



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,615	1.0%▲
Open Interest (OI)	1,62,84,750	17.4%▼
Change in OI (abs)	1,62,84,750	20,01,900▲
Premium / Discount (Abs)	66	59▲
Inference	Short Covering	

Bank Nifty Futures

	Value	Change
Most recent settlement	57,256	0.8%▲
Open interest (OI)	22,72,060	6.7%▼
Change in OI (abs)	22,72,060	6,83,305▲
Premium / Discount (Abs)	50	52▲
Inference	Short Covering	

Volatility Insights

	Value	Change
India VIX Index	12.59	0.37▼
Nifty ATM IV (%)	11.93	0.1▼
Bank Nifty ATM IV (%)	12.63	0.2▼
PCR (Nifty)	1.28	0.15▲
PCR (Bank Nifty)	1.14	0.15▲

The FII Long Ratio in Index Futures **rose** to 37.9%, **up** from 23.2% in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PEL	86,24,250	4.0%	1161.4	2.2%
HINDCOPPER	3,31,62,100	3.9%	273.58	4.8%
CROMPTON	3,56,61,600	2.0%	357.5	0.9%
BEL	10,20,81,300	0.7%	411.6	0.7%
IRB	10,59,50,625	-0.3%	50.66	0.9%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
COLPAL	49,40,100	6.6%	2384.5	-2.1%
BIOCON	3,61,67,500	3.2%	352.9	-0.3%
KPITTECH	51,03,200	2.2%	1282.6	-1.0%
CGPOWER	1,11,37,550	0.3%	678.3	-0.5%
IIFL	1,39,09,500	0.3%	482.15	-0.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LICI	64,59,600	-38.3%	952.2	1.0%
ANGELONE	20,68,250	-32.7%	2921.8	1.7%
NYKAA	4,39,12,500	-30.4%	203.97	0.8%
INDIANB	62,77,000	-27.9%	639.15	2.3%
MCX	18,49,375	-26.6%	8872	1.6%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BSOFT	1,00,91,900	-33.6%	440.8	-1.0%
PPLPHARMA	79,90,000	-23.3%	202.1	-0.6%
IREDA	3,21,50,550	-22.9%	172.28	-0.4%
DRREDDY	92,30,625	-21.8%	1323	-1.5%
MARUTI	27,98,450	-18.8%	12797	-0.1%

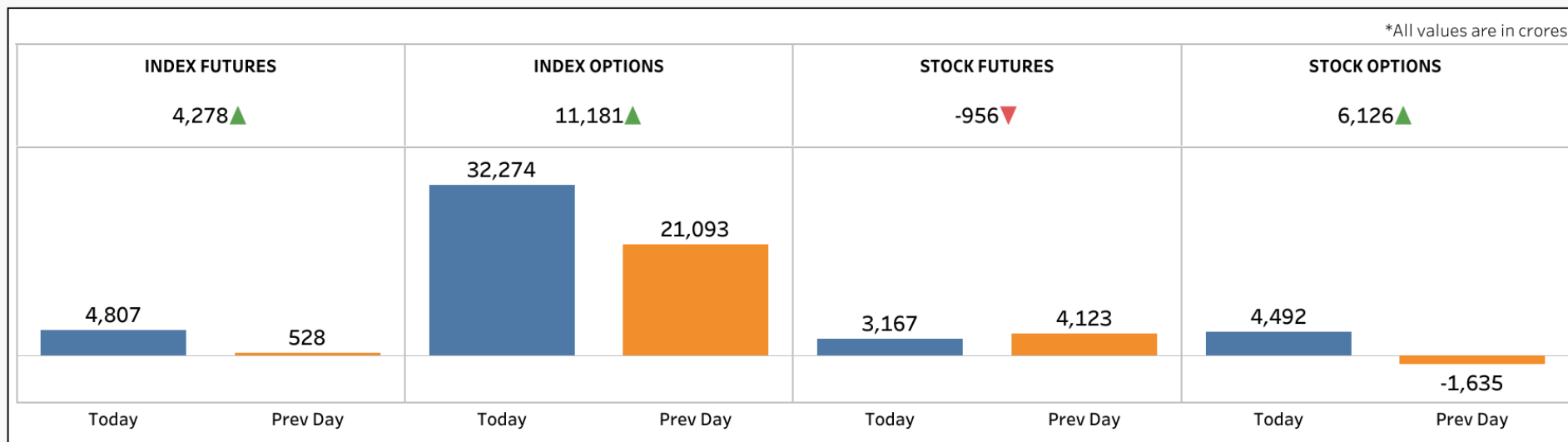
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

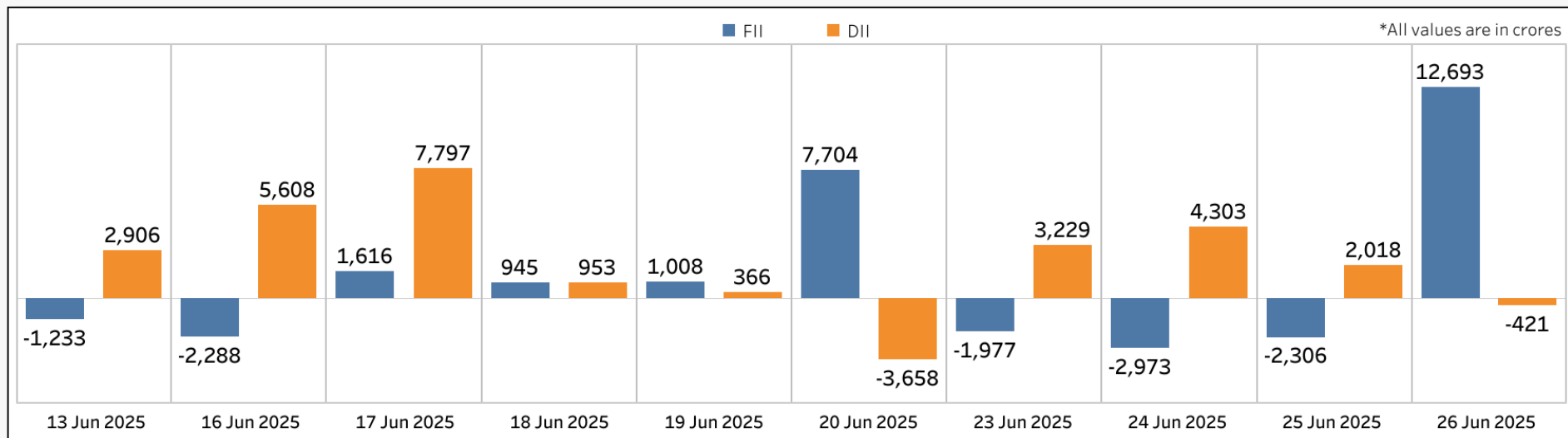
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-163,242 ▼	69,302 ▲	-152,754 ▼	7,112 ▲	0	1,866 ▲	-10,204 ▼	8,213 ▲
79,125	71,903		48,634				63,678
	2,601		47,705				55,465
-84,117		-104,120		0	-2,208	-10,204	
				0	-4,074		
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
73,440	-34,967	76,941	1,596,934	70	28,227	14,983	-3,822,206
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
321,981 ▲	-21,011 ▼	191,465 ▲	-68,611 ▼	-158,737 ▼	-50,157 ▼	-28,506 ▼	53,286 ▲
226,388		157,667		16,467	17,342		1,709
-95,593	-36,880	-33,798	-113,092	-142,270	-32,815	-43,342	-51,577
	-15,869		-44,481			-14,836	
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-254,641	19,049	-161,026	1,899,268	181,132	-12,309	69,103	326,004
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day

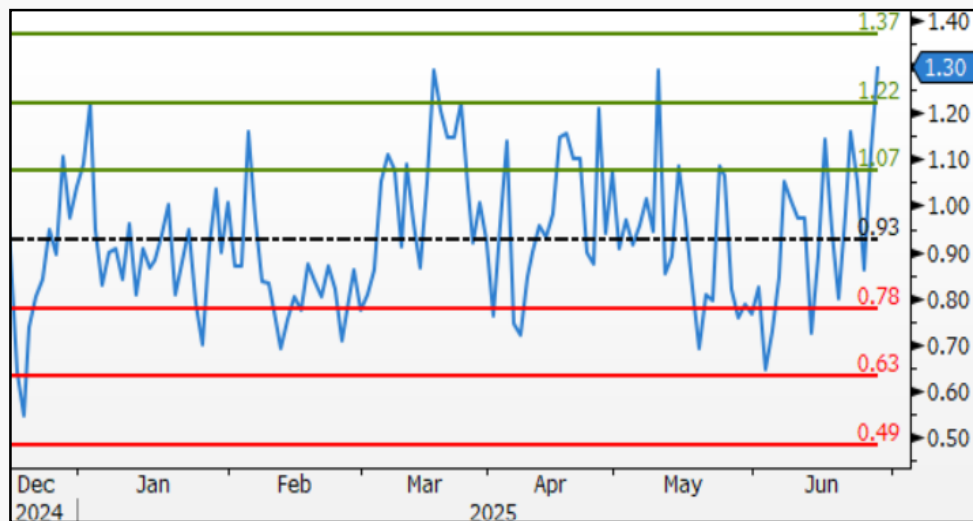
Daily Net Open Interest Change



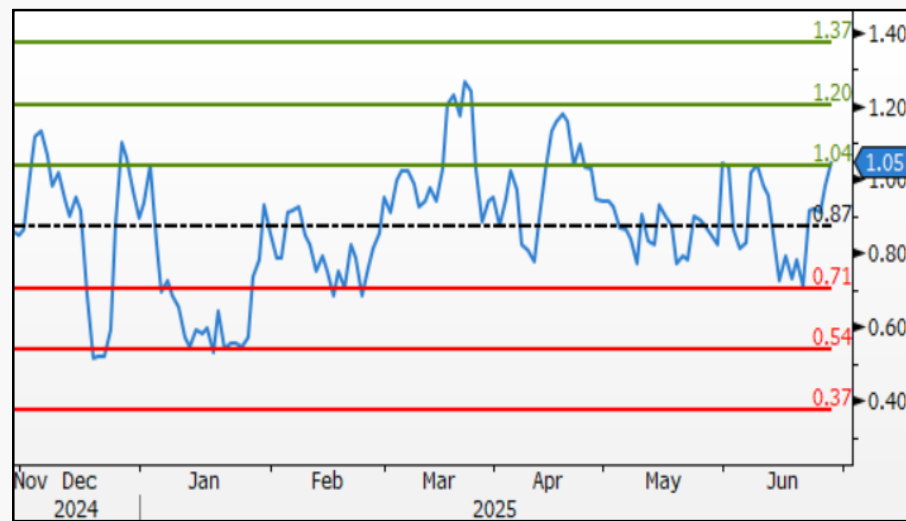
DII and FII Daily Cash Market Flows



Nifty



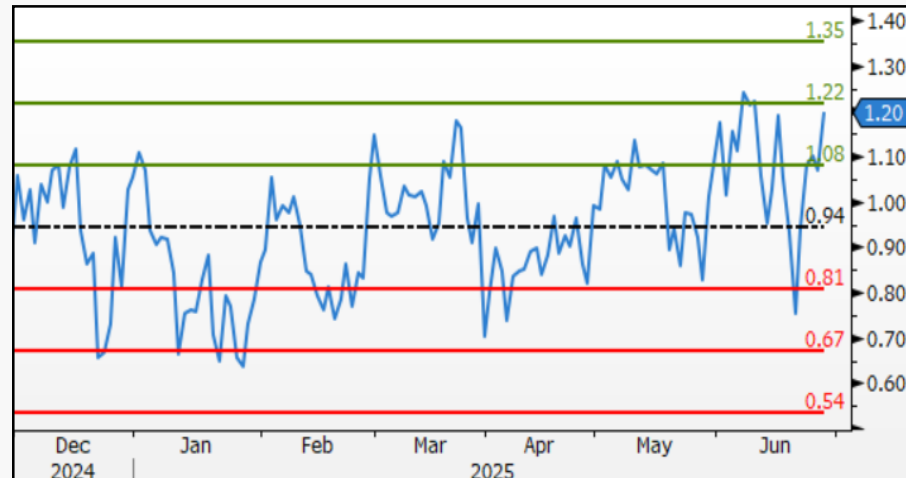
Bank Nifty



Fin Nifty

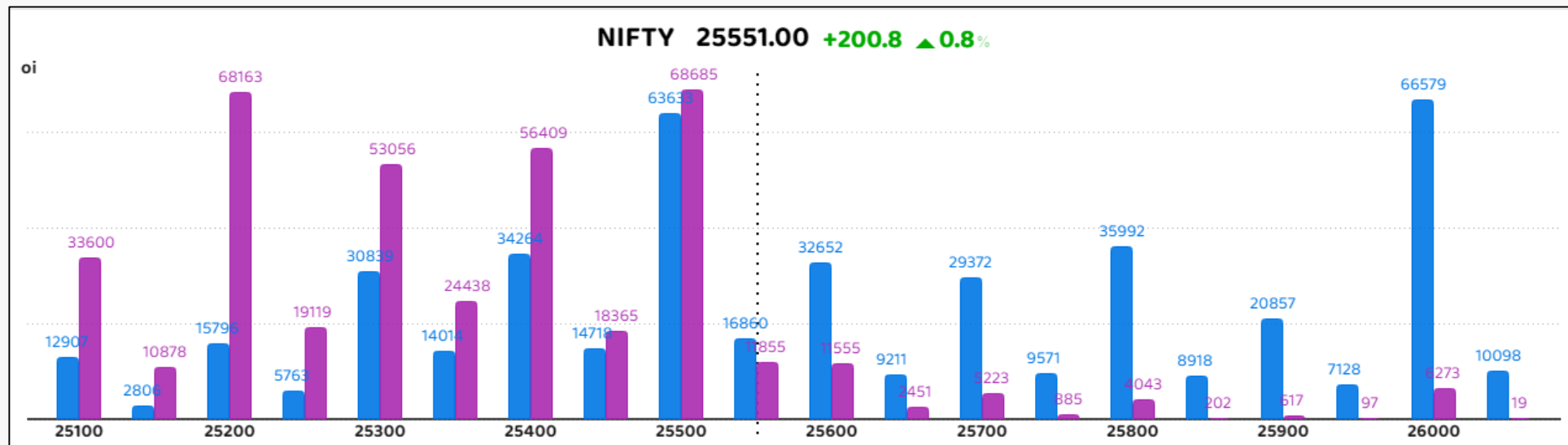


Midcap Select Nifty



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

Call  Put 



For the Nifty, the 26,000 Call and the 25,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 57,000 Call and the 57,000 Put saw the most amount of open interest.

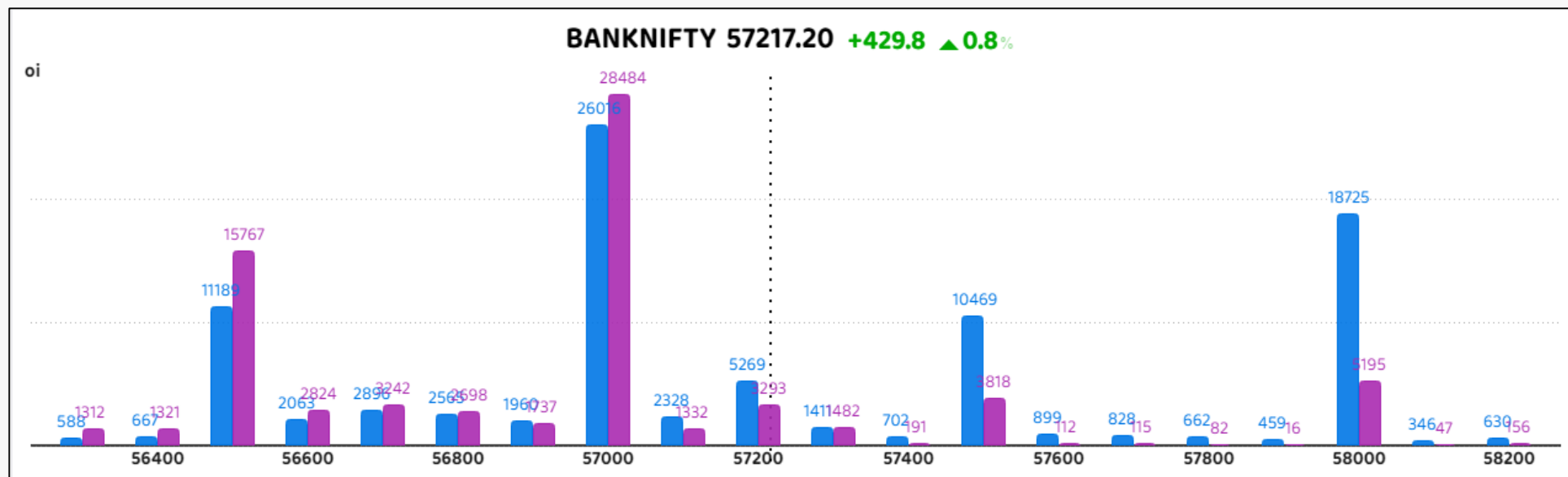
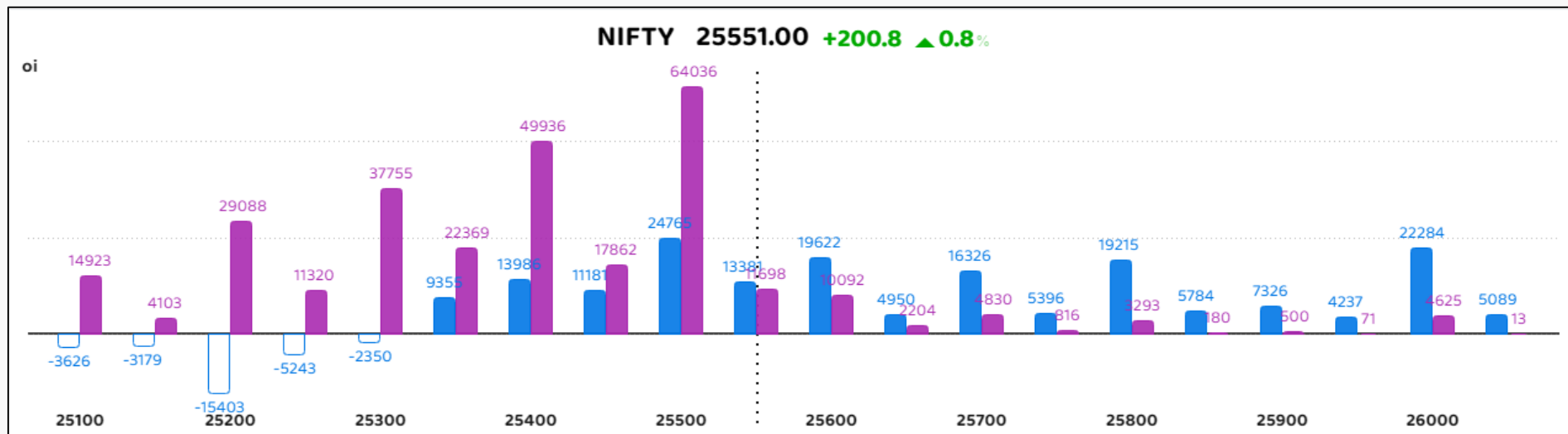


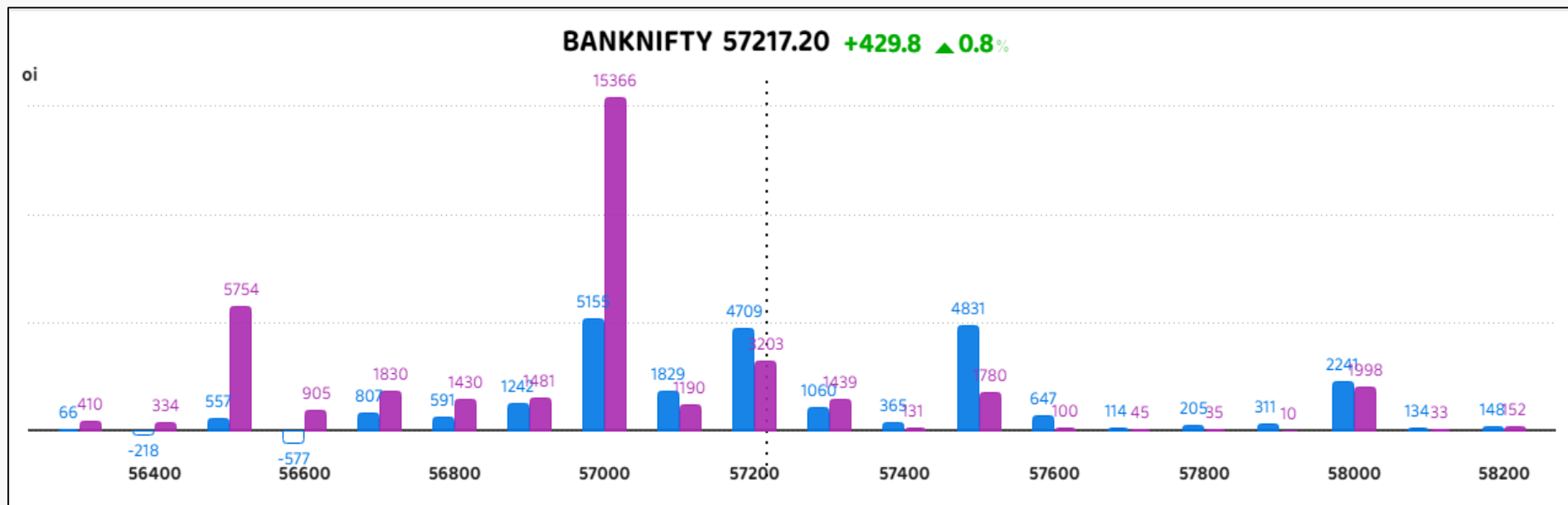
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,500 Call and the 25,500 Put



For the Bank Nifty, the biggest open interest changes were seen at the 57,000 Call & the 57,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BIRLASOFT LTD	442.2	-0.3	40.6	52.7	10.1	71.6
ASTRAL LTD	1522.3	1.1	26.9	38.4	2.9	67.7
DIXON TECHNOLOGIES	14315	1.1	35.4	53.0	1.8	65.7
INFOSYS LTD	1616	0.1	41.2	60.8	4.9	64.9
MARUTI SUZUKI	12715	-0.4	18.9	29.9	0.4	62.8

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
IRCTC	773.05	0.7	21.9	44.6	21.9	0.0
HINDUSTAN ZINC	448.9	1.5	29.3	54.2	29.3	0.0
FED BANK LTD	210.02	-0.2	22.0	130.9	22.0	0.0
TATA TECHNOLOGIES	703.55	0.5	27.0	54.4	27.0	0.0
IRB INFRASTRUCTURE	50.24	0.9	29.1	59.6	29.1	0.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INFOSYS LTD	1616	0.1	41.2	60.8	4.9	98.1
OBEROI REALTY	1982.3	-0.3	39.6	50.6	23.1	89.3
HCL TECH LTD	1724.1	0.4	27.1	46.0	17.9	82.7
INDUSIND BANK	836.1	0.8	32.7	77.2	0.5	68.1
DR REDDY'S LABS	1321.5	-1.5	24.4	39.7	14.4	67.0

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HINDUSTAN ZINC	448.9	1.5	29.3	54.2	29.3	0.0
FED BANK LTD	210.02	-0.2	22.0	130.9	22.0	0.0
TATA TECHNOLOGIES	703.55	0.5	27.0	54.4	27.0	0.0
IRB INFRASTRUCTURE	50.24	0.9	29.1	59.6	29.1	0.0
NCC LTD	230.97	1.6	29.4	53.4	29.4	0.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
DALMIA BHARAT LTD	2191.8	4.7	7293	1247	5.9
CUMMINS INDIA	3364.6	1.4	6154	1071	5.8
HINDUSTAN COPPER	272.08	5.0	8491	1535	5.5
PNB HOUSING FINANCE	1110.2	2.5	10053	1881	5.3
TUBE INVESTMENTS	3005.3	5.2	13153	2680	4.9

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
DABUR INDIA LTD	481.55	0.3	4774	5763	1.2
COLGATE PALMOLIVE	2375.7	-1.8	7472	7068	0.9
GLENMARK PHARMA	1732	0.9	5974	5561	0.9
APL APOLLO TUBES	1795.9	0.0	2811	2604	0.9
TATA TECHNOLOGIES	703.55	0.5	3808	3416	0.9

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
PNB HOUSING FINANCE	1110.2	2.5	5006	5361	93.4

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
NO STOCK OPTION MET THE CONDITION MENTIONED IN THE FOOTNOTE					

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
NO STOCK OPTION MET THE CONDITION MENTIONED IN THE FOOTNOTE					

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
NO STOCK OPTION MET THE CONDITION MENTIONED IN THE FOOTNOTE					

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
PNB HOUSING FINANCE	1110.2	2.5	5006	3940	1.3
JUBILANT FOODWORKS	711.15	-0.3	4639	4153	1.1
KPIT TECHNOLOGIES	1275.9	-1.5	5168	4807	1.1
TITAN CO LTD	3694.7	1.2	12784	15698	0.8
ADITYA BIRLA CAPITAL	276.8	1.6	5039	6257	0.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
KPIT TECHNOLOGIES	1275.9	-1.5	3289	2296	1.4
HINDUSTAN ZINC	448.9	1.5	8822	8797	1.0
DABUR INDIA LTD	481.55	0.3	4969	5583	0.9
UPL LTD	636.5	-2.2	3381	3814	0.9
BHARAT FORGE	1286.5	0.9	3384	3990	0.8

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
TUBE INVESTMENTS	3005.3	5.2	13153	4779	2.8
DALMIA BHARAT LTD	2191.8	4.7	7293	3241	2.3
UPL LTD	636.5	-2.2	19000	9311	2.0
PNB HOUSING FINANCE	1110.2	2.5	10053	5774	1.7
HINDUSTAN COPPER	272.08	5.0	8491	5524	1.5

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SHREE CEMENT	30105	3.5	4554	1194	3.8
UPL LTD	636.5	-2.2	10705	3806	2.8
COLGATE PALMOLIVE	2375.7	-1.8	7068	3532	2.0
TUBE INVESTMENTS	3005.3	5.2	2680	1629	1.6
PETRONET LNG LTD	299.8	1.1	3255	2272	1.4

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	2700	1303800	4.4%	2586	2700	1433700	4.4%	ITC	420	4662400	-0.1%	420	420	3592000	-0.1%
ADANIPTS	1400	1189875	-2.0%	1429	1400	1209350	-2.0%	JIOFIN	320	5644700	2.4%	313	300	3522650	-4.0%
APOLLOHOSP	7100	58750	0.0%	7102	7000	82125	-1.4%	JSWSTEEL	1020	794475	-1.2%	1033	1020	371250	-1.2%
ASIANPAINT	2300	475250	0.4%	2290	2300	359000	0.4%	KOTAKBANK	2200	575600	-0.2%	2204	2100	464000	-4.7%
AXISBANK	1300	816250	5.4%	1234	1200	1011875	-2.7%	LT	3800	452550	3.8%	3660	3500	305025	-4.4%
BAJAJ-AUTO	9000	44775	6.7%	8433	8400	26850	-0.4%	M&M	3200	553000	-0.5%	3216	3200	327800	-0.5%
BAJAJFINSV	2100	349500	2.3%	2054	1900	226000	-7.5%	MARUTI	13000	81050	2.2%	12715	12500	54500	-1.7%
BAJFINANCE	950	2007000	-0.2%	952	900	1554000	-5.4%	NESTLEIND	2500	181500	2.8%	2431	2400	122250	-1.3%
BEL	420	6899850	2.4%	410	400	4933350	-2.5%	NTPC	340	2521500	0.8%	337	330	2344500	-2.1%
BHARTIARTL	2000	1352325	-0.7%	2014	1900	855475	-5.7%	ONGC	250	4558500	2.2%	245	250	2697750	2.2%
CIPLA	1500	243000	-0.9%	1514	1500	258000	-0.9%	POWERGRID	300	4086900	2.2%	294	290	2129900	-1.2%
COALINDIA	400	3618000	1.5%	394	400	3364200	1.5%	RELIANCE	1500	3835000	0.3%	1495	1500	1673500	0.3%
DRREDDY	1400	633125	5.9%	1322	1250	261250	-5.4%	SBILIFE	1900	140250	2.1%	1861	1800	121875	-3.3%
EICHERMOT	5500	83475	-2.0%	5612	5000	101150	-10.9%	SBIN	800	5520000	0.4%	797	800	3822750	0.4%
ETERNAL	290	4663275	9.4%	265	250	3227675	-5.7%	SHRIRAMFIN	700	480150	-0.5%	703	680	334950	-3.3%
GRASIM	3000	158000	4.0%	2883	2740	97250	-5.0%	SUNPHARMA	1700	294000	1.8%	1670	1600	234850	-4.2%
HCLTECH	1720	436450	-0.2%	1724	1720	252700	-0.2%	TATACONSUM	1130	217800	-1.3%	1145	1100	138050	-4.0%
HDFCBANK	2000	1937100	-1.1%	2022	2000	1759450	-1.1%	TATAMOTORS	700	3884800	2.5%	683	680	2967200	-0.4%
HDFCLIFE	800	722700	0.1%	799	740	927300	-7.4%	TATASTEEL	160	7106000	-0.3%	161	150	5775000	-6.6%
HEROMOTOCO	4400	379500	2.9%	4278	4000	154950	-6.5%	TCS	3500	784175	1.7%	3442	3400	606550	-1.2%
HINDALCO	700	1593200	1.4%	691	670	725200	-3.0%	TECHM	1700	744000	0.6%	1690	1700	336600	0.6%
HINDUNILVR	2400	1086000	5.2%	2281	2300	961200	0.8%	TITAN	3880	499450	5.0%	3695	3600	255500	-2.6%
ICICIBANK	1500	982100	4.2%	1439	1400	1069600	-2.7%	TRENT	6000	183500	-1.8%	6107	6000	159000	-1.8%
INDUSINDBK	850	1402800	1.7%	836	800	1098300	-4.3%	ULTRACEMCO	12000	62050	0.4%	11951	11000	32500	-8.0%
INFY	1700	932400	5.2%	1616	1600	925200	-1.0%	WIPRO	300	2718000	11.7%	269	240	1947000	-10.6%

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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