

CASSIOPEIA

Corporate Bond Platform

Expression of Needs

Description of operating principles and needs

Paris, 23 March 2010

PREAMBLE

Following the proposals of the working group led by Sylvain de Forges, it was decided to launch the works of 3 sub-groups: "Order Matching", "Pre- and post-trade reporting" and "Governance". The objective of these groups is to define the characteristics of a European-wide "corporate"* secondary bond market, open to all types of bonds, regardless of their legal nature, and independently of their place of issue.

The works conducted by the 3 sub-groups, involving all of the players concerned by the development of a leading secondary bond market, have led to the definition of the operating principles that should be applied and the technical specifications that should be met, for the exchange of bonds and to create transparent, liquid financial markets on a European scale.

The desired characteristics of such a market are focused around the following principles:

- The market may be a MTF subject to market abuse legislation (as defined, in France For example by articles 524-1 and following of the RGAMF (general financial market authority regulations)), whose activity is the trading of euro-denominated corporate bonds.
- It will include a clearing house with a central counterparty, guaranteeing the successful completion of trades.
- The market will have pre- and post-trade transparency rules and rules applying to reporting, to the market, to the regulator and for internal control and issuer information purposes.
- The entity that will be chosen will manage its market according to governance principles involving users.
- The platform is open to any regulated institution in Europe, on an all-to-all basis.

The objective of such a market will clearly be to become a leading European market.

To guarantee compliance with these principles and with all of the provisions established by the sub-groups, it has been decided that a Committee will be introduced to give a public opinion of the proposals that will be submitted to it, in line with the description of the operating principles and needs defined by the sub-groups. It is suggested that this "Cassiopeia Committee" be composed of the sub-group Chairpeople, as well as Sylvain de Forges, Chairman of the "Secondary Market" sub-group and Stéphane Pallez, Chairwoman of the Paris Europlace "Issuer" group. These five people will join, through cooptation, by representatives of entities active on the markets (excluding actual market companies), notably representatives of European financial institutions and recognized experts.

* see glossary. In this document, this means all non-sovereign issuers

EXPRESSION OF NEEDS

After three working sessions by each of the three sub-groups on “Order matching”, “Pre- and post-trade reporting” and “Governance”, which include representatives of banks, brokers, investors – both investment management companies and final investors – and issuers, and numerous exchanges, particularly with market players who are not members of these sub-groups, the following technical specifications have been approved by the group’s participants (see annex for membership). The platform will trade euro-denominated securities issued by corporate issuers. Its aim is to create a leading secondary market with a price-driven order book.

I. ORDER MATCHING

Order matching relates to the methods and conditions for access to the platform.

1. Eligible securities

Any type of bonds, regardless of their legal nature or where they were issued.

2. Types of order

Orders will be firm, with no minimum quantity imposed by the platform. However, minimum lot clauses in issue prospectuses will be respected.

Upon its launch, the platform must be able to accept at least the following three order types:

- limit orders,
- market orders,
- “all or nothing” orders.

Other order types may be added later.

Types of constraint such as “time limit orders” must be managed by order originators and will not be not handled by the order book.

Orders that remain unexecuted each evening are cancelled by the platform.

There is no maximum quantity. Management of large orders will be left to the free judgement of direct participants on the platform or order originators.

There will be a market surveillance function designed to identify behaviour that is abusive or impairs pricing and trading.

3. Quotes

Prices are quoted as a percentage of the nominal. As a matter of convenience, investors must be able to submit orders priced in spreads to platform participants, who must have the algorithms to continuously update such orders in real time.

Prices are quoted to 4 decimal places (notably to facilitate trading in securities with short dated maturities).

4. Order book

Specifications for the order book:

- Displays quotes by security, visible to all participants,
- Accessible to the whole market via data providers,
- Direct access to order book data can be either in real time or delayed (one hour time lag proposed) depending on the subscription level chosen,
- Able to handle instructions from automated trading systems applying algorithms. Note that the setting of parameters for different strategies is a functionality offered by participants with direct access to the order book and will not be managed by the platform itself.
- Anonymous display of orders.

Execution speed (or bandwidth) is an important issue, since, today, low latency means delays of milliseconds or even millionths of seconds. Candidate operators are asked to supply comprehensive information and technical specifications on this issue.

5. Opening/closing times

The order book follows the TARGET2 trading calendar and besides Saturdays and Sundays will close for New Year (1 January), Good Friday, Easter Monday, 1 May, Christmas Day (25 December) and Boxing Day (26 December).

The market will publish trading hours for 24 and 31 December each year (market closed in the afternoons).

Order book hours are as follows in CET

- 6:30 to 7:29: technical opening and connectivity tests.
- 7:30 to 8:59: order book accumulation, calculation and publication of the opening auction price and spread.
- 9:00 to 17:54: opening and continuous quoting of orders based on price and order of arrival.
- 17:55 to 18:00: possible calculating of a closing price, which will be published as the auction price and spread.
- 18:01 to 19:00: administrative period (cancellation of orders under certain conditions, launch of the security buy-in procedure in the case of non-delivery) followed by system closedown at 19:00. Unexecuted orders are cancelled.

6. Display

The FIX messaging protocol will be used so that users can complete specific fields (TAGs) to protect the security of data messages and identify data exchanges between order book and participants. Candidate operators are asked to propose a non-exhaustive list of the procedures

used for this purpose and to supply comprehensive information and technical specifications on this issue.

Order book:

- Hour/minute/second/day/year
- ISIN
- Short name of the issuer
- Benchmark curve of primary issue
- Price and actuarial yield
- Quantity bid/offered with number of orders
- Total bid/offered
- High/low (price and spread) bid/offered
- Total executed that day
- High/low (price and spread) executed
- Last trading price and performance in price and spread compared to opening auction price if known
- Last trading price and performance in price (including accrued coupon) and spread since the start of the year
- Number of trading days since the start of the year with active order book (executed orders)
- Average daily trading volume over 20 trading days
- Average volume since the start of the year.

Execution book:

- Hour/minute/second/day/year
- ISIN
- Short name of the issuer
- Benchmark curve of primary issue
- Price, quantity, actuarial yield and spread traded with time stamp
- Time stamp hh :mm :ss
- Total executed that day
- High/low (price and spread) executed
- Last trading price or spread and performance in price and spread compared to opening auction price if known
- Last trading price and performance in price (including accrued coupon) and spread since the start of the year
- Number of working days since the start of the year with active order book (executed orders)
- Average daily trading volume over 20 trading days and volume traded in the day as a proportion of this average daily trading volume
- Average daily trading volume since the start of the year and volume traded in the day as a proportion of this ADTV since the start of the year.

- **Display of net prices (net of platform and settlement-delivery remuneration)**

See section 17 below

7. Clearing house:

The MTF will be connected to a clearing house, order administration facility.

As orders are anonymous, the clearing house guarantees that trades are correctly completed.

The clearing house's guarantee must cover all securities traded on the platform.

The clearing house must fulfil the classic functions of:

- managing risk (selection and oversight of counterparties, margin calls) and collateral management,
- managing counterparty default or non-delivery of securities,
- managing netting of positions.

The legal basis for netting is novation on day D, with the clearing house acting as counterparty for all trades at the time they are executed.

The guarantee of trade completion is only one criterion among many for selection of the clearing house. The clearing house must have buy-in procedure that is clear and accessible to all.

The candidate operator must specify the procedures by which the clearing house intervenes in market transactions on the platform and the associated costs.

8. Settlement-delivery:

To maximise the efficiency of post-market processing of securities, the clearing house must be connected to the biggest ICSDs and to the main European national CSDs.

It must also be possible to trade with a non-standard settlement date, possibly in exchange for a higher commission.

II. PRE- AND POST-TRADE REPORTING

9. Legal status of the market

The market may be a MTF subject to market abuse legislation (price manipulation, dissemination of false information and insider trading), offering a level of information equivalent to that of a regulated market, both pre- and post-execution.

10. Pre-execution transparency

There is total pre-execution transparency: full availability of the order book and prices in real time.

Order execution: there are no hidden orders (iceberg orders) on the platform. It is participants who feed the order book with prices and volumes based on their strategies (using their own algorithms) and not the market. Orders are firm and with no constraints on timing. Timing or time limits must be set by participants (maximum: day).

Order book consistency and “reservation threshold” (maximum permitted variation) for the security: the reservation threshold for each security allows margin calls to be rebuilt. It will be set by one of the governance bodies and notified to the market. Initially it will be measured in basis points using a table based on market indicators and the features of the security concerned (maturity, trading volume, volatility of issuer spread, etc.). The market must issue a notification to inform participants of the pause in trading so they can adjust their positions during the suspension period.

11. Post-execution transparency

The market must facilitate the provision of information to the market with the aim of ensuring a level playing field for all market participants:

- Trading data (volume, calculated auction price and spread, opening price, cumulative volume during the day, average price and spread, high, low, last, etc.) will be accessible to all participants and non-participants, with a small delay, at the cost of a subscription to a data provider (for calculating the spread, see section 13 below),
- The same data will also be made available free to all, after a delay to be determined (in principle the evening of the following day).
- The market will earn income from the sale of data. This must be done with full transparency to the data providers, using a clear and fixed fee schedule and at prices that are not a disincentive.
- The market will have the necessary infrastructure to disseminate the data to the best technical standards and with equal access for all.
- Trades will be displayed at their true amount, with a small delay (e.g. 15 minutes).

12. Reporting or transmission of information:

- Reporting to the regulator:

The MTF will submit trading information to its regulator.

- Reporting for internal control purposes:

The MTF must provide each participant with a monthly report showing total trading on the platform and trading in each security by the market as a whole and by the individual participant.

- Issuer information:

The MTF must be able to provide reports for any issuer on trading in their securities, on demand.

13. Opening price / Conversion of prices into in spreads / reference price

- Opening price / closing price:

A market opening price is established (order books are reopened each morning and orders accumulate gradually until the time when the “executable” orders are matched by the MTF). A closing price may also be determined at 18:00 on the order book accumulated in the closing period of 17:55 to 18:00.

- Conversion of prices into spreads:

The price of each trade is instantly translated into a spread over a benchmark yield curve.

The candidate platform operator is asked to propose, in full transparency and with the necessary degree of precision, the way this benchmark curve will be continuously calculated, (recommended technique: z-spread of yields, based on regular and recognised contributors, discarding extremes).

- Reference price:

Each day, the MTF must determine a reference price for all listed securities that were traded during the day.

The reference price is based on all the day’s transactions weighted by volume. It is calculated based on the average spread (the spread of each trade weighted by its volume), applied to the curve at the time selected for this calculation.

The MTF only calculates reference prices on days when trading has taken place. The reference price is given alongside volume data, so that valuers and market operators generally can assess the relevance of these two data items.

III. GOVERNANCE

14. Participants

The market is open to any legal entity engaged in a financial activity regulated in the European Economic Area. Subject to this condition, the platform is open to all, on an all-to-all basis. This means that all participants enjoy the same access rules and the same technical functionalities.

It is the responsibility of participants to ensure they have the infrastructure required for secure access to the market, notably for the control of operational risks. In the event of a technical incident related to non-compliant access infrastructure, the Conflict Resolution Committee has the power to take any necessary measures. It can, in extreme cases, ask the MTF operator's board of directors to exclude a participant from the platform.

To access the market the operator must be accredited by their employer. Each operator must have a user ID.

A participant can route an order and thus act on behalf of their clients.

Every participant will enjoy all the functionalities of the MTF and the same bandwidth.

15. Governance bodies:

Users are involved in managing the market through specialist committees, which assist the MTF operator's board of directors. The structure adopted by the market's operator to obtain approval of the MTF must be described in each proposal submitted to the "Examination Committee", as referred to in the Preamble. The Committees notably deal with issues of strategy, organisation, technology and conflict resolution.

The main tasks of these committees are:

- Strategy Committee: responsible for all issues relating to the market, market access, trading costs, eligibility of securities. This committee will be made up of people with decision-making powers in their respective organisations.
- Functional Committee: responsible for organisational issues. This committee will be composed of COOs for the activities concerned or heads of e-business in their respective organisations.
- Technology Committee: responsible for technical issues related to the platform, its functionalities, performance, etc. This committee will be made up of IT heads from the business areas concerned.
- Conflict Resolution Committee: this committee will be called on as necessary and will be composed of neutral operators who will apply the binding procedures for conflict resolution.

The membership of the committees must reflect the diversity of platform participants. Committees are appointed by the market operator's board of directors. Representatives of issuers can be included as members.

16. Eligibility of securities:

The eligibility of securities is a matter for the Strategy Committee. The list of securities traded on the MTF will change over time.

An important target to note is that this (or these) market(s) must rapidly be able to accommodate most of the euro-denominated fixed-rate bonds issued by corporates with issuer ratings of BBB or above and volumes outstanding of EUR 500 million or more.

17. Costs

The participants do not feel that the commercial risk should be borne by them. Also, participants are ruling out any membership fee (or subscription).

To meet the wishes of a number of participants, it would be helpful if the MTF's remuneration was charged by adding a price margin based on a scale that would be made public. This price margin would then be directly returned to the MTF by the clearing house.

Part of the profits from the MTF's growth could be reimbursed to its participants in proportion to their activity.

18. Access to information

Access to information on opening price, reference price and volumes will be provided free of charge after a delay to be determined (in principal, one day).

Real-time information on the order book will be available at an accessible and transparent fee.

The MTF must release regular reports to the market, free of charge and in the appropriate formats, on volumes traded by each participant, by category of participants and by issue.

The MTF will define the protocol for transmitting data to data providers.

GLOSSARY

Order book consistency: acceptable upwards and downwards variation in the order book, within a variable matrix defined by the platform's governance bodies.

Corporate: any non-sovereign issuer, for example including covered bond issuers.

Order originators: market participant or client establishment participating in the market.

ICSD/ CSD: International Central Services Depository/ Central Services Depository (CSD).

Price-driven market: a market where the orders placed have a firm price.

MTF: Multilateral Trade Facilities, a system for the multilateral trading of securities, introduced by the MiFID. These alternative markets are less restrictive than regulated markets.

Candidate operator / platform operator: market undertaking, platform promoter / manager.

Operator: person responsible for placing orders on the platform within the company of a market participant.

Participant: person using the platform.

Investment service providers (ISP): investment companies and credit institutions approved to provide investment services (for example, as defined by article D321-1 of the French monetary and financial code.

FIX (Financial Information eXchange) exchange protocol: standard message format facilitating and securing the exchange of information about financial securities.

RDT reporting: a computerised Direct Transaction Reporting (RDT) system introduced by the AMF (French market regulator) to enable regulated financial institutions operating on the financial markets to report their transactions to the AMF.

Reservation threshold: the threshold above which a security is reserved upwards or downwards for a period determined in advance. Transactions on the security are suspended for this time. The reservation threshold system is intended to limit excessive variations, which make it difficult for the clearing house to track margin deposits.

Spread: different in price compared to a benchmark curve to arrive at the price observed on the market.

ANNEX 1

----- CASSIOPEIA MEMBERSHIP OF THE WORKING GROUP

Chairman of the group

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ANNEX 2

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Chairman of “Pre- and post-trade reporting” sub-group

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