Nasdaq

COMPRESSION SERVICE AND MANUAL NETTING OF OTC RATES DERIVATIVES

Background

In 2015 NASDAQ introduced a compression service for OTC Derivatives and in the following year we completed our first round of OTC portfolio compression session in collaboration with TriOptima. Compression is a process by which market participants can reduce the number of individual positions and overall notional values of a portfolio by combining or offsetting trades with compatible characteristics. Compression is currently offered to all direct clearing members that clear OTC Derivatives at NASDAQ and that also have a membership at TriOptima.

In parallell with the compression service Nasdaq also offers a netting service that allow a risk free reduction of exposures. The netting service is available for both house and client business and it covers both swaps (IRS & OIS) and the Nasdaq Stibor™ 3 Month Contract

Compression versus netting

Common ground

- Risk reducing service where trades can be removed without impacting the interest rate risk profile of the swap portfolio

- Same type of benefits (see below)

- Full and partial netting / compression on equal but opposite trades available

Deviating factors
- Netting is done manually in Genium INET while compression is performed via TriOptima

- Netting can be done on any business day while compression cycles are run annualy

- Netting is available to both members and clients while compression is only available to members

- More strict economic terms on netting service compared to compression

- Netting is done on an unlinked basis, meaning it is independent of other counterparties

The rationale for netting/compression is similar and the benefits include:

- Reduced notional exposures

- Decreased counterparty credit exposure

- Eased collateral requirements

- Reduced number of cash flows and thus fewer reconciliatons

- Reduced leverage ratio requirements

Nasdaq – TriOptima compression

TriOptima is a well known provider of operational and credit risk management tools to the financial industry. Its compression service, known as triReduce, is an algorithmic based model designed to reduce swap inventory and notional

counterparty risk exposure by matching and terminating swap contracts. TriOptima acts as an agent to the compression participants and Nasdaq and are responsible for:

- Managing the data flow between counterparties

- Matching trades for compression according to each participant's risk tolerances

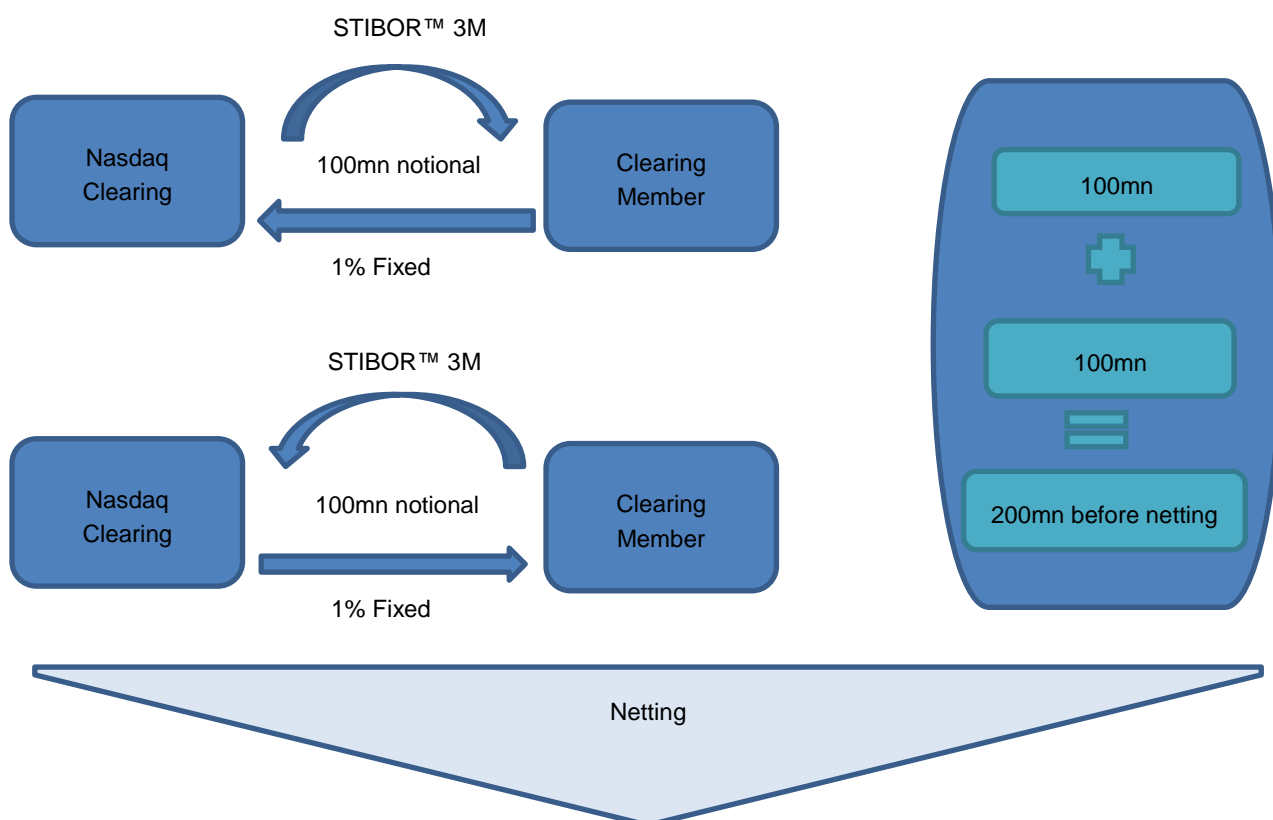- Communicating each party's verification and acceptance across each phase of the compression cycle

NASDAQ netting service

The main purpose of netting trade reports is to eliminate trade reports that are risk neutral and does not contribute to the risk profile of a portfolio. But, it can be equally important to aggregate trade reports in order to get one aggregated net flow for each valuation point on the swap curve. All OTC interest rates products are eligible for netting, Interest Rate Swaps, Overnight Index Swaps and Forward Rate Agreement contracts.
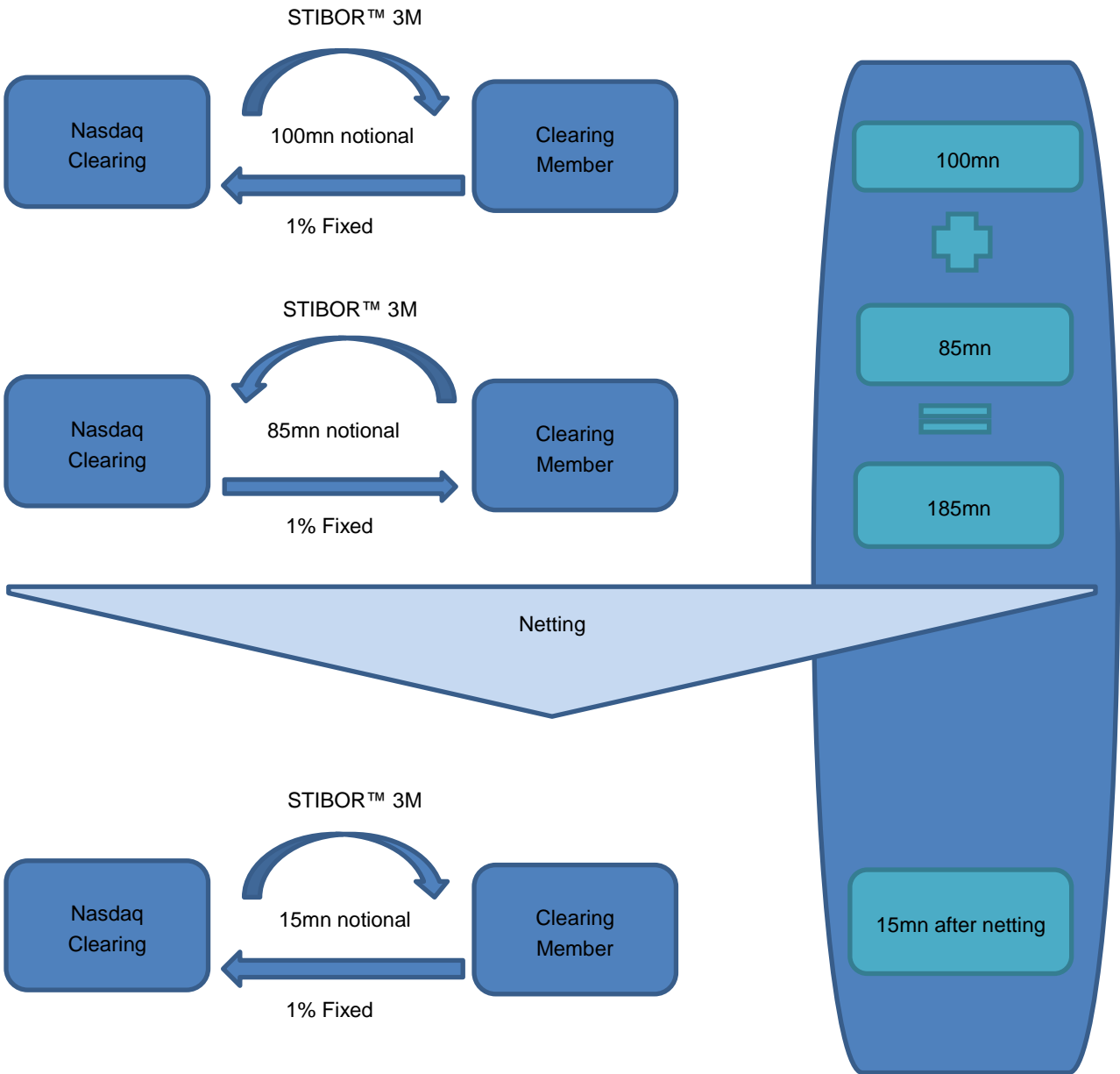
There are basically two types of netting:

- **Full netting** – a full netting means that the trade reports are equal but opposite for all trade parameters and they will not contribute to the risk profile of the client portfolio. In this scenario the trade reports are perfectly off-setting and the economics of the trades are thus identical.

- **Partial netting** – there are different types of partial nettings but what they have in common is that one or two residual trade reports are created.

    o **Equal rate** – A partial netting with equal rate but different notionals is almost equal to a full netting. The original trade reports are terminated and a new residual trade report is created.

    o **Mixed rates** – A partial netting with mixed rates is a more sophisticated method since trade reports with different notionals and different fixed rates can be netted toghether. The original trade reports are terminated and up to two new residual trade reports are created.

Full netting example

Full netting – both trade reports are eliminated

Partial netting, equal rates example

STIBOR™ 3M

Nasdaq Clearing — 100mn notional — Clearing Member

1% Fixed

STIBOR™ 3M

Nasdaq Clearing — 85mn notional — Clearing Member

1% Fixed

Netting

STIBOR™ 3M

Nasdaq Clearing — 15mn notional — Clearing Member

1% Fixed

100mn

85mn

185mn

15mn after netting

Mixed rates netting example

	50mn notional	
Nasdaq Clearing		Clearing Member
	1,15% Fixed	

STIBOR™ 3M

	46mn notional	
Nasdaq Clearing		Clearing Member
	1% Fixed	

Netting

50mn
+
46mn
=
50mn

STIBOR™ 3M

	4mn notional	
Nasdaq Clearing		Clearing Member
	2,875% Fixed	

4mn after netting
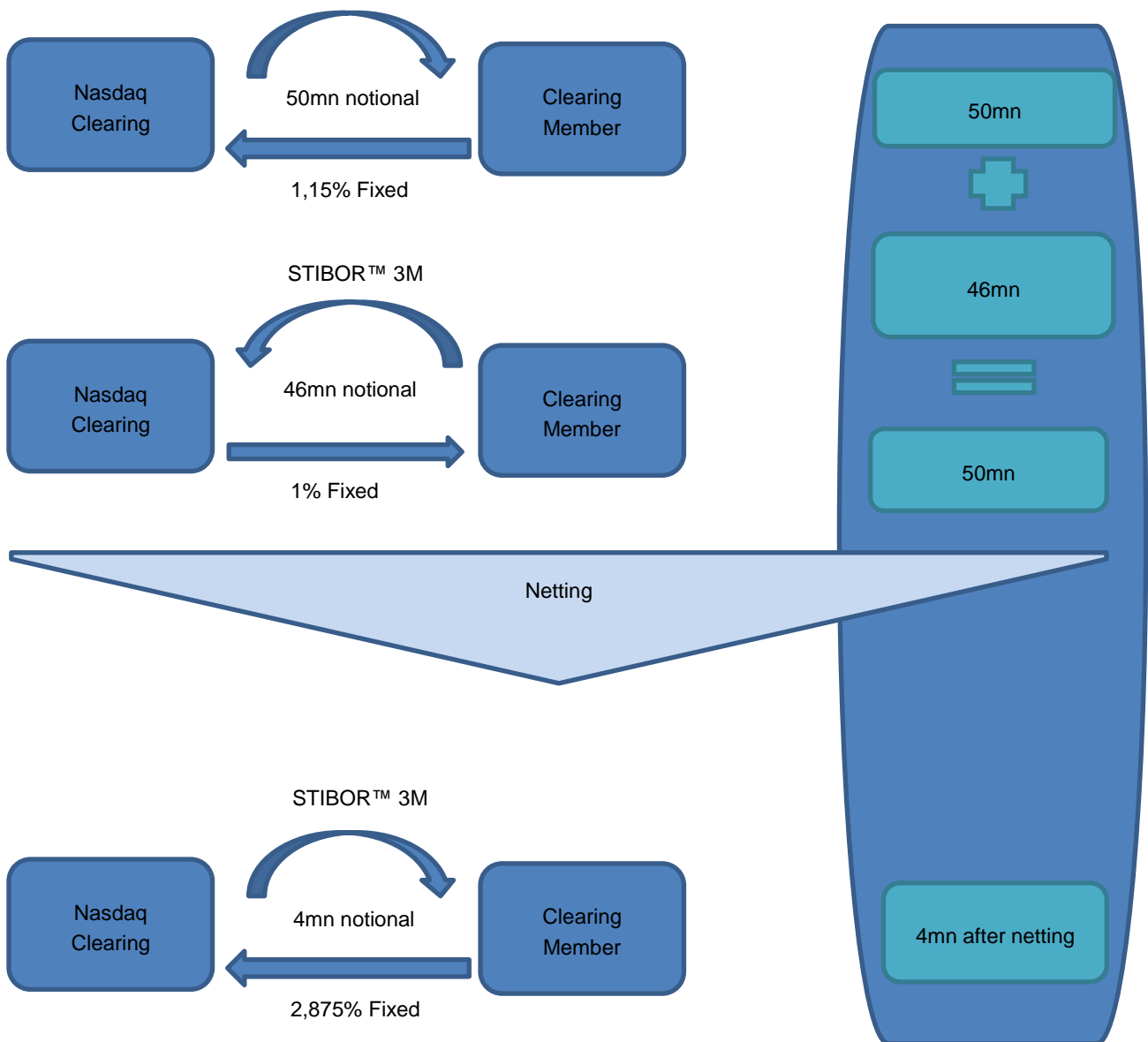
The netting workflow is the same for all products and is summarized below:

- User selects two or more trade reports from their portfolio that should be included in the netting request
- The result of the netting is displayed to the user – e.g. in the case of a partial netting the residual trade(s) are displayed
- User execute the netting request
- End of day a member report is created with information on all nettings executed during the day
- The member send the report to Markit so the result from the netting can be reflected in MarkitWire

It's up to the individual member to identify trade reports that are possible to net and thus fulfill a matching criterion. For non-shifting Swaps there are a numbe of parameters that have to be validated and matched in order for the netting request to be accepted.

- All trades requested to be netted has to be recorded on the same position account

- Termination date has to be equal for all trade reports

- Rollover day has to be equal for all trade reports (both float and fixed leg)

- For all cash flows where pay date has not passed, the start date and end date has to be equal.

- If an upfront payment, the upfront payment date must have passed

For shifting swaps there are additional mathing criterias. For all cash flows where pay date has not passed:

- The rate and notional amount has to match for the fixed legs

- The notional amount has to match for the floating legs

The validations and matching criterias for FRAs[1] are somewhat less complex and they are summarized below:

- All trades requested to be netted has to be recorded on the same position account

- As cash settlement take place on the effective date/start day a netting request has to be sent before this date

- All dates must match; start day, end day and fixing day

- The floating rate index series must be the same

- Day count convention must be equal

Please note that because a manual netting is risk neutral it's not subject to prenovation checks.

---

[1] Nasdaq Stibor™ 3 Month Contract