



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,321	1.3% ▼
Open Interest (OI)	1,46,30,475	1.4% ▲
Change in OI (abs)	1,46,30,475	2,04,525 ▲
Premium / Discount (Abs)	156	37 ▲
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	51,187	1.3% ▼
Open interest (OI)	26,38,380	24.8% ▼
Change in OI (abs)	26,38,380	8,69,730 ▼
Premium / Discount (Abs)	360	84 ▲
Inference	Long Unwinding	

Volatility Insights

	Value	Change
India VIX Index	13.78	1.1 ▲
Nifty ATM IV (%)	12.97	1.5 ▲
Bank Nifty ATM IV (%)	14.92	1.7 ▲
PCR (Nifty)	0.76	0.16 ▼
PCR (Bank Nifty)	0.87	0.08 ▼

The Long Ratio for FII Index Futures has **dropped** to **30.6%**, up from **33.7 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DELHIVERY	1,20,26,150	7.9%	262.1	2.4%
IRFC	6,88,53,825	7.1%	123.98	0.7%
IDFCFIRSTB	51,18,75,000	5.6%	57.55	4.1%
IREDA	3,95,21,200	4.6%	152.69	0.3%
DRREDDY	1,47,18,750	4.2%	1140.65	0.9%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PNBHOUSING	8,45,000	54.2%	878.5	-0.9%
HINDZINC	16,94,175	36.3%	456.3	-1.8%
INOXWIND	45,73,050	22.9%	157.53	-3.9%
LUPIN	62,04,150	8.6%	1963.5	-3.5%
M&MFIN	1,97,60,000	6.5%	277.3	-1.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ADANIANT	1,98,18,000	-17.8%	2345.8	0.9%
BANKBARODA	14,80,43,025	-12.8%	230.19	0.2%
PAYTM	2,32,19,300	-8.5%	804.25	2.3%
BPCL	6,04,71,000	-6.5%	285.95	2.5%
RAMCOCEM	51,68,850	-4.2%	902.6	0.6%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NTPC	9,00,40,500	-12.3%	354.5	-1.3%
DLF	3,87,07,350	-10.0%	665.7	-2.7%
BHEL	7,73,37,750	-8.6%	213.04	-1.7%
RECLTD	6,80,39,000	-7.6%	419.3	-2.8%
MCX	27,12,800	-4.4%	5260	-1.5%

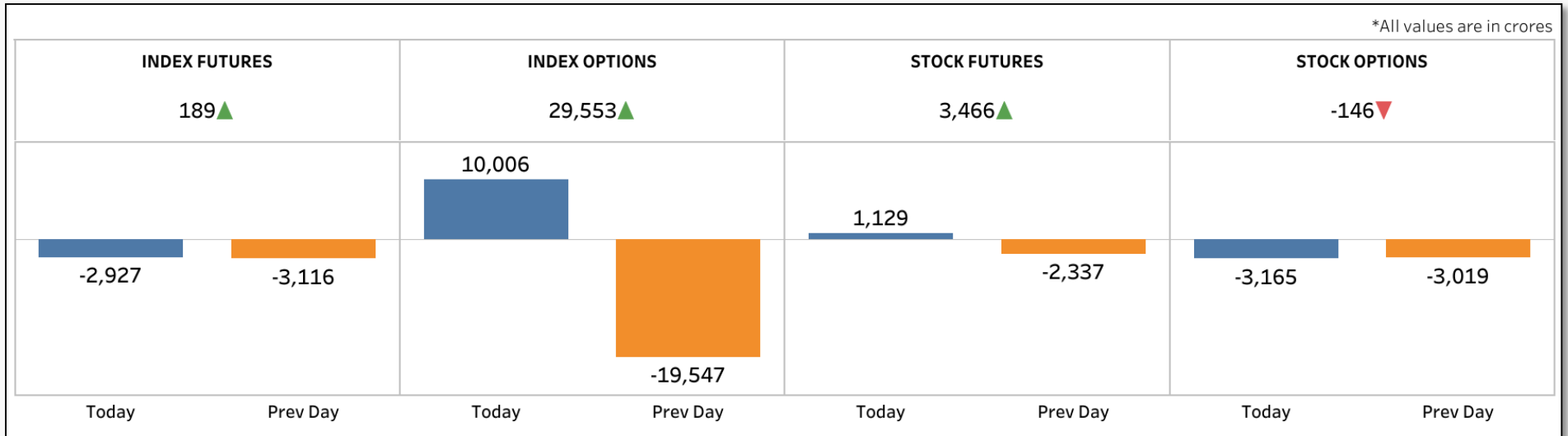
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

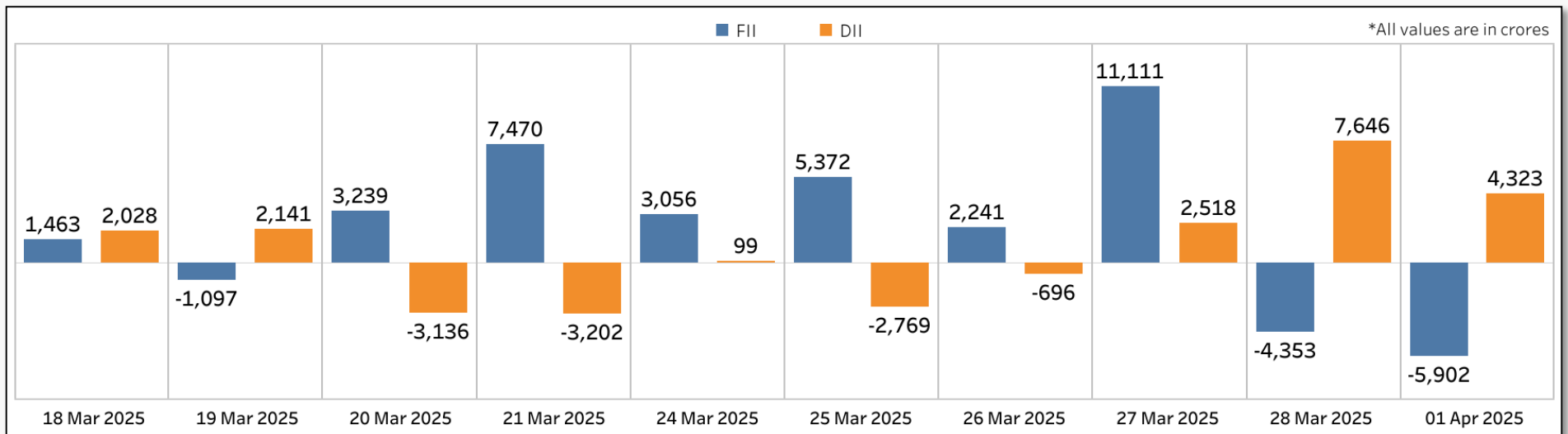
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
378,396 ▲	-60,229 ▼	488,951 ▲	3,277,025 ▲	140 ▲	125,203 ▲	140,068 ▲	-7,622,164 ▼
149,390	12,103	245,335	1,627,533	70	67,100	68,034	-3,835,813
-229,006	-48,126	-243,616	-1,649,492	-70	-58,103	-72,034	3,786,351
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-26,906	-43,859	128,731	1,553,676	70	63,844	69,035	-3,806,930
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
-268,949 ▼	12,424 ▲	-501,503 ▼	3,499,062 ▲	-109,587 ▼	-77,398 ▼	-127,514 ▼	846,077 ▲
1,672	17,560	267,844	1,788,091	40,864	47,805	420,189	
270,621	5,136	-233,659	-1,710,971	-151,132	-36,534	-79,709	-425,888
-41,545							
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
129,130	26,652	-75,331	1,837,452	-102,294	-46,637	-122,436	415,802
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

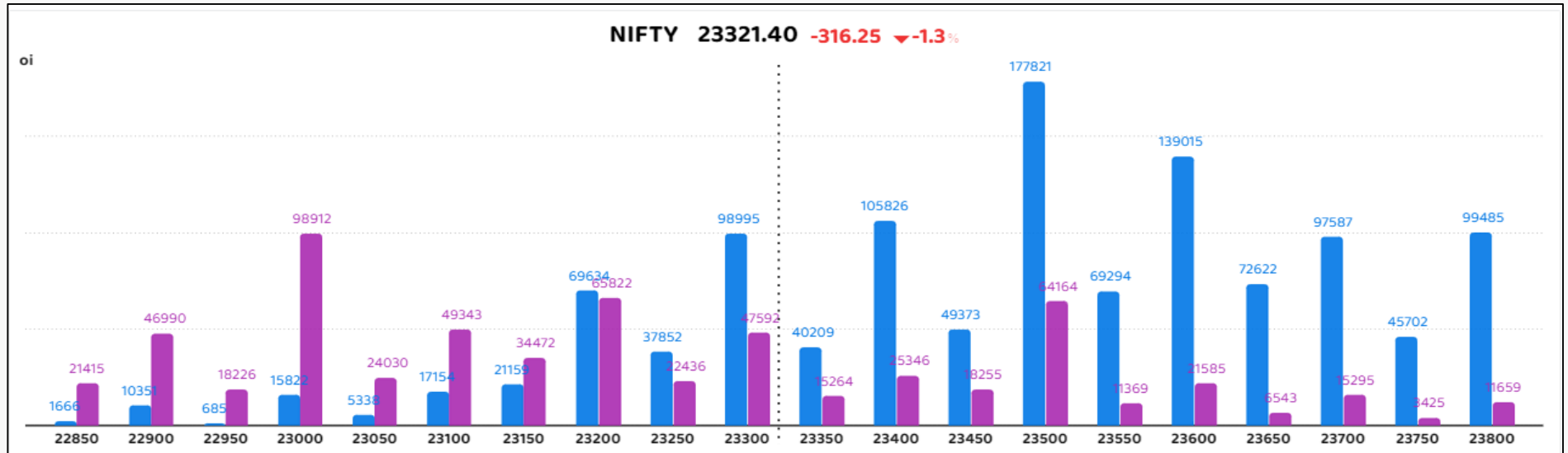


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23500 Call and the 23000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 52000 Call and the 51000 Put saw the most amount of open interest.

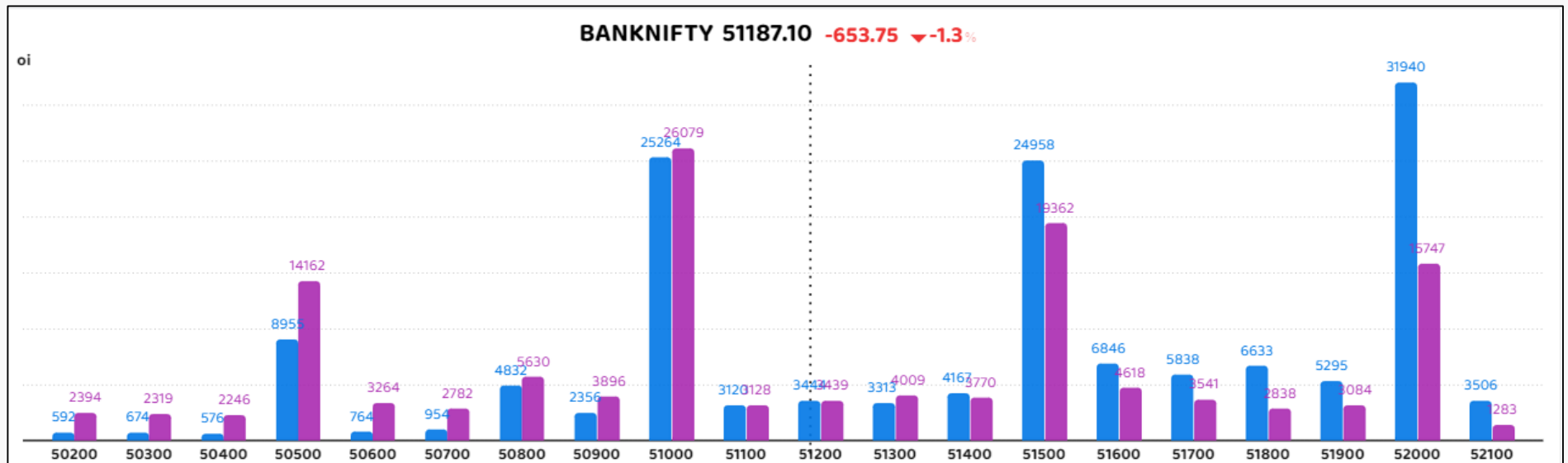
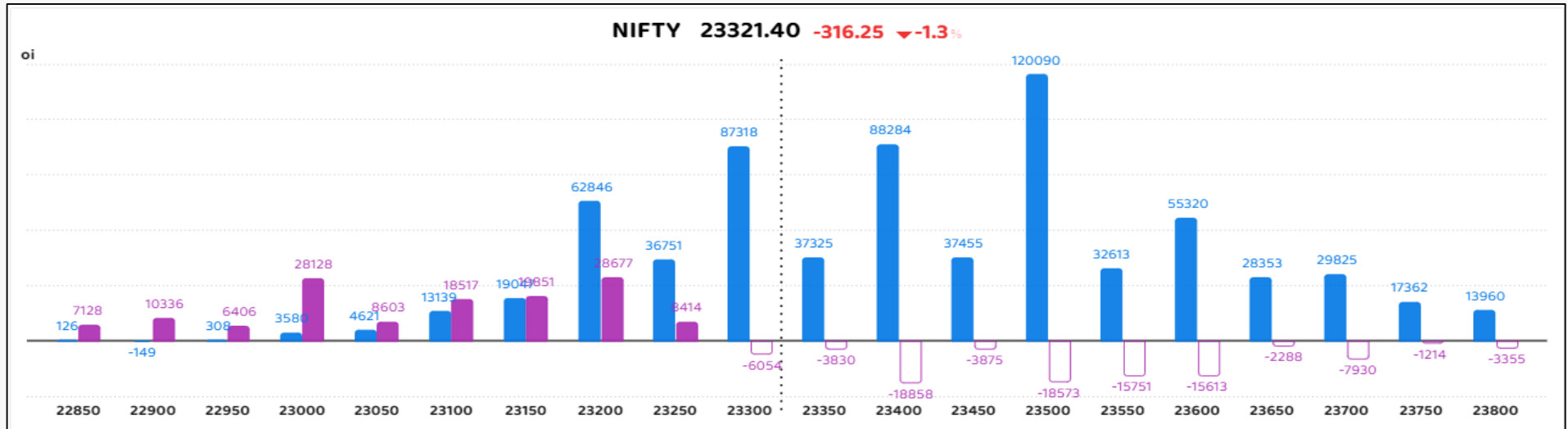


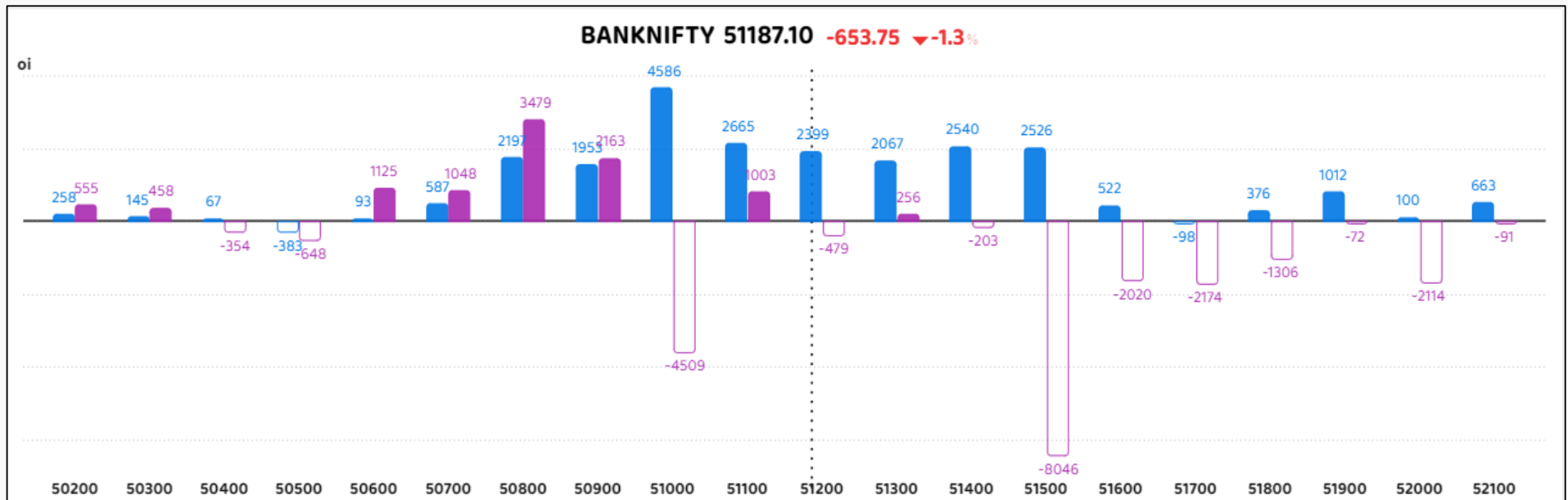
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23500 Call and the 23400 Put



For the Bank Nifty, the biggest open interest changes were seen at the 51000 Call & the 51500 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
NHPC LTD	82.14	-0.1	51.1	51.1	26.1	100
PERSISTENT SYS	5211.55	-5.5	43.8	45.0	26.9	93.3
DIXON TECHNOLOGI	12923.9	-1.9	46.6	51.6	1.8	89.9
LAURUS LABS LTD	598.9	-2.4	41.7	44.8	16.1	89.3
NCC LTD	213.27	1.8	50.8	53.4	32.4	87.7

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SIEMENS LTD	5229.95	-0.9	21.2	47.6	20.5	2.7
HDFC LIFE INSURA	692.9	1.0	24.2	80.6	19.6	7.5
TATA CONSULTANCY	3550.8	-1.5	6.4	57.2	1.3	9.2
POONAWALLA FINCO	349.4	-0.3	32.9	58.0	29.8	11.2
ADANI PORTS AND	1174.75	-0.7	32.0	99.7	23.2	11.4

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
NHPC LTD	82.14	-0.1	51.1	51.1	26.1	100.0
WIPRO LTD	262.6	0.1	38.9	63.9	16.2	99.2
HCL TECH LTD	1530.35	-3.9	31.2	33.9	18.0	98.0
AVENUE SUPERMART	4003.6	-1.9	36.6	62.3	25.7	98.0
INFOSYS LTD	1526.5	-2.8	33.8	45.6	4.9	97.8

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
SIEMENS LTD	5229.95	-0.9	21.2	47.6	20.5	0.6
TATA CONSULTANCY	3550.8	-1.5	6.4	57.2	1.3	0.9
POONAWALLA FINCO	349.4	-0.3	32.9	58.0	29.8	7.6
RELIANCE INDS	1252.6	-1.8	17.6	33.8	2.1	9.0
NBCC INDIA LTD	81.61	-0.3	45.3	65.4	38.6	9.2

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
YES BANK LTD	17.33	2.7	6490	1349	4.8
TITAGARH RAIL SY	798.5	0.3	3693	1117	3.3
CENTRAL DEPOSITO	1197.8	-1.8	19309	5851	3.3
INDIAN RENEWABLE	160.67	0.0	6001	1864	3.2
VODAFONE IDEA LT	8.1	19.1	79176	24905	3.2

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
TUBE INVESTMENTS	2694.15	-2.7	1098	2929	2.7
OBEROI REALTY	1573.95	-3.9	5217	7707	1.5
PATANJALI FOODS	1801.7	-0.4	1874	2650	1.4
TATA CHEMICALS	839.75	-2.9	8506	11745	1.4
GODREJ CONSUMER	1143.6	-1.4	2395	3230	1.3

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
SIEMENS LTD	5229.95	-0.9	31855	34047	93.6

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
BSE LTD	5466.0	-0.3	33102	41293	80.2

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
VODAFONE IDEA LT	8.10	19.1	79176	92284	85.8

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
SIEMENS LTD	5229.95	-0.9	31855	14894	2.1
TATA ELXSI LTD	5069.6	-2.8	6215	4122	1.5
VOLTAS LTD	1352.05	-7.3	26185	19111	1.4
DELHIVERY LTD	260.75	2.2	4109	3289	1.2
NHPC LTD	82.14	-0.1	3377	2781	1.2

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SIEMENS LTD	5229.95	-0.9	15791	9103	1.7
TATA ELXSI LTD	5069.6	-2.8	3434	2108	1.6
INFOSYS LTD	1526.5	-2.8	43982	30738	1.4
MANAPPURAM FINAN	232.13	-0.3	7192	5585	1.3
VODAFONE IDEA LT	8.1	19.1	13688	11341	1.2

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
VODAFONE IDEA LT	8.1	19.1	79176	15234	5.2
INDUS TOWERS LTD	352.45	5.4	38306	12990	2.9
M&M FIN SERVICES	276.35	-2.3	8449	4105	2.1
VOLTAS LTD	1352.05	-7.3	63022	43184	1.5
OIL & NATURAL GA	248.07	0.7	54684	39095	1.4

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
VODAFONE IDEA LT	8.1	19.1	24905	6796	3.7
TATA CHEMICALS	839.75	-2.9	11745	3921	3.0
M&M FIN SERVICES	276.35	-2.3	6067	2532	2.4
OBEROI REALTY	1573.95	-3.9	7707	3512	2.2
INDUS TOWERS LTD	352.45	5.4	21170	9796	2.2

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	1440900	11.3%	2335	2600	2442900	11.3%	INFY	1600	2030400	4.8%	1527	1480	2997200	-3.0%
ADANIPTS	1200	1304000	2.1%	1175	1200	989600	2.1%	ITC	410	9596800	0.8%	407	400	2641600	-1.6%
APOLLOHOSP	7000	66250	5.5%	6632	6600	49625	-0.5%	JSWSTEEL	1100	785700	4.1%	1056	1000	422550	-5.3%
ASIANPAINT	2400	867800	3.6%	2316	2300	283600	-0.7%	KOTAKBANK	2200	982000	2.5%	2146	2000	1037600	-6.8%
AXISBANK	1100	1871250	1.3%	1086	1100	1241875	1.3%	LT	3500	548550	1.8%	3437	3500	374100	1.8%
BAJAJ-AUTO	8500	194625	6.3%	7993	8000	106500	0.1%	M&M	3000	749700	13.7%	2638	2600	282275	-1.4%
BAJAJFINSV	2160	1489000	11.5%	1937	1800	430500	-7.1%	MARUTI	12000	217750	4.5%	11481	11000	102850	-4.2%
BAJFINANCE	9000	349125	3.5%	8698	8500	290625	-2.3%	NESTLEIND	2300	245000	3.0%	2234	2000	94200	-10.5%
BEL	300	7794750	2.7%	292	300	4776600	2.7%	NTPC	365	6340500	3.6%	352	360	2424000	2.2%
BHARTIARTL	1800	2265275	4.4%	1724	1700	684000	-1.4%	ONGC	260	13985125	4.8%	248	240	2723875	-3.3%
BPCL	300	2320200	5.4%	285	280	1299600	-1.6%	POWERGRID	300	2979000	3.7%	289	320	1438200	10.6%
BRITANNIA	5000	162000	2.0%	4901	4800	77500	-2.1%	RELIANCE	1300	9490000	3.8%	1253	1300	2898000	3.8%
CIPLA	1500	787800	3.9%	1444	1400	398450	-3.1%	SBILIFE	1600	688500	3.5%	1545	1460	116625	-5.5%
COALINDIA	415	3397800	4.4%	398	450	2450700	13.2%	SBIN	800	6477750	3.7%	772	800	4509000	3.7%
DRREDDY	1200	1033750	4.1%	1152	1000	541250	-13.2%	SHRIRAMFIN	700	1440750	9.8%	637	600	519750	-5.9%
EICHERMOT	5550	182525	4.6%	5307	5000	182175	-5.8%	SUNPHARMA	1740	605500	2.5%	1698	1600	474950	-5.8%
GRASIM	2920	135250	11.5%	2619	2500	111250	-4.5%	TATACONSUM	1000	399000	0.8%	992	870	361608	-12.3%
HCLTECH	1640	403550	7.2%	1530	1400	392000	-8.5%	TATAMOTORS	700	5318500	4.2%	672	600	2283600	-10.7%
HDFCBANK	1800	2872650	1.8%	1768	1800	1722050	1.8%	TATASTEEL	160	23859000	4.5%	153	150	9746000	-2.0%
HDFCLIFE	715	1663200	3.2%	693	670	369600	-3.3%	TCS	3700	728350	4.2%	3551	3300	483700	-7.1%
HEROMOTOCO	4000	397650	6.3%	3762	3700	168900	-1.6%	TECHM	1500	762600	7.5%	1395	1400	346800	0.3%
HINDALCO	700	3008600	5.5%	664	700	973000	5.5%	TITAN	3100	773675	3.8%	2987	3100	420525	3.8%
HINDUNILVR	2300	852600	3.0%	2234	2100	385200	-6.0%	TRENT	6000	271100	7.6%	5577	5000	149000	-10.3%
ICICIBANK	1400	1730400	6.2%	1318	1300	1791300	-1.4%	ULTRACEMCO	12500	111450	9.9%	11379	11000	67150	-3.3%
INDUSINDBK	800	2386000	17.2%	683	600	1948000	-12.1%	WIPRO	270	4752000	2.8%	263	240	2733000	-8.6%

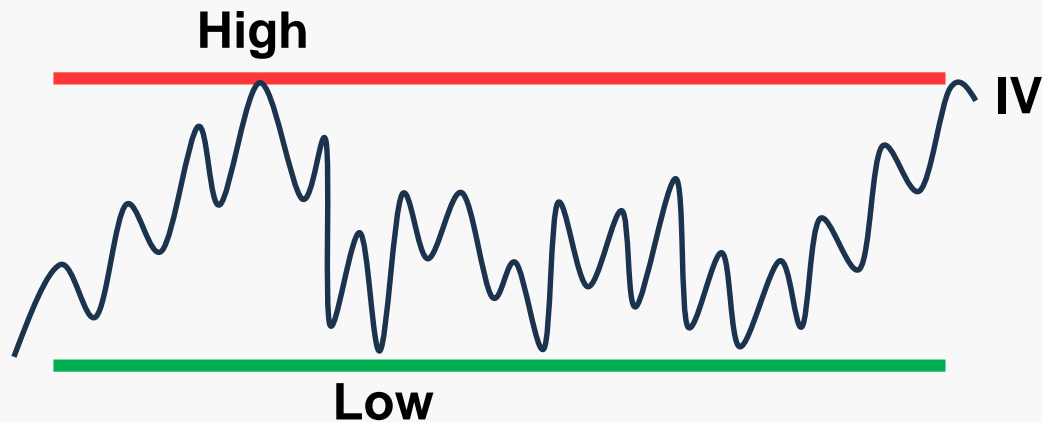
If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
 If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike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

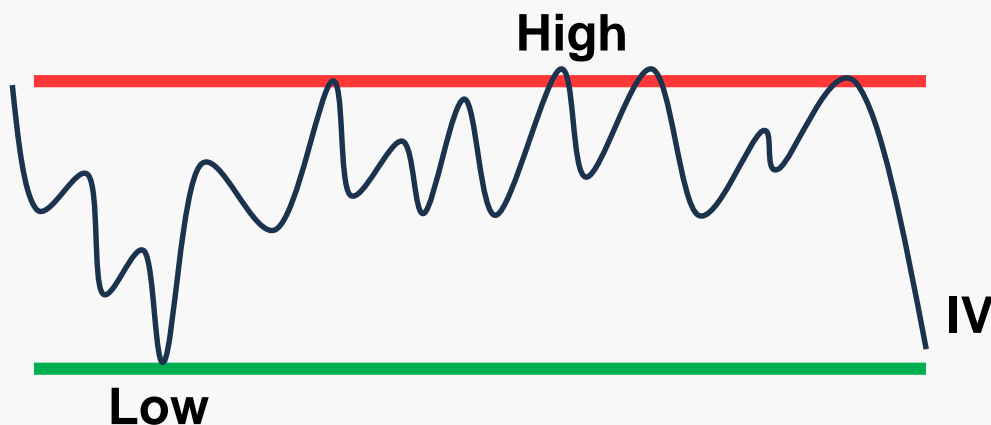
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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 (DIIs), 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

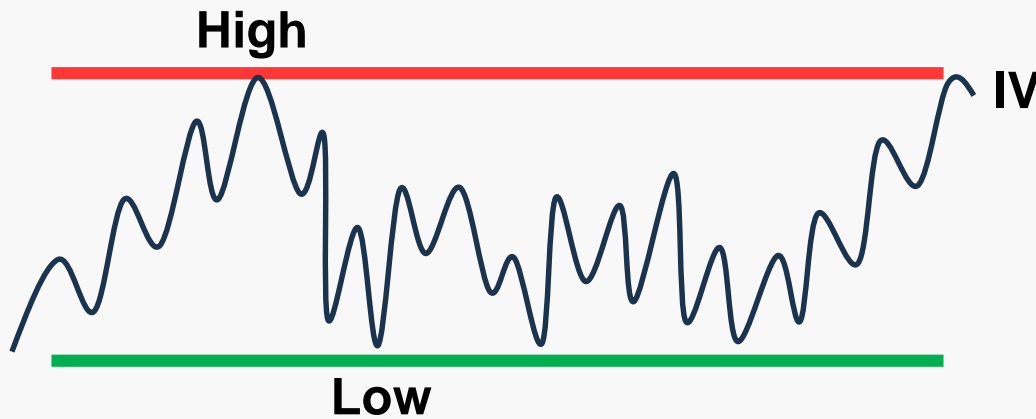


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

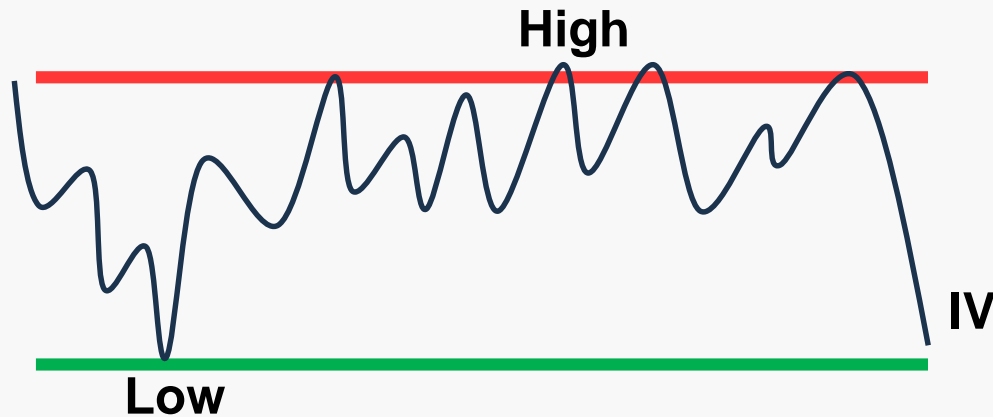


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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