

# NASDAQ OMX

## Default Fund

### Policy Paper

Revision 2, September 2011  
NASDAQ OMX Stockholm AB

## CONTENTS

Contents.....	2
Appendices.....	3
NASDAQ OMX Default Fund – Policy Document .....	4
Revisions .....	4
Executive summary.....	5
Default fund capital structure.....	7
Regulatory capital .....	7
Default fund resources and other capital .....	7
Determining the size of the regulatory capital, clearing capital and default fund .....	12
Minimum Default Fund size .....	14
Clearing member contributions.....	15
Calculating clearing member contributions.....	15
Frequency.....	16
Eligible funds .....	16
Other counterparties’ contributions.....	16
Waterfalls.....	18
Replenishment Process .....	19
Regulatory and legal compliance.....	21
EMIR .....	21
CPSS-IOSCO .....	21
BASEL III .....	22
Investment Policy.....	22
FSA Process.....	23
Implementation of Rules and Regulations.....	23
Return interest and fees.....	24

## APPENDICES

- Appendix 1 - Loss in both markets
- Appendix 2 - RCaR, Risk Valuation Capital at Risk
- Appendix 3 - Assessment Power and Replenishment
- Appendix 4 - Investment policy principles
- Appendix 5 - Eligible Funds
- Appendix 6 - Commodities market – base collateral

## NASDAQ OMX DEFAULT FUND – POLICY DOCUMENT

This document provides the reader with a thorough overview of the structure of NASDAQ OMX Stockholm AB's (NASDAQ OMX) clearing member sponsored default fund. NASDAQ OMX provides, within the same legal entity, CCP clearing services under three brands, NASDAQ OMX Derivative Markets, NASDAQ OMX Commodities and N2EX.

According to recent proposals by the EU Commission, clearing member financed default funds will become mandatory for Central Counterparties (CCPs).

The document is aimed at decision makers within NASDAQ OMX's clearing members' organizations. The objective is to inform participants and stakeholders about the structure, procedures and overall set-up of the NASDAQ OMX default fund, prior to implementation.

The first part of the document gives a description of NASDAQ OMX's regulatory capital structure, including the default fund and criteria for determining its size. Contribution criteria for clearing members are also described. The second part defines the order in which parts of the fund would be used, i.e. the Waterfall. Finally, the third part describes the legal implementation of the default fund by NASDAQ OMX in relation to regulatory compliances and clearing participants.

The content of this policy is pending consent by the Swedish Financial Supervisory Authority (Finansinspektionen) and may be subject to change.

### REVISIONS

Preliminary version	April 2011
Revision 2	September 2011

## EXECUTIVE SUMMARY

The financial crisis of 2008 highlighted the importance of stable and resilient financial systems. Increasingly, legislators, regulatory bodies and other market participants have increased focus on risk management and the promotion of a stable and safe financial infrastructure.

Efforts to improve market stability are being coordinated globally and a complete overhaul of the regulatory framework in both the EU and US is expected to result in a new regulatory regime for CCPs by the end of 2012. NASDAQ OMX will be required to adapt to the new regulations and, at the same time, ensure clearing member implementation of new requirements and features.

One such proposed mandatory requirement, stipulated in the EMIR proposal<sup>1</sup>, is for CCPs to have a clearing member sponsored default fund. Clearing member contributions to the default fund will be mandatory, and contributions should be proportional to the exposures of each clearing member.

NASDAQ OMX will determine its level of regulatory capital in accordance with its Regulatory Capital Policy, approved by the Swedish FSA. The clearing member sponsored default fund will partly finance the regulatory capital, which today is fully financed by NASDAQ OMX. NASDAQ OMX's tools for stress tests, RCaR<sup>2</sup> methodology and principles, will be used in calculating the size of the default fund. RCaR fully meets all calculations criteria required by the Commission (i.e. scenario- and history-based stress tests).

The NASDAQ OMX default fund will have a semi-mutualized (i.e. semi-combined) default fund structure. The structure applies initial separation of the Commodities and Financial markets in the Waterfall<sup>3</sup> in order to create a buffer that separates each market's counterparty risks while, simultaneously, the mutualized default fund provides capital efficiencies with regard to the total regulatory capital.

---

<sup>1</sup> Proposal for a Regulation of the European Parliament and of the Council on OTC derivative transactions, central counterparties and trade Repositories - Presidency Compromise, Brussels, 29 August 2011 ("EMIR-proposal").

<sup>2</sup> RCaR, RIVA Capital at Risk

<sup>3</sup> 'Waterfall' means the priority order in which the capital resources would be utilized in the event of a counterparty default where collateral provided would not be sufficient to cover the cost for closing out the defaulter's portfolio.

When a clearing member is active in both markets, contributions are required to both markets' default funds.

Clearing member contributions to the default fund will normally be made on a quarterly basis with the first contribution on 1 March 2012. Eligible funds will include cash and qualifying government bonds. Clearing member contribution levels will be based on their respective initial margins (50%) and RCaR (50%), based on a 12-month average. Minimum contribution levels will be established and will also serve as entrance levels for new clearing members. NASDAQ OMX will distribute new applicable default fund requirements in ample time before the new requirement enters into effect.

To further strengthen the contingent financial resources of the clearing house, NASDAQ OMX will implement an Assessment Power<sup>4</sup>.

NASDAQ OMX's and members' rights and obligations related to the default fund will be specified in the Rules and Regulations of NASDAQ OMX Derivatives Markets, NASDAQ OMX Commodities Clearing Rules and the Clearing Rules for the N2EX Market.

NASDAQ OMX will pay interest on cash contributions to the default fund.

The final structure of the default fund implementation will be subject to the Swedish FSA's consent, which will coordinate its views with the Swedish Central Bank.

The launch date is March 1, 2012.

---

<sup>4</sup>Clearing members' guarantee commitment (not pre-funded) to contribute additional capital if the pre-funded resources in the Waterfall is not sufficient.

## DEFAULT FUND CAPITAL STRUCTURE

### REGULATORY CAPITAL

The CCP is required to hold regulatory capital in order to, among other things, withstand a shortfall of the collateral provided by defaulting counterparties in the event of extreme but plausible market conditions. Currently NASDAQ OMX has dedicated capital resources specifically designated to cover the risk of counterparty losses in its clearing business—this, for extreme situations where collateral provided and other resources may be insufficient. The regulatory capital resources secure uninterrupted business activity or an orderly winding down process while covering potential losses due to operational risks. The majority of these committed resources are available on short notice to ensure appropriate payment readiness.

It is essential that the CCP maintains sufficient capital readily available. Regulatory capital calculations are continuously updated through RCaR, a proprietary capital-at-risk calculation model that establishes the appropriate level of capital (see Appendix 2). RCaR generates “loss given default” calculations based on extreme but plausible stress scenarios and counterparty default assumptions. The data generated by RCaR is crucial to NASDAQ OMX capital adequacy planning and has been used for this purpose since 2003.

In the current capital structure, NASDAQ OMX provides all capital without any contribution from its clearing members. The capital includes own assets and synthetic capital.

### DEFAULT FUND RESOURCES AND OTHER CAPITAL

Under the new regulatory framework, a clearing member sponsored default fund must be implemented. This means that the clearing members will have to contribute, together with the CCP, to the regulatory capital. A clearing member’s relative contribution will be proportional to the CCP’s exposure to the clearing member. One of the main reasons for this new regulatory requirement is to ensure an alignment of risk between the CCP and its clearing members. Another reason is to improve the financial strength of a CCP in an extreme counterparty default situation.

The structure of the default fund and the other capital resources provided by the CCP, also referred to as the Waterfall, is illustrated in [Figure 1]. The Waterfall starts from the bottom and works its way through the capital resources towards the top of each pillar. The main characteristics of the Waterfall structure are: 1) NASDAQ OMX retains the first layer of exposure, 2) a separation of risk between the

Financial Market and the Commodites Market , however, the contributions to the Mutualized Default Fund and NASDAQ OMX Junior and Senior Capital are available to cover default losses occurring in either of the markets.

In addition to the resources in the Waterfall NASDAQ OMX holds additional and sufficient capital to cover the operational, legal and investment risks in the CCP, as well an orderly winding-down.

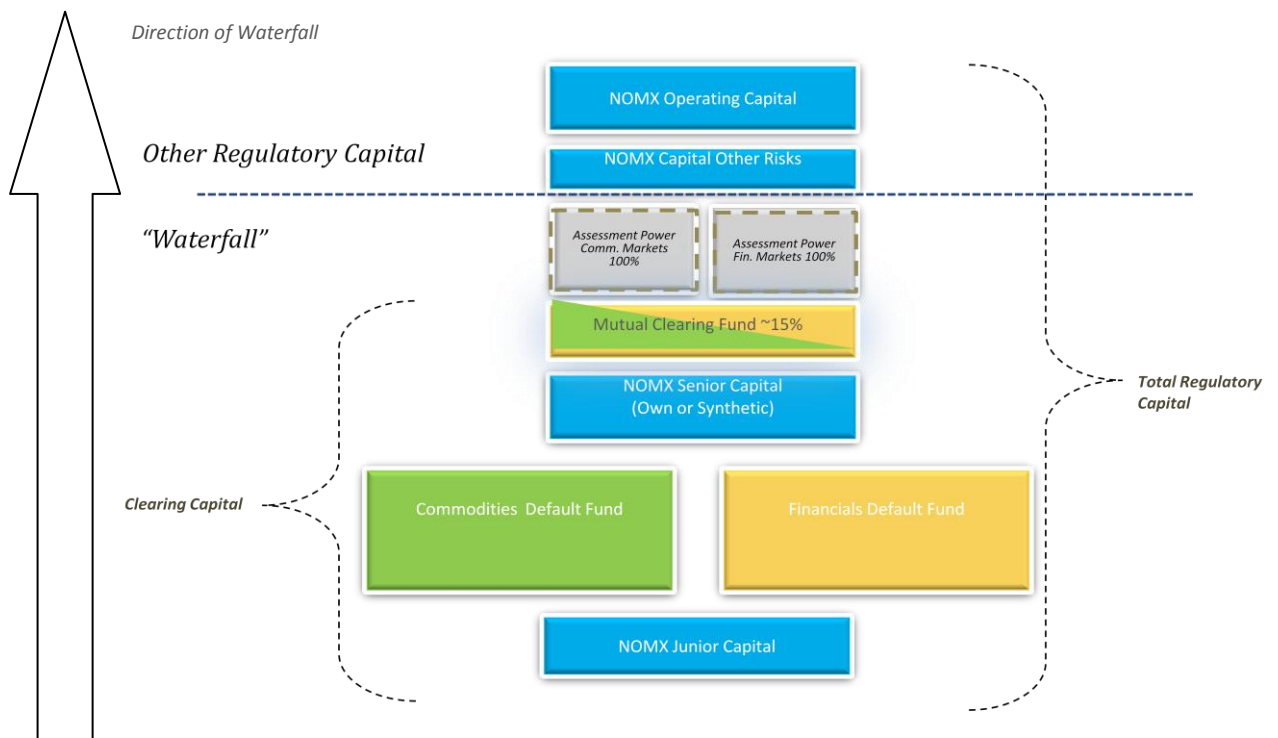


Figure 1: The default fund integrated in the Regulatory Capital

Disclaimer: At time of writing the Capital resources described in this policy paper are indicative. The size of the resources is affected by the market dynamics and the exposures the CCP has in respect of its counterparties. Hence, ultimate figures may be different and subject to change, depending upon market conditions.

CAPITAL RESOURCES – DESCRIPTION

## Clearing Capital (Waterfall)

### NASDAQ OMX JUNIOR CAPITAL

In the event of a counterparty default where the defaulting counterparty's posted margin and default fund contribution would not be sufficient to cover the cost of closing out the portfolio, NASDAQ OMX will absorb the first layer of loss. This Junior Capital will ensure that a strong incentive remains in place for NASDAQ OMX to continue applying a conservative and prudent risk management and protect its pristine track record related to losses associated with counterparty defaults. *The Junior Capital will be SEK 100 million.*

### COMMODITIES DEFAULT FUND

The Commodities Default Fund (CDF) will function as the second layer in the event of a counterparty default where the loss has arisen in the commodities market. The size of the CDF is calculated to withstand a default of either the largest, or of the second and third largest counterparty combined, in an extreme but plausible scenario. All contributions will be proportional to the exposure of all counterparties of the CCP active on the commodities market. Contributions to the CDF are only available to cover default losses in the commodities market. *At the time of writing the size of the CDF is estimated to be SEK 700 million.*<sup>5</sup>

### FINANCIALS DEFAULT FUND

The Financial Default Fund (FDF) will function as the second layer in the event there is a counterparty default where the loss has arisen in the financial market. The size of the FDF is calculated to withstand a default of either the largest, or of the second and third largest counterparties combined, in an extreme but plausible scenario. All contributions will be proportional to the exposure of all counterparties of the CCP active on the financial market. Contributions to the FDF are only available to cover default losses in the financial market. *At the time of writing the size of the FDF is estimated to be SEK 650 million.*

### NASDAQ OMX SENIOR CAPITAL (OWN OR SYNTHETIC)

In the event of a counterparty default, NASDAQ OMX' Senior Capital would be used as a third layer. NASDAQ OMX carries the risk in this layer in the Waterfall structure, to ensure that, even if NASDAQ OMX' Junior Capital is used and the default fund is directly exposed to

---

<sup>5</sup> Base currency is EUR for the contributions to the Commodities Default Fund (and related contributions to the Mutualized Default Fund and Assessment Power).

absorb additional losses, there is still an alignment of risk between NASDAQ OMX and its clearing members.

The size of this third layer is calculated to be sufficiently large to ensure that, when aggregated with the Junior Capital, Default Funds and Mutualized Default Fund, NASDAQ OMX will withstand a default of the two largest counterparties, regardless of market, under an extreme but plausible scenario. Consequently, the size of NASDAQ OMX Senior Capital could change over time in order to fulfill the requirement that the two largest counterparties are covered. However, the minimum size of the Senior Capital, regardless of the calculated requirement, is SEK 100 million.

NASDAQ OMX can opt to fund this third layer, or parts of it, with synthetic capital (e.g. insurance, financial guarantees, etc.). Any such capital would need to qualify in terms of credit quality, legal soundness and regulatory requirements to ensure the financial robustness of the clearing house. *At the time of writing NASDAQ OMX estimates the size of the Senior Capital to be SEK 150 million.*

#### MUTUALIZED DEFAULT FUND

In the Waterfall structure, the Mutualized (combined) Default Fund, is a buffer provided by the clearing members from both the commodities market and the financial market. This fourth layer would be used in the event of a default in the commodities market and/or in the financial market. In other words, it is mutualized between the commodities and financial markets. The contribution is limited to 15% of each clearing member's contributions to the Commodities- and Financial Default Funds.

The reason for creating a Mutualized Default Fund layer is to obtain a higher degree of capital efficiency, an alignment of risk between the clearing house and clearing members that are not active in the both markets, and a buffer to reduce the need for intra-quarterly adjustments of the default fund. However, to create a limited exposure for clearing members that are not active in both markets, the abovementioned rationales have been balanced by placing the mutualized layer in a very senior position in the Waterfall and by setting the size of contributions to this layer low. *At the time of writing the size of the Mutualized Default Fund is estimated to be approximately SEK 200 million.*

**ASSESSMENT POWER**

NASDAQ OMX will implement an Assessment Power as a final layer in the Waterfall. This ultimate layer strengthens the clearing house's contingent financial resources by committing clearing members to contribute additional capital in the event that prior levels of protection have not been sufficient to cover counterparty default(s). The commitment equals an obligation to provide additional funds up to an amount equal to 100% of each clearing member's contribution to the Financial Default Fund and the Commodities Default Fund (i.e. not including the contribution to the Mutualized Default Fund). Thus, the Assessment Power is not a pre-funded capital contribution, but a commitment to provide additional funds if required. Commitments based on the default fund contributions to the financial market are only available to cover default losses in the financial market, and commitments based on the default fund contributions to the commodities market are only available to cover default losses in the commodities market.

The Assessment Power is not included in the calculation of the Regulatory Capital.

For further information about Assessment Power, see Appendix 3.

*At the time of writing the size of the Assessment Power for the financial market is estimated to be SEK 650 million and for the commodities market SEK 700 million.*

**Other Regulatory Capital****NASDAQ OMX CAPITAL OTHER RISKS (OWN OR SYNTHETIC)**

In addition to capital held to withstand counterparty defaults, NASDAQ OMX will also hold capital to ensure that it is adequately protected against e.g. credit, market, liquidity, operational, legal and business risks. This capital can either be funded with own or synthetic capital.

*At the time of writing the size of the NASDAQ OMX Capital Other Risks is estimated to be SEK 150 million.*

**OPERATIONAL CAPITAL**

In addition to the funds described above, NASDAQ OMX will hold sufficient Operational Capital to ensure an orderly winding-down or restructuring.

*At the time of writing the size of the NASDAQ OMX Operational Capital is estimated to be SEK 300 million.*

## DETERMINING THE SIZE OF THE REGULATORY CAPITAL, CLEARING CAPITAL AND DEFAULT FUND

*Please also see Figure 1. “The default fund integrated in the Regulatory Capital”*

To ensure the adequacy of capital reserves to cover counterparty losses, the NASDAQ OMX clearing house uses a capital methodology, RCaR, to calculate exposure from a set of market stress tests (see Appendix 2). The RCaR model generates a series of extreme but plausible scenarios. Each scenario incorporates a combination of market movements that produce portfolio losses that may not be covered by collateral. Each clearing member, indirect pledge customer, direct pledge customer or clearing client is assigned an RCaR exposure number based on its portfolio positions and current margins. The RCaR exposure is taken as the worst-case scenario loss, minus current margin requirements.

The size of the Financial Default Fund and Commodities Default Fund are determined to withstand default of either the largest or the second and third largest counterparty exposure in the commodities market and financial market, respectively. The counterparty exposures are defined as the RCaR exposures above. The aggregated amount of all clearing member contributions in each market, and consequently also all clearing member individual contributions, are therefore directly linked to the largest counterparty exposures the clearing house faces in each market.

Aggregated with the default fund, NASDAQ OMX must hold additional capital to withstand the simultaneous default of its two largest counterparty exposures. This aggregated capital (“Clearing Capital”) must be sufficient to cover the default of the two largest exposures regardless of market, i.e. the following scenarios should be covered at all times; 1) the two largest exposures in the commodity market, 2) the two largest exposures in the financial market, or 3) the largest exposure from each markets. Also, when determining the total size of the Clearing Capital, NASDAQ OMX will apply a look-back period of one year for the RCaR values. The look-back period ensures that the available Clearing Capital will be retained at an appropriate level, even with temporary reductions in counterparty exposures.

In addition to the Clearing Capital, NASDAQ OMX will hold capital sufficient to ensure an orderly winding-down, and capital to adequately protect NASDAQ OMX against any credit, counterparty, market, liquidity, operational, legal and business risks.

## Minimum calculated sizes per capital category:

Commodity Default Fund (CDF)	The default fund size must enable the CCP to withstand a default of the largest exposure, or of the second and third largest exposures combined – whichever is higher – in the Commodities Market.
Financial Default Fund (FDF)	The default fund size must enable the CCP to withstand a default of the largest exposure, or of the second and third largest exposures combined – whichever is higher – in the Financial Market.
Clearing Capital (CC)	The Clearing Capital (including CDF, FDF, and Mutualized Default Fund) must at least withstand the simultaneous defaults of the two largest exposures regardless of market.
Total Regulatory Capital (TRC)	The Total Regulatory Capital includes the Clearing Capital and capital sufficient to ensure an orderly wind-down or restructuring of the CCP (Operational Capital) and capital to adequately protect the CCP against credit, counterparty, market, liquidity, operational, legal and business risks (Capital Other Risks).

#### MINIMUM DEFAULT FUND SIZE

The European Market Infrastructure Regulation (EMIR) stipulates that a CCP shall establish a minimum amount for the size of the default fund. NASDAQ OMX's minimum size for the Commodities Default Fund – notwithstanding the calculations of the preceding section – is 5 MEUR and the Financial Default Fund is 50 MSEK.

## CLEARING MEMBER CONTRIBUTIONS

Clearing members' default fund contributions will be based on pro-rata principles, with re-calculations of contributions normally being conducted every quarter.

Contributions to the default fund will be made by clearing members for their own exposures, as well as for their customers' and clients' exposures, but not for Direct Pledging Customers' and Clearing Clients' exposures. (See chapter on "Other counterparties' contributions"<sup>6</sup>.) Minimum contribution levels will be deployed as stipulated in the drafts of the EMIR proposal.

In cases where a clearing member is active in both markets, contributions are required to both markets' default funds.

### CALCULATING CLEARING MEMBER CONTRIBUTIONS

The clearing members' default fund contribution will be proportional to the members' exposure in the market(s) where they are active. The individual clearing member's share of the total default fund will be based on its initial margins (50%) and RCaR (50%) relative to the total amount for all counterparties' initial margin and RCaR values. The calculations are based on 12-month averages. These criteria ensure that each clearing member's contribution is proportional to the CCP's exposure towards the clearing member.

Weight for counterparty  $i$  in market  $k$ :  

$$50\% \times (\text{Initial Margin}_{i,k} / \text{Aggr. Initial Margin}_k) + 50\% \times (\text{Individual RCaR}_{i,k} / \text{Aggr. Individual RCaR}_k)^7$$

Minimum contribution levels to the default fund will be applied as defined in Table 1 below (denominated in SEK for the Financial Market and EUR for the Commodities Market).

Market	Minimum contribution level	
Financial Markets	1	MSEK
Commodities Market	120	kEUR

*Table 1 – Minimum Contribution Level.*

*Note: New clearing members' entrance will also be based on minimum contribution limits.*

<sup>6</sup> NASDAQ OMX contributions to the default fund for Direct Pledge Customers' and Clearing Clients' exposures will be further evaluated on the basis of the final version of EMIR. Swedish regulators have expressed concerns whether this funding by NASDAQ OMX to the default fund will be an acceptable structure under the coming regulatory framework.

<sup>7</sup> The calculations are based on 12 months average for RCaR and initial margins.

## FREQUENCY

Contributions to the default fund will normally be made on a quarterly basis. A clearing member's contribution level, from one quarter to the next, may fluctuate due to top exposures determining the default fund size, the clearing members' and customers' own behaviors and the introduction of new markets. Calculations of contribution levels will be executed and communicated to clearing members in ample time prior to the funding due date. NASDAQ OMX will have the right to make a request for a contribution during a quarter if the exposures fluctuate in excess of certain thresholds.

## ELIGIBLE FUNDS

NASDAQ OMX will accept as contributions to the default fund:

- Cash: EUR, NOK, SEK, DKK, USD, GBP
- Qualified government securities – see appendix 5

Government securities will be provided under a pledge arrangement, i.e. the ownership of pledged securities will remain with the clearing member pledging the securities, until realization by NASDAQ OMX.

Cash will be paid to NASDAQ OMX's bank accounts. NASDAQ OMX will then invest the cash in accordance with its investment policy that meets regulatory requirements (see appendix 4).

NASDAQ OMX will provide interest on cash contributions. NASDAQ OMX will apply haircuts on eligible funds.

## OTHER COUNTERPARTIES' CONTRIBUTIONS

### INDIRECT PLEDGE CUSTOMERS (IDP)

Clearing members will contribute to the default fund for their IDPs' exposures. The IDPs' exposures will be calculated using the same method as for clearing members. The minimum contribution level will apply to clearing members' aggregated value of all their IDPs and own calculated contributions, i.e. not minimum contribution levels applied on each individual IDP.

In the event of a defaulting IDP, the clearing member's liability for the IDP's exposure with respect to the default fund (i.e. before NASDAQ OMX Junior Capital is used) is limited to the higher of the contribution calculated for the defaulting IDP's exposure and the minimum contribution level (See Table 1). Each clearing member will have to decide how to handle this in relation to their IDP.

### **DIRECT PLEDGE CUSTOMERS (DP)**

---

NASDAQ OMX will fund the DPs' exposures in the default fund. The same method for calculating clearing members' contributions to the default funds will be used when calculating NASDAQ OMX's contributions for DPs. In the event of a defaulting DP, NASDAQ OMX's liability for the DP's exposure with respect to the default fund (before NASDAQ OMX Junior Capital is used) is limited to the higher of the contributions calculated for the defaulting DP's exposure and the minimum contribution level (See Table 1).

NASDAQ OMX will, taking into account initial feed-back from its regulators, take precautions and implement new financial and legal requirements on DPs. Changes to the NASDAQ OMX' funding of the contributions to the default fund for exposures in respect of DPs will be based on the final outcome of regulations (EMIR). However, this will not affect the structure to be implemented as per 1 March 2012 (as described in this document). Implementation of a revised funding of DPs exposures will, depending on regulatory outcome, be made during 2013 at the earliest.

### **CLEARING CLIENTS (CC)**

---

NASDAQ OMX will fund the CCs' exposures in the default fund. The same method for calculating clearing members' contributions to the default funds will be used when calculating NASDAQ OMX's contributions for CCs. In the event of a defaulting CC, NASDAQ OMX's liability for the CC's exposure with regard to the default fund (before NASDAQ OMX Junior Capital is used) is limited to the higher of the contributions calculated for the defaulting CC's exposure and the minimum contribution level (See Table 1).

Changes to the NASDAQ OMX' funding of the contributions to the default fund for exposures in respect of CCs will be based on the final outcome of regulations (EMIR). However, this will not affect the structure to be implemented as per 1 March 2012 (as described in this document). Implementation of a revised funding of CCs exposures will be made during 2013 at the earliest.

## WATERFALLS

If a NASDAQ OMX counterparty defaults, NASDAQ OMX will, after any coverage available to NASDAQ OMX (pledged collateral and guarantees) with respect to the defaulter's obligations has been applied and proven insufficient, have recourse to the default fund contribution for the defaulting counterparty. If a loss remains after this, the funds in the Clearing Capital, including the default fund, will be used in the order described in the Waterfall examples below, (iii) – (vii).

### CLEARING MEMBER DEFAULT

---

- i) Defaulting clearing member's collateral
- ii) All default fund contributions from the Defaulting clearing member
- iii) NASDAQ OMX Junior Capital
- iv) Default fund contributions of non-defaulting clearing members in the market where the loss has occurred (including NASDAQ OMX's contribution for DPs or CCs in the specific market)
- v) NASDAQ OMX Senior Capital
- vi) Mutualized Default Fund (pro-rata)
- vii) Assessment Power in the market where remaining loss exists (including the Assessment Power that NASDAQ OMX has committed to for DPs or CCs in the specific market)

### DP CUSTOMER DEFAULT

---

- i) Defaulting DP's collateral and liability of trading account administrator(s)
- ii) All default fund contributions made by NASDAQ OMX for the exposure of the defaulting DP, however not less than the minimum contribution (see Table 1)
- iii) NASDAQ OMX Junior Capital
- iv) Default fund contributions of non-defaulting clearing members in the market where the loss has occurred (including NASDAQ OMX contribution for remaining DPs in the specific market)
- v) NASDAQ OMX Senior Capital
- vi) Mutualized Default Fund (pro-rata)
- vii) Assessment Power in the market where remaining loss exists (including the Assessment Power that NASDAQ OMX has committed to for DPs in the specific market)

### **IDP CUSTOMER DEFAULT**

---

- i) Collateral provided by the defaulting IDP's clearing member and its liability for the IDP's contracts
- ii) All contributions made by the IDP's clearing member to the default fund for the exposures of the defaulting IDP, however not less than the minimum contribution (see Table 1)
- iii) NASDAQ OMX Junior Capital
- iv) Default fund contributions of non-defaulting clearing members in the market where the loss has occurred (including NASDAQ OMX contribution for DPs in the specific market)
- v) NASDAQ OMX Senior Capital
- vi) Mutualized Default Fund (pro-rata)
- vii) Assessment Power in the market where remaining loss exists (including the Assessment Power that NASDAQ OMX has committed to for DPs in the specific market)

### **CC DEFAULT**

---

- i) Defaulting CC's collateral contribution and CC's Client Representative's for the CC's contracts
- ii) All default fund contributions made by NASDAQ OMX for the exposures of the defaulting CC, however not less than the minimum contribution (see Table 1)
- iii) NASDAQ OMX Junior Capital
- iv) Default fund contributions of non-defaulting clearing members in the market where the loss has occurred (including the NASDAQ OMX contribution for remaining CCs in the specific market)
- v) NASDAQ OMX Senior Capital
- vi) Mutualized Default Fund (pro-rata)
- vii) Assessment Power in the market where remaining loss exists (including the Assessment Power that NASDAQ OMX has committed to for CCs in the specific market)

### **REPLENISHMENT PROCESS**

If any of the Clearing Capital funds (including default funds) is used, due to a default of a counterparty, the capital used must be replenished through new contributions by the non-defaulting clearing members and NASDAQ OMX. Replenishment of the Clearing Capital will follow a procedure similar to the one applied to quarterly contribution procedures, but in a separate replenishment contribution request.

Replenishment of default fund contributions should be effected within ten banking days after request (including capital provided by NASDAQ OMX).

Replenished funds will not be put into their original position in the Waterfall until a 90-day period has elapsed. During this “Interim Period” the replenished funds will be put into a more senior level (above the Assessment Power). During the Interim Period, the same priority order within the replenished funds will be applied as with the normal Waterfall (i.e. replenished NASDAQ OMX Junior Capital below replenished default fund contributions etc.). When the Interim Period has elapsed, the funds will be moved down to the original, junior level. For further information about replenishment, see Appendix 3.

## REGULATORY AND LEGAL COMPLIANCE

### EMIR

Based on drafts of the European Market Infrastructure Regulation (EMIR) for OTC derivatives, central counterparties and trade repositories, it will be mandatory for a CCP to have a clearing member sponsored default fund. The CCP will establish the minimum size of contributions to the default fund and the criteria for calculating contributions of the individual clearing members. It also stipulates that contributions shall be proportional to the exposures of each clearing member and that the default fund shall, at the very least, enable the CCP to withstand under extreme but plausible market conditions the default of the clearing member to which it has the largest exposures or to the second and third largest clearing members combined, if the sum of their exposures is larger. A CCP may establish more than one default fund for the different classes of instruments it clears and may require non-defaulting clearing members to provide additional funds in the event of a default of another clearing member. However, the clearing members of a CCP will have limited exposures toward the CCP. The EMIR draft regulation also includes rules regarding the structure of the default Waterfall.

Until EMIR is finalized it is of course not certain which exact requirements will be applicable to CCPs' default fund structures. However, NASDAQ OMX is following the regulatory process closely and considers its default fund structure to be in line with the current EMIR draft. Since EMIR is still subject to consultations, some changes to the structure of the default fund will likely have to be made before the requirements in EMIR come into force.

The EMIR draft regulation also stipulates that a CCP shall establish a risk committee comprising representatives from its clearing members and independent members of the board. The risk committee shall advise the board of the CCP on any arrangements that may impact the risk management of the CCP, such as a significant change in its risk model, its default procedures, its criteria for accepting clearing members or the clearing of new classes of instruments. NASDAQ OMX does not currently have a risk committee comprised of clearing members, but such a committee will also be established in line with EMIR requirements.

### CPSS-IOSCO

In March 2011 the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO) published "Principles for financial market infrastructures" for consultation. It is expected that the CPSS

and IOSCO will publish a final set of principles in early 2012 and that CCPs will take swift and appropriate action to meet them.

The report does not stipulate a specific requirement that CCPs have a member sponsored default fund. However, it follows that a CCP should maintain financial resources to cover a wide range of potential stress scenarios that should include the default of the [one/two] participant[s] and [its/their] affiliates that would potentially cause the largest aggregate credit exposure[s] in extreme but plausible market conditions. Such resources could be prefunded CCP segregated funds and other pooling-of-resources arrangements for which the associated costs are shared among participants. The NASDAQ OMX' structure for default fund presented herein, when including NASDAQ OMX's contributions and funds, covers the potential default of the two largest counterparties, regardless of markets.

NASDAQ OMX is following the consultation process closely and will take into account any CPSS-IOSCO principle relevant for NASDAQ OMX's default fund, to ensure that NASDAQ OMX continues to comply with CPSS-IOSCO.

### BASEL III

The Basel Committee on Banking Supervision is currently in the process of defining a new set of rules for the capitalization of bank exposures to central counterparties. In the current proposal, the level of margining and the structure of the default fund will be of significant importance when determining the capital charge applicable to banks for their contribution to a default fund. NASDAQ OMX will follow this process closely and ensure that NASDAQ OMX will be defined as a qualifying CCP and that the structure of the NASDAQ OMX clearing house will be as efficient as possible for all stakeholders.

### INVESTMENT POLICY

The default fund contributions can be made in cash (SEK, EUR, NOK, DKK, GBP, and USD) or by pledging eligible government securities. The requirements will be denominated in SEK for the Financial Market and EUR for the Commodities Market<sup>8</sup>.

NASDAQ OMX will invest the cash contribution according to its investment policy. The funds will primarily be invested in highly liquid and creditworthy government bonds or collateralized investments (with collateral consisting of highly creditworthy and liquid securities),

---

<sup>8</sup> Haircuts for other currencies and eligible securities will be applied in line with the NASDAQ OMX standard collateral list.

which will ensure that the funds are available in the event of financial turmoil and large counterparty defaults.

Consequently, the investment policy of the cash contributions to the default fund (including NASDAQ OMX's own funds) will ensure that the financial robustness of the clearing house will be maintained at a very high level and that any credit, liquidity and market risk is minimized. For further information regarding investment policy, see Appendix 4.

### FSA PROCESS

NASDAQ OMX has had meetings with the Swedish FSA and the Swedish central bank, about the plan to introduce a clearing member sponsored default fund. At these meetings details regarding the structure have been disclosed. The final structure of the default fund is subject to regulatory consent.

### IMPLEMENTATION OF RULES AND REGULATIONS

A new chapter covering participant and NASDAQ OMX rights and obligations related to the default fund will be included in the Rules and Regulations of NASDAQ OMX Derivatives Markets, as well as in NASDAQ OMX Commodities Clearing Rules and the Clearing Rules for the N2EX Market. Participants will get more time to review the proposed rule changes than what is normally given.

The new default fund rules will include, among other things:

- Rules describing how and when default fund contributions shall be posted by clearing members and how a clearing member's contribution is calculated.
- Terms on which default fund contributions are held.
- Description of the structure of the default fund.
- Rules describing how NASDAQ OMX shall reduce or bear the losses with regard to counterparty default, including application of defaulter's contributions.
- Rules describing under what conditions NASDAQ OMX may have access to the default fund and description of application of default fund (Waterfall).
- Terms regarding replenishment of funds after recourse to the default fund.
- Rules on recoveries from a defaulter
- Terms for releasing contributions and Assessment Power in case of termination of clearing membership.

## RETURN INTEREST AND FEES

Contributions to the Default Fund may be made in the form of cash (eligible currencies) or in qualified government bonds.

### RETURN INTEREST

Interest will be paid on cash contributions at the NASDAQ Deposit Rate (NDR) + 25 basis points.

Currency	Return interest
SEK	NDR + 25
EUR	NDR + 25
NOK	NDR + 25
DKK	NDR + 25
GBP	NDR + 25
USD	NDR + 25

The NDR for EUR and SEK, in which the majority of NASDAQ OMX's contracts are denominated, is equivalent to the return received on an overnight investment collateralized with government bonds less an administration fee of approximately 10 bp. For the remaining currencies the NDR is equivalent to a secured overnight investment less approximately 35 basis points<sup>9</sup>.

NDR will be published daily on the member web portal.

NASDAQ OMX reserves the right to adjust the NDR should significant changes occur in the investment returns generated.

### FEES

Qualified government bonds pledged to the default fund will be held in safekeeping with no value based fee<sup>10</sup>.

Fees	Return interest
Government bonds	No Fee

<sup>9</sup> The administration fee for the remaining currencies should also cover lower expected volumes and NASDAQ OMX' potential transaction fees in relation to currency swap contracts.

<sup>10</sup> Transaction fees for posting and release of eligible securities may be applied.