

HIGH LEVEL OVERVIEW OF CERTAIN KEY REGULATORY CHANGES IN RISK MANAGEMENT FOR ELECTRONIC SECURITIES TRADING IN EUROPE*



* This paper presents the interpretation of FTEN, Inc. related to certain issues pertaining to trading in securities in Europe; this paper does not cover other pending legislation such as over-the-counter derivatives legislation in Europe via the European Market Infrastructure Regulation (EMIR), etc. This paper provides a general high-level overview of certain issues related to trading in securities in Europe; consult with your firm's legal counsel with regard to specific matters pertaining to your situation and/or business.

This document is based on the final report published by the **European Securities Market Authority (ESMA)** on 22 December 2011 on *Guidelines on systems and controls in an automated trading environment for trading platforms, investment firms, and authorities*. The content of this document is subject to change as the authorities publish their guidelines and recommendations to their official websites.

Please note that this document is focused on new regulatory requirements pertaining to risk management for investment firms and does not cover details of non-risk management related aspects for trading platforms.

1. What are key upcoming European regulatory changes that will affect the risk management requirements of investment firms, and their trade monitoring for market abuse, in the coming months and years?

Currently, there are two major regulatory initiatives that will impact European risk management requirements for securities trading. The first and most imminent are the ESMA “*Guidelines on systems and controls in a highly automated trading environment for trading platforms, investment firms and authorities*” which are related to MiFID I and other existing regulations; the second longer term initiative is MiFID II and associated delegated acts.

2. What are key differences between these two regulatory initiatives?

	ESMA GUIDELINES	MIFID II (+DELEGATED ACTS)
Content	Guidelines on systems and controls in a highly automated trading environment for trading platforms, investment firms and authorities.	EU legislation. Markets in financial instruments directive. A regulatory framework for the provision of investment services in financial instruments by banks and investment firms and for the operation of regulated markets by market operators.
Purpose	Clarify obligations in relation to existing legislative framework within Europe, i.e. MiFID I, Market Abuse Directive (MAD). As such, all these obligations are already in force in Europe today. The guideline helps regulators and market participants to better and consistently interpret the existing obligations.	The overarching objective is to further the integration, competitiveness, and efficiency of EU financial markets.
Status	Final report published by ESMA on 22 December 2011.	Legislative proposal provided by the European Commission on 20 October 2011. Under review by EU parliament and the Council of the EU. Final text expected 2013, delegated acts later.
Adoption Process	Authorities in each country are expected to adopt the ESMA Guidelines and publish them in their national language to each of their official websites. The guidelines will be effective one month after publication – latest on 1 May 2012.	The Council of the EU and the European parliament are reviewing the proposal of the Commission with a view to agree on a final text. Once the legislation is finalized and adopted it becomes law. The MiFID review legislative proposal is comprised of (1) a regulation (MiFIR) which when adopted will be directly applicable in Member States (2) a directive (MiFID II) which when adopted will have to be implemented in national laws.
Enforcement	Enforcement and interpretation of the guidelines are the responsibility of the appropriate authorities in each country. The Guidelines will provide for a more consistent approach across each constituency.	The MiFID II package will be enforced on a pan-European basis according to the timetable in the final text.

In summary, each constituency's authorities must now generate their translated versions of the ESMA Guidelines, which will be effective one month from publication. Market participants are required to comply by 1 May 2012; however, the authorities are still deciding upon final interpretation and enforcement of the Guidelines.

The longer-term and more forceful impact will come from the MIFID II and MIFIR legislations, which will be adopted by the EU parliament and Council of the EU, with the addition of delegated acts. Implementation of these rules will be required by all EU Member States.

3. What areas of electronic trading by investment firms do ESMA and MIFID cover when it comes to risk management requirements and trade monitoring for market abuse?

Both regulatory initiatives have a wide scope, however, for purposes of this paper we will focus on the following:

ESMA Scope of Coverage:

- **Firms:** Note that while the MIFID II proposal encompasses regulation of most investment trading firms **including proprietary trading firms**, today some proprietary trading firms ("prop shops") are not regulated entities. As a result, ESMA and MiFID I do not directly cover non-regulated prop shops. However, the final ESMA Guidelines clearly state that firms that are currently not regulated or exempt from MiFID will be indirectly covered by the ESMA Guidelines through their access of a trading platform as a member, participant, or user, or through DMA and Sponsored Access. In MiFID II, all prop shops, that are members on a trading venue, might need to become authorized and thereby regulated directly.
- **Instruments:** Currently the instrument scope is extremely wide with ESMA referring to the instruments covered as of MiFID I including equities, futures, options, swaps, etc. It is likely that authorities will apply the specific guidelines or rules in a manner relevant and applicable to their specific market participants and instruments. MiFID II further expands the instrument scope of MiFID I.
- **Systems:** Refers to all systems that send and / or generate orders to trading platforms including automated and algorithmic trading systems, smart order routing systems, order management systems (OMS) or execution management systems (EMS). ESMA also specifically covers sponsored access and direct market access (DMA). The definitions of covered systems within MiFID II are rather vague and loosely defined. Similar to the ESMA Guidelines, we expect that all algorithmic trading systems, including all order generating and executing infrastructures will be encompassed within MiFID II; specific requirements for direct electronic access are also included in MiFID II.

4. What are the key risk management requirements for investment firms under ESMA Guidelines?

The ESMA Guidelines require electronic trading systems utilised by investment firms to comply with the following requirements:

- Additional pre-trade risk checks (to prevent erroneous order entry into the market) including 'fat finger' checks (price and size checks are specifically mentioned, if applicable on a per product basis), compliance controls, and aggregate risk or exposure thresholds. With regard to aggregate risk or exposure thresholds the Guidelines include the ability 'to automatically block or cancel orders where they risk compromising the firm's own risk management thresholds.' Controls should be applied as necessary and appropriate to the exposures of individual clients or financial instruments or groups of clients or financial instruments, and to the exposures of individual traders, trading desks or the investment firm as a whole.
- ESMA also requires the real-time, cross-market monitoring of all order flow, and control of the messaging traffic to individual trading platforms.
- ESMA requires approval from the compliance and risk management staff to override pre-trade risk limits.

In addition the requirements regarding generic electronic trading, specifically for DMA and Sponsored Access, ESMA also requires the ability to clearly identify and immediately halt trading, and requires the risk management component to be under the direct and exclusive control of the sponsoring members. The Guidelines clearly state that the risk management infrastructure may be provided by the sponsor, the exchange, or an outsourcing partner but not by the sponsored entity. It also states that the sponsor is solely responsible for the Sponsored Access trading activity and needs to clarify the rights and obligations associated with this particular relationship with the sponsored entity.

In addition to the risk management requirements, ESMA requires cross-market surveillance to monitor for market abuse and the ability to submit suspicious transaction reports without delay.

5. What are the key trade monitoring requirements for investment firms to prevent market abuse under ESMA Guidelines?

The ESMA Guidelines which focus on trade monitoring for market abuse and market manipulation are Guidelines 6 and 8.

These Guidelines detail the required understanding and skill of compliance staff, requiring investment firms to have processes in place to:

- (1) Ensure that compliance staff has the required skill and understanding to recognize and interrogate potential market abuse.
- (2) The authority to challenge the persons responsible for the trading and the relevant automated system.

The Guidelines also require that firms have an automated alert system in place with the ability to flag potential market abuse (particularly market manipulation). This system should have access to all orders submitted, modified and cancelled, as well as executed trades. In addition, the automated alert system should include ability to monitor for potential cross market manipulation and market abuse.

In discussing market manipulation, the Guidelines focus on the following trading patterns which are of particular concern regarding trading systems: Ping Orders, Quote Stuffing, Momentum Ignition, Layering and Spoofing.

Guideline 8 focuses specifically on the processes that an investment firm will need in place for direct market access and sponsored access clients, stating that the same level and quality of processes that are applied to automated trading systems are also applicable to DMA/sponsored access clients.

6. What is new about the ESMA requirements?

For major electronic trading systems and asset classes, most of the ESMA requirements should already be in place, thus most systems already provide or will provide fat finger and compliance controls and some will also provide position or credit limits. In addition, systems will enable the member to control the messaging flow (modifications and cancellations). Most existing DMA and sponsored access infrastructures should fulfill ESMA requirements except in the following cases:

(1) Pre-trade aggregate risk checks

Aggregate pre-trade risk checks are a fairly new requirement under the ESMA Guidelines. Under this requirement, an individual order must be prevented from entering the market if that order would breach a pre-set risk or exposure threshold on the system, client, instrument, group, desk, or overall firm level. Thus, if a client trades through multiple systems and asset classes, the order needs to be checked against the client's overall exposure limit and the firm's overall exposure limit. It is not specifically defined if the exposure limit includes open order exposure or just the exposure generated by executed positions.

It should be noted that the U.S. Market Access Rule (Securities Exchange Commission Rule 15c3-5, "MAR") authorizes use of a discounting mechanism. This mechanism enables firms that traditionally post significant liquidity but execute only a fraction of the orders submitted to the market, to continue with this trading style without consuming all available credit based on the total value of open orders (this can be done by discounting credit associated with open orders by a percentage equivalent to historical execution rates). To date, no such concept has been introduced or discussed in either the ESMA Guidelines or MIFID.

(2) Real-time post-trade cross-market risk monitoring

Firms should monitor their orders as close to real-time as possible from a cross-market perspective to inspect for signs of disorderly trading. This means that cross-market aggregate open order exposure must be monitored on a real-time basis.

(3) Approval for pre-trade risk limit changes

The ESMA Guidelines specify that an adjustment or overriding in pre-trade risk thresholds or limits requires the approval from the compliance and the risk management staff.

The requirement to conduct trade monitoring and risk management processes on a cross-market basis is also newly specified in the ESMA Guidelines. Although initial ESMA Consultation Paper of July 2011 made no reference to cross-market monitoring, the final version of the ESMA Guidelines, clearly states on a number of occasions that the monitoring of order flow by an automated trading system must include the facility to identify unusual trading patterns across multiple markets, meaning the ability to identify cross-market manipulation and market abuse.

7. What are the risk management requirements for investment firms under MIFID II and how do they differ from ESMA?

Currently, the MIFID II risk management sections are less specific than the ESMA Guidelines but in principal outline similar themes.

MIFID II includes a requirement for risk management of algorithmic trading and in particular for direct electronic access. Similar to ESMA, pre-trade credit or risk checks are outlined to limit credit risk both on the system level and also at the firm level. Also similar to ESMA, MiFID introduces new reporting requirements regarding risk infrastructure usage. MIFID II also mentions general clearing members' obligation to have an appropriate risk management infrastructure in place to mitigate credit risk.

The expectation is that any additional delegated acts complementary to the MIFID II text will cover these items in detail and are likely to align with the ESMA Guidelines to some extent.

8. How do upcoming European regulations compare to the U.S. SEC Market Access Rule 15c3-5 (MAR)?

While there are a number of similarities between the ESMA Guidelines and MAR, there are also a number of differences – primarily in level of detail and scope.

Similar to the ESMA Guidelines, the focus of MAR extends beyond high frequency trading. In addition to eliminating 'Naked Access' (i.e., direct access to the market without pre-trade risk controls under the sole and exclusive control of the member/broker), risk management obligations under MAR apply to all forms of market access, including DMA, algorithmic trading flow, prop flow, etc. The specific risk management checks required under MAR are fairly similar to those covered by the ESMA Guidelines, including fat finger, compliance controls, and aggregate credit checks; however, whereas the U.S. takes a rules-based approach in MAR, European regulations are principal-based. MAR includes a large number of detailed

footnotes and descriptions that explain what is and is not allowed. The European rules lack this level of detail and leave many of the implementation requirements up for interpretation and adaption by the specific market participants. For example, MAR explains the concept of a pre-trade aggregate credit check in great detail and specifically outlines credit checking logic and discounting mechanisms on an aggregate basis. In the European regulation, the details of the pre-trade aggregate risk checks are less defined. Although different, both regulations emphasize the importance of real-time, cross-market risk monitoring.

9. How can FTEN help investment firms with their compliance with ESMA and/ or MIFID in the long-term?

FTEN provides a comprehensive, flexible, and open framework of risk management tools and solutions that can help investment firms achieve compliance.

FTEN's real-time, multi-asset **RiskXposure (RX®)** risk management infrastructure provides the following capabilities to assist investment firms in bringing their existing trading infrastructure into compliance.

NEW ESMA REQUIREMENTS	HOW FTEN / SMARTS CAN HELP
Real-Time, Cross-Market Monitoring of Order Flow	RX supports real-time aggregate open order and position risk checking.
Pre-Trade Fat Finger Checks	Available in most systems. FTEN VX infrastructure provides relevant risk checks.
Pre-Trade Compliance Checks	Available in most systems. FTEN VX infrastructure provides relevant risk checks.
Aggregate Pre-Trade Exposure Limit	FTEN trade flow control agents / FTEN third-party trade flow control agent manager support compliance with aggregate exposure limits on a pre-trade basis; RX monitors compliance on an at-trade basis; RX can be used as a limit management system across many systems and markets.
Approval For Overriding Pre-Trade Limits	RX provides relevant user profiles and work flow utilities.
DMA / Sponsored Access Controls	Available in most systems. FTEN VX infrastructure provides relevant controls.
Cross-Market Surveillance	Available in SMARTS Broker compliance solution, from NASDAQ OMX.

- > **RX as a real-time cross market monitoring solution:** The multi-asset RX risk management solution provides real-time monitoring of position, open exposure, and credit consumption on an enterprise level. This open risk monitoring solution can aggregate order and trade data from exchanges, electronic trading systems, or alternative sources to provide firms with the understanding of how individual clients take on risk on a cross-market, cross-platform, cross-asset class basis. This gives the investment firm tools for better insight into the risk taking of their clients overall and thus gives them the means to be flexible and dynamic in their allocation and redistribution of credit or exposure limits. With the RX risk monitoring system, the investment firm can monitor risk taking on a per-system and cross-system basis in real-time and choose to reallocate credit intra-day so the overall client and firm thresholds can be better managed.
- > **RX and trade flow control agents as compliant pre-trade risk solutions:** FTEN pre-trade risk management agents are tightly integrated into the overall RX architecture and can perform pre-trade risk checks including aggregate pre-trade risk checks with minimal latency impact. This can be achieved by integrating the FTEN pre-trade risk modules and processes into existing execution infrastructure of investment firms.

- **RX as enterprise wide limit management system to leverage existing execution tools and comply with aggregate risk checks:** FTEN risk management capabilities can also be integrated with tools like third-party gateway managers, aggregate open order managers, and sophisticated dynamic credit distribution and re-allocation algorithms to help firms integrate third party or proprietary trading infrastructure into the FTEN RX risk monitoring and control solution.
- **RX as risk limit approval work flow tool:** The RX risk management infrastructure has a granular system to identify individual users and roles. In addition, an embedded workflow utility with granular logging can support the risk limit approval process in a compliant manner and also support the appropriate record keeping and logging of the associated steps.

10. How can SMARTS Broker help investment firms with their compliance with ESMA and or MIFID in the long-term?

- **Automated Alert System**
 - SMARTS Broker is an automated alert system containing alert algorithms designed to identify trading patterns that may represent a form of market manipulation/market abuse.
- **Access to All Order Entries/Cancellations/Amendments**
 - SMARTS Broker provides an accessible repository for all order entries/cancellations/ amends with the ability to recreate and replay the order book with its market replay module.
- **Cross-Market Surveillance Monitoring**
 - SMARTS Broker’s cross-market module functions “out of the box” for any customer with subscriptions for multiple trading venues. Cross-market functionality includes cross-market alerts which can identify possible market manipulation for a security listed on multiple venues, across and between those venues.
- **Comprehensive Coverage of Market Manipulation Scenarios**
 - SMARTS Broker covers all of the market manipulation scenarios identified by ESMA via available, production-ready alerts that are already available and in production, and also via alerts currently in development, which will be deployed to customers at no additional cost.

The FTEN and SMARTS infrastructures are hosted solutions that provide important services for better insight and control in the area of risk management and surveillance for investment banks. In particular, the FTEN and SMARTS offerings can help investment firms upgrade their existing trading systems with the latest enterprise risk management and surveillance capabilities to help achieve compliance with the ESMA Guidelines and ultimately MIFID II.

MORE INFORMATION

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