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Decode The Market Code

How to Read an Option Chain

Step-by-Step

Turn the option chain into a **map of levels**: read **open interest**, **change in OI**, **PCR** and **max pain**, then confirm with **price action**.

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About This Guide

An option chain is a table listing every call and put contract for one underlying and one expiry, laid out by strike price. Reading it means checking where positions are concentrated and where new ones are being added. The chain shows positioning, not a trading signal, so it works best as a map of levels and risk that you confirm with price action.

By the end of this guide you will be able to:

- Understand how an option chain is laid out and find the ATM strike
- Read open interest and change in OI to spot possible support and resistance
- Calculate PCR and find max pain, and know what each can and cannot tell you
- Check implied volatility and liquidity before choosing a strike
- Combine these readings with price action, and avoid the common mistakes

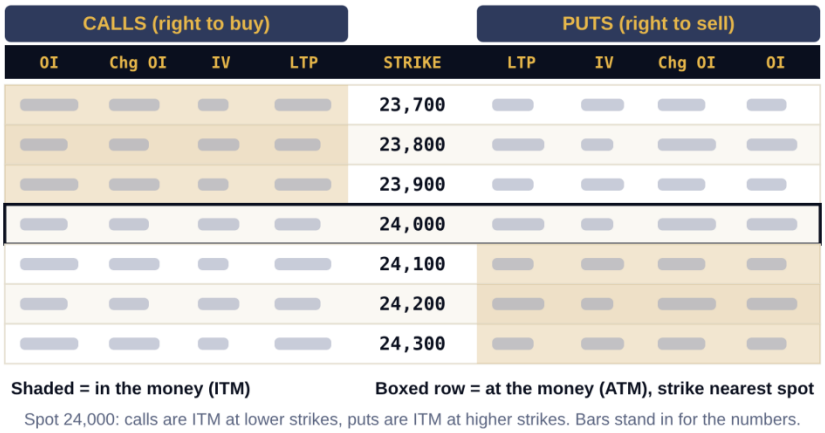
How to Read an Option Chain: Step-by-Step

1. What Is an Option Chain?

QUICK ANSWER

An **option chain** is a table of every call and put contract for one underlying and one expiry, arranged by strike price. For each strike it shows the premium, open interest, volume and implied volatility, which makes it the quickest way to see where option traders are positioned. You can view it on the NSE website and on your broker platform.

Term	Meaning
Option chain	A table of all call and put contracts for one underlying and one expiry, with calls on the left, strike prices in the middle and puts on the right
ATM strike	The at-the-money strike is the one nearest to the current spot price; the most useful action usually sits within a few strikes of it
Open interest (OI)	The number of contracts still open at a strike. The highest call OI above spot and the highest put OI below spot are often watched as possible resistance and support
Change in OI	Contracts added or closed at a strike today, showing where new positions are being built and where they are being unwound
Put-call ratio (PCR)	Total put open interest divided by total call open interest. Near 1 is generally seen as balanced; the trend through the day matters more than one number
Max pain	The strike where the total payout to option holders at expiry would be smallest. A reference level that matters mostly in the last few days, not a prediction
IV and liquidity	IV shows how expensive options are and how that differs across strikes (skew); the bid-ask spread shows your trading cost, so prefer tight spreads near ATM



Visualising it: calls sit on the left, puts on the right and strikes run down the middle. Shading shows which strikes are in the money. Illustrative data, not a live option chain.

This guide walks through the chain in nine steps. It uses one illustrative sample chain throughout: spot at 24,000, seven days to expiry. New to calls, puts and Greeks? Start with our Options Basics guide.

Step 1: Choose the Underlying and Expiry

Pick the index or stock, then the expiry. Nearer expiries have more trading, tighter spreads and faster time decay; farther expiries show longer-term positioning. Open interest on a weekly expiry mostly reflects short-term trades, so compare it with the monthly expiry before reading too much into it. Exchanges change expiry days and contract sizes from time to time, so check the current schedule.

Step 2: Find the Spot Price and the ATM Strike

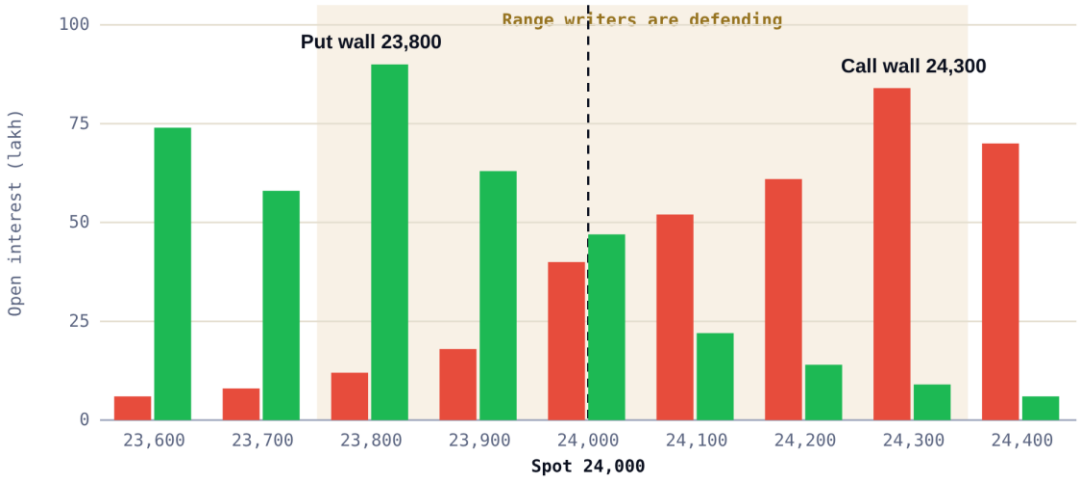
Note the spot (or futures) price, then find the at-the-money (ATM) strike, the one nearest to it. Strikes below spot are in the money for calls; strikes above spot are in the money for puts. In the sample, spot is 24,000, so the 24,000 strike is ATM. The most useful action happens within a few strikes of ATM, so start there and expand outward.

Step 3: Learn What Each Column Means

Column	What it shows	Why it matters
LTP	Last traded price of the option	The premium you would pay or receive
OI	Contracts still open at that strike	Shows where positions are concentrated
Change in OI	Open contracts added or removed today	Shows where new positions are being built
Volume	Contracts traded today	Shows current activity and liquidity
IV	Implied volatility built into the price	Shows how expensive the option is
Bid and ask	Best buy and sell prices in the market	The gap is your trading cost

Step 4: Read Open Interest

Look for the strikes with the largest OI. The highest call OI above spot is often treated as possible resistance, because many traders have sold calls there and will defend the level. The highest put OI below spot is treated as possible support for the same reason. In the sample, that gives a **put wall at 23,800** and a **call wall at 24,300**.



Visualising it: put OI peaks at 23,800 and call OI peaks at 24,300, so option writers appear to be positioned for a range between them. Red is call OI, green is put OI. Illustrative data, not a live option chain.

Here is the full sample chain. Shaded cells are in the money; the red and green cells mark the call and put walls. OI and change in OI are in lakh contracts.

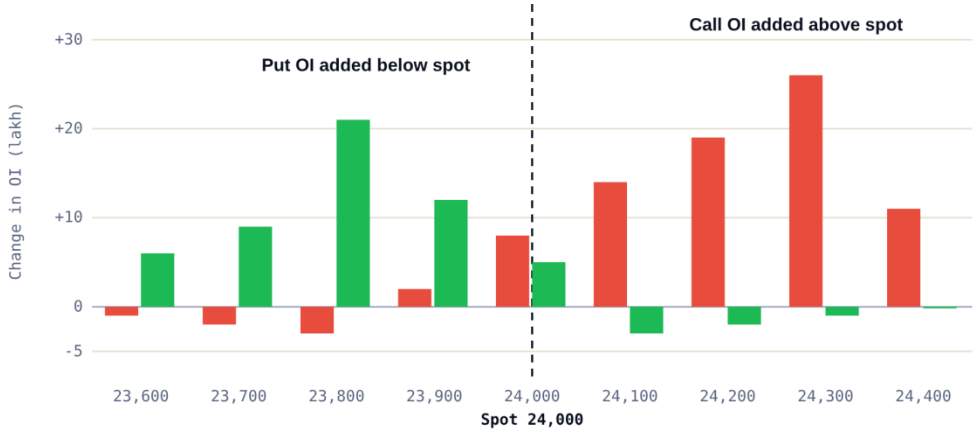
Call OI	Call chg OI	Call IV	Call LTP	Strike	Put LTP	Put IV	Put chg OI	Put OI
6	-1	15.2	484	**23,600**	54	15.2	+6	74
8	-2	14.9	403	**23,700**	74	14.9	+9	58
12	-3	14.6	329	**23,800**	99	14.6	+21	90
18	+2	14.3	261	**23,900**	131	14.3	+12	63
40	**+8**	**14.0**	**201**	**24,000**	**171**	**14.0**	**+5**	**47**
52	+14	14.1	155	**24,100**	225	14.1	-3	22
61	+19	14.2	117	**24,200**	286	14.2	-2	14
84	+26	14.4	86	**24,300**	356	14.4	-1	9
70	+11	14.5	62	**24,400**	432	14.5	+0	6

WORTH REMEMBERING

Every contract has a buyer and a seller, so OI alone cannot prove who is on which side. Treating high call OI as writer-driven resistance is a convention that works often, not a certainty.

Step 5: Read the Change in Open Interest

OI shows the stock of positions; change in OI shows what is happening today. Adding OI means new positions are being opened; falling OI means positions are being closed.



Visualising it: call OI is being added above spot and put OI below spot, which strengthens the range. A few strikes show unwinding. Illustrative data, not a live option chain.

What you see	Common reading
Call OI rising at a strike above spot	Call writing; resistance is building
Put OI rising at a strike below spot	Put writing; support is building
Call OI falling while price rises	Short covering; resistance is weakening
Put OI falling while price falls	Support is weakening as puts are closed
Both call and put OI rising around the same strikes	Traders expect price to stay in that zone

Step 6: Calculate the Put-Call Ratio (PCR)

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PCR = Total put open interest ÷ Total call open interest
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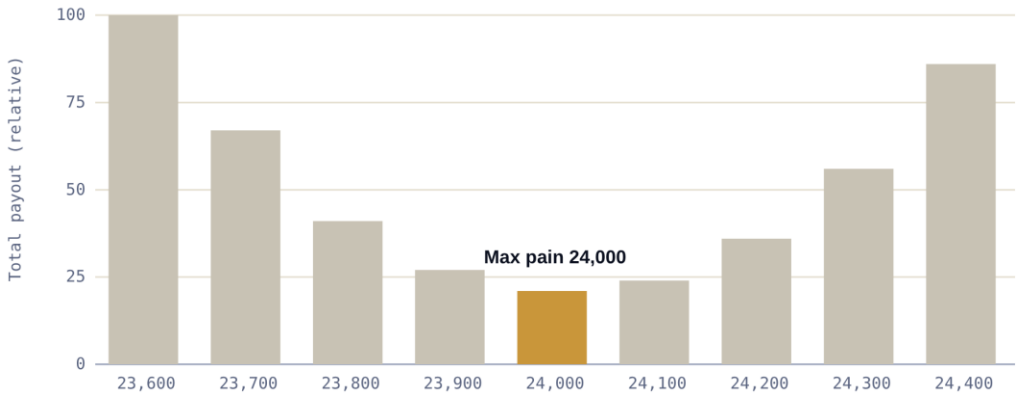
In the sample, total put OI is 383 lakh and total call OI is 351 lakh, so PCR is **1.09**, close to balanced with a slight lean toward puts.

PCR (rule of thumb)	Common reading	Caution
Well above 1	More puts than calls; often read as supportive	Extreme readings can mean crowded positioning
Around 1	Balanced positioning	Look at OI walls for detail
Well below 1	More calls than puts; leans bearish	Extremes can also signal an overheated market

Thresholds differ between indices and stocks, so track how PCR changes through the day and across days instead of relying on one number.

Step 7: Find Max Pain

Max pain is the strike at which the total payout to all option holders at expiry would be the smallest, in other words where option buyers as a group lose the most. The theory is that price may drift toward it into expiry. To find it, calculate the total intrinsic value owed to call and put holders at each possible expiry price and pick the lowest.



Visualising it: total payout is lowest at 24,000, so that is the max pain strike for this sample. Illustrative data, not a live option chain.

Treat max pain as a reference. It matters mostly in the last few days before expiry, and its evidence as a predictor is mixed. In this sample it sits at spot, so it adds no extra information.

Step 8: Check Implied Volatility and Liquidity

Compare IV across strikes. Puts far below spot usually carry higher IV than calls at the same distance above spot, a pattern called **skew**. Rising IV before an event means premiums are getting expensive; falling IV after it can shrink premiums even when direction is right.

Then check liquidity. A wide gap between bid and ask, or very low volume, raises your cost of entering and leaving. Prefer strikes near ATM with a tight spread, and use the volume signals in our Volume Analysis guide to confirm activity.

Step 9: Put It Together

Combine the readings into one picture. For the sample chain:

- **Structure:** put wall at 23,800, call wall at 24,300, spot in the middle.
- **Flow:** new call OI is being added at 24,200 to 24,400 and new put OI at 23,700 to 23,900.
- **Sentiment:** PCR 1.09, balanced. Max pain 24,000, at spot.
- **Read:** option writers appear to expect a range of roughly 23,800 to 24,300. A close beyond either wall, especially with OI unwinding there, would challenge that view.

Then take it to the price chart. The option chain shows positioning, not a signal. Use it to frame levels and risk, and enter only when price action, volume and your stop-loss agree. Candle confirmation is covered in our Candlestick Charts guide.

10. Common Option Chain Mistakes

1. **Treating OI walls as guarantees:** Walls can be breached or shifted. When price closes through one, the level has failed.
2. **Reading OI without change in OI:** Old positions can be stale. Fresh additions and unwinding show today's activity.
3. **Relying on one PCR number:** Track the trend in PCR, and combine it with strike-level OI.
4. **Assuming price must go to max pain:** It is a theory, not a magnet. Do not trade it on its own.
5. **Ignoring the bid-ask spread:** An illiquid strike can cost more to exit than the trade is worth.
6. **Trading the chain without the chart:** The chain shows positioning, not entries. Confirm with price and volume, and use a stop-loss.

Reading the option chain alongside price action and risk management is taught hands-on in our MarketEdge Pro course at Chart Code, offline in Boisar or live online anywhere in India.

11. Your Option Chain Checklist

Run this five-point check every time you open a chain:

- **Right expiry and ATM** — Have you chosen the expiry you care about and located the ATM strike?
- **OI walls** — Where are the highest call OI above spot and the highest put OI below it?
- **Change in OI** — Is OI being added or closed at those walls today?
- **PCR, IV and liquidity** — Is PCR trending, is IV high or low, and is the spread tight?
- **Chart and risk** — Does price action agree, and do you know your stop and maximum loss?

Get in Touch

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