eurex clearing circular 121/13

Date: 25 October 2013
Recipients: All Clearing Members, Non-Clearing Members and Registered Customers of
Eurex Clearing AG and vendors
Authorized by: Thomas Laux

High priority

Additionally monitored risks: credit risk, concentration risk and wrong-way risk

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Content may be most important for: All departments
Attachment: Updated sections of the Clearing Conditions for Eurex Clearing AG, effective 11 November 2013

Summary

The Regulation of European Market Infrastructure (European Market Infrastructure Regulation (EMIR)) and the applicable specifications of such regulation require central counterparties to manage their exposure towards each of their counterparties. The respective requirements are defined in Article 46 EMIR and further specified in the European Securities and Markets Authority (ESMA) Technical Standards.

In particular, Article 40 EMIR requires the Central Counterparty (CCP) to conduct a credit assessment and monitoring of each Clearing Member (CM), while Article 42 of the ESMA Technical Standards sets out principles for prudent management of concentration risks. Moreover, Article 39 of the ESMA Technical Standards (in conjunction with Annex I, Section 1) defines strict requirements for monitoring so-called wrong-way risks by the CCP.

In this circular, Eurex Clearing introduces key principles for the assessment and monitoring of credit risks, concentration risks and wrong-way risks (referred to as the “additionally monitored risks”). Based on these key principles, Eurex Clearing assesses the additionally monitored risks for its CMs.

Attached to this circular you will find the updated sections of the Clearing Conditions for Eurex Clearing AG as approved by the Executive Board of Eurex Clearing AG after previous consultation with the Risk Committee on 23 October 2013. The changes will come into effect on 11 November 2013.
**Additionally monitored risks: credit risk, concentration risk and wrong-way risk**

The Regulation of European Market Infrastructure (European Market Infrastructure Regulation (EMIR)) and the applicable specifications of such regulation require CCPs to manage their exposure towards each of their counterparties.

To safeguard the integrity of CCPs and to protect the mutualising Clearing Fund, Eurex Clearing conducts an internal credit assessment of all counterparties and guarantees continuous monitoring of credit risks, concentration risks and wrong-way risks.

As CCP, Eurex Clearing guarantees to fulfil all obligations towards its CMs, even under extreme market conditions. Therefore, it is essential for Eurex Clearing to monitor all risks arising from the trading portfolios of its CMs on the one hand, and, on the other hand, from the collateral deposited to secure such portfolios.

To reduce the risk of losses, as a result of the default of a CM, Eurex Clearing defines dedicated credit risk thresholds. Depending on the particular trading portfolio of a CM, credit risk thresholds can be defined either as maximum margin requirement or as maximum notional exposure arising from the CM’s transactions.

If a CM has defaulted, Eurex Clearing guarantees a safe and smooth wind-down of such CM’s portfolio, with the lowest possible market impact. In order to do so, Eurex Clearing collects margin collateral from its CMs, i.e. requires its CM to secure the risk exposure arising from their respective portfolios. Additionally, Eurex Clearing maintains a mutualising clearing fund, as well as dedicated own resources to cover additional losses. Eurex Clearing continuously assesses and monitors the adequacy of these financial resources.

Generally, margin collateral and contributions to the Clearing Fund can be made in cash collateral or non-cash collateral. If as a consequence of a CM’s default, Eurex Clearing has to liquidate large positions of collateral, such liquidation may cause losses due to a lack in liquidity. Similar losses can arise if the portfolio of the defaulted CM is concentrated in certain instruments, and Eurex Clearing is confronted with a lack in liquidity when winding down the respective portfolio.

To avoid such losses, Eurex Clearing defines dedicated concentration risk limits and concentration risk thresholds.

Additional losses may arise if instruments, which are to be liquidated, or collateral which has been deposited by the CM, are likely to decrease in value if the CM itself is exposed to financial stress. This kind of risk is referred to as wrong-way risk. To minimise such risk, Eurex Clearing defines dedicated wrong-way risk thresholds.

In line with the requirements of EMIR, the key principles to assess and monitor credit risk, concentration risk and wrong-way risk have been presented to the Risk Committee and are supported by it.

**Definitions**

**Clearing Member (CM)**

A Clearing Member (CM) utilises Eurex Clearing’s clearing services and has a direct contractual relationship with the CCP. The limits and thresholds described in this circular are defined individually for each master agreement between Eurex Clearing and a CM.

Any master agreement between Eurex Clearing and a CM comprises all transactions and collateral of

- a General Clearing Member (GCM), including all transactions and collateral executed or deposited in accordance with the Elementary Clearing Model for Non-Clearing Members (NCMs), Registered Customers (RCs) and other customers; or
- a Direct Clearing Member (DCM), including all transactions and collateral executed or deposited in accordance with the Elementary Clearing Model for NCMs, RCs and other customers; or
• an NCM, segregated under the Individual Clearing Model (which may become an Interim Participant);
or
• an RC, segregated under the Individual Clearing Model (which may become an Interim Participant);
or
• all NCMs, RCs and other customers, executed or deposited in accordance with the Net Omnibus Clearing Model.

In this circular, the term “Clearing Member” (CM) is used for Eurex Clearing’s respective contractual party in all of the above-listed master agreements.

Portfolio
A CM’s portfolio contains all of its clearing activities such as
• derivatives transactions,
• spot market transactions,
• Special Repo transactions, GC-Pooling® transactions and GC transactions,
• Securities Lending transactions, and
• pure cash positions.

Collateral pool (securities deposited by the CM)
A CM’s aggregated collateral pool contains all instruments that are deposited with Eurex Clearing in order to fulfil the CM’s margin requirement, clearing fund contribution and company capital requirement.

Notional exposure
To determine a CM’s notional exposure, both the CM’s portfolio and collateral pool are taken into consideration.

The notional exposure for the various product classes cleared by Eurex Clearing is calculated as follows:

- Cash: Nominal value
- Cash Equities: Market price*number of shares
- Bonds/Repo: Market price*notional
- Derivatives:
  - Futures: Position size*multiplier*underlying price
  - Options: Position size*multiplier*underlying price*delta

Credit risk
Credit risk is defined as the potential loss which Eurex Clearing may suffer if a CM fails to fulfil the contractual obligations arising from its transactions.

Concentration risk
Concentration risk is defined as the potential loss which Eurex Clearing AG may suffer during the Default Management Process, due to an insufficient diversification in respect of the CM’s collateral pool and the instruments underlying the CM’s transactions.

A portfolio or collateral pool is assumed to be concentrated if the exposure of a particular position exceeds the aggregated market demand during the anticipated liquidation period. Hereby, market demand depends on market capacity and on the credit quality of the particular security or instrument.
Wrong-way risk

Wrong-way risk is defined as the potential loss which Eurex Clearing may suffer during the Default Management Process, due to an unfavourable interrelatedness between the CM’s creditworthiness, the value of its collateral pool and the value of its portfolio.

Same Country

“Same Country” is defined as each respective CM’s home country.

Any Country

“Any Country” is defined as all countries within the country classification, including the CM’s home country.

Key Principles for monitoring credit risk, concentration risk and wrong-way risk

Credit risk

Eurex Clearing performs an internal credit assessment of its CMs. This assessment is triggered as follows:

- Initial credit assessment prior to granting a Clearing License;
- Annual credit assessment of all CMs; and
- Ad-hoc credit assessment, if deemed necessary.

Each of such assessments results in the assignment of the CM to one of several pre-defined clearing member classifications (green, yellow, orange, red and black). Based on the respective clearing member classification, Eurex Clearing may define so-called credit risk thresholds.

The clearing member classification decides upon the applicable concentration risk thresholds and wrong-way risk thresholds for the respective CM.

Eurex Clearing informs all CMs about their clearing member classifications and any changes thereof.

Concentration risk

Eurex Clearing defines dedicated concentration risk limits and concentration risk thresholds, which are applicable to all CMs.

The currently valid concentration risk limits are shown in table 1:

| Exposure | | |
|----------|-----------------|
| 1        | **Issue/security** | A limit of 25% of the issued capital per issue (for bonds) or 5% of free float (for equities) |
| 2        | **Issuer**       | Thresholds are set on the level of on aggregated notional exposures exposure per issuer. 10% of total issued capital per **Country/Sovereign** issuer. 5% of total issued capital per **Supranational** issuer. 2bn EUR or 5% of total issued capital per **Sector/Industry** issuer. The total issued capital per issuer is restricted to what is known to the CCP. |
Groups of issuers

Absolute and relative thresholds are set on aggregated notional exposures to all issuers belonging to the same group.

Country/Sovereigns: according to table 4,

Supranational organisations: according to table 5.

Diversification

Stock ratio in the collateral pool must not exceed a ratio of more than 30% as a threshold.

Table 1: Concentration risk limits which must not be breached

In addition to the clearing member classification, Eurex Clearing processes a so-called country classification and a so-called supranational organisation classification, both of which are considered as input parameters for the definition of concentration risk thresholds.

Eurex Clearing conducts an internal assessment of the creditworthiness of all countries which are home country of a CM or which are home country of an issuer, whose issues are accepted as collateral or whose issues qualify as underlying instruments of transactions cleared by Eurex Clearing. As part of this assessment, each country is classified as one of multiple, pre-defined country classifications (green, yellow, orange, red or black).

Furthermore, Eurex Clearing conducts an internal credit assessment of the creditworthiness of all supranational organisations, which have issued securities that are eligible as collateral or which qualify as underlying instruments of transactions cleared by Eurex Clearing. Based on such assessment each organization is assigned to one of several pre-defined supranational organisation classifications (green, yellow, orange, red or black).

The country classifications and classifications of supranational organisations will be published in the Member Section of the Eurex Clearing website under the following path:

Member Section > Clearing Resources > Risk Parameters > Country Classifications and Supranational Organisation Classifications

Eurex Clearing defines concentration risk thresholds for all applicable country classifications and supranational organisation classifications, and publishes such concentration risk thresholds on its website under the link:

Risk management > Risk parameters

The currently applicable concentration risk thresholds are shown below in tables 2 and 3.

Please note that for these thresholds both the CM’s portfolio and the CM’s collateral pool are taken into account.

<table>
<thead>
<tr>
<th>Country/sovereign</th>
<th>Aggregated exposure</th>
<th>Exposure per issuer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>absolute (EUR)</td>
<td>Relative to overall exposure</td>
</tr>
<tr>
<td>green</td>
<td>≤ 10bn</td>
<td>≤ 100%</td>
</tr>
<tr>
<td>yellow</td>
<td>≤ 5bn</td>
<td>≤ 75%</td>
</tr>
<tr>
<td>orange</td>
<td>≤ 3bn</td>
<td>≤ 60%</td>
</tr>
<tr>
<td>red</td>
<td>≤ 2bn</td>
<td>≤ 50%</td>
</tr>
<tr>
<td>black</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 2: Concentration risk thresholds per country classification
Table 3: Concentration risk thresholds per supranational organisation classification

### Wrong-way risk

To avoid wrong-way risk, Eurex Clearing does not allow CMs to deposit own issues or issues of closely linked entities as collateral. Moreover, CMs are not entitled to use such instruments as collateral for Repo transaction or Securities Lending transactions.

Further, Eurex Clearing defines dedicated wrong-way risk thresholds applicable with respect to a CM’s collateral pool and the CM’s notional exposure. Wrong-way thresholds are defined for all applicable clearing member classifications and country classifications and are published on the Eurex Clearing website under the link:

Risk management > Risk parameters

The currently applicable wrong-way risk thresholds are shown in tables 4 and 5 below. Please note that for these thresholds both the CM’s portfolio and the CM’s collateral pool are taken into account.

Table 4: Wrong-way risk thresholds for Same Country, i.e. the CM's home country

* Due to the fact that the Clearing Member classification is based on the respective country classification, these combinations are not possible and therefore have a threshold of 0 EUR.
**“Same Country” - example**

A CM classified as “yellow” is not allowed to have a notional exposure of more than 1.5bn EUR in financial instruments issued by issuers from such CM's home country (“Same Country”), which is assumed to be classified as “orange” in this example. Moreover, this notional exposure must not exceed 30 percent of the CM’s overall notional exposure.

<table>
<thead>
<tr>
<th>Clearing Member classification</th>
<th>green (or worse)</th>
<th>yellow</th>
<th>orange</th>
<th>red</th>
<th>black</th>
</tr>
</thead>
<tbody>
<tr>
<td>green</td>
<td>no threshold</td>
<td>no threshold</td>
<td>no threshold</td>
<td>no threshold</td>
<td>0 EUR</td>
</tr>
<tr>
<td>yellow</td>
<td>≤ 10bn EUR</td>
<td>≤ 5bn EUR</td>
<td>≤ 3bn EUR</td>
<td>≤ 2bn EUR</td>
<td>0 EUR</td>
</tr>
<tr>
<td>orange</td>
<td>≤ 7bn EUR</td>
<td>≤ 3bn EUR</td>
<td>≤ 2bn EUR</td>
<td>≤ 1.5bn EUR</td>
<td>0 EUR</td>
</tr>
<tr>
<td>red</td>
<td>≤ 5bn EUR</td>
<td>≤ 2bn EUR</td>
<td>≤ 1bn EUR</td>
<td>≤ 1bn EUR</td>
<td>0 EUR</td>
</tr>
<tr>
<td>black</td>
<td>0 EUR</td>
<td>0 EUR</td>
<td>0 EUR</td>
<td>0 EUR</td>
<td>0 EUR</td>
</tr>
</tbody>
</table>

Table 5: Wrong-way risk thresholds for “Any Country”, i.e. all countries within the respective country classification (including the CM’s home country)

**“Any Country” - example**

A CM classified as “yellow” is not allowed to have a notional exposure of more than 3bn EUR in financial instruments related to issuers domiciled in “Any Country” classified as “orange” or “red”. In consequence, if this CM has fully utilized its allowed threshold towards “red” countries (i.e. in our example a notional exposure 2bn EUR), such CM is only allowed to have an additional notional exposure of 1bn EUR (i.e. 3bn EUR minus 2bn EUR) towards countries classified as “orange”. Moreover, the relative thresholds need to be complied with (i.e. not more than 25 percent of the CM’s overall notional exposure may be held towards “red” countries and not more than 35 percent of the CM’s overall exposure may be held towards “red” and “orange” countries, together.

**Risk mitigating measures**

If any of the thresholds described in this circular is breached, Eurex Clearing will ask the CM to remedy the respective breach within a reasonable period of time. If the CM does not remedy the respective breach within the indicated period of time, Eurex Clearing may request the provision of supplementary margin in line with Chapter I Part 1 Number 3.5 of the Clearing Conditions.

In accordance with Article 28 EMIR, Eurex Clearing received the Risk Committee’s advice with respect to the changes announced in this circular.

Attached to this circular you will find the amended sections of the Clearing Conditions for Eurex Clearing AG, as approved by the Executive Board of Eurex Clearing AG on 23 October 2013, which will come into effect on 11 November 2013.

As of 11 November 2013, the complete Clearing Conditions for Eurex Clearing AG including the amendments described in this circular will be available for download on the Eurex Clearing website under the link:

[Resources > Rules and Regulations](#)
Pursuant to Chapter I, Part 1, Number 17.2.2 of the Clearing Conditions, each Clearing Member or Non-Clearing Member or Registered Customer accepts each amendment and addition to the Clearing Conditions, unless it objects by written notice to Eurex Clearing AG before the end of the Business Day prior to the actual effective date of such amendment or addition to the Clearing Conditions. The right to terminate the Clearing Agreement and the Clearing License according to Chapter I, Part 1, Number 2.1.4 Paragraph 1 of the Clearing Conditions shall remain unaffected.

For more information, please contact Risk Control on tel. +49-69-211-1 24 52, fax +49-69-211-1 84 40 or e-mail: risk@eurexclearing.com.

25 October 2013
Chapter I General Provisions

1 General Rules

1.6 Additionally Monitored Risks and Risk Mitigating Measures

1.6.1 General Rules

(1) Eurex Clearing AG monitors and, when necessary, mitigates the following risks that Eurex Clearing AG is exposed to in relation to the Clearing Member:

(a) the potential loss which Eurex Clearing AG may suffer if a Clearing Member fails to fulfil its contractual obligations under its Transactions ("Credit Risk"),

(b) the potential loss which Eurex Clearing AG may suffer during the Default Management Process, due to insufficient diversification in respect of the Eligible Margin Assets provided by the Clearing Member or in respect of the instruments underlying the Clearing Member’s Transactions ("Concentration Risk"), and
(c) the potential loss which Eurex Clearing AG may suffer during the Default Management Process, due to an unfavourable interrelatedness between the Clearing Member’s creditworthiness, the value of the Eligible Margin Assets provided by the Clearing Member and the notional exposure arising from the Clearing Member’s Transactions (“Wrong Way Risk”, together with the Credit Risk and the Concentration Risk, the “Additionally Monitored Risks”).

(2) Eurex Clearing AG determines dedicated thresholds or limits for each of the Additionally Monitored Risks. The Clearing Member is required to comply with these thresholds and limits at all times.

(3) Eurex Clearing AG will publish further details and guidelines regarding the determination of thresholds and limits and the applicable mitigation measures (together the “Framework”) on its homepage (www.eurexclearing.com). The Framework may be amended from time to time and published accordingly.

(4) Eurex Clearing AG conducts an internal assessment of the creditworthiness of the Clearing Member. Based on this assessment, Eurex Clearing AG classifies the Clearing Member into one of multiple pre-defined classification levels (the “Clearing Member Classification”). Eurex Clearing AG performs such Clearing Member Classification (i) prior to the granting of a Clearing Licence, (ii) at least once annually, and (iii) on an ad-hoc basis when it is deemed necessary. Eurex Clearing AG notifies the Clearing Member about the Clearing Member Classification and any changes thereof.

(5) Eurex Clearing AG conducts an internal assessment of the creditworthiness of each country, which is (i) the home country of any Clearing Member, or (ii) the home country of an issuer of securities that qualify as Eligible Margin Assets or (iii) the home country of an issuer of instruments qualifying as underlyings of Transactions cleared by Eurex Clearing AG. Based on this assessment, Eurex Clearing AG classifies such countries into one of multiple pre-defined classification levels (the “Country Classification”). Eurex Clearing AG reviews each Country Classification on a regular basis and on an ad-hoc basis when it is deemed necessary.

(6) Eurex Clearing AG conducts an internal assessment of the creditworthiness of each supranational organisation which has issued (i) securities that qualify as Eligible Margin Assets, or (ii) instruments underlying any Transactions cleared by Eurex Clearing AG. Based on this assessment, Eurex Clearing AG classifies such supranational organisations into one of multiple pre-defined classification levels (the “Supranational Organisation Classification”). Eurex Clearing AG reviews each Supranational Organisation Classification on a regular basis and on an ad-hoc basis when it is deemed necessary.
(7) Eurex Clearing AG will publish the Country Classification and the Supranational Organisation Classification in the member section on its website (www.eurexclearing.com).

1.6.2 Assessment and Mitigation of Credit Risk

(1) Based on the Clearing Member Classification, Eurex Clearing AG is entitled to define one or more Credit Risk thresholds for the Clearing Member (“Credit Risk Thresholds”). Eurex Clearing AG reviews each Credit Risk Threshold on a regular basis and on an ad-hoc basis when it is deemed necessary. Eurex Clearing AG notifies the Clearing Member about all Credit Risk Thresholds, and any changes thereof.

(2) Credit Risk Thresholds can be defined as maximum Margin Requirement or as maximum notional exposure arising from the Clearing Member’s Transactions, in each case under the relevant Standard Agreement.

(3) In case the Clearing Member breaches any Credit Risk Threshold, applicable at that point in time, Eurex Clearing AG is entitled to take the following mitigation measures:

(a) Eurex Clearing AG will notify the Clearing Member about the breach of the relevant Credit Risk Threshold and will request the reduction of the relevant Margin Requirement or notional exposure, as the case may be, within a reasonable period of time and in an amount which is necessary to remedy the relevant breach.

(b) In case the Clearing Member does not remedy the breach of the relevant Credit Risk Threshold within the reasonable period of time pursuant to (a), Eurex Clearing AG is entitled to demand the provision of Supplementary Margin in accordance with Number 3.5.

1.6.3 Assessment and Mitigation of Concentration Risk

(1) Eurex Clearing AG defines Concentration Risk limits for any Eligible Margin Assets in the form of Securities (“Concentration Risk Limits”).

(a) Eurex Clearing AG reviews each Concentration Risk Limit on a regular basis and on an ad-hoc basis when it is deemed necessary.

(b) Eurex Clearing AG will publish the Concentration Risk Limits, and any changes thereof on its website (www.eurexclearing.com).

(c) In case the Clearing Member breaches any Concentration Risk Limit applicable at that point in time, Eurex Clearing AG is entitled to take the following mitigating measures:

(i) Eurex Clearing AG will notify the Clearing Member about the breach of the relevant Concentration Risk Limit and will request the replacement of Eligible Margin Assets by other Eligible Margin Assets (“New Eligible Margin Assets”) within a reasonable period.
of time and in an amount which is necessary to remedy the relevant breach. The New Eligible Margin Assets shall be provided pursuant to the terms of the relevant Standard Agreement. Subject to the actual delivery of the New Eligible Margin Assets, the Redelivery or release of the replaced Eligible Margin Assets shall be effected pursuant to the terms of the applicable Standard Agreement.

(ii) In case the Clearing Member does not remedy the breach of the relevant Concentration Risk Limit, within the reasonable period of time pursuant to (i), Eurex Clearing AG is entitled to demand the provision of Supplementary Margin in accordance with Number 3.5.

(2) Notwithstanding Number 1.3.1, Eurex Clearing AG defines Concentration Risk thresholds in relation to (i) Eligible Margin Assets in the form of Securities and (ii) the notional exposure arising from the instruments underlying the Clearing Member’s Transactions (“Concentration Risk Thresholds”).

(a) Concentration Risk Thresholds are defined with respect to each Country Classification and Supranational Organisation Classification.

(b) Eurex Clearing AG reviews the Concentration Risk Thresholds on a regular basis and on an ad-hoc basis when it is deemed necessary.

(c) Eurex Clearing AG will publish the Concentration Risk Thresholds, and any changes thereof, on its website (www.eurexclearing.com).

(d) In case the Clearing Member breaches a Concentration Risk Threshold, applicable at that point in time, Eurex Clearing AG is entitled to take the following mitigating measures:

(i) Eurex Clearing AG will notify the Clearing Member about the breach of the relevant Concentration Risk Threshold and will request (i) the reduction of the relevant notional exposure or (ii) the replacement of Eligible Margin Assets by New Eligible Margin Assets within a reasonable period of time and to the extent necessary to remedy the relevant breach. The provisions under Number 1.6.3 (1) (c) (i) sentence 2 and 3 shall apply accordingly.

(ii) In case the Clearing Member does not remedy the breach of the relevant Concentration Risk Threshold within the reasonable period of time pursuant to (i), Eurex Clearing AG is entitled to demand the provision of Supplementary Margin in accordance with Number 3.5.

1.6.4 Assessment and Mitigation of Wrong Way Risk

(1) Eurex Clearing AG defines Wrong Way Risk thresholds in relation to (i) Eligible Margin Assets in the form of Securities and (ii) the notional exposure arising from the instruments underlying the Clearing Member’s Transactions (“Wrong Way Risk Thresholds”).
(2) Wrong Way Risk Thresholds are defined with respect to each Clearing Member Classification and Country Classification.

(3) Eurex Clearing AG reviews the Wrong Way Risk Thresholds on a regular basis and on an ad-hoc basis when it is deemed necessary.

(4) Eurex Clearing AG will publish the Wrong Way Risk Thresholds, and any changes thereof, on its website (www.eurexclearing.com).

(5) In case the Clearing Member breaches any Wrong Way Risk Threshold applicable at that point in time, Eurex Clearing AG is entitled to take the following mitigating measures:

(a) Eurex Clearing AG will notify the Clearing Member about the breach of the relevant Wrong Way Risk Threshold and will request (i) the reduction of the relevant notional exposure, or (ii) the replacement of Eligible Margin Assets by New Eligible Margin Assets within a reasonable period of time and to the extent necessary to remedy the relevant breach. The provisions under Number 1.6.3 (1) (c) (i) sentence 2 and 3 shall apply accordingly.

(b) In case the Clearing Member does not remedy the breach of the relevant Wrong Way Risk Threshold within the reasonable period of time pursuant to (a), Eurex Clearing AG is entitled to demand the provision of Supplementary Margin in accordance with Number 3.5.

[...]