

Nasdaq Stibor™ 3 Month Contract

The Nasdaq Stibor™ 3 Month Contract constitutes a valuable tool in management of Swedish short-term interest rate risk. Contract base is 3-month Stibor™. The contract has standardized start dates which always occur on IMM days. This means that trading is concentrated to a limited number of interest periods, which benefits liquidity and gives this OTC product the advantages of a listed contract.

Facts about Nasdaq Stibor™ 3 Month Contract

Contract type	Forward contract with daily shifting of variation margin
Contract base	3-month Stockholm Inter Bank Offered Rate, Stibor™
Contract base size	Nominal value of SEK 1,000,000
Listing	Clearing listing
Trading	Trading in Nasdaq Stibor™ 3 Month Contracts occurs over the counter (OTC)
Trade Price	Price expressed as simple interest rate with an act/360 day count convention
Fix	The fixing of 3-month Stibor™ is established two days prior to expiration day at 11.00 CET
Term	Thirty-six months
Expiration months	March, June, September and December
Expiration day	The third Wednesday of the expiration month
Cash settlement day	On the expiration day
Cash Settlement	Cash Settlement Shall occur on the expiration day through the determination of a settlement amount based upon the Trade Price and Fix
Shifting of variation margin	The contracts will have a daily shift of the variation margin between the purchaser and seller. The posted variation margin will be interest compensated with the previous Bank Day T/N Stibor™ rate and the received variation margin will be charged interest with the previous Bank Day T/N Stibor™ rate
Offsetting	No offsetting
Netting	It is possible to net notionals through manual netting

Market model

Trading in Nasdaq Stibor™ 3 Month Contract is done over the counter (OTC). All trades are centrally cleared by Nasdaq Clearing AB (the "Clearinghouse").

Clearing Registration

Trades can be sent to Nasdaq Clearing via MarkitWire.

Registration is also available through Clearing Workstation or OMnet API. For more information about OMnet API, click [here](#)

Information about trade registration in Clearing Workstation can be found [here](#).

Offsetting and Manual Netting

It is not possible to automatically offset the Nasdaq Stibor™ 3 Month Contract, so any purchased and sold contracts in same series will contribute to building notionals with the clearing house.

The notionals in the portfolio can although be significantly decreased by active use of the manual netting service that Nasdaq Clearing offers.

Manual netting of contracts is done by the clearing member who enters a netting request in the clearing system. It can be done on behalf of customers or own account. The following three scenarios are covered by the manual netting service:

- Full Netting with Equal Rate
- Partial Netting with Equal Rate
- Partial Netting with Mixed Rates

For more information on netting please consult the “Compression service and manual netting” document available online alongside the product guides or contact the Fixed Income team.

Variation Margin and Cash Settlement

For information about the margining methodology, please see the Cash Flow Margin (CFM) model guide [here](#).

Shifting of the variation margin delta on each trade takes place daily on bank days.

The market valuation is done in a dual curve framework. The forecasting of the floating cash flow is done using a forward fixing rate curve. Both cash flows are then discounted using a discount factor curve constructed using OIS quotes for the period from the end of the interest rate period to the current settlement date. The sum of all NPVs gives the NPV of the contract.

$$NPV = Side * N * \delta * d_{OIS}(0, t_e) * (R - F(t_s))$$

Where

t	Trade Date
t _s	Start Date
t _e	End Date
N	Notional Amount
Side	{(1 if the IMM FRA is sold@-1 if the IMM FRA is bought)
R _{s,e}	Forward-forward swap rate valid from t _s to t _e
δ	The Day Count Fraction for the interest rate period
R	Fixed contracted rate (Trade Price) of the Nasdaq Stibor™ 3 Month Contract
d _{3M} (0,t)	The discount factor curve constructed from 3M Stibor™ deposits, FRA:s and Swaps
i _{3M} (0,t)	The zero coupon rate curve corresponding to d3M(0,t)
d _{OIS} (0,t)	The discount factor curve constructed from the T/N Stibor™ deposit
F(t)	The forward fixing rate curve

Cash settlement of the final amount is done on the Start Day and is determined based upon the difference between the Trade Price and the Fix (3-month Stibor™).

The following formula shall be used when calculating the settlement amount:

$$B = \frac{d}{360} * (s - r) * N * \frac{1}{1 + \frac{s * d}{360}}$$

Where

- B Settlement Amount
- d Number of days in the interest rate period
- r Trade Price in decimal form, 0.500% shall be expressed as 0.00500
- s Fix in decimal form, 0.550% shall be expressed 0.00550
- N Notional Amount

Example of expiration cash settlement for a Nasdaq Stibor™ 3 Month Contract with Start Day in September 2018

On 2018-07-23 a contract with notional amount of SEK 100 million is bought at 0.500%. Fixing date is two days prior to September IMM, on 2018-09-17 and 3-month Stibor™ fixes at 0.550% on that date. The Interest rate period of the contract (number of days between IMM 2018-09-19 and following IMM 2018-12-19) is 91 days.

Calculation of settlement amount:

$$\frac{91}{360} * (0,0055 - 0,005) * 100\,000\,000 * \frac{1}{1 + \frac{0,0055 * 91}{360}} = 12\,621,34$$

Settlement Amount for a bought 100 million contract is equal to SEK 12 621,34