g. liquidity, price, index component, etc...)	General description of the mechanisms	Static Price (Yes or No)	Static thresholds (leave blank if none)	Dynamic Price (Yes or No)	Dynamic thresholds	Frequency of updates (Intraday, Daily, Monthly, etc...)	Thresholds disclosed (Yes or No)	Mechanism to extend volatility interruption	Do you have a special mechanism in case of periods of high volatilities? In case please describe	For each threshold, duration of trading halts (without extensions) (specify the duration for fixed duration and random duration, if applicable)	Possibility for trading to be suspended for the rest of the day? (Yes or No)	Mechanism to resume trading	Nb of times it was triggered over the last year
Trading venue 1	Shares	Continuous	Continuous		XXX	Yes	7% of last auction trade	Yes	5% of last trade price	Intraday	No	First extension automatic following ones by Trading venue itself	Fast Market status	Fixed: 2min Random: 0s to 30s	No	Auction	XXX
Trading venue 1	Shares	Continuous	Auction		XXX	Yes	5% of last auction trade	Yes	3% of last trade price	Intraday	No	First extension automatic following ones by Trading venue itself	Fast Market status	Fixed: 2min Random: 0s to 30s	No	Auction	XXX
Trading venue 1	Interest rate Derivatives	Auction	Auction		XXX	Yes	10% of last auction trade	No		Daily	No	XXX	XXX	XXX	XXX	XXX	XXX
Trading venue 1	Bonds	Continuous	Continuous		XXX	No		Yes	5% of last trade price	Intraday	Yes	XXX	XXX	XXX	XXX	XXX	XXX
Trading venue 1	ETFs	XXX	XXX		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Trading venue 1	Equity derivatives	XXX	XXX		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

\*Please use the list of trading systems provided under Table 1 of Annex I of RTS 1 and 2

53. In particular, trading venues should cover the following items in their report:

- i. **Instrument or class of financial instrument:** Where possible, trading venues should report the parameters at an asset class or sub-asset class level and in particular for classes or sub-classes where the same parameters (but not necessarily the exact same thresholds) are used. Trading venues should only provide reports on a per instrument basis where a report at a less granular level would be inappropriate.
- ii. **General description of the volatility mechanism:** Trading venues should provide information about the type of mechanism which are applied in their trading systems and a general description of how the mechanisms operate.
- iii. **Dynamic / static:** Trading venues should specify whether they use a static (opening price, closing price, intraday reference or other) or dynamic (last traded price, potential execution price or other) reference price.
- iv. **Reference price:** Trading venues should provide the reference price that activates the mechanism of management volatility. Where an external reference price is used (e.g. reference price from other trading venue trading the same instrument or other), this should be flagged in the trading venues' report.
- v. **Thresholds:** Trading venues should report the down limits and upper limits (if at all) for activation trading halts. The limits should be expressed in percentage (e.g. a variation of +/- 5% from the reference price).
- vi. **Frequency of updates:** Where the mechanism used by trading venues is subject to regular updates, the report should include the frequency of those updates (intra-day, inter-day, weekly, monthly...).
- vii. **Duration of the halts:** where an automatic trading halt remains in effect for a pre-set amount of time, trading venues should provide this information, including the randomisation parameters.
- viii. **Mechanism employed in resuming the market:** Trading venues should provide a description of mechanism used to resume trading. In particular, where a continuous trading session is interrupted through a trading halt and the resumption of the market occurs through an auction process, trading venues should provide the details of such a mechanism (e.g. duration, randomised or not, etc.).

54. Trading venues should, by 15 January every year, submit a report to their NCA on the parameters used to halt or constrain trading as at 1 January so as to enable verification and update of the data held by the NCAs and ESMA. Trading venues should, during the course of the year, send a new report if they introduce material changes to any of the parameters mentioned above. Changes limited to adjustments of the thresholds used should not be considered as material for this purposes and new reports should only be

sent in case of amendments which affect significantly the functioning and overall structure of the mechanism in place.

**Q7. Do you agree with the reporting template proposed?**

**Q8. Are there any other items that should be included in the template?**

### **3.5. Other related questions**

**Q9. Please provide any views with respect to the costs and benefits identified in the relevant annex.**

## **4. Annexes**

### **4.1. Annex I: Summary of questions**

**Q1. Would you consider these factors discussed above to be useful? Could you identify any additional element to be factored in?**

**Q2. Do you consider that the Guidelines regarding calibration of volatility parameters should also apply to mechanisms to reject erroneous orders (i.e. order price / volume collars) and that ESMA should propose Guidelines on this issue at its own initiative?**

**Q3. Is there any other aspect which should be considered in these Guidelines so as to prevent market-wide volatility events given the current structure of European markets?**

**Q4. Do you consider that the proposed order and trade feed reporting standard for trading status will contribute to facilitate a correct identification of trading halts across Europe? Do you foresee any drawback on it?**

**Q5. Would you prefer a further degree of granularity in the information provided as described in the text under paragraph 46 and 47? Please elaborate in case you consider necessary further granularity but you disagree with the proposed approach**

**Q6. Is the code proposed above (i.e. "VH") appropriate, or should another code be used? Please elaborate in case you consider that another code should be used**

**Q7. Do you agree with the reporting template proposed?**

**Q8. Are there any other items that should be included in the template?**

**Q9. Please provide any views with respect to the costs and benefits identified in the relevant annex.**



## 4.2. Annex II: MiFID II mandate to issue Guidelines

### Article 48 MiFID II – Systems resilience, circuit breakers and electronic trading

[...]

4. *Member States shall require a regulated market to have in place effective systems, procedures and arrangements to reject orders that exceed pre-determined volume and price thresholds or are clearly erroneous.*

5. *Member States shall require a regulated market to be able to temporarily halt or constrain trading if there is a significant price movement in a financial instrument on that market or a related market during a short period and, in exceptional cases, to be able to cancel, vary or correct any transaction. Member States shall require a regulated market to ensure that the parameters for halting trading are appropriately calibrated in a way which takes into account the liquidity of different asset classes and sub-classes, the nature of the market model and types of users and is sufficient to avoid significant disruptions to the orderliness of trading.*

*Member States shall ensure that a regulated market reports the parameters for halting trading and any material changes to those parameters to the competent authority in a consistent and comparable manner, and that the competent authority shall in turn report them to ESMA. Member States shall require that where a regulated market which is material in terms of liquidity in that financial instrument halts trading, in any Member State, that trading venue has the necessary systems and procedures in place to ensure that it will notify competent authorities in order for them to coordinate a market-wide response and determine whether it is appropriate to halt trading on other venues on which the financial instrument is traded until trading resumes on the original market.*

[...]

13. *ESMA shall, by 3 January 2016, develop guidelines on the appropriate calibration of trading halts under paragraph 5, taking into account the factors referred to in that paragraph.*

### 4.3. Annex III: Preliminary high level cost-benefit analysis

Article 16 of Regulation (EU) No 1094/2010 (the ESMA Regulation) requires ESMA, where appropriate, to analyse the potential costs and benefits relating to proposed guidelines. It also states that cost-benefit analyses must be proportionate in relation to the scope, nature and impact of the proposed guidelines.

Article 48(5) of MiFID II provides that “Member States shall require a regulated market to be able to temporarily halt or constrain trading if there is a significant price movement in a financial instrument on that market or a related market during a short period and, in exceptional cases, to be able to cancel, vary or correct any transaction”. Under Article 48(13), ESMA is mandated to develop guidelines on the calibration of those trading halts.

In addition, Article 48(5) further requires trading venues to report “the parameters for halting trading and any material changes to those parameters to the competent authority in a consistent and comparable manner, and that the competent authority shall in turn report them to ESMA”. Although ESMA has not received an express mandate to clarify the implementing aspects of this obligation, it has the power under Article 16 of the ESMA Regulation to adopt Guidelines to establish consistent supervisory practices and to ensure the common, uniform and consistent application of the Union law. In this respect, ESMA is of the view that the proposed Guidelines on the implementing aspects of the reporting obligation achieve the aforementioned objective.

Similarly, ESMA has considered necessary to develop means to ensure appropriate dissemination of information through the instrument’s data feed regarding the activation of a trading halt mechanism on a specific venue. This will allow market participants to access easily and in real time to relevant information regarding the triggering of volatility mechanisms and, more generally, might help NCAs to fulfil their obligations to coordinate, under certain circumstances, market-wide responses as required under Article 48(5) of MiFID II.

	Description
Policy Objective	The Guidelines are aimed at providing guidance on (i) the calibration of trading halts as per Article 48(13), (ii) the format of the reports on trading halts’ parameters from NCA to ESMA and (iii) the dissemination of information regarding the activation of volatility mechanisms on a specific trading venue.
Technical Proposal	The Guidelines provide for:

	<ul style="list-style-type: none"> <li>• Specific parameters to be taken into consideration by trading venues when calibrating their mechanisms to halt or constrain trading in case of significant price movements.</li> <li>• Harmonised templates to be used to report these parameters to ESMA in a comparable format.</li> <li>• Requirements regarding the communication of information to all market participants where trading is halted on a specific venue.</li> </ul>
Benefits	<p>The Guidelines will contribute to ensure appropriate calibration of the volatility mechanisms in the Union, harmonised and comparable report of those parameters and adequate dissemination of information regarding the activation of a volatility mechanism to all market participants.</p>
<p>Cost to regulator:</p> <ul style="list-style-type: none"> <li>- One-off</li> <li>- On-going</li> </ul>	<p>The three sets of Guidelines above should allow member states and NCAs to fulfil their MiFID II requirements regarding trading halt mechanisms and in particular:</p> <ul style="list-style-type: none"> <li>• Their obligation “<i>to ensure that the parameters for halting trading are appropriately calibrated in a way which takes into account the liquidity of different asset classes and sub-classes, the nature of the market model and types of users and is sufficient to avoid significant disruptions to the orderliness of trading</i>”;</li> <li>• Their obligation, for all trading venues under their jurisdiction, to report “<i>the parameters for halting trading and any material changes to those parameters</i>” to ESMA in a consistent and comparable manner.</li> </ul> <p>If NCA might have to dedicate IT resources and incur associated IT compliance costs to be able to comply with these Guidelines (in particular to process data according to the harmonised format), those costs are therefore expected to be minimal and mostly linked to level 1 requirements.</p>
<p>Compliance cost:</p> <ul style="list-style-type: none"> <li>- One-off</li> </ul>	<p>Most of concepts that these Guidelines aims at clarifying are introduced by MiFID II which requires trading venues (i) to have in place mechanisms to halt or constrain trading in case of significant price movement, (ii) report the parameters use to trigger those</p>

<p>- On-going</p>	<p>mechanisms to both their NCA and ESMA, and (iii) for venues that are material in terms of liquidity, to notify their NCA where trading is halted.</p> <p>Therefore, ESMA considers that the possible costs are mostly driven by level 1.</p> <p>In addition, ESMA has tried to leverage to extent possible on existing market practices and communication channels.</p> <p>For instance, with respect to the Guidelines on the calibration of trading halts' parameters, ESMA has followed an approach leveraging, where possible, on the trading venue's expertise and instrument's knowledge and providing for Guidelines which are sufficiently broad to encompass all types of different mechanisms.</p> <p>In this context, with respect to incremental costs (i.e. costs not directly linked to level 1 provisions), trading venues should incur only minimal one-off and ongoing IT costs.</p>
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## 4.4. Annex IV: Proposed Guidelines

### Calibration of volatility parameters

Trading venues should calibrate the volatility parameters applicable to their mechanisms to manage volatility according to a methodology which takes into account the nature of the financial instrument, its liquidity and volatility profile as well as the trading mode and rules of the trading venue. The mechanisms set in place by trading venues should use reference prices which are reliable drivers of the volatility behaviour of the concerned instrument and, where appropriate, should have the ability to refer to external references.

Trading venues should calibrate volatility parameters according to a pre-defined, statistically supported methodology, taking the following elements into account:

- i. **The nature of the financial instrument:** trading venues should calibrate a set of parameters at least at the level of a class of financial instrument, and where necessary, at a more granular level reaching per instrument level, taking into account, in a combined manner, the other parameters described below.
- ii. **The liquidity profile and the quotation level of the financial instrument:** trading venues should calibrate their mechanisms to halt or constrain trading taking into consideration the degree of liquidity of the financial instrument, the existence of clear liquidity patterns and possible changes of the liquidity due to pre-set events such as new issuance or expected corporate actions.

Trading venues should in particular have tighter parameters for instruments considered to be liquid. The calibration should accommodate subscription rights and instruments with low quotation levels by allowing broader parameters.

- iii. **The volatility profile of the financial instrument:** The calibration should be supported by a statistical study taking into consideration past volatility with the aim to enable trading venues to infer future volatility.

Trading venues may take into consideration metrics such as the overnight volatility of the financial instrument, the absolute maximum intraday deviation and the expected frequency of activation of the mechanism.

- iv. **The order imbalance:** trading venues should identify circumstances where significant order imbalances or exceptional circumstances require the volatility parameters to be re-calibrated. Where appropriate, trading venues should be able to manually re-calibrate their volatility parameters following a pre-defined procedure and with the objective of minimising the duration of the trading interruption.

- v. **Trading venue mode and rules:** trading venues should have tighter volatility parameters for continuous auction and quote driven systems. Trading venues may calibrate volatility parameters differently depending on the trading phase.
- vi. **External references:** trading venues should, when calibrating volatility parameters, consider but not necessarily replicate, the statistical correlation between instruments, in particular, in cross-asset (e.g. cash and future instrument) and cross-market (e.g. multi-listed instrument) situations. For price referenced trading venues, the valid reference should be the primary market or the most liquid market.
- vii. **Duration of the halts:** trading venues may follow a flexible approach when deciding the time length of the volatility interruptions system and introduce a certain degree of randomisation on the duration of a specific trading halt. In this case, trading venues should set and communicate to their members and participants the minimum and maximum time period for resuming trading after an interruption.
- viii. **Newly issued instruments:** trading venues should calibrate volatility parameters through estimates taking into account a peer comparison of similar financial instruments with an expected similar liquidity pattern based on expected market capitalisation, industrial sector or issuance size.

When calibrating their volatility parameters, trading venues should take into consideration the number of times the mechanism was used in the previous years on their platforms and on other venues where the same instrument is traded with similar characteristics.

### **External communications upon triggering of a trading halt**

Trading venues should immediately publish through their order and trade data feeds all information relating to the activation of a trading halt and, for the duration of the trading halt, use the following code as trading status: {VH}

Trading venues should additionally:

- i. use this code as trading status in all records where trading status is a required field such as in the order book data described in draft RTS 24 on the maintenance of relevant data relating to orders in financial instruments.;
- ii. restrict the use of the proposed code to the activation of a mechanism to manage volatility. The code “VH” should in particular not be used for regulatory suspensions, ordinary auction periods or system disruptions.

### **Reporting of trading halts’ parameters from NCAs to ESMA**



NCAAs should communicate to ESMA the parameters for halting trading (and any changes to those parameters) used by the trading venues under their jurisdiction at least annually and in accordance with the predefined reporting template below.



## Template for reporting trading halts parameters to ESMA

Identification variables					Information variables												
Trading venue	Instrument or class of financial instrument	Type of trading system*	Trading phase (if different rules apply)	Add any other relevant information (e.g. liquidity, price, index component, etc...)	General description of the mechanisms	Static Price (Yes or No)	Static thresholds (leave blank if none)	Dynamic Price (Yes or No)	Dynamic thresholds	Frequency of updates (Intraday, Daily, Monthly, etc...)	Thresholds disclosed (Yes or No)	Mechanism to extend volatility interruption	Do you have a special mechanism in case of periods of high volatilities? In case please describe	For each threshold, duration of trading halts (without extensions) (specify the duration for fixed duration and random duration, if applicable)	Possibility for trading to be suspended for the rest of the day? (Yes or No)	Mechanism to resume trading	Nb of times it was triggered over the last year
Trading venue 1	Shares	Continuous	Continuous		XXX	Yes	7% of last auction trade	Yes	5% of last trade price	Intraday	No	First extension automatic following ones by Trading venue itself	Fast Market status	Fixed: 2min Random: 0s to 30s	No	Auction	XXX
Trading venue 1	Shares	Continuous	Auction		XXX	Yes	5% of last auction trade	Yes	3% of last trade price	Intraday	No	First extension automatic following ones by Trading venue itself	Fast Market status	Fixed: 2min Random: 0s to 30s	No	Auction	XXX
Trading venue 1	Interest rate Derivatives	Auction	Auction		XXX	Yes	10% of last auction trade	No		Daily	No	XXX	XXX	XXX	XXX	XXX	XXX
Trading venue 1	Bonds	Continuous	Continuous		XXX	No		Yes	5% of last trade price	Intraday	Yes	XXX	XXX	XXX	XXX	XXX	XXX
Trading venue 1	ETFs	XXX	XXX		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Trading venue 1	Equity derivatives	XXX	XXX		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

\*Please use the list of trading systems provided under Table 1 of Annex I of RTS 1 and 2



In particular, trading venues should cover the following items in their report:

- i. **Instrument or class of financial instrument:** Where possible, trading venues should report the parameters at an asset class or sub-asset class level and in particular for classes or sub-classes where the same parameters (but not necessarily the exact same thresholds) are used. Trading venues should only provide reports on a per instrument basis where a report at a less granular level would be inappropriate.
- ii. **General description of the volatility mechanism:** Trading venues should provide information about the type of mechanism which are applied in their trading systems and a general description of how the mechanisms operate.
- iii. **Dynamic / static:** Trading venues should specify whether they use a static (opening price, closing price, intraday reference or other) or dynamic (last traded price, potential execution price or other) reference price.
- iv. **Reference price:** Trading venues should provide the reference price that activates the mechanism of management volatility. Where an external reference price is used (e.g. reference price from other trading venue trading the same instrument or other), this should be flagged in the trading venues' report.
- v. **Thresholds:** Trading venues should report the down limits and upper limits (if at all) for activation trading halts. The limits should be expressed in percentage (e.g. a variation of +/- 5% from the reference price).
- vi. **Frequency of updates:** Where the mechanism used by trading venues is subject to regular updates, the report should include the frequency of those updates (intra-day, inter-day, weekly, monthly...).
- vii. **Duration of the halts:** where an automatic trading halt remains in effect for a pre-set amount of time, trading venues should provide this information, including the randomisation parameters.
- viii. **Mechanism employed in resuming the market:** Trading venues should provide a description of mechanism used to resume trading. In particular, where a continuous trading session is interrupted through a trading halt and the resumption of the market occurs through an auction process, trading venues should provide the details of such a mechanism (e.g. duration, randomised or not, etc.).

Trading venues should, by 15 January every year, submit a report to their NCA on the parameters used to halt or constrain trading as at 1 January so as to enable verification and update of the data held by the NCAs and ESMA. Trading venues should, during the course of the year, send a new report if they introduce material changes to any of the parameters mentioned above. Changes limited to adjustments of the thresholds used should not be considered as material for this purposes and new reports should only be sent in case of

amendments which affect significantly the functioning and overall structure of the mechanism in place.