



NX User Guide

Version 2.0
Andrew Bowley
Varsha Pitre

30 November 2011

Table of Contents

1. Introduction.....	4
2. NX Mid Match (NXMM)	5
2.1. NXMM Mechanism	5
2.1.1. Auction events.....	5
2.2. Net execution prices	5
2.2.1. Periodic Auction	5
2.2.2. IOC Auction.....	5
2.3. NXMM Tariffs.....	6
2.4. Execution controls	7
2.4.1. Well formed market checks.....	7
2.4.2. Order constraints.....	8
2.5. Order Execution Priority.....	8
3. NX Bid Match (NXBM) /NX Offer Match (NXOM)	9
3.1. NXBM and NXOM Mechanism	9
3.2. NXBM and NXOM Tariffs.....	9
3.3. Execution controls	9
3.3.1. Well formed market checks.....	9
3.3.2. Order constraints.....	10
3.4. Order Execution Priority.....	10
4. NX Strategy Match	11
4.1. NXSM Mechanism	11
4.2. NXSM Reporting.....	12
4.2.1. NXSM Accruals	12
4.2.2. NXSM Indicative Executions.....	12
4.2.3. NXSM Executions	12
4.2.4. Limit order matching mechanism	15
4.3. Detailed NXSM Computation – Worked Example	16
4.3.1. Step 1: Matching accrual	16
4.3.2. Step 2: Interval scheduling.....	16
4.3.3. Step 3: Price computation.....	17
4.4. NXSM Tariffs.....	19
4.5. Order Execution Priority.....	19
5. Transparency.....	20
5.1. Pre trade transparency	20
5.2. Post trade transparency / Trade Reporting	20
5.2.1. Participant’s obligations	21
5.2.2. Relationship with Systematic Internaliser offering	21
5.3. Transaction reporting.....	21

6. Order Types and micro structure	22
6.1. NXMM	22
6.2. NXBM.....	22
6.3. NXOM	23
6.4. NXSM.....	23
6.5. Order Behaviour	24
6.6. Order duration.....	24
6.7. Tick Sizes.....	24
6.8. Lot Sizes	24
6.9. Currencies.....	24
6.10. Trading Calendar	24
6.10.1. Dates	24
6.10.2. Hours of Operation.....	25
7. Stock coverage.....	26
7.1. UK AIM Stocks.....	26
7.2. Stock coverage maintenance	26
7.2.1. Stock Identification	27
8. Access to NX.....	28
8.1. Participation	28
8.2. Connectivity	28
8.3. Settlement.....	28
9. Other.....	29
9.1. Stamp Tax.....	29
9.2. Restrictions	29
9.3. Error trades and cancellation procedure	29
9.4. Clearly erroneous trades	29
10. Operation of the MTF	31
10.1. Governance	31
10.2. Conflict Management.....	31
10.3. Confidentiality	32
10.4. Surveillance	32
10.5. Disciplinary Process and the NX Operating Committee.....	32
10.6. Complaints Procedure	33
10.7. Additional reference	34

1. Introduction

NX is Nomura's dark crossing platform, providing point in time and strategy based crossing services. NX is registered as a Multi-lateral Trading Facility (MTF), regulated by the UK Financial Services Authority, and operated by Nomura International plc (Nomura).

Nomura operates four crossing facilities under the NX MTF:

- NX Mid Match – A periodic auction crossing facility referencing the midpoint of Primary Market, and
- NX Bid Match – A continuous crossing facility referencing the best bid of the Primary Market
- NX Offer Match – A continuous crossing facility referencing the best offer of the Primary Market
- NX Strategy Match – A continuous algorithmic order crossing facility

This document details the platform behaviour of NX and should be read in conjunction with the NX Rulebook. Capitalised terms used but not defined in this User Guide are as defined in the NX Rulebook.

NX Website:

www.nomura.com/nx

Contacts:

Operational

NX Product Management

Andrew Bowley
Managing Director
+44 20 7103 9894
andrew.bowley@nomura.com

NX Product Management

Varsha Pitre
Vice President
+44 20 7103 3217
varsha.pitre@nomura.com

NX Legal

Anita Findlay
Vice President
+44 20 7102 1651
anita.findlay@nomura.com

NX Compliance

Cynthia Chan
Executive Director
+44 20 7102 8655
cynthia.chan@nomura.com

Sales

Co-Head of Global Electronics Sales

Adam Toms
Managing Director
+44 20 7103 5485
adam.toms@nomura.com

Head of Electronic Sales Trading

Ben Springett
Executive Director
+44 20 7103 5485
ben.springett@nomura.com

2. NX Mid Match (NXMM)

NX Mid Match (NXMM) operates as a dark midpoint crossing venue, with executions made with reference to the midpoint of the Primary Market where the Security is listed.

NXMM operates under a MiFID pre trade transparency waiver with mid-point crossing only as per as per example 3 of “Reference Price Waiver” section in the CESR/ESMA document “Waivers from Pre-trade Transparency - CESR positions and ESMA opinions”.

2.1. NXMM Mechanism

The NXMM matching logic has been designed to achieve the following characteristics:

- Simple structure;
- Minimal information leakage;
- No gaming;
- No timing advantages; and
- No probing.

2.1.1. Auction events

Nomura has chosen to run NX with randomised auctions in order to help avoid gaming of the system. One of two events will cause NXMM to run an auction:

- Upon completion of an auction, NXMM will select a randomised period of time of up to 30 seconds to run the next auction (a “Periodic Auction”).
- An incoming Immediate or Cancel (IOC) order or Fill or Kill (FOK) order will trigger an auction immediately (an “IOC Auction”). In an IOC auction, IOC or FOK orders are executed against any resident orders. Buy and sell resident orders are not otherwise matched with each other until the next Periodic Auction

2.2. Net execution prices

Under the model described above, with periodic actions and a tariff overlay, the following price outcomes will be achieved:

2.2.1. Periodic Auction

Under the Periodic Auction scenario, all trading is at the midpoint of the Primary Market (both orders gain 50% of the spread vs. the opposite side reference).

For example, with a market bid-offer of 100-102, midpoint execution will take place at 101.

According to the tariff structure outlined above, $y = \text{zero}$, so the net price after tariffs is the same as the gross price before tariffs.

2.2.2. IOC Auction

Under the IOC Auction scenario, gross trade prices will be the midpoint of the Primary Market (both orders gain 50% of the spread vs. the opposite side reference).

Additionally, under this tariff structure, the IOC will get charged 25% of the spread and the resident order will receive a rebate of 25% of the spread. These charges are built in to the trade cycle and are published to the user as a net price.

As a result, the trades will be executed with a net 75% of the spread going to the resident order and 25% going to the IOC order. This is intended to encourage and incentivise resident orders.

Please note that all trade reporting (see section 4.2) will be at the gross price (the mid price). This is consistent with the trade model of a midpoint match, and additionally ensures that no directional information is provided by the highlighting of the direction of the resident orders.

The net price would be reflected in the bookings for settlement purposes.

The following examples further illustrate the IOC Auction execution prices.

Example 1: IOC buy order crossing against passive resident sell order:

- Assuming a market bid-offer of 100-102, with an incoming IOC buy order, any execution will take place at mid of 101.
- The trade reporting would be done at mid (as per the execution) of 101.

The IOC buy order:

- Will receive a gross fill of 101
- Will be charged a tariff of 25% spread and hence receive a net fill after tariffs of 101.5

The passive resident sell order:

- Will receive a gross fill of 101
- Will receive a rebate of 25% spread, and hence receive a net fill after tariffs of 101.5

Example 2: IOC sell order crossing against passive resident buy order:

- Assuming a market bid-offer of 100-102, with an incoming IOC sell order, any execution will take place at mid of 101.
- The trade reporting would be done at mid (as per the execution) of 101.

The IOC sell order:

- Will receive a gross fill of 101
- Will be charged a tariff of 25% spread, hence receiving a net fill after tariffs of 100.5

The passive resident buy order:

- Will receive a gross fill of 101
- Will receive a rebate of 25% spread, and hence receive a net fill after tariffs of 100.5

2.3. NXMM Tariffs

Nomura has created a tariff structure for Members and Participants which helps the firm achieve its anti gaming logic ambitions for the NX MTF. Nomura is striving to encourage the leaving of resident order flow through better pricing than for “pinging” orders (IOC or FOK).

The tariff is a combination of commission and spread rebate as per below:

$$\text{Tariff} = x \text{ bps} + y\% \text{ spread}$$

Where,

- x is the commission charged on execution
- y is the spread offset (as a percentage):

In the case of NXMM Periodic Auction (and also for NXBM, NXOM and NXSM):

$$y = 0$$

In the case of IOC Auction:

$$y = +25\% \text{ charge for IOC or FOK orders}$$
$$y = -25\% \text{ rebate for passive orders}$$

Members should refer to the NX website (www.nomura.com/nx) for current tariff rates, where the NX Tariff Structure will be published and may be updated from time to time.

Additionally,

- x will be charged to Members of NX through a monthly invoice process, in accordance with the payment terms detailed in the NX Tariff Structure.
- y will be charged in the trade workflow, with Members and Participants being notified of the gross and net price before and after the application of this spread tariff.

2.4. Execution controls

A number of controls are provided within NX to help achieve the dual objectives of venue quality and user managed anti gaming thresholds.

2.4.1. Well formed market checks

Nomura operates some “well formed market” checks to ensure that the reference price used is based on a well formed Primary Market bid and offer.

- Match price is less than x% from the last Primary Market order book trade. x will initially be set to 5%.
- Bid and Ask quantity on the Primary Market are each less than or equal to y% of the total quantity of Bid plus Ask. y will initially be set to 95%.
- Bid and Ask sizes must each be greater than \$. z will initially be set to \$5,000.

The price referencing characteristics of NXMM are as follows:

- The orders will be processed with reference to the Primary Market midpoint. And there would be no executions until there has been at least one print on the Primary Market.
- As a result of the dependency created from the characteristic above, the venue cannot execute if the Primary Market is closed, suffers a service interruption, or if it is in an auction period, or if Nomura loses its market data feed from that venue.

2.4.2. Order constraints

The placement of orders into NXMM allows for the user to set the following variables to control how an order is executed, and to further help prevent gaming from small orders:

- **Minimum fill initial**
Minimum fill initial sets the minimum size of the first fill to be received from NXMM. This may be used to mitigate risk against gaming (probing) of the pool, as well as to reflect the economically efficient minimum quantity for settlement purposes. It can be specified either as number of shares (Min Qty) or as Notional quantity in USD (Min Notional Qty)
- **Minimum fill anytime**
Minimum fill anytime sets the minimum size of any subsequent fills. Typically this may be lower (less constrained) than an initial fill, but is open to be used as directed by the user. It can be specified either as number of shares (Min Anytime Qty) or as Notional quantity in USD (Min Notional Anytime Qty)
- **Minimum residual**
Minimum fill residual sets the minimum size of the remaining open (unexecuted) quantity on an order. Use of this parameter prevents small residuals arising if that is desired. It can be specified either as number of shares (Min Leaves Qty) or as Notional quantity in USD (Min Notional Leaves Qty)
- **Cross Restriction**
A restriction on the crossing method can be set by specifying whether to cross against an IOC order or a Passive order or both.

Additionally, an optional limit price may be used against the order, which defines an overall price constraint for the order. As the venue is price referencing, such prices will not be used directly for execution priority.

In the event of an order constraint occurring that would otherwise have lead to an execution during an auction uncross, the order that has been constrained will be excluded from the auction, and the matching will be re-run to try and find matches with other orders.

2.5. Order Execution Priority

NXMM orders are matched on a time priority basis, and will then be subjected to any of the constraints defined above.

3. NX Bid Match (NXBM) /NX Offer Match (NXOM)

NXBM continuous crossing facility is a dark crossing facility referencing best bid of the Primary Market. NXBM allows users to enter passive buy orders or aggressive sell orders.

NXOM continuous crossing facility is a dark crossing facility referencing best offer of the Primary Market. NXOM allows users to enter passive sell orders or aggressive buy orders.

3.1. NXBM and NXOM Mechanism

NXBM and NXOM operate under MiFID pre trade transparency waiver referencing best bid and best offer of Primary Market respectively, as per example 3 of “Reference Price Waiver’ section in the CESR/ESMA document “Waivers from Pre-trade Transparency - CESR positions and ESMA opinions”.

All executions occur and print at the applicable reference price. Please note that NXBM and NXOM will not execute any orders if the Primary Market is not available for trading. The crossing facilities will not trade before open or after close of the Primary Market or if the Primary Market is halted, paused or closed for any reason.

3.2. NXBM and NXOM Tariffs

As noted in section 2.3, the NX tariff for Members and Participants is a combination of commission and spread rebate as per below:

$$\text{Tariff} = x \text{ bps} + y\% \text{ spread}$$

Where,

- x is the commission charged on execution
- y is the spread offset (as a percentage), and only applies to NXMM.

NXBM and NXOM will be charged at the prevailing rate (x bps) only. Members should refer to the NX website (www.nomura.com/nx) for current tariff rates, where the NX Tariff Structure will be published and may be updated from time to time.

3.3. Execution controls

A number of controls are provided within NX to help achieve the dual objectives of venue quality and user managed anti gaming thresholds.

3.3.1. Well formed market checks

Nomura operates some “well formed market” checks to ensure that the reference price used is based on a well formed Primary Market bid and offer.

- Match price is less than x% from the last Primary Market order book trade. x will initially be set to 5%.
- Bid and Ask quantity on the Primary Market are each less than or equal to y% of the total quantity of Bid plus Ask. y will initially be set to 95%.

- Bid and Ask sizes must each be greater than \$z. z will initially be set to \$5,000.

The price referencing characteristics of NXBM and NXOM are as follows:

- The orders will be processed with reference to the Primary Market. And there would be no executions until there has been at least one print on the Primary Market.
- As a result of the dependency created from the characteristic above, the venue cannot execute if the Primary Market is closed, suffers a service interruption, or if it is in an auction period, or if Nomura loses its market data feed from that venue.

3.3.2. Order constraints

The placement of orders into NXBM and NXOM allows for the user to set the following variables to control how an order is executed, and to further help prevent gaming from small orders:

- **Minimum fill initial**
Minimum fill initial sets the minimum size of the first fill to be received from NXBM or NXOM. This may be used to mitigate risk against gaming (probing) of the pool, as well as to reflect the economically efficient minimum quantity for settlement purposes. It can be specified either as number of shares (Min Qty) or as Notional quantity in USD (Min Notional Qty)
- **Minimum fill anytime**
Minimum fill anytime sets the minimum size of any subsequent fills. Typically this may be lower (less constrained) than an initial fill, but is open to be used as directed by the user. It can be specified either as number of shares (Min Anytime Qty) or as Notional quantity in USD (Min Notional Anytime Qty)

Additionally, an optional limit price may be used against the order, which defines an overall price constraint for the order. As the venue is price referencing, such prices will not be used directly for execution priority.

3.4. Order Execution Priority

NXBM and NXOM orders are matched based on proportional size of resident orders. Please note that the order size working in the market will be considered, NOT the original size of the order.

Fills will be subject to minimum fill initial and minimum fill anytime restrictions as specified on the order.

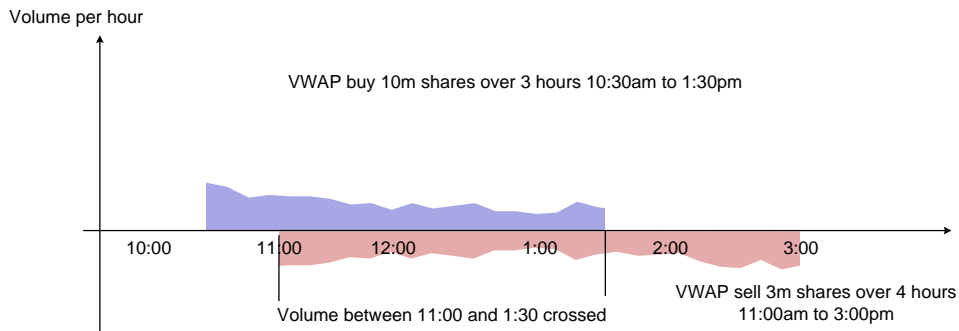
4. NX Strategy Match

NX Strategy Match (NXSM) operates as a continuous VWAP (Volume Weighted Average Price) matching process (referencing the VWAP of Primary Market), with indicative notifications every 15 minutes, and confirmed executions only when the either side of the order gets completed, or pulled back, or when its end of the day or end time of the order on either side.

NXSM operates under a MiFID pre trade transparency waiver crossing at the actual VWAP of Primary Market as per Example 5 of “Acceptable crossing logics” in the CESR document “Waivers from Pre-trade Transparency obligations under the Markets in Financial Instruments Directive (MiFID)”.

4.1. NXSM Mechanism

NXSM will cross VWAP orders for the time and duration of overlap of opposite side orders. This is illustrated in the diagram below, using approximate crossing sizes.



NX Strategy Match

Crossing of VWAP orders will occur at the actual VWAP price for the time period of the order overlap / crossing. The VWAP will be computed by Nomura based on the order book executions (including auction executions) occurring on the Primary Market.

4.2. NXSM Reporting

As with all NX activity, the MTF aims to operate under a pre-trade transparency waiver, and there will be no publication of the order book profile.

Three levels of scheduling and reporting exist within NXSM, as outlined below.

	Notified to Participant?	Trade reported?
NXSM Accruals	No	No
NXSM Indicative Executions	Yes	No
NXSM Executions	Yes	Yes

4.2.1. NXSM Accruals

Being a time based mechanism, NXSM schedules (but does not lock in) future crossing opportunities that it identifies. This mechanism will be referred to as NXSM Accruals.

In order to reduce the gaming potential of the platform, no information about the scheduling and accrued executions (NXSM Accruals) is made available to any user of NX. No individuals at Nomura will be able to access this information, and there will be no external publication of this data to Participants or to the wider community. Records of NXSM Accruals remain only within the NXSM engine.

In order to allow for optimisation of algorithmic strategies, updates on scheduled and accrued volume will be used in a controlled manner by Nomura's algorithmic trading engine (also, within NXSM engine), and will be made available to another Member's algorithmic trading engine if equivalent levels of confidence can be gained that this data is not accessible otherwise by the Member, or distributed further to other Participants.

4.2.2. NXSM Indicative Executions

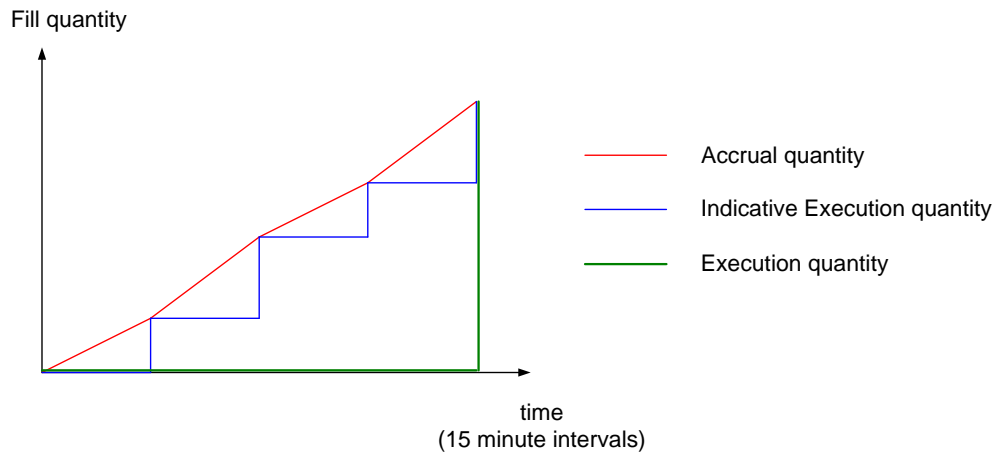
Execution progress is updated to Members/ Participants in 15 minute time intervals through Indicative Executions, which are notified to the Member/ Participant through the NX FIX interface. This notification allows Members/ Participants to track the progress of their orders, in particular to allow the Member/ Participant to trade away where they have a VWAP target benchmark to meet and are not getting fills from NX.

Although these executions are referred to as "indicative" and not trade reported, these are deemed to be firm indications of filled volume and will not be cancelled.

4.2.3. NXSM Executions

Executions crystallise at the end of the scheduled time period of overlap for two orders, or earlier if there is a cancellation from one party. At the point of crystallisation of executions, Members and Participants will receive a final notice of execution, and a trade report is made to Markit BOAT.

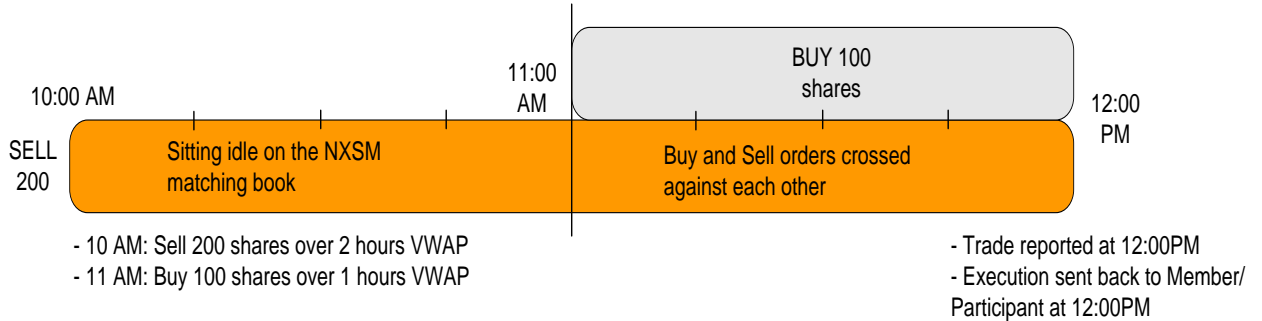
The figure below shows the time path variance of NXSM Accruals, NXSM Indicative Executions and NXSM Executions, assuming in this example a one hour VWAP trade. The non linear progression is a function of the actual volume fluctuations in the market and the possible varying liquidity on the contra-side over different intervals.



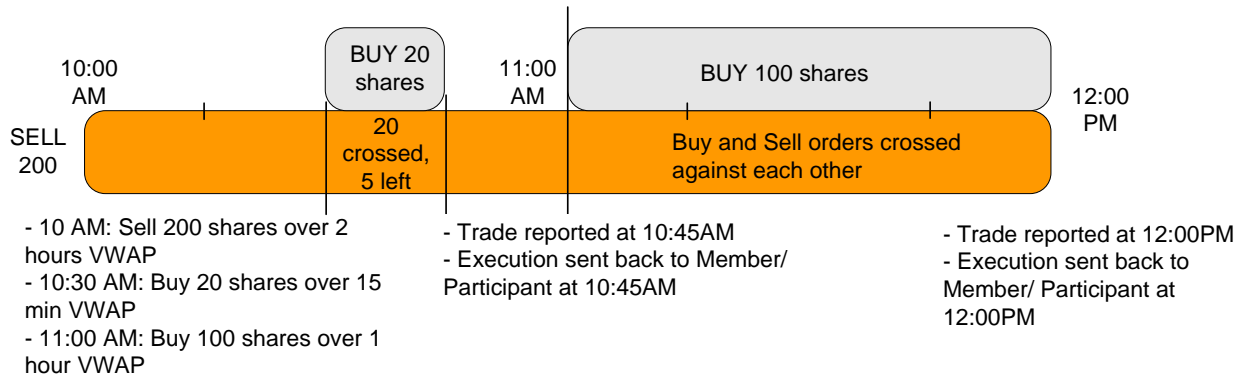
NX Strategy Match Accruals and Executions

The following examples are applicable to both Members and Participants.

Example 1, One VWAP crossed with another VWAP

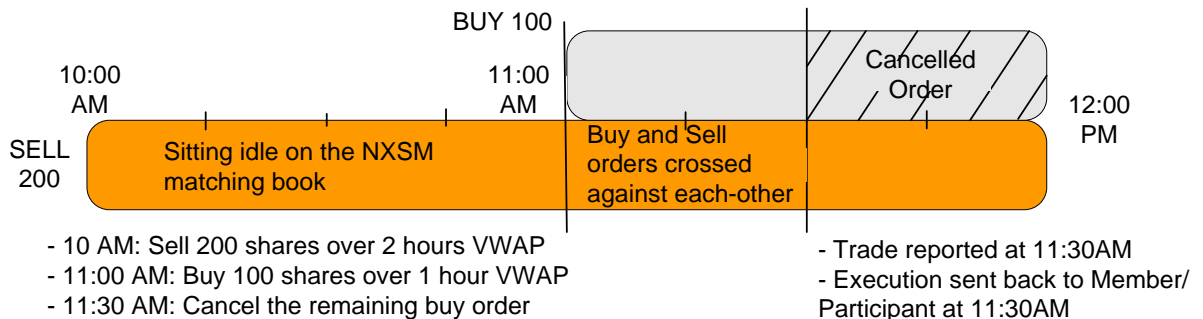


Example 2, One VWAP crossed with 2 other VWAP orders



Members and Participants can also cancel their strategy match order and in that case they are committed to the crossing done until that moment in time, as illustrated in the example below.

Example 3, Cancel example



4.3. Detailed NXSM Computation – Worked Example

To illustrate this model further, we will construct below a detailed working example of the NXSM trading logic:

Consider two VWAP orders entered into NX for strategy matching:

- Buy 1,000,000 shares of VOD.LN over the next 2 hours
- Sell 600,000 shares of VOD.LN over the next 1 hour

4.3.1. Step 1: Matching accrual

As a starting point to match these two orders, NXSM will determine the expected volume profile for the next two hour interval. This will be based on historic volume, and the volume traded from one hour to the next will vary according to market profiles and times of the day. For instance activity in Europe typically picks up at 2:30pm when the US opens.

For this example, let us assume that the expected volume profiles for the next two hours determine that we expect to see turnover in the ratio of 55%:45% for each of the next two hours. In addition, let us also assume that we expect 10m shares to be traded in the next two hours, so that the buy order would ordinarily be 10% of the market.

In this case, we know that the buy order for 1m shares over two hours should execute 550,000 shares in the first hour. The sell order is bigger than this, and so NXSM will schedule an accrued match for 550,000 shares over the next hour.

4.3.2. Step 2: Interval scheduling

Assume that the expected volume profile over the next 1 hour is 5,500,000 shares, with the following split over the next 4 fifteen minute intervals.

Expected volume ('000)	1,350	1,350	1,450	1,350		(sum) 5,500
------------------------	-------	-------	-------	-------	--	-------------

The actual volume could be different from the above, assume the following to be the actual volume experienced.

Actual volume ('000)	1,200	1,400	1,100	1,800		(sum) 5,500
----------------------	-------	-------	-------	-------	--	-------------

The algorithm will look forward, and trade according to expected future volume.

4.3.3. Step 3: Price computation

Assume the actual stock VWAP price for each of the 4 intervals to be the following:

Actual VWAP price	112	112	111.5	113
-------------------	-----	-----	-------	-----

The VWAP price over the one hour interval would then be 112.23 as calculated below

Actual volume ('000)	1,200	1,400	1,100	1,800	5,500
Actual VWAP price	112	112	111.5	113	
Actual Volume * Price	134,400	156,800	122,650	203,400	617,250
					112.23

At the end of the 1 hour period, Members and Participants will end up with the actual VWAP price of 112.23, for the quantity of 550,000 shares. This is the quantity and price that will be printed to Markit BOAT.

In any 15 minute interval, it is not possible to predict the VWAP price for the remaining period of the order, hence the Indicative Executions (as described in section 3.2.2 above) provided are based upon the information available up to that moment in time. If the order is then cancelled at this point, this is the actual price that Members and Participants would receive. –As mentioned above, the Indicative Executions are real reflections of the progress and would not be reversed.

The running cumulative actual VWAP price computed at each time interval is based upon the following formula:

$$\frac{\text{sum (actual volume * price)}}{\text{sum (actual volume)}}$$

As shown below.

Actual volume ('000)	1,200	1,400	1,100	1,800
Actual interval VWAP price	112	112	111.5	113
Actual Volume * Price	134,400	156,800	122,650	203,400
interval 2 cumulative VWAP		112		
interval 3 cumulative VWAP			111.8514	
interval 4 cumulative VWAP				112.2273

$$\begin{aligned} \text{Interval 3 cumulative price} &= (134,400+156,800+122,650) / (1,200+1,400+1,100) \\ &= 111.8514 \end{aligned}$$

Indicative Executions are then priced according to the additional volume executed and the price required to bring the cumulative VWAP price on the order in line with the actual VWAP in the market. This is calculated through the following formula:

$$\frac{(\text{target cumulative price} * \text{actual cumulative volume}) - (\text{prior period cumulative price} * \text{prior period cumulative volume})}{\text{Interval volume}}$$

Expected volume ('000)	1,350	1,350	1,450	1,350	5,500
Actual volume ('000)	1,200	1,400	1,100	1,800	5,500
Actual interval VWAP price	112	112	111.5	113	
Actual Volume * Price	134,400	156,800	122,650	203,400	617,250
interval 2 VWAP		112			112.23
interval 3 VWAP			111.8514		
interval 4 VWAP				112.2273	
actual indicative fill	135	135	145	135	550
target cumulative price	112	112	111.8514	112.2273	
Interval Indicative Execution price	112	112	111.5746	113.3829	

= indicative reports
 =actual final trade report

$$\text{Interval 3 indicative fill price} = (111.8514 \times (135+135+145) - 112 \times (135+135)) / 145$$

$$= 111.5746$$

The reason that indicative fill prices are not reported is because they can be materially different from the actual prevailing price, based on the target cumulative price as shown above. In this example, the final period interval Indicative Execution price (113.3829) is 1.03% away from the actual VWAP price (112.2273).

4.4. NXSM Tariffs

As noted in section 2.3, the NX tariff for Members and Participants is a combination of commission and spread rebate as per below:

$$\text{Tariff} = x \text{ bps} + y\% \text{ spread}$$

Where,

- x is the commission charged on execution
- y is the spread offset (as a percentage), and only applies to NXMM.

NXSM will be charged at the prevailing rate (x bps) only. Members should refer to the NX website (www.nomura.com/nx) for current tariff rates, where the NX Tariff Structure will be published and may be updated from time to time.

4.5. Order Execution Priority

NXSM orders are matched on a pure time priority basis.

5. Transparency

5.1. Pre trade transparency

As noted above, the NX MTF operates under four MiFID pre transparency waivers, and so the NXMM, the NXBM, the NXOM and the NXSM mechanisms will be dark to the entire market.

NXMM operates under a MiFID pre trade transparency waiver with mid-point crossing only as per Example 3 of “Acceptable crossing logics” in the CESR/ESMA document “Waivers from Pre-trade Transparency – CESR positions and ESMA opinions”.

NXBM operates under MiFID pre trade transparency waiver referencing best bid of Primary Market as per Example 3 and 3b of “Price Reference Waivers” mentioned in the CESR/ESMA document “Waivers from Pre-trade Transparency – CESR positions and ESMA opinions”.

NXOM operates under MiFID pre trade transparency waiver best offer of Primary Market respectively as per Example 3 and 3b of “Price Reference Waivers” mentioned in the CESR/ESMA document “Waivers from Pre-trade Transparency – CESR positions and ESMA opinions”.

NXSM operates under a MiFID pre trade transparency waiver crossing at the actual VWAP of Primary Market as per Example 5 of “Price Reference Waivers” in the CESR/ESMA document “Waivers from Pre-trade Transparency – CESR positions and ESMA opinions”.

It should also be noted that NX is dark to all users at Nomura, and NX will be operated under and in accordance with strict Nomura confidentiality policies and procedures.

5.2. Post trade transparency / Trade Reporting

In accordance with MiFID, NX will provide immediate printing of all the NX MTF trades, with full disclosure of the venue.

Trade reporting will be made to Markit BOAT. Markit BOAT is a trade data monitor confirmed by the FSA as enabling FSA registered firms to fulfil their post trade publication obligations under MiFID.

The MIC code of NX is NXEU.

Markit BOAT provides a detailed tape of OTC and a number of dark MTFs, with separation according to the MIC codes.

The Market Conditions flag will be added to NXSM trades to show that the price has been derived from special conditions (representing the time derived computation of the VWAP price for NXSM).

5.2.1. Participant's obligations

Where Nomura acts as riskless principal broker to a trade, Nomura will not additionally trade report client side trades as OTC and Members and Participants must not additionally report this market side trade.

Members and Participants should follow FSA or other regulatory guidelines as to whether it is appropriate to trade report their client side trades.

5.2.2. Relationship with Systematic Internaliser offering

Nomura operates both a dark pool and an off exchange guaranteed execution internalisation offering. The internalisation offering provides automated executions against Nomura risk positions, and is reported under MiFID as Systematic Internaliser (SI) transactions. This activity is distinct from the dark pool and the MTF registration does not affect Nomura's SI activity.

5.3. Transaction reporting

Nomura will conduct transaction reporting in relation to Nomura external stock movements in accordance with FSA rules. Participants and Members of NX are responsible for confirming that their own arrangements will accommodate NX trades.

6. Order Types and micro structure

NXMM, NXBM, NXOM and NXSM represent four separate price referencing mechanisms. The following order types and order parameters are available for each:

6.1. NXMM

The following order types are available for NXMM:

- Pegged (midpoint pegged only)

Order parameters available for NXMM are:

- Time in force
 - Day
 - IOC
 - FOK
- Anti gaming minimum fill restrictions (see section 2.3.2):
 - Minimum fill initial (can be stated as number of shares or notional)
 - Minimum fill anytime (can be stated as number of shares or notional)
 - Minimum residual (can be stated as number of shares or notional)
- Cross Restriction
 - Cross against IOC only
 - Cross against Passive only

Order Cancel/Replace is available on NXMM orders. The following values can be amended for NXMM orders:

- Order Quantity
- Price
- Minimum fill initial (can be stated as number of shares or notional)
- Minimum fill anytime (can be stated as number of shares or notional)
- Minimum residual (can be stated in number of shares or notional)
- Cross Restriction

6.2. NXBM

Order type:

- Pegged (pegged at best bid only)

Order parameters available for NXBM are:

- Time in force
 - Day
 - IOC
 - FOK
- Anti-gaming minimum fill restrictions

- Minimum fill initial (can be stated as number of shares or notional)
- Minimum fill anytime (can be stated as number of shares or notional)

Order Cancel/Replace is available on NXBM orders. The following values can be amended for NXBM orders:

- Order Quantity
- Price
- Minimum fill initial (can be stated as number of shares or notional)
- Minimum fill anytime (can be stated as number of shares or notional)

6.3. NXOM

Order type:

- Pegged (pegged at best offer only)

Order parameters available for NXOM are:

- Time in force
 - Day
 - IOC
 - FOK
- Anti-gaming minimum fill restrictions
 - Minimum fill initial (can be stated as number of shares or notional)
 - Minimum fill anytime (can be stated as number of shares or notional)

Order Cancel/Replace is available on NXBM orders. The following values can be amended for NXBM orders:

- Order Quantity
- Price
- Minimum fill initial (can be stated as number of shares or notional)
- Minimum fill anytime (can be stated as number of shares or notional)

6.4. NXSM

The following order types are available for NXSM:

- Market (unrestricted VWAP cross)
- Limit (VWAP cross with overall price restriction)

Order parameters available for NXSM are:

- Start time
- End time

Order Cancel/Replace is available on NXSM orders: The following values can be amended for NXSM orders

- Order Quantity
- Price
- Start time

- End time

6.5. Order Behaviour

This section gives order behaviour for NXMM, NXBM and NXOM crossing facilities. Please note that there is no interaction between these orders and orders for NXSM crossing facility.

Liquidity taking (aggressive) orders are Market pegged IOC or FOK orders. Aggressive buy orders will take liquidity at best offer and aggressive sell orders will take liquidity at best bid. Aggressive orders pegged to the mid will take liquidity at the midpoint.

Liquidity adding (passive) orders are Primary pegged day orders. These orders post at the reference price indicated on the order – best bid or mid or best offer

6.6. Order duration

NXMM, NXBM and NXOM orders are either entered as immediate orders (IOC or FOK) or day orders. Orders may be cancelled or amended at any point prior to execution.

NXSM orders have a mandatory time period set on order entry. A minimum duration of 15 minutes will be applied.

6.7. Tick Sizes

As NX is a price referencing venue, all prices are derived from the external source, and the platform does not have a tick size framework of its own. For optional overriding limit prices placed against orders, NX will accept such limit prices up to four decimal places of precision.

6.8. Lot Sizes

NX operates with a lot size of one share.

6.9. Currencies

NX trades exclusively in the native currency of the instrument. All prices are represented in that currency.

6.10. Trading Calendar

6.10.1. Dates

NX will operate to the same schedule as the Primary Market for each listing.

6.10.2. Hours of Operation

NX will trade only according to the hours of operation of the Primary Market, with the exception of Spain where the market closes at 16:15 UK time to allow for Primary Market registration put throughs.

Orders can be entered into NX from 7:00am UK time.

7. Stock coverage

The NX MTF will initially trade the equity instruments of 15 European countries. The 15 countries are

- Austria
- Belgium
- Denmark
- Finland
- France
- Germany
- Italy
- Ireland
- Netherlands
- Norway
- Portugal
- Spain ⁽¹⁾
- Sweden
- Switzerland
- UK ⁽²⁾

Notes:

- (1) Due to the current restrictions that apply to trading off exchange in Spain, Nomura uses a local broker to report put-throughs of NX crosses to the Spanish exchange for registration purposes.
- (2) Inclusive of some UK AIM listed securities, as noted in the section below.

7.1. UK AIM Stocks

NX is a registered AIM Secondary Market Registered Organisation (ASMRO) on the London Stock Exchange, which allows NX as an MTF to trade AIM listed securities.

As a part of Nomura's obligations to the London Stock Exchange (LSE) in respect to being an ASMRO, Nomura reports NX trades in AIM listed securities to both Markit BOAT and LSE:

- (a) For Markit BOAT, this is to affect the NX post trade tape.
- (b) For LSE trade reporting:
 - (i) a non publishing "AIM – Off Exchange" trade will be reported for LSE surveillance purposes,
 - (ii) for trades involving Nomura and a Participant, also report a non publishing trade report to bring this riskless principal trade under the rules of the LSE, and
 - (iii) For trades involving a Member, if the Member is an existing LSE member firm, their name will be included in the "AIM – Off Exchange" non publishing trade report.

7.2. Stock coverage maintenance

Up to date stock listing information is available via the NX website www.nomura.com/nx

7.2.1. Stock Identification

Please refer to the NX FIX Specifications document for stock identification options on connectivity to NX. The latest NX FIX Specifications is available on the NX website www.nomura.com/nx

8. Access to NX

8.1. Participation

Nomura will provide two alternatives to access NX:

- (i) As a Member, or
- (ii) As a Participant whereby Nomura is acting in a broker dealer capacity.

The criteria for Membership and Participation are set out in the NX Rulebook.

Nomura itself will subscribe to two memberships on NX:

- a) One membership shall signify all Nomura flow; and
- b) The other membership shall signify all Participant flow

Flow from Participants and from other (non Nomura) memberships will be processed through segregated system channels used for Nomura's electronic trading. This flow will be segregated from other Nomura desks and subject to Nomura's confidentiality and conflicts policies and procedures.

8.2. Connectivity

Connectivity to NX is provided via a FIX Protocol interface over a full range of network vendor options.

Full details of the connectivity interface are provided in the NX FIX specifications.

8.3. Settlement

Nomura will be the settlement counterparty in all trades made by a Member or Participant. No CCP will be introduced at launch, although it may be added as appropriate in the future.

Trade aggregation across multiple orders in the same instrument is available. For brokerage clients of Nomura this includes aggregation across NX and other Electronic Trading Services products.

9. Other

9.1. Stamp Tax

Nomura International plc has been given direct approval as an intermediary by UK HM Revenue & Customs (HMRC) for UK Stamp Duty purposes, and from Irish Revenue Commissioners for Irish Stamp Duty purposes. This includes approval of Nomura's SDRT processing model for transactions undertaken on the NX MTF.

Nomura will apply UK Stamp Duty to NX related settlements to third parties in accordance with standard UK practices, with no stamp duty being charged where Nomura has reason to believe the third party is itself an approved intermediary on the London Stock Exchange. Where the third party is not approved as an intermediary, stamp duty will be applied to share purchases.

Nomura will apply Irish Stamp Duty to NX related settlements to third parties in accordance with standard practices, with no stamp duty being charged where Nomura has reason to believe the third party is itself an approved intermediary on the Irish Stock Exchange. Where the third party is not approved as an intermediary, stamp duty will be applied to share purchases.

9.2. Restrictions

There may be occasions when Nomura is prevented at all levels from conducting trades in a certain stock.

These occasions are expected to be rare, but in the event of a full restriction needing to be placed on the platform, an individual stock may be suspended from trading, and new orders may be rejected.

9.3. Error trades and cancellation procedure

If a Member or Participant submits an Order incorrectly, which is subsequently executed, it must submit a cancellation request via email within 30 minutes of the transaction(s) occurring and subsequently followed up with a telephone call for confirmation of this request.

The trade will be cancelled provided the other Member or Participant party to the trade agrees to the cancellation. The other Member or Participant to the trade is under no obligation to agree to the trade cancellation.

All trade cancellations requests will be treated in a fair and consistent manner regardless of whether the request is from a Member, Participant or Nomura as a Member of NX.

9.4. Clearly erroneous trades

NX Compliance, and if necessary, the NX Operating Committee, reserves the right to initiate a review of a Clearly Erroneous Trade. A Clearly Erroneous Trade is defined below:

- (a) For NXMM, if the trade deviates from the Primary Market midpoint for whatever reason;
- (b) For NXBM, if the trade deviates from the Primary Market best bid for whatever reason;

- (c) For NXOM, if the trade deviates from the Primary Market best offer for whatever reason;
- (d) For NXSM, if the trade is not crossed at VWAP; and
- (e) Trades that were executed on any NX crossing facility - NXMM, NXBM, NXOM and NXSM whilst the Primary Market was experiencing a legitimate regulatory suspension.

NX Compliance and the NX Operating Committee will exercise sole discretion to cancel Clearly Erroneous Trades.

NX Compliance will notify its decision to the Member/ Participant for both parties to the Clearly Erroneous Trade by telephone with an email confirmation.

10. Operation of the MTF

NX will be operated by Nomura. The sections below outline the operation and governance of the MTF.

10.1. Governance

NX is operated as a part of the European Equities business of Nomura. NX business strategy will be managed ultimately at the European Equities Liquidity Strategy Committee.

Additionally Nomura will operate an NX Operating Committee as a control framework for the management of the platform and in particular for providing a segregated decision mechanism for matters pertaining to the NX Rulebook, as outlined further below.

10.2. Conflict Management

The day to day management of NX will be conducted by the Head of the Electronic Trading Service Product Management team, a role that does not hold any trading or sales trading responsibilities, and is solely responsible for the development of new products and services for the Nomura franchise.

The operation of NX will across the firm involve people who have wider responsibilities than just NX. This will include (as well as the ETS Product Management team) IT, Operations, Compliance and Legal. Nomura has clear guidelines for these scenarios.

Nomura will identify these conflicts and manage the conflicts with reference to internal policies and procedures. Nomura will establish appropriate mechanisms and systems to deal with those conflicts and maintain those mechanisms and systems in order to prevent actual damage to Members' and Participants' interests through the identified conflicts.

Specific measures will be implemented to ensure that potential conflicts are managed appropriately. Information barriers will be put in place to ensure commercially sensitive information is not used inappropriately, i.e. to the benefit of Nomura or to the disadvantage of other NX users.

A key part of these mechanisms will be the implementation of the NX Operating Committee. This committee acts as a control framework for the management of the platform and in particular for providing a segregated decision mechanism for matters pertaining to the NX Rulebook. Specifically, this committee will act as the decision making body for the following matters:

- Trade cancellation requests
- Rule breaches
- Membership applications
- Any other disciplinary matters, complaints, or other matters in relation to the NX Rulebook

The NX Operating Committee will be formed of the following representatives:

- Chaired by Co-General Counsel, or Head of Compliance

- Head of Equities Compliance
- Head of Equities Legal
- Head of Equities Liquid Markets Technology
- Head of Middle Office
- Business representatives

This committee will meet periodically as required.

10.3. Confidentiality

Nomura has an Electronic Trading Order Confidentiality Policy as well as internal policies to manage confidentiality of information provided by Members and Participants. The Nomura Electronic Trading Order Confidentiality Policy can be provided to Members and Participants on written request to NX Compliance.

10.4. Surveillance

Nomura has appropriate systems, controls and procedures in place for the ongoing daily supervision of activity by both Members and Participants in compliance with the NX Rulebook. Transactions will be monitored in order to identify breaches of those Rules.

10.5. Disciplinary Process and the NX Operating Committee

In addition to the ongoing daily supervision of NX, Nomura will investigate matters raised by complaints a Member or Participant, and any circumstances/ incidents identified by its surveillance and monitoring activities for breaches of the NX Rulebook and potential market abuse.

This will be escalated, as deemed appropriate, to the NX Operating Committee.

Upon receipt of a complaint or disciplinary matter, the Head of Equities Compliance will determine whether the matter needs to be escalated to either the next scheduled meeting of the NX Operating Committee or whether a meeting needs to be imminently scheduled for cause (and the quorum of members that are required to be present).

The NX Operating Committee will assess:

- The impact of a particular rule breach;
- How the rule breach came to light;
- Whether the particular rule breach is of integral importance in running an orderly market, including actual or potential market impact of the rule breach, and any repercussions;
- The extent to which the rule breach was deliberate or reckless;
- The general compliance history of the Member firm, and specific history regarding the rule breach in question;
- Consistent and fair application of the rules (including any precedents of similar rule breaches); and
- The responsiveness and conduct of the Member firm in relation to the matter under investigation.

The NX Operating Committee is able to disable a user's access to NX accordingly. Nomura as a Member of NX will at all times be dealt with on an arm's length basis. Members of the NX Operating Committee include personnel from Legal and Compliance so as to ensure fair treatment of Nomura as a member of NX as well as other Members and Participants.

In addition, Nomura's own internal disciplinary policies will apply to any Nomura employee found to be in breach of the NX Rulebook.

Any breach of the NX Rule Book by Participants will be dealt with in accordance with the Nomura General Terms of Business and any other relevant Brokerage Agreement(s) for example, the Nomura Electronic Services Terms.

Any behaviour by the Participant that requires escalation will be referred to, and the matter will be overseen by, the NX Operating Committee for resolution.

Any significant breaches of the Rules, disorderly trading conditions and conduct that may involve market abuse will be reported to the FSA (or other Regulator) as provided for in the Rules.

Issues encountered in the day-to-day operations of NX which require further input will be discussed within the NX Operating Committee and actioned as appropriate.

10.6. Complaints Procedure

The following procedures should be followed in the event of a complaint relating to trading on NX.

In the first instance complaints should be addressed to NX Compliance either over the phone or by email:

Cynthia Chan
Phone: +44 20 7102 8655
Email: ComplianceEquities@uk.nomura.com

NX Compliance will attempt to resolve the reasons behind the complaint immediately. This may include an analysis of evidence to support the complaint.

If a Member or Participant has a complaint about another Member or Participant or any suspicion that the foregoing has committed or is about to commit a breach of the NX Rulebook, the complaint shall be made in writing and addressed to the NX Operating Committee, including copies of relevant documents and providing as much detail as possible.

Please document the complaint and provide associated evidence to:

NX Operating Committee
Attention: Andrew Bowley
1 Angel Lane
London EC4R 3AB

The NX Operating Committee will endeavour to acknowledge the complaint within 5 Business Days of receiving it and provide a full response within 4 weeks. However, if the NX Operating Committee anticipates that it may take longer to respond to the complaint, it may send the complainant an acknowledgement/progress letter pending the eventual substantive response.

Where the matter is not resolved to the satisfaction of the complainant, the complainant should consider contacting the Financial Services Authority (FSA) for advice.

Financial Services Authority
25 The North Colonnade
Canary Wharf
London E14 5HS
Telephone 020 7066 1000
Consumer helpline 0845 606 1234
www.fsa.gov.uk

10.7. Additional reference

Additional reference material, including the NX Rulebook, is available on the NX web site at:
www.nomura.com/nx

This document has been prepared and/or issued by Nomura NX MTF (Nomura International plc) ("Nomura NX") and is made available to you by Nomura NX and/or its affiliates (collectively, "Nomura"). This document has been approved for publication in the EU by Nomura NX, which is authorised and regulated by the UK Financial Services Authority. Information contained herein is intended only for investors who are "eligible counterparties" or "professional clients" under the rules of the UK Financial Services Authority, and may not be quoted, circulated or otherwise referred to without our express consent. This material should not be considered as an offer to buy or sell securities or other products discussed herein. Any prices and opinions expressed are subject to change without notice.

The use of NX MTF is subject to the terms and conditions of the Nomura NX Rulebook and the NX Member Connectivity Agreement and Brokerage Agreements (as applicable).

This document may not be reproduced or disseminated without Nomura's permission, www.nomura.com

© 2011 Nomura International plc. All rights reserved.