

Market operations:

- Trading and surveillance
- Margins
- Trading times
- Delivery
- Clearing and settlement
- Risk Management



Trading and surveillance

Members can access real time market depth quotes, charts, positions and contract related information. It updates message logs, profit/loss calculations, equity ratio and watch lists for top gainers and losers. Customized user defined shortcuts are also available to enhanced performance. Trader Admin users can re-set the password of their user, lock /unlock the users and view the trader wise & Client wise margins. Market depth window is available in trader workstation based on price-time priority logic. Order types are based on time and price condition.

a. Oder type based on time

- **Day Order** Any order to buy or sell, which automatically expires if not executed on the day the order is placed.
- GTC (Good Till Cancelled) Any order to buy or sell, which

- lasts until the order is completed or cancelled by the user. The order automatically gets expired on expiry day of the contract.
- **GTD** (**Good Till Date**) GTD orders are cancelled at the close of the market on the specified day (expiration day).
- **IOC** (**Immediate or Cancel**) An order requiring that all or part of the order be executed immediately after it has been brought to the market. Any portions not executed immediately are cancelled.
- **AON** (**All or None**) The AON order works to safeguard your purchase by providing the guarantee that you either receive full quantity that you requested or none at all. If full quantity is not available, the order gets expired.

b. Order type based on price

- Market Order buy or sell immediately at the best available counter price
- Limit order an order to buy or sell at a specific price
- **Stop Order** A stop order is a market order that will remain unelected (without entering the order book) until the stop price is reached. Once elected, it will be treated similar to a regular market order
- Stop Limit Order A stop limit order is a limit order that will remain unelected (without entering the order book) until the stop price is reached. Once elected, a stop limit order will be treated similar to a regular limit order



Margins

Margins guarantee the price performance and eliminate risk of default on either side of the trade. Financial safeguards provided by NDEX clearing protects the financial interests of both parties in a trade, leading to sound markets and deeper liquidity.

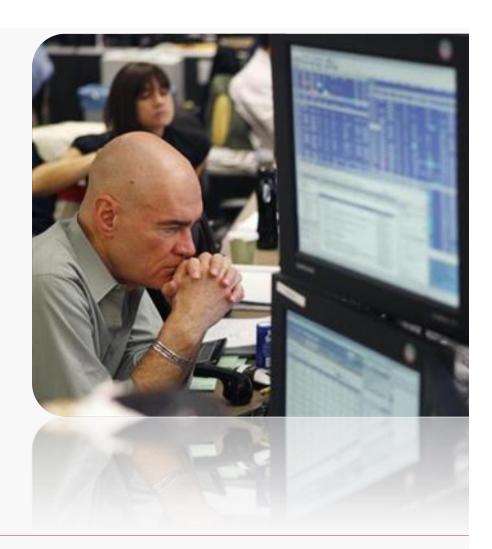
Margin helps to ensure a clearing member can cover potential losses with his trading positions. All margins shall be collected upfront from the members and shall be grossed at

the level of individual client and grossed across all clients at the member level.

Initial Margin is the amount of money that is required to open a buy or sell position on a futures contract. The Initial Margin requirement shall be based on a worst case loss scenario of price changes over a single day. Value at Risk (VAR) is a technique used to estimate the probability of loss of value of an asset or group of assets based on the statistical analysis of historical price trends and volatilities.

Price change scenarios will be computed to cover a 99% VAR over a period of one day. Daily volatility of the futures prices is considered for the computation of VAR. Volatility is calculated using Exponentially Weighted Moving Average (EWMA) Method. The standard deviation shall be set as the volatility estimate at the beginning itself.

In addition to initial margin, additional margin, long margin / short margin and regulatory margin may be levied and changed time-to-time under the guidelines of regulation/Exchange. Calendar spread margin benefit will also be given based on members open positions. Tender Period margins and Delivery Period Margins are also levied on contracts nearing expiry. Levy of margins shall be intimated to the members through the various modes of communication by Exchange.



Trading Time

Trading Time: Monday to Friday

Product	Opening time	Closing time
Precious Metal	3:45 am	2:59:59 am
Base metal	3:45 am	2:59:59 am
Energy	3:45 am	2:59:59 am
Agriculture Grain/oil/oil seeds	1st 4:45 am 2nd 8:15 pm	1st 6:00 pm 12:00 am
Agro-soft – Cotton	6:45 am	1:59 am
Agro-soft Coffee	1:15 Pm	11:45 pm

Prerequisite documents for trading

- 1. The non member client registration form
- 2. Risk disclosure form
- 3. Lot management form
- 4. Trading member and client agreement form
- 5. Sub-broker application form
- 6. Cancelation order form
- 7. Application for cancelation of active user ID



Delivery

When Exchange operates its transaction It facilitate to trader to take or give the delivery of traded commodity. The buyer and seller of the commodity can take the delivery of commodity which they make trade. The term related with delivery

Approved warehouse

An exchange appoints the warehouse to facilitate the delivery

mechanisms. Exchanges give its location warehouse capacity and daily transaction of warehouse to public. Warehouse maintains the quality of commodity.

Tender notice

Exchange called to trader to give clear their intention whether they want to settle transaction electronically or physical delivery in tender notice period. Those traders who are willing to take or give the delivery they send their interest for the physical delivery.

Approved quality testing agencies

Exchange incorporate the commodity testing and qualifying companies to validate whether traded commodities met the standard reveal in the contract specification. The quality testing agencies are engaged in verifying the quality to avoid the transaction default or to help manage possible conflict between buyer and seller.

Quantity specification of commodity

Exchange has clearly design in contract specification about the delivery of commodity, its quantity of delivery units, quality and warehouse location, penalties on delivery default and other terms related with delivery system.



Clearing and Settlement

Clearing Corporation

The approved clearing corporation/institution/house clears the trades done by buyer and seller in the exchange. It functioned clearing and settlements of trade smoothly and efficiently, takes the direction from exchange, watch and monitor the market position, also can suspect if market position seemed unnatural by member.

Clearing Bank and location of all branches

As per the Regulations of NDEX, all Members of the Exchange shall have their client account and segregated account under the registered banks hereinafter referred to as "clearing banks". The accounts are to be named as "Member name – NDEX Settlement A/c".

Clearing Bank

- 1. Nepal Investment Bank Limited
- 2. Bank of Kathmandu Ltd

Risk Management

For efficient clearing & settlement of trades, NDEX has an automated clearing and settlement system with NIBL Bank as its Clearing Bank. The software automatically calculates Initial Margins using VAR (Value at Risk) and MTM (Mark to Market) margins on a daily basis. In the same way, members' positions are also computed on a daily basis. The information regarding pay-ins and pay-outs arising in calculations of positions of members is transferred at the end of trading hours electronically, using flat files for the clearing banks and members. The objective of NDEX is to organize trading in such a way that possibility of defaults is almost eliminated. To achieve this, NDEX has adopted various means as follows.

Margin

Initial Margin

Initial margin is charged to participants for initiating buy/sell trades and is collected up front from the clearing members. Initial margin is based on the volatility of the future prices of underlying commodities and is subject to change intraday.

• Fixing Minimum Initial Margin
As per directives and rules of the Exchange, the VAR based

Initial margin on all the commodities future contracts is subject to a minimum percentage defined per commodity as per contract specification.

Margin for Calendar Spread Positions

Calendar spread position is defined as counter positions created by a client in two different expiries of a commodity. Calendar spread benefit is given to the members, as calendar spread positions are loss off-setting positions. (As contracts of same commodities tend to have similar price movement, because of this loss in one position of the spread is offset by profit in other position of the spread) Exchange will charge one half (1/2) of the Initial Margin on the 'Calendar spread positions', or at such rate as may be specified by the Exchange from time to time on the contracts identified for extension of Calendar Spread Benefit. The Exchange shall inform the members about the commodities not eligible for Calendar Spread benefit from time to time.

Tender Margin

The Exchange may charge tender margins on contracts during the last 3-5 days of Expiry depending on contract specifications. Such margins are different for different commodities.

Delivery Margin

The Exchange may charge delivery margin on all matched positions from the date of Expiry of the contract to the date of delivery settlement of the contract. The delivery margin percentage is different for different commodities.

Special / Additional margins

The Exchange may levy additional margins as may be decided from time to time. These margins are over and above to the initial margin.

Unidirectional margins on long/short side are termed as

- **Special Margins**
- Margins levied on both long and short side are termed as Additional Margins.
- Removal of such margins is at the discretion of Exchange.

Regulatory Margins

any margin that is levied by the direction of the Regulator is termed as Regulatory margins. Such margins could be one sided i.e. either on long/ short or on both sides. Removal of such margins is at the discretion of the Regulator.

Failure to Pay Margins

The Member who does not have sufficient funds in the Margin account to cover for various margins charged by the Exchange shall go into the square off mode. The member will remain in square off mode till the time he does not fulfill his margin commitments/or reduces positions such that the deposits are sufficient to make good the margin requirements.

In Square off mode, member is not allowed to take fresh positions. However, member can log in to the terminal to square off his positions thereby reducing the margin utilization. The Exchange may charge penalty on violations of margin limits at such percentage as determined by the Exchange from time to time.

Mark to Market (MTM) Margins:

MTM is a mechanism devised by the exchanges to prevent the possibility of the potential loss accumulating to the level where the participants might willingly or unwillingly commit default. All trades done on the exchange during the day and all open positions for

the days are marked to closing price for the respective delivery/contract and notional gain or loss is worked out. Such loss/gain is debited/credited to respective member's account at the end of each day. The outstanding position of the members is then carried forward the next day at the closing price.

Mark to Market

Profit/loss for all the Members on all Open Positions is tracked real time by the Exchange and settled in cash on the next trading i.e. T+1 day. This process of settlement of profit/loss at regular interval is called Mark to Market.

All the open positions of the Members are marked to market at the end of the day and the MTM is determined as below:

- On the day of entering into the contract, it is the difference between the bought/sold value and settlement value for that day.
- On any intervening days, when the member holds an open position, it is the difference between the daily settlement value for that day and the previous day's settlement value.
- On the expiry date if the member has an open position, it is the difference between the final settlement value and the previous day's settlement value.
- The MTM is settled in cash on the T+1 day. If T+1 happen to be a banking holiday, then MTM would be settled on next clearing day.

Benefits of Mark to Market:

Daily MTM settlement ensures, buyers/sellers settle their trades on a daily basis via a Daily Settlement Price (DSP). This means, even if on the expiry day, the Final Settlement Price (FSP) value is different from the entry value; the net settlement for the buyer/seller is based on their entry value.

The MTM of member is settled on a daily basis. This ensures that losses do not accumulate in members account at any point of time.

Monitoring of Mark to Market Loss:

The MTM pay-in of the Clearing Member is compared with the margin deposits to ensure that the MTM pay-in is always within pre specified limit. When the loss of a member increases beyond the pre specified levels, the system will automatically generate alerts at Trader Workstation.

In case the MTM loss reaches/goes beyond upper limit set by the Exchange, the Member shall go into the Square off Mode.

In square off mode, the member is not allowed to take fresh positions. The Member should immediately fund his pay-in account if there is MTM shortage which is resulting into Member receiving alerts and/or going into square off mode.

Position Limits

Position wise limits are the maximum open position that a Member and/or his constituents can have in any commodity/contract at any point of time. Such limits are different for different commodities/contracts. Position Limits are specified at Member and Client levels. The Exchange may specify different position limits for near month contracts. The position limits

applicable on various contracts applicable at the client level and the member level will be announced at the time of the launch of the contract. Any change in these levels shall be intimated to members vide circulars of the Exchange.

Monitoring of Position Limits

Members/client breaching position limit shall be liable to pay penalty to the Exchange based on the directives of the Exchange from time to time. The violators of position limits will be accountable for their large positions and will submit detailed information pertaining to their trading activities whenever the information is sought by the Exchange.

Intraday Price Limits

For every commodity, the maximum price movement during a day is limited by the Price Limits prescribed by the Regulator. Price limits (upper and lower) are based on the previous day closing price of the contract and are prescribed in percentage term.

If the price band limit is hit intraday, Exchange will relax the price band limits to a higher level, as per the set procedures in accordance with regulation guidelines.