



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	25,212	0.2%▲
Open Interest (OI)	1,71,58,575	0.4%▲
Change in OI (abs)	1,71,58,575	72,000▲
Premium / Discount (Abs)	70	14▲
<b>Inference</b>	<b>Long Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	56,649	0.2%▼
Open interest (OI)	23,02,605	1.0%▼
Change in OI (abs)	23,02,605	22,230▼
Premium / Discount (Abs)	189	53▲
<b>Inference</b>	<b>Long Unwinding</b>	

## Volatility Insights

	Value	Change
India VIX Index	13.67	0.35▼
Nifty ATM IV (%)	12.94	0.2▼
Bank Nifty ATM IV (%)	14.25	0.2▼
PCR (Nifty)	0.97	0.00▲
PCR (Bank Nifty)	0.96	0.02▼

The Long Ratio for FII Index Futures **jump** at 22%, **up** from 20% in the **last session**..

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LICI	1,04,14,075	10.1%	968.6	1.8%
MANKIND	5,47,425	9.4%	2389.1	0.1%
OIL	1,45,81,875	7.1%	466.7	6.4%
EXIDEIND	2,27,73,600	3.9%	406.3	0.4%
GAIL	9,92,19,650	3.8%	200.85	2.2%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KAYNES	2,55,100	17.6%	5595.5	-0.3%
PPLPHARMA	81,15,000	11.3%	205.42	-0.8%
MAZDOCK	24,01,700	9.0%	3330.3	-2.5%
IEX	6,59,85,000	8.0%	193.95	-8.0%
BDL	19,96,475	7.8%	1900.1	-3.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BIOCON	3,00,65,000	-5.0%	355.05	3.7%
GLENMARK	84,99,175	-4.6%	1638.6	1.2%
HCLTECH	1,44,68,300	-4.5%	1725.4	3.2%
AUBANK	1,86,34,000	-4.5%	777.5	1.2%
BAJAJ-AUTO	25,70,250	-4.5%	8748.5	1.2%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HINDCOPPER	3,58,14,750	-4.9%	259.83	-1.7%
IREDA	6,65,40,150	-4.6%	173.11	-0.6%
MUTHOOTFIN	42,70,750	-4.1%	2550.2	-0.2%
CANBK	21,22,67,250	-3.8%	117.27	-0.6%
CHAMBLFERT	1,30,88,150	-3.6%	565.5	-0.1%

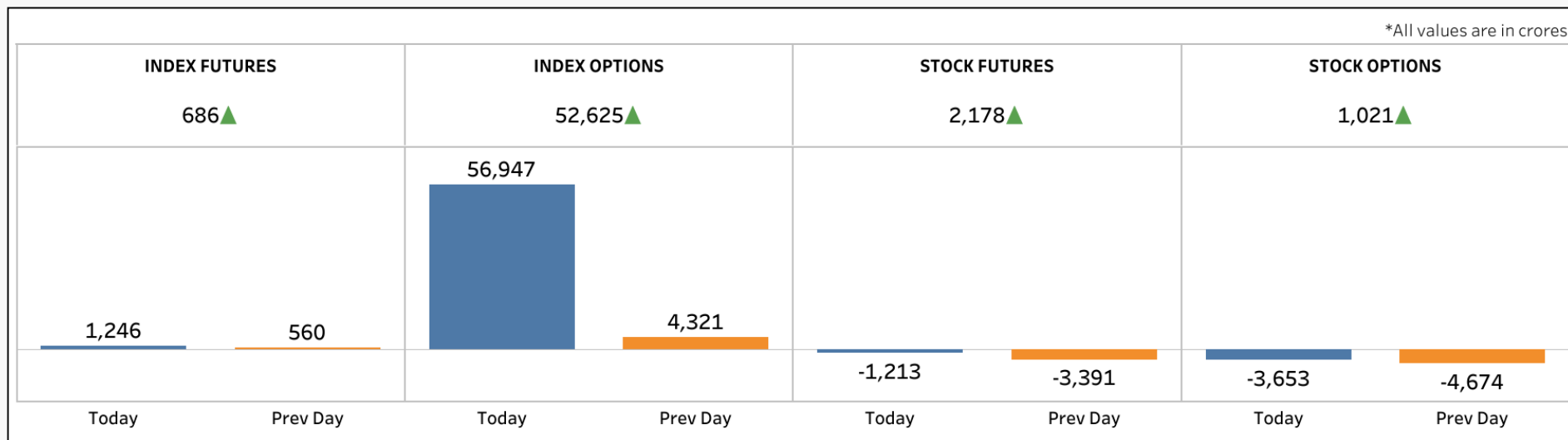
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

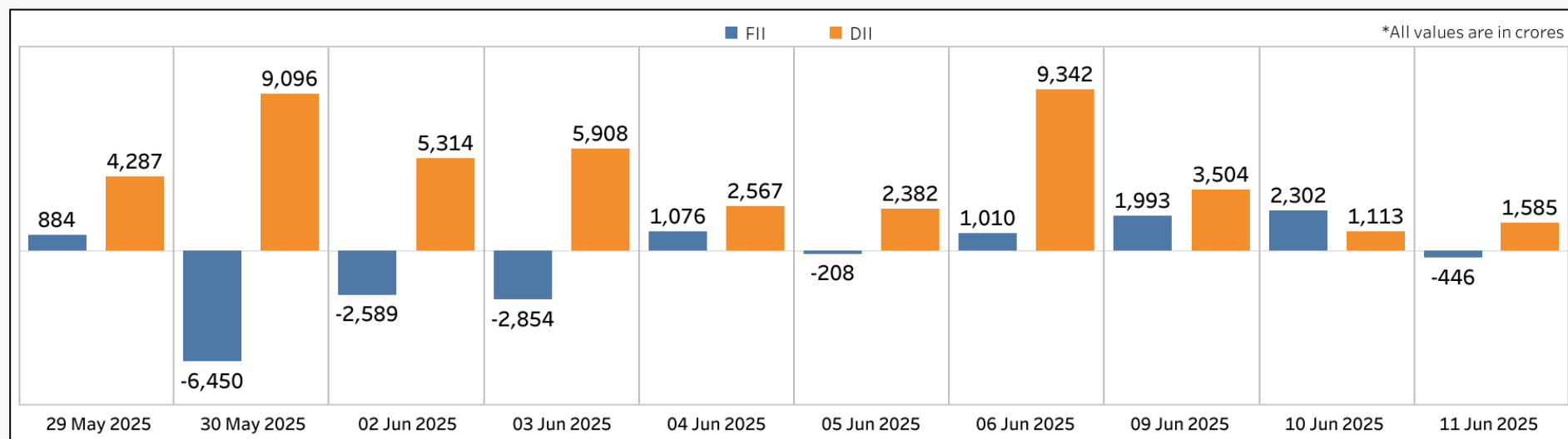
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
164,516 ▲	3,627 ▲	116,612 ▲	28,519 ▲	0	-546 ▼	0	-11,509 ▼
159,302		143,417					29,566
	6,475	2,848					18,057
-5,214			-16,323	0	-3,445	0	
			-44,842	0	-2,899	0	
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
275,876	-86,549	298,678	1,559,467	70	36,082	11,201	-4,005,557
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
-264,579 ▼	-10,292 ▼	-142,901 ▼	-3,800 ▼	100,064 ▲	7,211 ▲	26,290 ▲	-13,210 ▼
46,060				59,218		44,993	
	2,529		7,188		4,733	18,703	4,288
-7,763		-45,508	10,988		-2,478		-8,922
-218,519		-188,409		-40,846			
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-403,029	61,337	-336,633	2,059,578	127,084	-10,870	26,755	386,512
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day

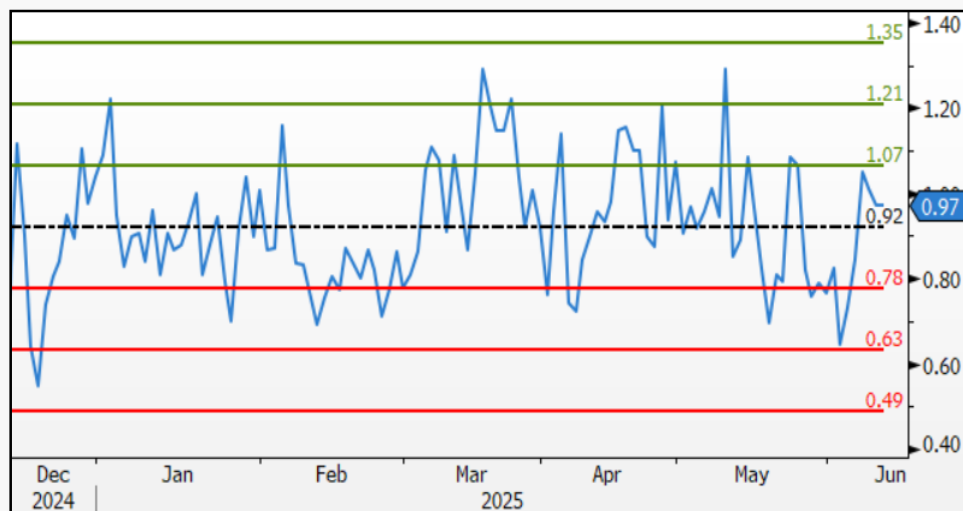
## Daily Net Open Interest Change



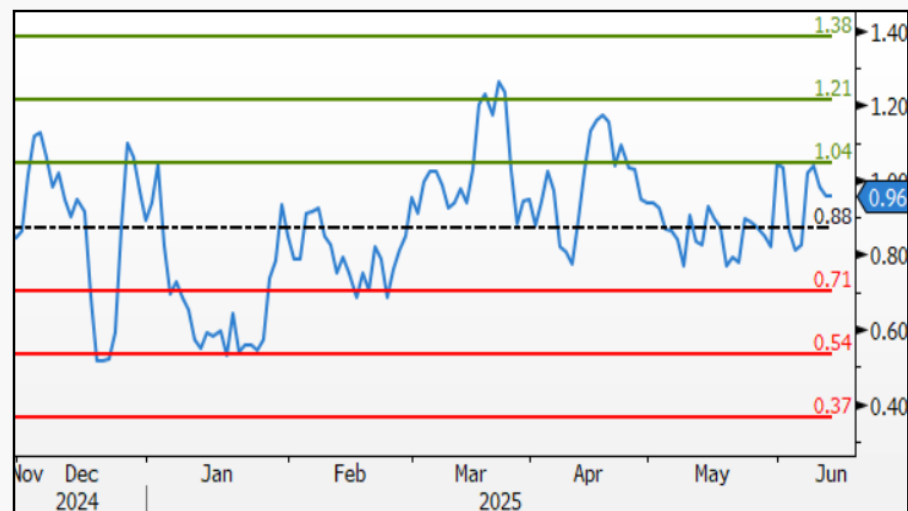
## DII and FII Daily Cash Market Flows



## Nifty



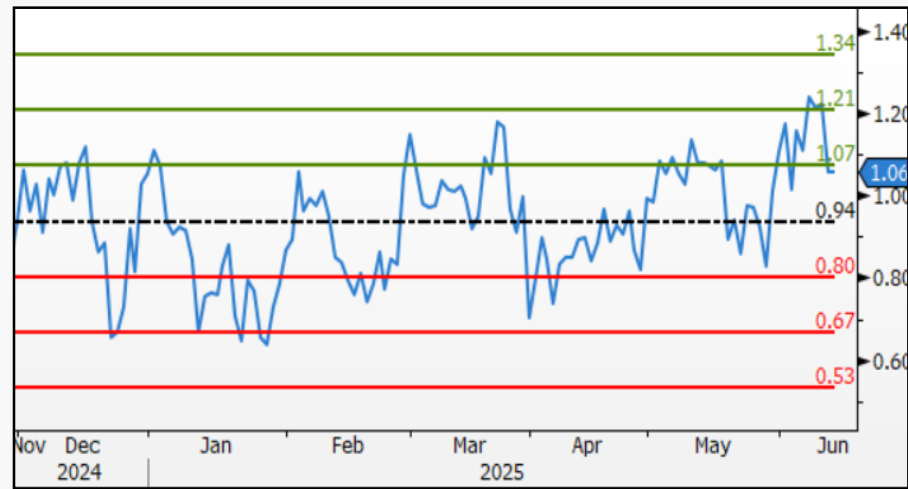
## Bank Nifty



## Fin Nifty

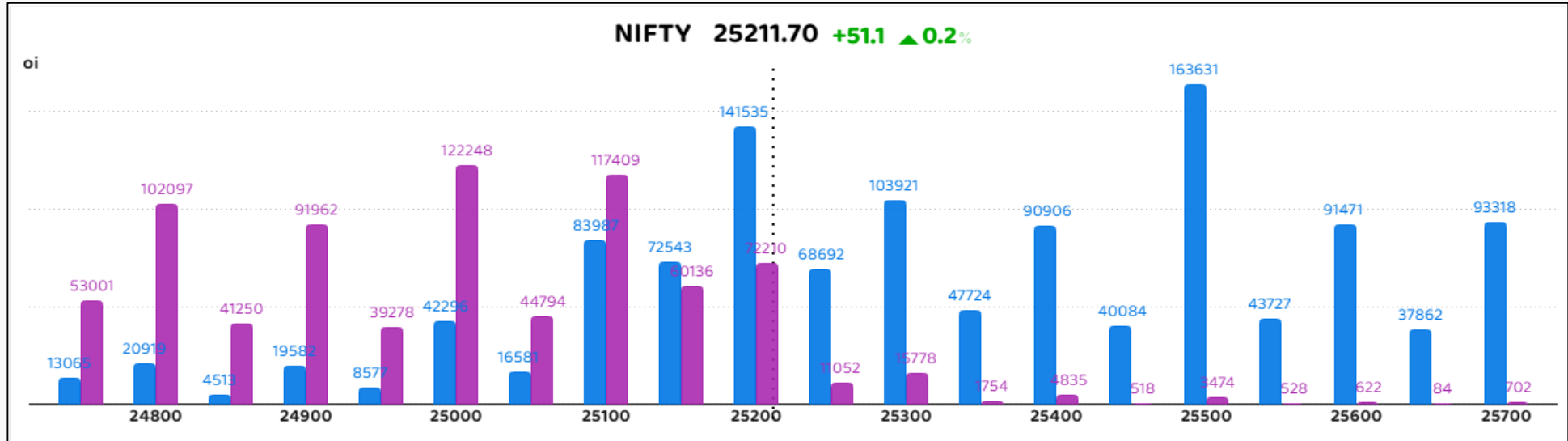


## Midcap Select Nifty



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

Call ■ Put ■



For the Nifty, the 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.

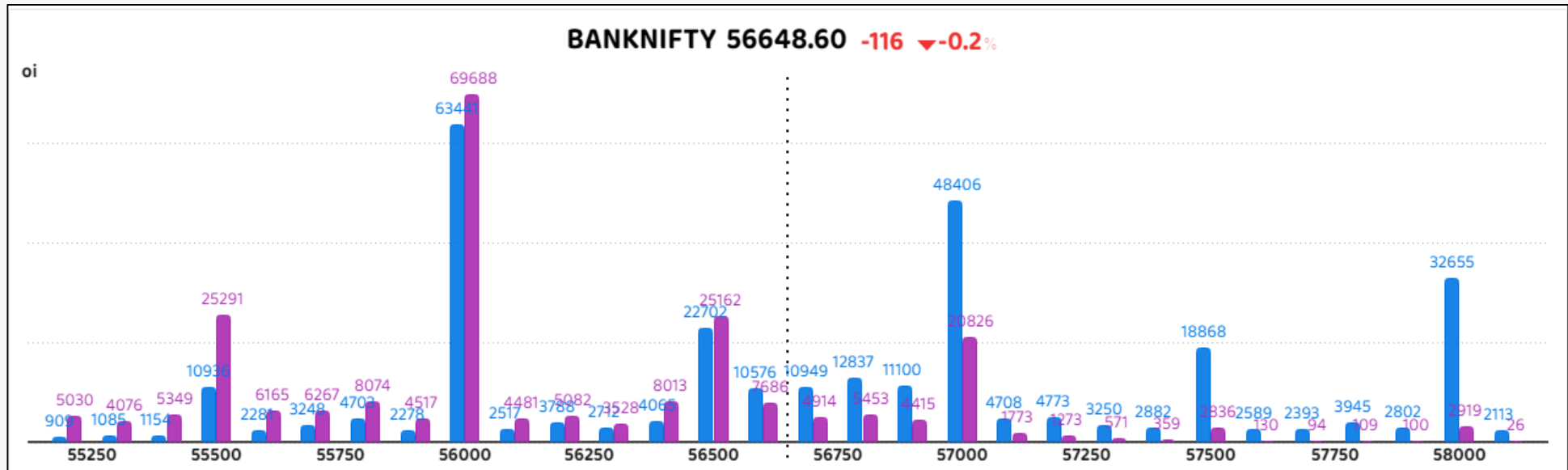
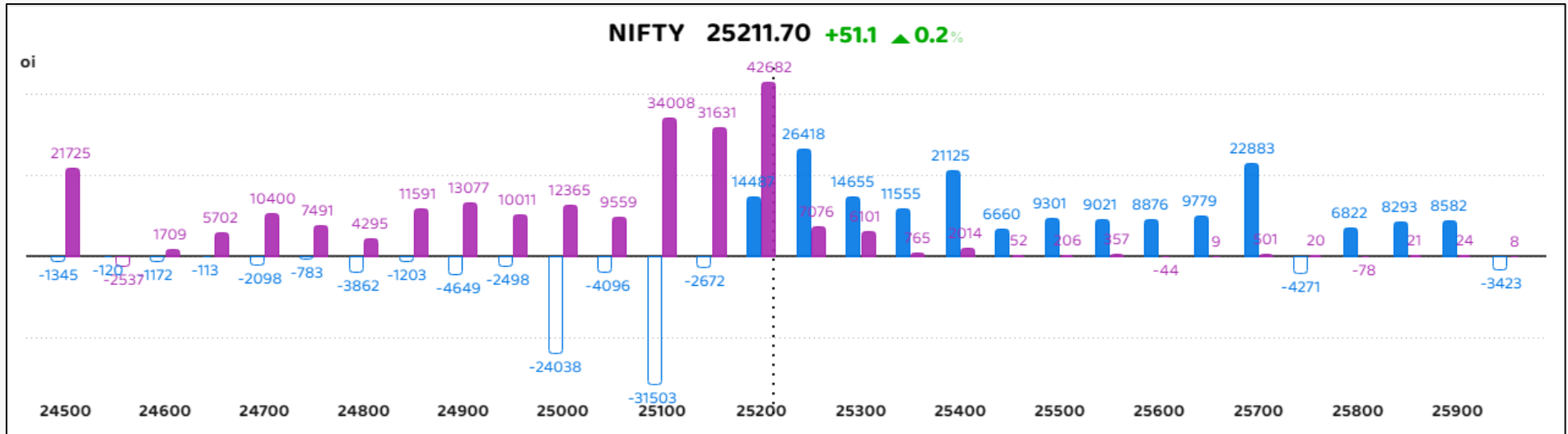


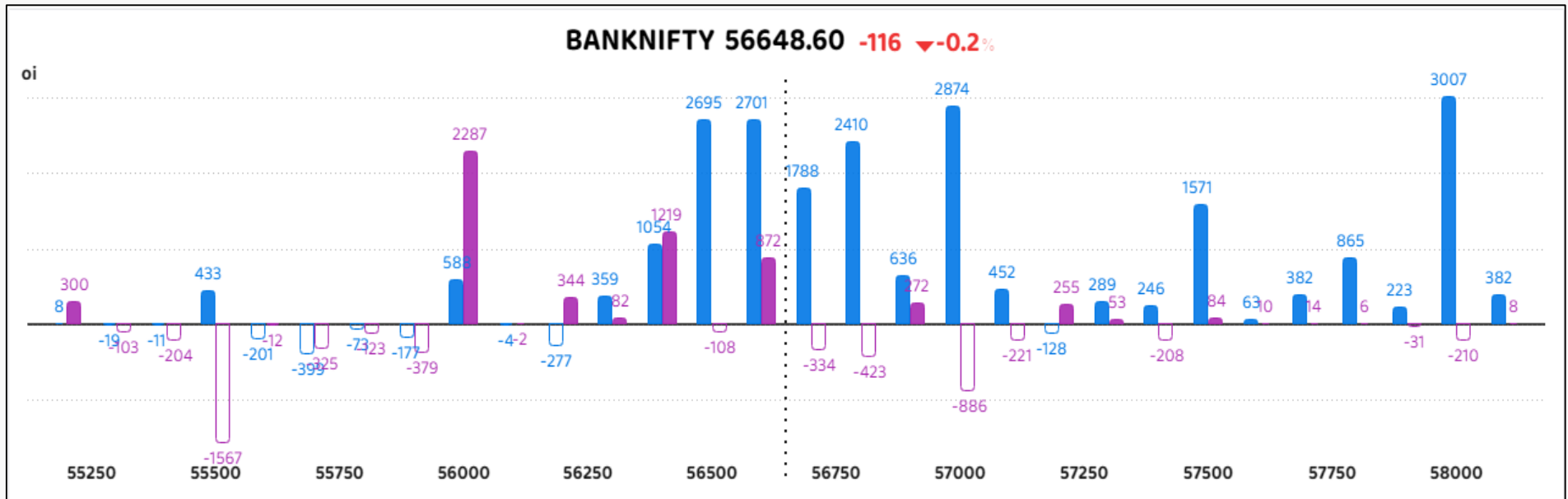
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,100 Call and the 25,200 Put



For the Bank Nifty, the biggest open interest changes were seen at the 58,000 Call & the 55,500 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
KAYNES TECHNOLOGIES	5576	-0.1	49.4	49.4	34.4	100.0
BLUE STAR LTD	1633	0.5	36.0	37.5	29.2	81.5
TITAN CO LTD	3541.6	0.5	23.7	33.5	2.3	68.5
ASTRAL LTD	1525.6	0.3	26.9	38.4	2.9	67.6
ETERNAL LTD	257.07	0.5	35.9	53.0	1.7	66.8

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDIAN OIL CORP	145.15	2.1	23.0	42.1	23.0	0.0
ADANI GREEN ENERGY	1046.8	-1.3	37.0	74.3	37.0	0.0
MAZAGON DOCK	3314.6	-2.4	40.0	48.4	40.0	0.0
UNO MINDA LTD	1104	0.7	35.1	42.4	35.1	0.0
TATA TECHNOLOGIES	784.95	-0.3	28.4	54.4	28.4	0.0



### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
KAYNES TECHNOLOGIES	5576	-0.1	49.4	49.4	34.4	100.0
IREDA	182.34	-0.1	57.2	69.2	37.0	78.0
DALMIA BHARAT LTD	2143.1	-0.8	30.4	41.8	17.5	77.7
BLUE STAR LTD	1633	0.5	36.0	37.5	29.2	70.9
PIRAMAL PHARMA	204.5	-0.8	37.5	39.1	36.1	68.8

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDIAN OIL CORP	145.15	2.1	23.0	42.1	23.0	0.0
ADANI GREEN ENERGY	1046.8	-1.3	37.0	74.3	37.0	0.0
MAZAGON DOCK	3314.6	-2.4	40.0	48.4	40.0	0.0
UNO MINDA LTD	1104	0.7	35.1	42.4	35.1	0.0
TATA TECHNOLOGIES	784.95	-0.3	28.4	54.4	28.4	0.0

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
BALKRISHNA INDS	2496.2	-0.5	9428	1511	6.2
PETRONET LNG	309.35	0.4	12189	2011	6.1
POONAWALLA FINCORP	426.4	-0.1	9998	1696	5.9
YES BANK LTD	20.71	-0.6	16464	3012	5.5
TORRENT POWER LTD	1432.4	-1.3	11446	2162	5.3

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
CUMMINS INDIA	3373.3	-0.5	4585	6878	1.5
IIFL FINANCE LTD	483.8	0.5	8742	11641	1.3
SAMVARDHANA	159.57	0.5	8026	9113	1.1
BSE LTD	2882.4	-4.1	124264	134885	1.1
ABB INDIA LTD	6077	-1.5	10579	10885	1.0

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
HINDUSTAN ZINC	520.55	-2.5	14317	14317	100.0
MAZAGON DOCK	3314.6	-2.4	17341	17341	100.0
MANKIND PHARMA	2378.8	0.1	2243	2243	100.0
INDIAN BANK	625	-0.6	4683	4683	100.0
RAIL VIKAS NIGAM	427.8	0.3	9020	9020	100.0

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
MAZAGON DOC	3314.6	-2.4	6714	6714	100.0
MANKIND PHARMA	2378.8	0.1	1126	1126	100.0
MUTHOOT FINANCE	2538.6	-0.6	13620	13620	100.0
INDIAN BANK	625	-0.6	3549	3549	100.0
BHARAT DYNAMICS	1894.4	-3.7	4339	4339	100.0

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
MANKIND PHARMA	2378.8	0.1	7519	7519	100.0
OIL INDIA LTD	465.3	6.4	85586	85586	100.0
PHOENIX MILLS	1650	1.4	23838	23838	100.0
KAYNES TECHNOLOGIES	5576	-0.1	8178	8178	100.0
BLUE STAR LTD	1633	0.5	19126	19126	100.0

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
HINDUSTAN ZINC	520.55	-2.5	13970	15115	92.4

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
UNITED SPIRITS	1503.8	-6.6	25261	7302	3.5
BLUE STAR LTD	1633	0.5	3471	1251	2.8
OIL INDIA LTD	465.3	6.4	7657	2983	2.6
HINDUSTAN ZINC	520.55	-2.5	14317	5608	2.6
IEX	193.68	-7.8	19341	7614	2.5

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
UNITED SPIRITS	1503.8	-6.6	13402	4188	3.2
OIL INDIA LTD	465.3	6.4	4627	1895	2.4
HINDUSTAN ZINC	520.55	-2.5	6648	2792	2.4
IEX	193.68	-7.8	10981	4928	2.2
MCX INDIA LTD	7676	-2.7	21143	11134	1.9

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
OIL INDIA LTD	465.3	6.4	85586	8424	10.2
BLUE STAR LTD	1633	0.5	19126	3007	6.4
IEX	193.68	-7.8	109910	17461	6.3
BHARAT PETROLEUM	333.85	4.3	84445	14281	5.9
UNITED SPIRITS	1503.8	-6.6	119396	20859	5.7

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
IEX	193.68	-7.8	82417	8810	9.4
UNITED SPIRITS	1503.8	-6.6	93400	10267	9.1
OIL INDIA LTD	465.3	6.4	26440	3871	6.8
BIOCON LTD	354.45	3.9	12609	3110	4.1
BHARAT PETROLEUM	333.85	4.3	31387	8683	3.6

## 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	1896900	4.6%	2581	2700	1534800	4.6%	ITC	440	10688000	3.3%	426	420	4584000	-1.4%
ADANIPTS	1500	1643600	3.0%	1456	1400	870400	-3.9%	JIOFIN	310	6195750	2.4%	303	290	3997950	-4.2%
APOLLOHOSP	7000	359250	1.0%	6928	6800	144500	-1.8%	JSWSTEEL	1020	1492425	1.3%	1007	980	826875	-2.7%
ASIANPAINT	2300	1257400	4.1%	2209	2200	758800	-0.4%	KOTAKBANK	2160	1211200	0.7%	2145	2100	744400	-2.1%
AXISBANK	1250	4628750	1.5%	1231	1200	1785625	-2.5%	LT	3740	1317750	1.5%	3685	3600	381150	-2.3%
BAJAJ-AUTO	9000	465300	3.2%	8719	8500	167775	-2.5%	M&M	3200	1050000	3.9%	3081	3000	550375	-2.6%
BAJAJFINSV	2100	1710000	4.3%	2013	1900	915000	-5.6%	MARUTI	12500	321300	0.4%	12452	12500	114900	0.4%
BAJFINANCE	10000	1095250	6.1%	9425	9000	461625	-4.5%	NESTLEIND	2500	250800	3.3%	2419	2200	175000	-9.1%
BEL	400	19924350	1.8%	393	380	6104700	-3.3%	NTPC	350	7471500	3.5%	338	340	2916000	0.6%
BHARTIARTL	1880	3124075	1.1%	1860	1860	1259225	0.0%	ONGC	250	11781000	1.1%	247	240	2113650	-3.0%
CIPLA	1600	1328275	5.1%	1522	1320	566475	-13.3%	POWERGRID	310	6746400	4.9%	295	270	3261600	-8.6%
COALINDIA	410	4439400	2.0%	402	400	3057600	-0.5%	RELIANCE	1500	5665500	3.5%	1449	1400	3204000	-3.4%
DRREDDY	1300	1293125	-3.8%	1351	1300	664375	-3.8%	SBILIFE	1860	1107000	3.4%	1799	1800	253500	0.0%
EICHERMOT	5500	295400	2.8%	5352	5000	133175	-6.6%	SBIN	820	11164500	0.6%	815	820	6098250	0.6%
ETERNAL	270	10506000	5.0%	257	240	10390000	-6.6%	SHRIRAMFIN	700	1748250	2.0%	686	660	564000	-3.8%
GRASIM	2700	331750	-0.8%	2722	2600	245250	-4.5%	SUNPHARMA	1700	2121000	0.6%	1691	1700	811650	0.6%
HCLTECH	1740	883050	1.1%	1722	1600	504000	-7.1%	TATACONSUM	1200	1028736	8.7%	1104	1100	212952	-0.4%
HDFCBANK	2000	7212150	2.5%	1950	1940	2868250	-0.5%	TATAMOTORS	800	6048350	8.6%	736	700	3333550	-4.9%
HDFCLIFE	800	3491400	4.7%	764	750	680900	-1.9%	TATASTEEL	161.4	19486500	3.2%	156	146.4	8805500	-6.4%
HEROMOTOCO	4400	585450	-0.2%	4410	4200	186000	-4.8%	TCS	3500	1139950	0.8%	3472	3400	886725	-2.1%
HINDALCO	700	4240600	6.8%	655	600	1185800	-8.4%	TECHM	1640	628200	0.2%	1638	1600	513000	-2.3%
HINDUNILVR	2400	2653800	1.0%	2376	2300	583800	-3.2%	TITAN	3600	512750	1.6%	3542	3500	220325	-1.2%
ICICIBANK	1450	5284300	1.3%	1431	1450	2293900	1.3%	TRENT	6000	404900	3.9%	5777	5500	347500	-4.8%
INDUSINDBK	820	4377000	-1.9%	836	800	1951500	-4.3%	ULTRACEMCO	12000	207250	4.7%	11464	9800	117700	-14.5%
INFY	1600	1600000	-1.9%	1631	1600	1327200	-1.9%	WIPRO	260	7872000	0.4%	259	250	4965000	-3.4%

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 (DIIIs), 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](http://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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Compliance Officer Details: Name – **Mr. Rajiv Kejriwal**, Tel No. – 022-68555574, Email id – [compliance.officer@axisdirect.in](mailto:compliance.officer@axisdirect.in);

Registered Office Address – Axis Securities Limited, Unit No.002, Building- A, Agastya Corporate Park, Piramal Realty, Kamani Junction, Kurla (W), Mumbai – 400070.

Administrative office address: Aurum Q Parc, Q2 Building, Unit No. 1001, 10th Floor, Level – 6, Plot No. 4/1 TTC, Thane – Belapur Road, Ghansoli, Navi Mumbai, Pin Code – 400710.

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Sr. No	Name	Designation	E-mail
1	Rajesh Palviya	SVP Research (Head Technical & Derivatives)	rajesh.palviya@axissecurities.in
2	Hemang Gor	Derivative Analyst	hemang.gor@axissecurities.in
3	Rahil Vora	Derivative Analyst	rahil.vora@axissecurities.in