

## OPEN INTEREST

- Open Interest (OI) is a number that tells you how many futures (or Options) contracts are currently outstanding (open) in the market. If more investors become “interested” and are waiting for their orders to get filled, it can foreshadow the flow of money into the market and thus, provide information about investors sentiment.
- Volume on the other hand tells us how many trades were executed on the given day.

Generally :-

| Price    | OI       | Trader's Perception  |
|----------|----------|--|
| Increase | Increase | More trades on the long side                                   |
| Decrease | Decrease | Longs are covering their position, also called long unwinding  |
| Decrease | Increase | More trades on the short side                                  |
| Increase | Decrease | Shorts are covering their position, also called short covering |

- If there is an abnormally high OI and a rapid increase or decrease in prices then it can mean that there is a lot of excitement and leverage in the market. In situations like this, even a small trigger could lead to a lot of panic in the market.
- During consolidations, volume and Open Interest is typically low, declining and below average. When, after a consolidation and a period of below average volume and Open Interest, the price suddenly starts to move into one direction while volume and Open Interest picks up, it often foreshadows the start of a new trend.



- Put/Call Ratio with IV
  - PCR, IV increase :- bearish signals
  - PCR inc, IV decr :- reversing bears, bullish ahead
  - PCR dec, IV inc :- puts are being covered, and will fall again
  - PCR, IV dec :- bottoming, bullish signals

| Price | Volume | Signal                    | Inference  |
|-------|--------|---------------------------|--|
| Up    | Up     | <b>Bullish</b>            | Indicates at strength in the up move, and that the up move is likely to continue     |
| Up    | Down   | <b>Cautiously bullish</b> | Indicates at weak buying pressure, due to which the rally could soon fizzle out      |
| Down  | Up     | <b>Bearish</b>            | Indicates at strength in the down move, and that the down move is likely to continue |
| Down  | Down   | <b>Cautiously bearish</b> | Indicates at weak selling pressure, due to which the decline could soon fizzle out   |

| Price            | Calls                        | Puts                         |
|------------------|------------------------------|------------------------------|
| Fresh Longs      | Bullish view                 | Bearish view                 |
| Fresh Shorts     | Bearish view                 | Bullish view                 |
| Long Liquidation | Closing of bullish positions | Closing of bearish positions |
| Short Covering   | Closing of bearish positions | Closing of bullish positions |

### Option Chain : Buyer vs Seller

Volume and OI tells a lot about positioning of the investors, both buyers and sellers. Since option writing requires more margin and is riskier it is only done by the most well informed, large professional investors like FIIs and funds. Buying is done by small traders like retail traders. Hence, option chains should be looked at from a seller's perspective and this is an added reason to track the chain because it can give vital clues of major upcoming movements.

### Observations on the NIFTY FEB 20 chain

- Deep ITM/OTM supposed to have lesser value/volume than ATM options.
- However max calls for almost the whole month are at 12300-12500.
- Also, min calls are always around 10,900-11,000 ranges.
- Max puts around 12000 range, min puts at 10,600 range.
- Volume is bell-shaped(normal) around the ATM/slightly ITM options.

For move 11,600-11,700

- 10,500- 11,900 Calls/puts saw huge demand as it moved to ATM/ITM on the day, 12000-12500 fell indicating a target reach of 11900.
  - Puts for 11,700+ saw huge falls. While they improved for 10,500-11,600.
  - The gains/falls were asymmetrical with larger changes near spot price.
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- Huge disproportionate OI increase in puts near 12,100-12,200 levels indicated a trend reversal and fall which did in fact happen.
  - Since, 12000 was a huge put volume, it was an important mark..
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- Disproportionately increase in numbers of calls near expiry of ATM-100 +400 points. And huge falls proportionate to their average volume in both OTM/ITM calls.
  - Disproportionately increase in numbers of puts near expiry of ATM+100 -400 points. Huge falls for ITM puts indicating profit booking while OTM puts increased with closing positions
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- Total call position nearly doubled near the expiry days.
  - Total put position increased 1.5x times over the first few days as index rose.
  - Min call trade for otm call was at the expiry, itm was near middle to start
  - Max call trade for otm call was nearly at start, itm was near the bottom
  - Min put otm is at start, deeply itm at expiry
  - Max put deep otm is at start, and for slightly otm to itm at the middle to expiry.