



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,112	1.2%▲
Open Interest (OI)	1,88,90,775	3.1%▲
Change in OI (abs)	1,88,90,775	5,67,375▲
Premium / Discount (Abs)	-1	11▼
Inference	Long Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	56,298	1.2%▲
Open interest (OI)	22,98,925	2.3%▲
Change in OI (abs)	22,98,925	521,40▲
Premium / Discount (Abs)	45	32▼
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	13.67	0.59▼
Nifty ATM IV (%)	11.99	1.8▼
Bank Nifty ATM IV (%)	12.76	1.8▼
PCR (Nifty)	1.16	0.13▲
PCR (Bank Nifty)	0.92	0.20▲

The FII Long Ratio in Index Futures **rose** to 23.8%, **up** from 22.3% in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MCX	21,50,900	14.9%	8095.5	4.0%
IIFL	1,26,85,150	14.7%	476.75	0.5%
JSWENERGY	3,79,39,250	13.0%	499.3	3.7%
ANGELONE	30,21,400	9.5%	2839.4	1.7%
BSOFT	1,29,26,600	9.3%	422.65	2.3%

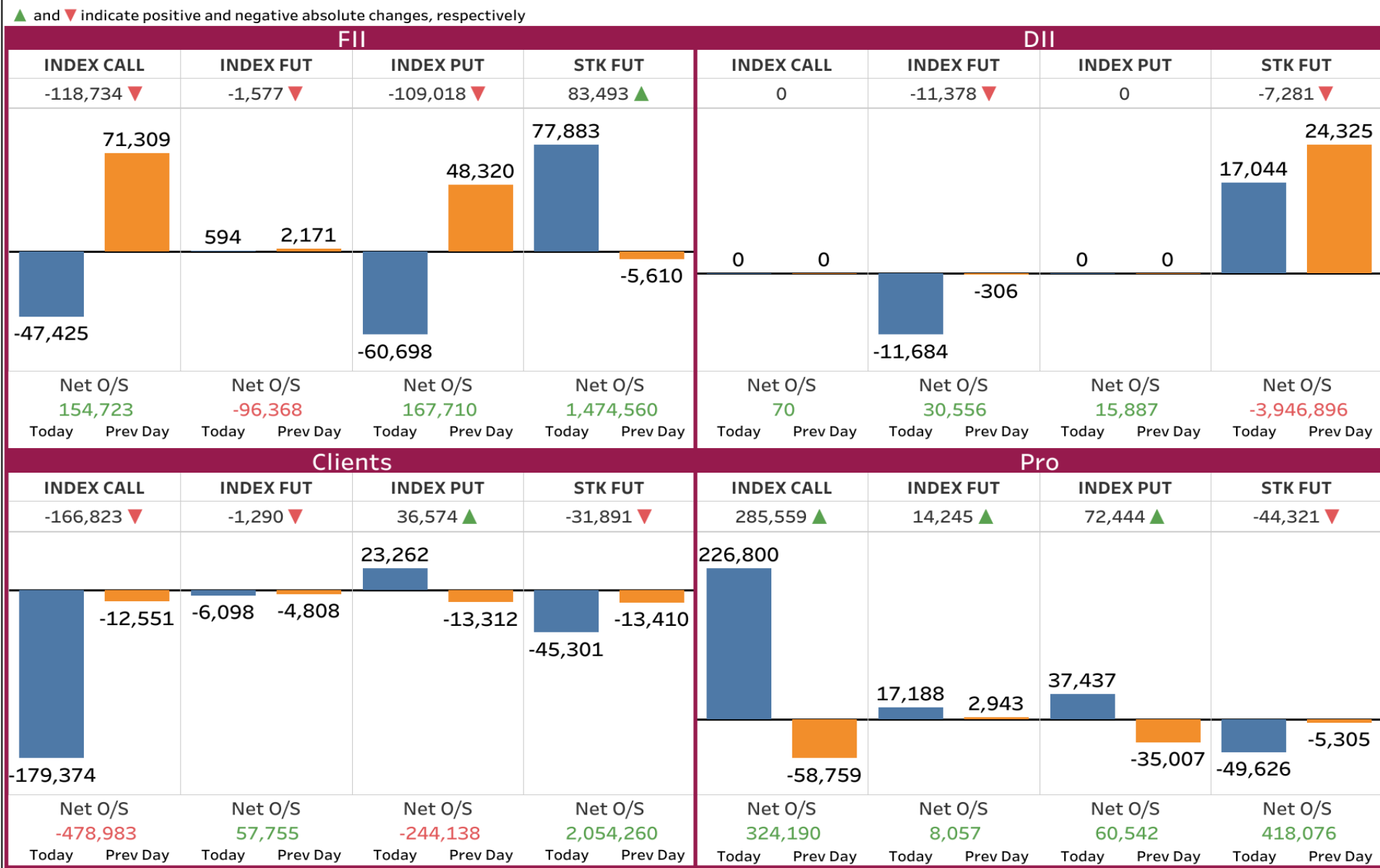
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MANKIND	8,20,125	33.9%	2293.3	-1.2%
HEROMOTOCO	59,45,100	10.6%	4306.3	-1.6%
APLAPOLLO	32,59,900	8.1%	1776.4	0.0%
BHARATFORG	1,09,65,000	7.5%	1279.8	0.0%
ACC	52,34,700	4.3%	1823.3	-0.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BIOCON	4,21,65,000	-6.9%	349.3	1.1%
LODHA	62,62,650	-5.5%	1480.3	3.6%
PERSISTENT	26,01,200	-5.3%	6097	3.2%
MAXHEALTH	1,10,40,225	-5.3%	1213	4.1%
POWERGRID	8,79,51,900	-5.0%	292.8	2.0%

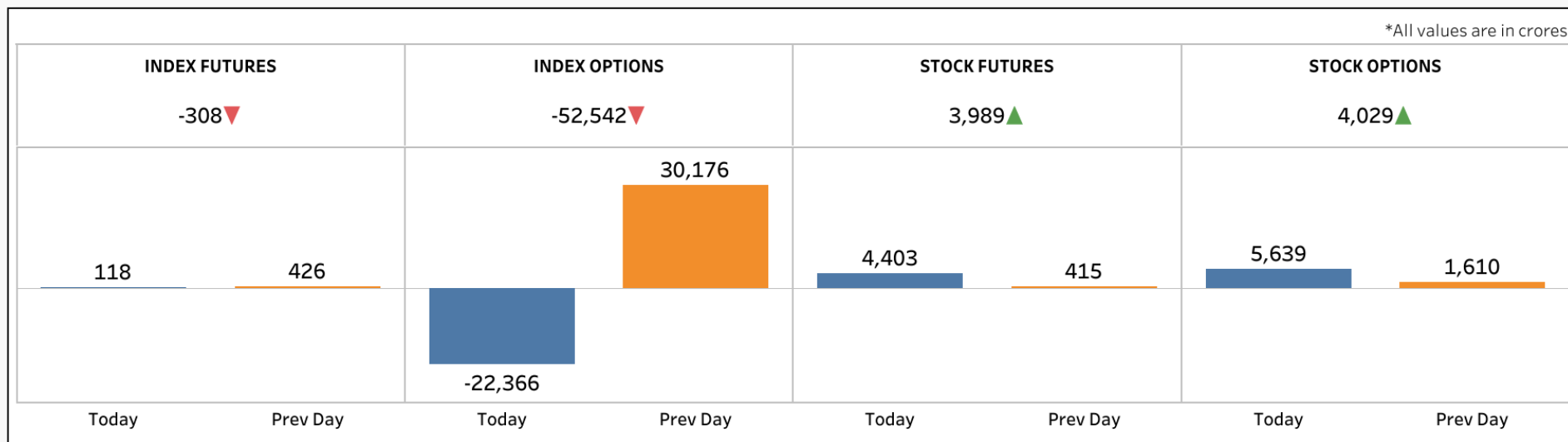
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
GODREJCP	85,62,500	-5.0%	1188	-0.5%
KEI	9,09,650	-2.8%	3584.2	-0.5%
MUTHOOTFIN	39,97,125	-2.2%	2611.9	-0.8%
PIDILITIND	33,02,500	-1.5%	2952.4	-0.5%
BANKINDIA	6,12,79,750	-0.3%	113.28	-2.0%

For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

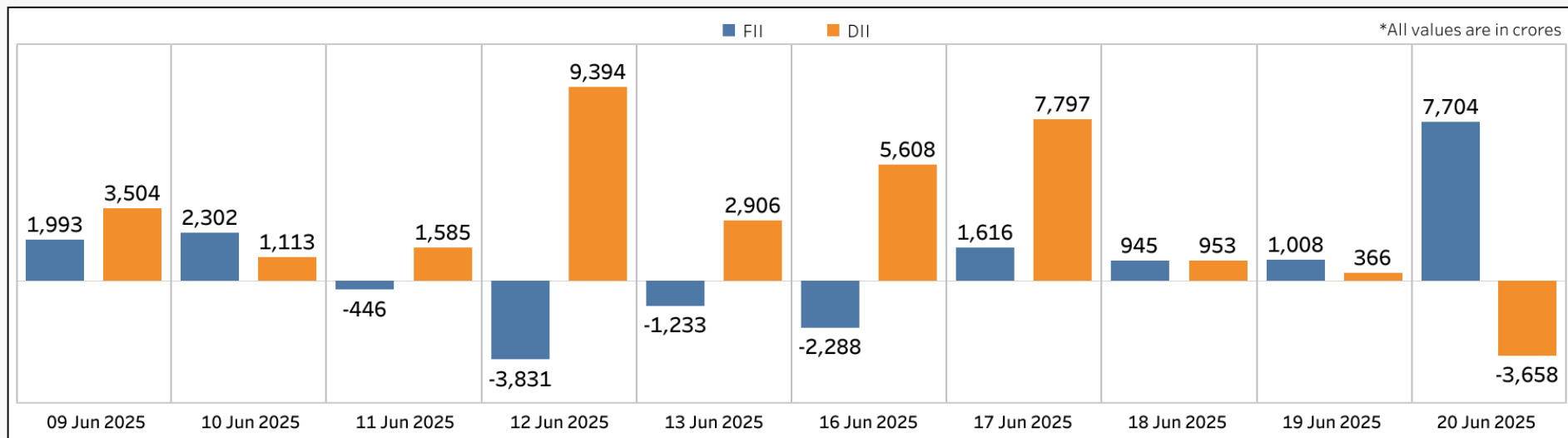
Open Interest Trends by Participant



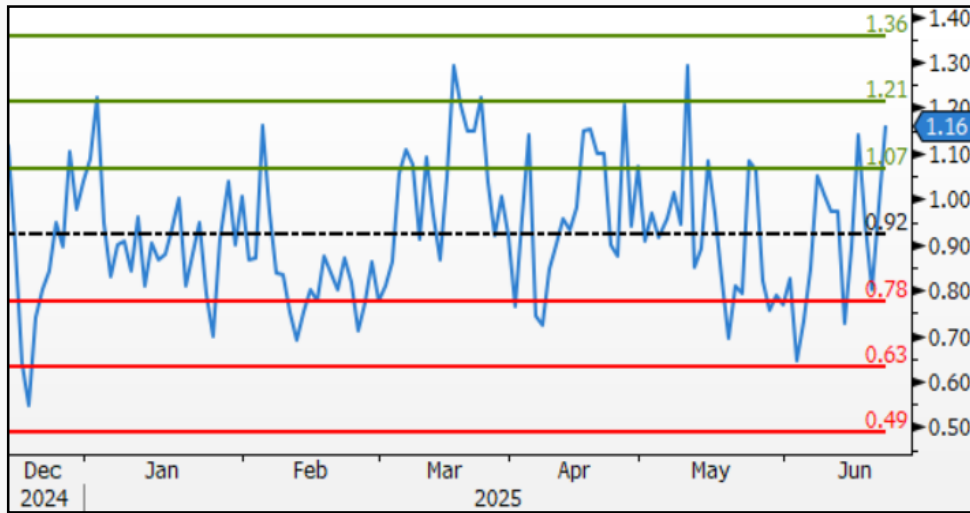
Daily Net Open Interest Change



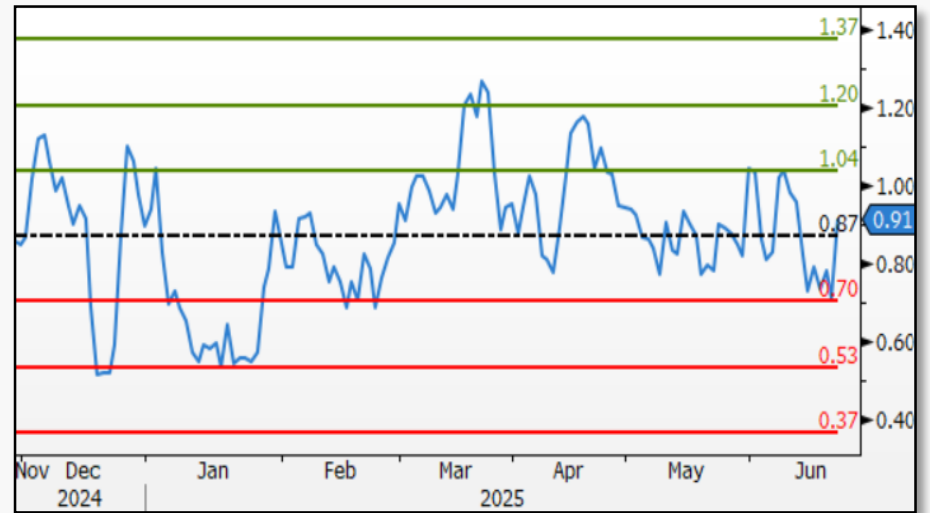
DII and FII Daily Cash Market Flows



Nifty



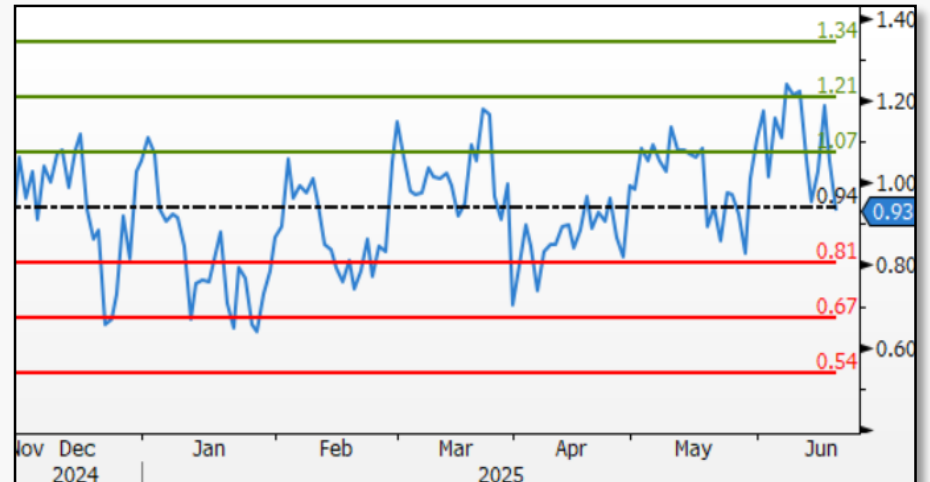
Bank Nifty



Fin Nifty

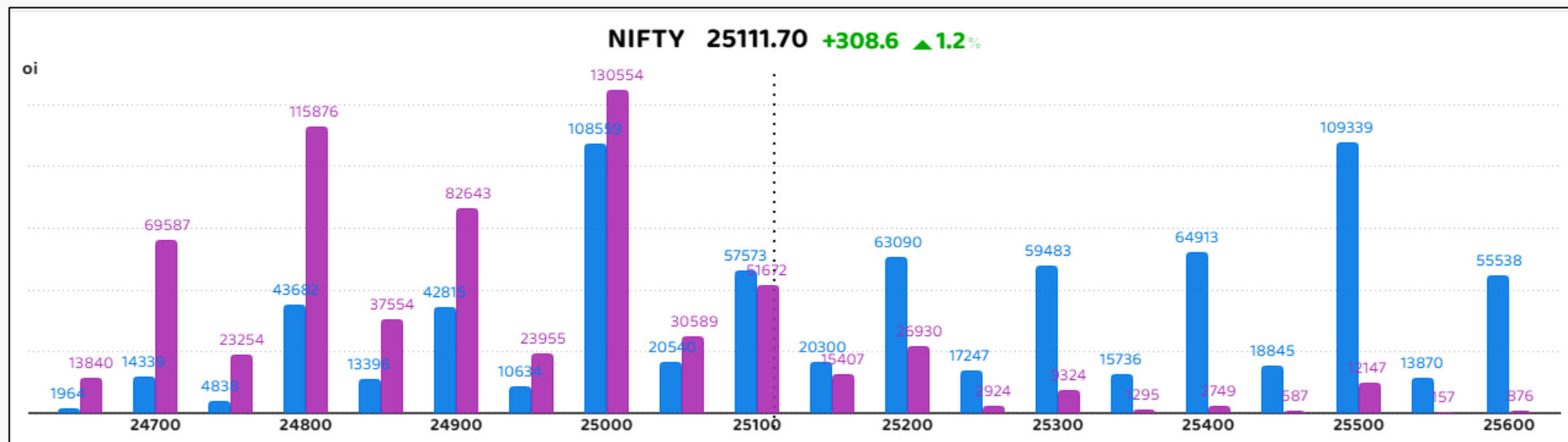


Midcap Select Nifty



Positioning Stack by Strike (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call  Put 



For the Nifty, the 25,500 Call and the 25,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 56,000 Call and the 56,000 Put saw the most amount of open interest.

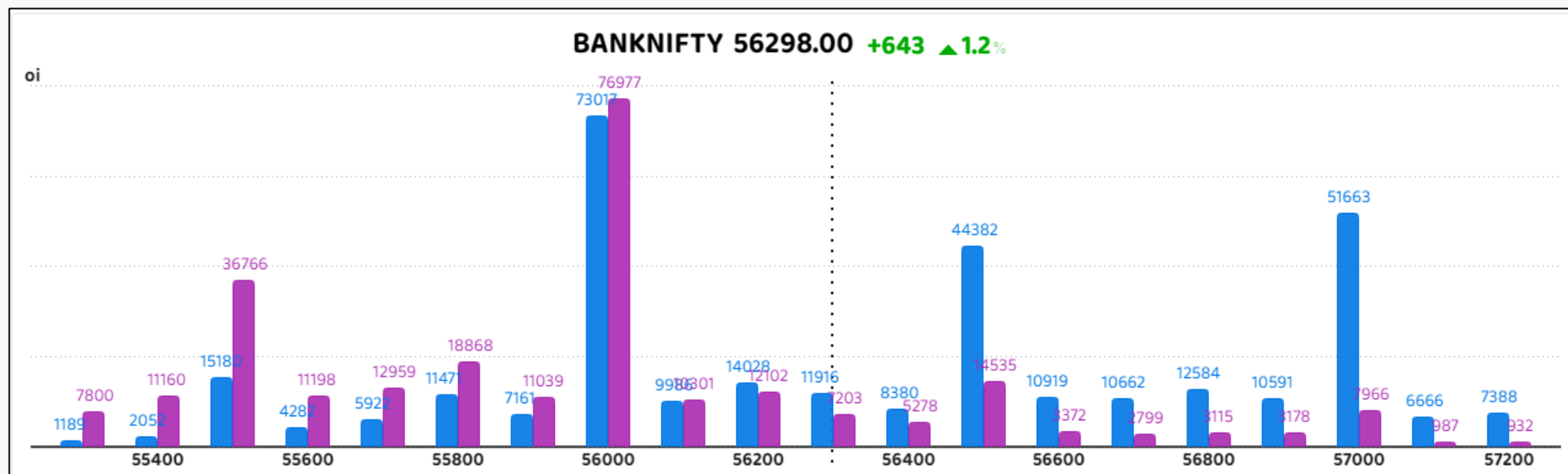
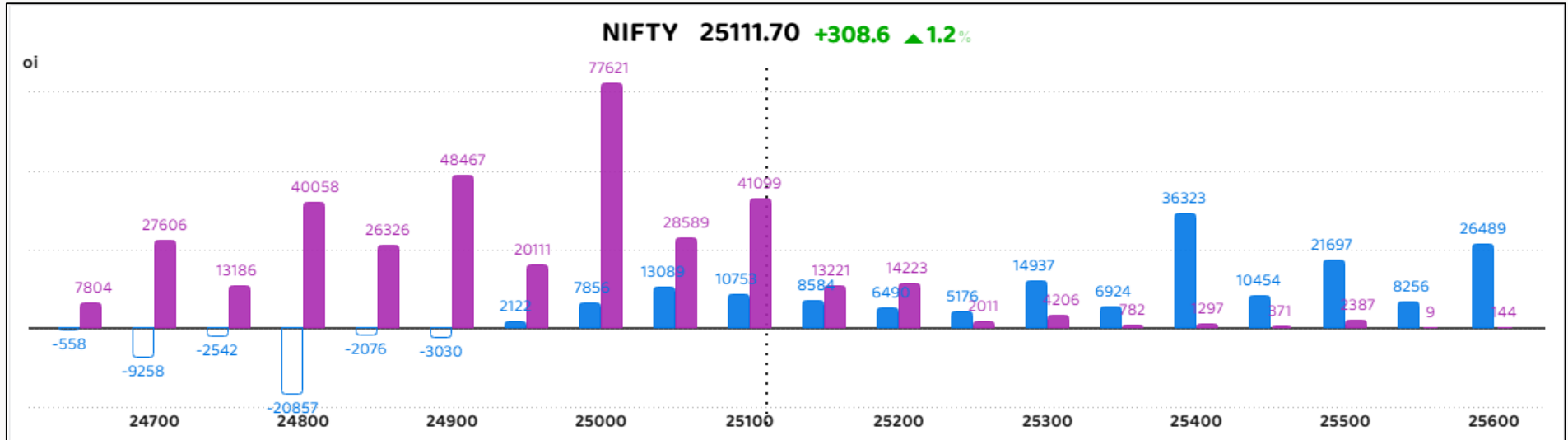


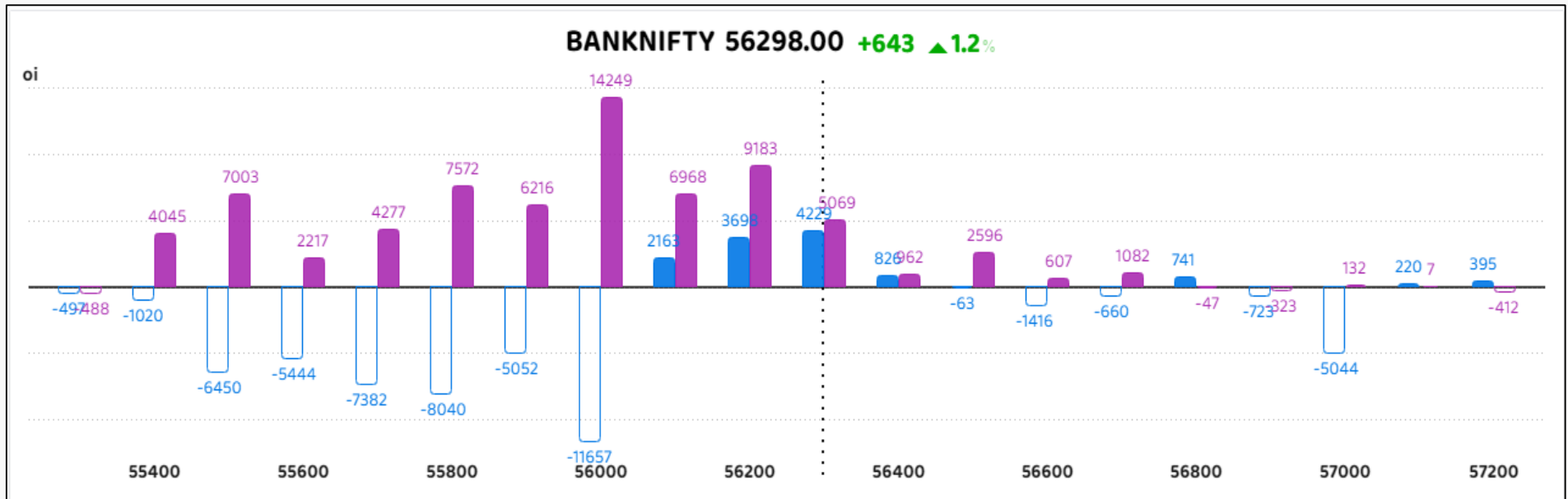
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

Open Interest Change (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,400 Call and the 25,000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 56,000 Call & the 56,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
VOLTAS LTD	1293.9	2.6	42.2	46.9	21.9	81.2
RBL BANK LTD	228.03	1.9	61.7	76.5	13.3	76.6
POWER GRID CORP	293.1	2.3	23.0	34.5	1.2	65.4
DIXON TECHNOLOGIES	14047	0.3	35.0	53.0	1.8	64.9
BOSCH LTD	32290	-0.3	23.2	34.9	3.3	63.0

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
LARSEN & TOUBRO	3662	1.1	17.8	35.5	17.8	0.0
VEDANTA LTD	447.1	1.7	15.1	57.4	15.1	0.0
MAZAGON DOCK	3256.4	1.0	38.2	48.4	38.2	0.0
MANKIND PHARMA	2288.8	-1.6	26.8	33.2	26.8	0.0
BHARAT DYNAMICS	1902	0.9	38.2	46.7	38.2	0.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
VOLTAS LTD	1293.9	2.6	42.2	46.9	21.9	97.5
RBL BANK LTD	228.03	1.9	61.7	76.5	13.3	97.3
HCL TECH LTD	1739.9	1.5	27.6	46.0	17.9	87.2
INFOSYS LTD	1622.9	0.3	25.2	60.8	4.9	69.4
TATA CONSULTANCY	3435.7	0.3	21.8	57.2	1.3	65.4

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
LARSEN & TOUBRO	3662	1.1	17.8	35.5	17.8	0.0
VEDANTA LTD	447.1	1.7	15.1	57.4	15.1	0.0
MAZAGON DOCK	3256.4	1.0	38.2	48.4	38.2	0.0
MANKIND PHARMA	2288.8	-1.6	26.8	33.2	26.8	0.0
BHARAT DYNAMICS	1902	0.9	38.2	46.7	38.2	0.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PAGE INDUSTRIES	44925	0.1	10051	1678	6.0
SHREE CEMENT	28875	-1.5	7412	1678	4.4
ALKEM LABORATORIES	4773.5	-0.2	7606	1768	4.3
ICICI PRUDENTIAL	633.75	1.7	8239	2097	3.9
RAIL VIKAS NIGAM	390.6	2.3	11879	3148	3.8

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
FORTIS HEALTHCARE	755.25	1.0	1567	3514	2.2
MUTHOOT FINANCE	2606.4	-1.2	18369	25817	1.4
TORRENT POWER LTD	1390.1	1.7	2649	3152	1.2
SOLAR INDUSTRIES	16996	0.7	11912	14032	1.2
GLENMARK PHARMA	1636.7	-0.2	5941	6429	1.1

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
MANKIND PHARMA	2288.8	-1.6	3487	3487	100.0
NBCC INDIA LTD	117.08	2.4	5253	5253	100.0
TATA TECHNOLOGIES	706.65	-1.5	15442	15442	100.0
KAYNES TECHNOLOGIES	5864.2	4.5	3489	3627	96.2
PIRAMAL PHARMA	195.1	1.6	3177	3324	95.6

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
MANKIND PHARMA	2288.8	-1.6	1450	1450	100.0
PHOENIX MILLS	1616.1	3.2	2254	2254	100.0
KAYNES TECHNOLOGIES	5864.5	4.5	2455	2455	100.0
MCX INDIA LTD	8085	4.1	24956	24956	100.0
BLUE STAR LTD	1610	1.1	1814	1814	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
BHARTI AIRTEL	1936.7	3.2	311018	311018	100.0
POWER FINANCE	409.05	4.8	161860	161860	100.0
KAYNES TECHNOLOGIES	5864.5	4.5	53395	53395	100.0
TATA TECHNOLOGIES	706.65	-1.5	31386	36314	86.4
MCX INDIA LTD	8085	4.1	179490	221661	81.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
BHARTI AIRTEL	1936.7	3.2	120580	125628	96.0
POWER FINANCE	409.05	4.8	76939	84811	90.7

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
HINDUSTAN ZINC	438.6	0.3	38946	13497	2.9
PAGE INDUSTRIES	44925	0.1	5958	3166	1.9
KAYNES TECHNOLOGIES	5864.5	4.5	3489	1862	1.9
ONE 97 COMMUNICATIONS	871.2	0.3	25029	13414	1.9
OIL INDIA LTD	464.9	-1.1	10488	5747	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
HINDUSTAN ZINC	438.6	0.3	17842	6066	2.9
FORTIS HEALTHCARE	755.25	1.0	2288	1090	2.1
OIL INDIA LTD	464.9	-1.1	5508	3149	1.7
EICHER MOTORS	5525	0.6	7835	4560	1.7
BLUE STAR LTD	1610	1.1	1814	1071	1.7

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
KAYNES TECHNOLOGIES	5864.5	4.5	53395	6156	8.7
POWER FINANCE	409.05	4.8	161860	27029	6.0
BHARTI AIRTEL	1936.7	3.2	311018	54163	5.7
NESTLE INDIA LTD	2360.4	1.8	53950	11946	4.5
INDUS TOWERS LTD	404.3	3.8	59572	13565	4.4

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
KAYNES TECHNOLOGIES	5864.5	4.5	19716	1867	10.6
POWER FINANCE	409.05	4.8	76939	14280	5.4
BHARTI AIRTEL	1936.7	3.2	120580	27141	4.4
NESTLE INDIA LTD	2360.4	1.8	29760	7142	4.2
DELHIVERY LTD	357.85	0.7	11540	3130	3.7

Nifty 50 Constituents Open Interest (OI) Dashboard – Support / Resistance

Distance of Strike With Highest Open Interest From Current Market Price (%)

Stock Name	CE STRIKE	CE OI	%Away	CMP	PE Strike	PE OI	%Away	Stock Name	CE STRIKE	CE OI	%Away	CMP	PE Strike	PE OI	%Away
ADANIENT	2600	1298100	6.2%	2448	2800	803100	14.4%	ITC	440	9942400	5.1%	419	420	4868800	0.3%
ADANIPTS	1500	1780800	11.2%	1349	1300	946800	-3.7%	JIOFIN	300	8685600	2.0%	294	290	4709100	-1.4%
APOLLOHOSP	7200	270375	1.9%	7064	6900	146375	-2.3%	JSWSTEEL	1020	1181250	1.4%	1006	1000	488700	-0.6%
ASIANPAINT	2280	1497400	-0.2%	2286	2200	1238600	-3.7%	KOTAKBANK	2200	939600	1.4%	2170	2100	585600	-3.2%
AXISBANK	1220	4701875	-0.1%	1221	1200	1481250	-1.7%	LT	3740	1190850	2.1%	3662	3600	478800	-1.7%
BAJAJ-AUTO	8790	500925	5.0%	8371	8390	161100	0.2%	M&M	3200	976325	0.5%	3184	3000	955675	-5.8%
BAJAJFINSV	2100	1952500	5.7%	1986	2000	518500	0.7%	MARUTI	12500	291650	-2.3%	12791	12500	221850	-2.3%
BAJFINANCE	1000	8117500	10.5%	905	900	2832500	-0.6%	NESTLEIND	2500	340000	5.9%	2360	2200	192000	-6.8%
BEL	410	9111450	0.4%	408	400	8373300	-2.0%	NTPC	340	10635000	1.4%	335	340	3045000	1.4%
BHARTIARTL	1880	2953550	-2.9%	1937	1900	2132275	-1.9%	ONGC	255	18909275	1.2%	252	250	3513125	-0.8%
CIPLA	1600	1056900	6.7%	1500	1320	545350	-12.0%	POWERGRID	300	7171200	2.4%	293	270	2163600	-7.9%
COALINDIA	400	6274800	2.8%	389	400	3166800	2.8%	RELIANCE	1500	5912500	2.3%	1466	1400	2711000	-4.5%
DRREDDY	1300	1178125	-1.9%	1325	1300	711875	-1.9%	SBILIFE	1860	1137000	2.7%	1811	1800	390750	-0.6%
EICHERMOT	5500	260925	-0.5%	5525	5400	279125	-2.3%	SBIN	820	11520750	3.0%	796	820	4916250	3.0%
ETERNAL	270	8846000	6.6%	253	240	7538000	-5.3%	SHRIRAMFIN	700	1770750	5.0%	666	660	834000	-1.0%
GRASIM	2720	245000	0.3%	2713	2600	261500	-4.2%	SUNPHARMA	1700	2336600	2.1%	1665	1660	724150	-0.3%
HCLTECH	1720	1144500	-1.1%	1740	1700	661500	-2.3%	TATACONSUM	1200	1033752	9.1%	1100	1080	248520	-1.8%
HDFCBANK	2000	6009300	1.8%	1965	1940	3890700	-1.3%	TATAMOTORS	740	8368250	9.4%	676	650	2616350	-3.9%
HDFCLIFE	800	2874300	2.7%	779	770	657800	-1.1%	TATASTEEL	161.4	17484500	6.2%	152	146.4	7419500	-3.7%
HEROMOTOCO	4400	728550	1.4%	4339	4200	251550	-3.2%	TCS	3500	1719725	1.9%	3436	3400	796425	-1.0%
HINDALCO	700	3045000	7.8%	649	650	817600	0.1%	TECHM	1800	756600	6.1%	1696	1600	873600	-5.7%
HINDUNILVR	2400	2601000	4.1%	2306	2300	729300	-0.3%	TITAN	3600	435400	2.3%	3519	3400	376950	-3.4%
ICICIBANK	1470	4350500	3.0%	1427	1400	1844500	-1.9%	TRENT	6000	491200	1.7%	5898	5500	321800	-6.7%
INDUSINDBK	820	3793000	-2.4%	840	800	2834000	-4.8%	ULTRACEMCO	12000	188200	4.7%	11458	9800	117500	-14.5%
INFY	1640	2493600	1.1%	1623	1600	1850400	-1.4%	WIPRO	270	6492000	1.3%	267	260	6414000	-2.5%

If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green

If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike will be colored red

If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating existing positions**
- **Long build up:** Prices increase with a rise in open interest and is considered **bullish**
- **Long liquidation:** Existing longs liquidate their positions and open interest also falls; **moderately bearish**
- **Short build up:** Prices drop with a rise in open interest, and this is considered **bearish**
- **Short covering:** Existing shorts cover their positions, and open interest drop; this is **moderately bullish**
- PCR goes up when 1) both put and call open interest go up, but puts rise faster, or 2) both put and call open interest go down, but calls fall faster or, 3) when puts go up and calls go down
- Generally, a **rising PCR is bearish**, but when it reaches an extremely **high** reading, it means people are likely to take contrarian bets, i.e., they are likely to turn **bullish**
- PCR goes down when 1) both put and call open interest go up, but calls rise faster, or 2) both put and call open interest go down, but puts fall faster or, 3) when puts go down and calls go up
- Typically, a **falling PCR is bullish**, but when it reaches an extremely **low** reading, it means people are likely to take contrarian bets, i.e., they are likely to turn **bearish**

**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **Volume:** Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- **Open Interest:** The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, then the open interest for the day is 20 contracts
- **Total open interest:** Total of all open positions for all available expirations. It is the sum of all outstanding long positions OR short positions. This is because the total number of long positions must equal the total number of short positions
- **Premium:** When the front-month futures are more expensive than the cash market price. For instance, if Nifty futures (first month contract) are at 25,500 when the cash Nifty is at 25,450, the premium is 50 points
- **Discount:** When the front-month futures are cheaper than the cash market price. For instance, if Tata Steel futures (first month contract) are at 160 when the stock is trading at 162 in the cash market, the discount is 2 points
- **At-the-Money (ATM):** When the strike price of an option is the same as the spot price, the option is called an ATM option
- **Implied Volatility (IV):** Measure of how much a stock is expected to move in the future (in either direction)
- **Put-Call Ratio (PCR):** Ratio of total number of outstanding puts to total number of calls outstanding. If this ratio is more (less) than one, it means more puts (calls) are open relative to calls (puts)
- **Derivatives market participants:** Foreign Institutional Investors (FIIs), Domestic Institutional Investors (DII)s, proprietary traders and Retail investors
- **Derivatives Instruments:** Index options, index futures, stock options, stock futures
- **Expirations covered:** Index options (weekly, monthly), stock options, stock futures and index futures (monthly)
- For pages 7 to 11, “Last px” refers to the closing price of the cash market ticker
- **Source(s):** www.nseindia.com, Bloomberg, MyFnO

- **Strike concentration:** Visual representation of how many calls and puts are outstanding at each strike in the vicinity of the current underlying price. The strike with the highest call open interest is considered as resistance, while the put strike with the highest number of outstanding positions is considered as support
- **Shifting concentration:** Strikes with highest call and put concentration are dynamic in nature and keep changing as per movements in the markets
- **Implied Volatility Rank (IVR):** Measure of how expensive or cheap the IV of an ATM option is, relative to its 12-month history. The reading oscillates between 0 and 100



Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **Implied Volatility Percentile (IVP):** Measures the number of days IV has been below the current IV in the last 252 trading days. The reading moves between 0 and 100.



In the chart to the left, one can see that the bulk of the time the IV has been below its current level. In this case, the IVP will be close to 100. An IVP of 100 means that 100% of the time IV has been below its current reading in the last one year.



Notice that IV has mostly traded at the high end of its one-year range, and there have been very few values below the current IV. In such a scenario, the IVP is going to be close to 0. An IVP of say, 5, means that IV has been below the current IV only 5% of the time in the last 252 trading sessions.

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