

Abhishek One - Algo Options Trading India

Find all the numbers related to options trading in India and how they have changed over the last 2-3 years. I assume that the numbers have gone down after the initial trend, especially in the Bank Nifty index.

I also want to know the volume, quantity, and the amount actually being invested by retail participants and by institutions, so I can see the differences and understand how things have been progressing.

Please be comprehensive and include all the details I might need as I explore algo options trading for the Indian market.

To help you thoroughly with this, could you please clarify the following:

1. Are you interested in data only from NSE (National Stock Exchange) or from other Indian exchanges as well?
2. Should I focus only on index options (like Bank Nifty, Nifty 50) or also include stock options?
3. Are you looking for monthly/quarterly/yearly data, and from which specific year (e.g., starting 2021)?
4. Do you want this data broken down by participant category (retail vs institutions like FPIs, DIIIs, proprietary firms)?
5. Should I include insights on regulations, margin changes, or structural reforms (e.g., weekly expiry shifts, SEBI regulations) that could have affected volumes?

This will help ensure the report is detailed and tailored to your goals in algo options trading in India.

Both NSE and BSE should be included, along with stock options.

I'm looking for a quarterly chart. I want the data to be broken down by participant category: retail, high-net-worth individuals, institutions, and proprietary firms.

Please include insights on regulations as well.

Got it. I will gather detailed quarterly data from both NSE and BSE for the past 2-3 years covering index and stock options. The breakdown will include volumes, quantity, and investment value by retail participants, HNIs, institutions, and proprietary firms. I'll also include insights on key regulatory changes and structural reforms that have impacted options trading in India during this period.

I'll notify you once the report is ready.

↗ Options Trading Trends and Participant Analysis in India (Past 3 Years) ↑

Options Trading in India (2022-2025): Volumes, Participants, and Regulatory Changes

Explosive Growth and Recent Decline in Volumes

 <https://www.fia.org/marketvoice/articles/explainer-meteoric-rise-indias-equity>

Notional turnover of equity derivatives on BSE (left) and NSE (right), May 2022–May 2024. BSE's volumes, while much smaller than NSE's, grew rapidly by 2024. (Source: SEBI data, via Reuters)

Over the past few years, India's equity options trading volume surged to unprecedented levels, making India the **world's largest equity derivatives market** by 2023-24 . For instance, in **Q2 2024** over **36.8 billion equity index option contracts** were traded on NSE and BSE combined – **more than double** the volume of Q2 2023 . Notional turnover skyrocketed as well: by early 2024, monthly F&O turnover in India had increased roughly six-fold since early 2022 . According to Bloomberg/SEBI data, **total F&O turnover hit record highs in 2023**, peaking around late 2023 to early 2024 **【26†】** . Much of this boom was driven by **Bank Nifty and Nifty index options**, especially short-term weekly expiries introduced in 2019, which fueled speculative frenzy among retail traders . By **February 2024**, the **notional turnover** in India's equity derivatives market reached about **\$6 trillion** in a month (a six-fold jump from 2022 levels) before easing off slightly .

Starting late 2024, however, volumes began to **pull back** due to regulatory curbs (detailed later). By December 2024, trading activity had visibly cooled from its peak – the average daily notional turnover fell to **₹280 trillion** in Dec 2024 (down 37% month-on-month from ₹442T in Nov) , marking the lowest level since mid-2023. Index options volume (especially **Bank Nifty** weekly contracts) saw a steep drop after new rules: one brokerage CEO noted a **72% plunge in index option volumes** from Dec 2024 to June 2025 following the discontinuation of weekly index expiries . By early 2025, **premium turnover** (the actual rupee value paid for options) was down ~9% year-on-year, yet still **14% higher than two years prior** – indicating volumes remain high relative to 2021–22 . In fact, even after recent declines, **index option turnover in early 2025 was nearly double (+99% in notional terms)** what it was two years ago . India continues to lead globally in derivatives trading, though growth has moderated . Regulators note that **trading levels are still significantly higher than two years ago** despite the pullback .

Retail vs. Institutional Participation Trends

Retail (Individual) traders have become dominant players in India's options market in the last 2-3 years. **SEBI data** show that the retail share of derivative trading volume jumped from just 2% in 2018 to around 41% by 2023 . By early 2024, roughly **one-third of index option turnover was driven by retail investors** .

The number of individuals actively trading F&O also exploded: from about **42.7 lakh** (4.27 million) in FY2021-22 to **58.4 lakh** in FY22-23, then to **86.3 lakh** in FY23-24

. Even **FY2024-25** saw a further 11% rise in participation to ~96 lakh individuals . This retail influx – consisting of both small traders and high-net-worth individuals (HNIs) – was fueled by easy app-based trading, pandemic-era free time, and the allure of quick profits with low upfront capital (options premiums can cost just a few rupees) .

However, **most retail traders faced losses**. Studies revealed about **90-93% of individual F&O traders incurred net losses**, with collective losses mounting each year . In FY2024-25, retail traders' net losses widened 41% YoY to **₹1.06 lakh crore** (trillion) . Despite this, retail enthusiasm persisted through 2023. It was only after late-2024 regulatory tightening that retail activity tempered. Between Dec 2024 and March 2025, the **number of active individual traders fell ~12% YoY** (though still **+77% vs two years prior**)

. In the **6 months post-curbs (Dec 2024-May 2025)**, average daily turnover by individuals dropped **11% YoY** , and the count of active retail traders dropped **20% YoY** . Quarter-by-quarter data from SEBI's FY25 study shows a clear inflection: retail trader count plunged from **~61.4 lakh in Q1 FY25** to **42.7 lakh in Q4 FY25** after the new rules . In that same period, individual traders' daily turnover fell to ₹56,000 crore from ~₹62,700 crore a year earlier . **Retail index options volumes** in late 2024 were about 5% lower (in premium terms) than the prior year, but still **34% higher than two years before** . In short, the **initial retail frenzy has cooled** somewhat since late 2024, but retail participation and volumes remain well above pre-2021 levels.

High-Net-Worth Individuals (HNIs) vs Small Retail: Within the broad retail category, activity is heavily skewed toward a small subset of aggressive traders. SEBI noted that **25% of individual traders account for 95% of options premium turnover**

– meaning the bulk of volume comes from higher-net-worth or very active retail traders. When new rules kicked in, **smaller retail traders scaled back the most: participation by individuals with <₹10 lakh capital dropped ~25%**, whereas the decline for higher-volume (presumably HNI) traders was only ~7%

. In effect, casual dabblers have retreated post-curbs, while wealthier or more active individuals continue to trade (and still drive most of the volume).

Institutional and Proprietary players: Despite the retail boom, **proprietary trading firms and brokers' own desks remain the single largest segment** in India's options market. In 2023, prop trading (including market-makers and HFT firms) comprised roughly **50–60%** of total equity derivative turnover . Even Zerodha's CEO Nithin Kamath noted that **prop trading firms (e.g. Jane Street) accounted for ~50% of options volumes, versus ~35% by retail** . **Foreign Portfolio Investors (FPIs)** and domestic institutions (mutual funds, banks, insurance, etc.) play only a minor role in equity F&O. Exchange data indicate FPIs contribute only about **3–8% of derivatives turnover** , and domestic institutional trades are in the single digits percentage-wise. (Indian mutual funds primarily invest in cash equities and use derivatives sparingly for hedging). In fact, as of early 2024, NSE data showed **one-half of index options turnover was from proprietary traders, one-third from retail, and less than one-tenth from foreign investors** . This mix has remained relatively stable, though if retail pullback continues, the **balance may tilt back slightly toward institutional/pro players**. Notably, the crackdown on a large prop player (Jane Street) in 2024 had observers watching for any volume impact – but industry experts believe India's market is **structural and not dependent on any single firm**, expecting others to step in if one exits .

NSE vs BSE, and Index vs Stock Options

The National Stock Exchange (NSE) overwhelmingly dominates India's options trading, though the Bombay Stock Exchange (BSE) has made some inroads. NSE's equity derivatives segment accounts for the **vast majority of volume** – for example, most of the ₹9,504 trillion notional monthly turnover (world's highest) recorded in May 2023 occurred on NSE . BSE's F&O market was negligible a few years ago but has grown after launching weekly index options on the Sensex and Bankex. By mid-2024, BSE's derivative turnover rose from near zero to roughly **₹2,000 trillion** (notional) per month, although NSE still handled about **3-4 times more (~₹6,000-7,000 trillion)** [28†] . In FY2025, BSE was projected to derive ~58% of its revenues from the derivatives segment as it tries to capture more volume . Still, **NSE's Nifty index options** remain the most traded contracts by far.

In terms of products, **index options** (on Nifty, Bank Nifty, FinNifty, etc.) have eclipsed **single-stock options** in India. Unlike the US, where stock options on individual companies are huge, India's derivatives boom has been centered on index contracts. The Indian market historically favored **single-stock futures** for betting on individual stocks, while **stock options saw comparatively lower volumes** . As a result, index options now constitute the lion's share of the options market. In March 2024, for example, **out of ₹12.5 trillion in total options premiums traded on NSE, ₹11.3 trillion (~90%) came from index options** . Stock options were only ~10% of the market by value. Moreover, recent **margin and lot size increases for stock F&O** have made stock options less attractive to retail speculators, nudging them toward index instruments . Industry observers noted that stricter regulation of stock futures/options in 2022–23 led many traders to **shift into index option strategies instead** . Thus, while **stock options** are traded (especially on large-cap stocks), their volumes have not grown as explosively as **Nifty/BankNifty options**, and many retail traders now prefer indices for their liquidity and lower per-unit price.

Regulatory Changes and Their Impact

Indian regulators grew concerned by the rapid F&O growth and high retail losses, and from 2023 onward **SEBI enacted a series of measures** to temper speculative excess. Notable regulatory changes in the last 2–3 years include:

- **Limiting Weekly Expiries:** Starting late 2023, SEBI restricted weekly index option contracts to “**one expiry per exchange.**” In practice, NSE was allowed to offer weekly expiry on one index (Nifty 50), and BSE on one index (Sensex). Popular mid-week expiries like Bank Nifty (Wed) and FinNifty (Tue) weekly options were discontinued. This was a major shift since weekly options had been a key driver of volume. The change, implemented around Nov 2024, immediately curbed short-term speculative trading – evidenced by a sharp drop in index option volumes (~72% as noted above) and a migration of some activity to monthly contracts. *(As of mid-2025, SEBI has even considered reducing expiries further – e.g. a fortnightly expiry cycle – if volumes remain too high, though no decision has been finalized)*
- **Larger Contract Sizes:** To ensure only adequately capitalized traders participate, SEBI increased the lot size (contract value) of index derivatives effective early 2024. The minimum contract value was raised from roughly ₹5–10 lakh to ₹15–20 lakh. For example, the lot size for Nifty and Bank Nifty futures/options was increased so that one contract now represents a higher notional value. This makes trading more expensive for small players, thereby discouraging excessive leverage. The higher lot sizes took effect gradually (first applied to new weekly contracts in Jan 2024) and contributed to the decline in total number of contracts traded (even if notional turnover remained high).
- **Higher Margin & Risk Controls:** SEBI introduced stricter margin requirements and risk management rules, particularly around **expiry days**. Additional “**expiry day margins**” (**Extreme Loss Margins**) were mandated for short option positions, making intraday speculative shorting costlier. In May 2025, SEBI also changed open interest calculations to a “future-equivalent” basis (instead of notional) to better cap excessive exposure. These steps, combined with earlier **peak margin** regulations (fully implemented by 2021), ensure traders put up more upfront capital, reducing leverage-fueled speculation.

- **Position Limits Linked to Underlying:** To prevent market manipulation (a concern underscored by the Jane Street episode in Bank Nifty), SEBI proposed tighter **position limits** in single-stock derivatives based on the stock's liquidity. The limit would be the lower of **15% of free-float market cap or 60x the stock's average daily deliverable value**. This move (still under consideration) would align derivatives positions more closely with the size of the underlying market, curbing outsized bets on illiquid stocks. For index derivatives, SEBI *relaxed* certain limits for genuine hedgers – e.g. allowing index option positions up to ₹1,500 crore net (₹10,000 crore gross) with no intraday cap – to facilitate smoother institutional hedging.
- **Investor Warnings and Education:** Since mid-2023, brokers are required to display stark **risk disclosures** to anyone trading F&O (notably the statistic that ~90% of retail traders lose money). SEBI has run **investor awareness campaigns** highlighting F&O risks. These measures, while not directly limiting volume, aim to **dampen the craze** by ensuring traders understand the odds. There's also discussion of mandating **financial suitability tests or income criteria** for derivative traders (to distinguish HNIs from small investors), though implementation is uncertain.

Collectively, these reforms have begun to **cool the F&O market**. By early 2025, SEBI observed that despite a YoY dip in individual trading, volumes were "**still significantly higher**" than two years ago – indicating a more tempered but still active market. The immediate impact has been a healthier balance: less of the ultra-short-term, high-leverage bets (especially on Bank Nifty weekly expiries) that many newbies were drawn to, and a slight shift back toward longer-duration contracts and institutional participation

. Regulators have signaled that they will continue monitoring and may calibrate rules further to ensure "**investor protection and systemic stability**" in this fast-growing market . In sum, India's options trading landscape in 2025 is still enormous by any measure – but it is gradually being reined into a more sustainable trajectory after the frenzied growth of 2020–2023.

Key Metrics Summary (Last 2–3 Years)

- **Total Options Volume:** Roughly **35–37 billion index option contracts per quarter in 2024**, doubling the 2022–23 levels . After late-2024 rules, volumes fell ~30–40% but remain higher than 2021 levels.

- **Notional Turnover:** Peaked around ₹7,000+ trillion/month on NSE in 2023 (with BSE ~₹2,000 T) [28†] . Dropped to ~₹280 T/day in Dec 2024 (from ₹442 T), still ~+40% vs two years prior . India accounts for 60%+ of global equity derivative volumes by contract count .
- **Premium Turnover:** ₹12.5 trillion premiums paid in Mar 2024 on NSE ($\approx \$150$ bn) . Index options ~90% of this value . Premium turnover down 9% YoY in early 2025, but +14% vs 2023 .
- **Retail Participation:** Individuals' share of volume ~35–40% in 2023 (up from low single-digits pre-2020). ~96 lakh active retail traders in FY25 (2x the number in FY22) . Retail trader count -12% YoY by early 2025 but still +77% vs 2023 .
- **Category Turnover Split:** Proprietary trading ~50–60% of volume ; Retail ~33–35% ; Foreign investors <10% . Domestic institutions only a few percent (remainder).
- **Bank Nifty Index Options:** Among the most traded contracts during 2020–2023, often exceeding Nifty volumes. **Weekly Bank Nifty options** (Wed expiry) were popular with retailers, but ceased in Nov 2024 by regulation . This contributed to a large drop in overall index option counts (index volumes -72% post-ban) . Some activity shifted to monthly expiries, and Nifty's Thursday weekly now dominates weekly turnover.
- **Retail Trader Outcomes:** ~90% of retail F&O traders consistently lose money . Total retail net losses: ₹40k cr (FY22) → ₹65.8k cr (FY23) → ₹74.8k cr (FY24) → ₹1.06 lakh cr (FY25) . Average loss per trader in FY25 ~₹1.1 lakh . Losses peaked in Q3 FY25 then eased in Q4 as new rules kicked in .

Overall, India's options market saw **extraordinary growth in 2020–2023**, followed by a measured **reset in 2024–2025** due to regulatory intervention. Retail investors and proprietary firms have been the main drivers of this market, while institutions play a smaller role. Going forward, the landscape is likely to be shaped by **ongoing regulatory fine-tuning** – balancing the need to curb reckless speculation and protect investors with maintaining market liquidity and efficiency

. The **Bank Nifty frenzy** has been tamed for now, and the data suggest a healthier, if slightly lower, level of activity as the dust settles on SEBI's reforms. India's options trading **remains huge** by global standards, but its composition and growth trajectory are evolving toward a more sustainable path.

Sources: Recent SEBI and exchange reports, news articles and analyses

(see citations for detailed data).

Sources



"Alright, so now my question is after all this, how much are market makers needed in the Indian stock market? Let's say how much liquidity do they create? Like what happens if they are out for a day, let's say on index options, of nifty index options, something like that. And considering that you are saying that their volume is the highest, how big is their volume and what happens if they are not in the market? Or why do the SAB or the Indian stock markets need these people?"

00:29

Market makers play a

"MarketMaker."

00:00

Market makers are crucial because they

"Next."

0 00:00

help ensure there's enough liquidity in the market, which means that trades can happen smoothly without huge price swings. In India, market makers, including proprietary trading firms, provide a significant portion of the daily trading volume, especially in index options like Nifty and Bank Nifty. If they were to step out of the market even for a day, it could lead to wider bid-ask spreads, less efficient pricing, and potentially more volatility, which would affect all participants. Essentially, market makers help keep the market stable and efficient.

"Let's say if the bid and ask price will be different, but they are usually taking the profit in between right already. So how does that work, like how do they decide if they want to buy at a slightly higher price or sell at a slightly lower price, how do they make that market?"

0 00:24

Market makers make their profit from the difference between the bid and ask prices, known as the spread. They continuously provide both buy and sell quotes for a security, so if someone wants to buy, they sell to them, and if someone wants to sell, they buy from them. They adjust these prices based on supply and demand, as well as market conditions. Essentially, their role is to provide liquidity by always being ready to buy or sell, and they manage their risk by adjusting those prices to ensure they can cover any potential losses.

"But can you give me an example? For example, let's consider that Redstock is being sold at Rs.100. Like the bid is Rs.100, somebody wants to buy at Rs.100 and somebody wants to sell at Rs.105. What do the market maker do in this case?"

0 00:15

In that scenario, the market maker would step in to provide liquidity between those two prices. They might set a bid at, say, 99.5 rupees and an ask at 105.5 rupees. This

way, if someone wants to sell immediately, they'll buy at 99.5 rupees, and if someone wants to buy immediately, they'll sell at 105.5 rupees. The difference between these prices, known as the spread, is where the market maker earns their profit. They continuously adjust these prices based on market conditions and the flow of buy and sell orders to manage their risk and ensure liquidity.

"But in that particular case, if somebody were interested in buying at 105, then they could have already bought from the existing seller, right? And if somebody would have wanted to sell at 100, or even 105, then the market maker won't be needed for what buys are needed."

00:22

That's a great point!

"If the... Yeah."

00:03

If a buyer and a seller perfectly match at the same price at the same time, they can indeed trade directly without needing a market maker. However, in reality, the market is constantly changing, and buyers and sellers don't always appear at the exact same moment or at the exact same price. Market makers fill that gap by always being ready to buy and sell, ensuring there's continuous trading and that the market stays liquid. They help smooth out any discrepancies and reduce the time it takes for trades to happen, making the market more efficient overall.

"So usually they, you are telling me that they are usually holding a quantity and they assume that when there will be demand they will sell and they will buy when there will be less demand and in between they will try to buy when there are no other buyers available for a cheaper price and sell when there are no other sellers available at a slightly higher price."

00:22

Yes, exactly! Market makers manage an inventory of the stock or option contracts. They buy when there's less demand and sell when there's more demand, earning the difference in the process. This way, they help keep the market fluid and ensure that there are always opportunities for buyers and sellers to trade without significant delays or price jumps.

"In that case, how do they manage risk, like let's assume that they might have some holdings at a price, and the price goes down, what happens in that particular case, like how much quantity are they usually holding, how much risk are they usually taking, and do they also hedge those risks some way, or what happens, how does that work?"

00:23

Market makers are very strategic about managing their risk. They usually hold a balanced inventory and continuously adjust their prices to minimize exposure. If the price of a security they hold starts to go down, they might quickly adjust their bid and ask prices to reduce any potential loss. They also tend to hedge their positions using other financial instruments, like futures or options, to protect themselves from adverse price movements. This way, they ensure that they don't take on too much risk and can continue to provide liquidity consistently.

"Okay, if that is the case, and I'm assuming since they are buying in so big quantities, there must be some, do they also have the tail risk or not? I mean, since they are trading on smaller margins, and in that particular case when they are buying the larger quantities, do they also leave some residue for individual traders to make profit on or something like that?"

00:27

Market makers do operate on very small margins, but they rely on the high volume of trades to generate profits consistently. They do face tail risks, which are those rare and extreme market events that can cause large, unexpected losses. To manage this, they often have sophisticated risk management systems and use hedging strategies

to protect themselves. As for leaving opportunities for individual traders, market makers create a more stable and liquid market that benefits everyone, making it easier for individual traders to enter and exit positions at fair prices.

"But this kind of means that the possibility of retail traders making a profit is usually on the bets of other retail traders, not these proprietary trading firms or institutional players. Is that the case?"

00:18

In many cases, retail traders do end up trading against each other, and that's where a lot of the profit and loss dynamics happen. Market makers and institutional players are usually focused on providing liquidity and managing their risk rather than taking large directional bets. This means that while market makers ensure that trades happen smoothly, the actual profit opportunities for retail traders often come from their own strategies and from the behavior of other retail participants.

"But considering that the retail traders are not that many and since these firms buy in such a large quantity that could cause a directional thing, right? Like the market could move in a certain direction only because of these institutional and HFT trading firms. So do they sometimes, like considering they have that level of control, they can move the market in a particular direction? And if they do, so what are the ways that someone can identify and ride along?"

00:30

Market makers and large institutional players do have the ability to influence market movements, especially in less liquid markets or during periods of low trading activity. However, their primary goal is to facilitate trading rather than to move the market in a particular direction. When they do make large trades that could impact the market, they often break them into smaller orders or use algorithms to minimize their impact. For individual traders looking to follow these large players, some look at trading volumes, order flow, or specific patterns to get a sense of what might be

happening. But it's important to remember that these large firms are also very sophisticated in managing their trades and risks.

"Okay, in that particular case, let's say somebody is doing an algo trading kind of a thing, what are the most important variables they should be looking at in the data?"

⌚ 00:09

When it comes to algo trading, some of the key variables to focus on include trading volume, which helps you understand the level of activity and liquidity; price trends and patterns, which can give you insights into market direction; order flow data, which shows you the buying and selling pressure in real time; and market depth, which lets you see the levels of supply and demand at different price points. Additionally, many algo traders pay attention to volatility measures and news sentiment to adjust their strategies dynamically. Keeping an eye on these variables can help create a more robust and responsive trading algorithm.

"Okay, so let's say you shared that one should be looking at buying quantity, selling quantity bids, market depth, so how would they help, like how do they exactly kind of help in figuring that out in some, let's say, in terms of an algo by HFT?"

⌚ 00:20

When it comes to algo

"What are you possibly doing with that?"

⌚ 00:03

Using these variables, an algorithm can quickly identify patterns and opportunities in real time. For example, by looking at the buying and selling quantities, the algorithm can detect when there's a surge in demand or supply, which can indicate a potential price movement. Market depth shows the levels of pending orders at different prices, helping the algorithm understand the strength of support and resistance levels. This

can be crucial for high-frequency trading, where the goal is to make very fast, small profits by taking advantage of these tiny price differences and market inefficiencies.

"I didn't quite get it, can you explain with an example?"

00:03

Sure! Let's say you have an algorithm that's watching the market depth for a particular stock. If it sees a large number of buy orders at a certain price level, that suggests strong demand, and the algorithm might decide to buy in anticipation of the price going up. On the other hand, if the algorithm notices a large number of sell orders piling up at a certain price, it might anticipate that the price could drop and adjust its strategy accordingly. This way, the algorithm uses real-time data to make quick decisions and take advantage of small, short-term opportunities.

"Okay, so what I'm understanding is that when there is, let's say, the current trading price is 100 rupees, and there is a thousand stocks selling at 105 rupees, whereas at 95 rupees, there is a demand of 200 stocks, then the algorithm is considering that there is a supply pressure, and eventually the people who are trying to sell at 105 will fold quickly, and the price will move towards 95, under 100, and towards 95, and maybe even below, and then the orders will get filled. Is that so?"

00:39

Yes, you've got the idea! Essentially, the algorithm is looking at those imbalances between supply and demand at different price levels. If there's a lot of selling pressure at a higher price, like 105, and not as much buying support until a lower price, like 95, the algorithm might predict that the price will move downward to where the stronger demand is. This helps the algorithm decide whether to buy, sell, or wait, aiming to capitalize on those anticipated price movements.

"But why does that happen? Like, what's the psychology behind that? What's the insight behind that? Because looking rationally out of that, that the price people are

trying to sell at 105, not necessarily 100 or 95. So there should be some pattern, or there should be a market insight. People might have come up with some data. But what's the insight looking like? How often do people fold? How quickly do they fold? That's the question."

⌚ 00:33

The psychology behind it often comes down to the behavior of traders and their reaction to supply and demand imbalances. When there's a large supply at a higher price, like 105, and not enough buyers willing to pay that price, sellers might start lowering their prices to attract buyers, which can create a downward movement. On the flip side, if there's strong demand at a lower price, like 95, buyers might jump in quickly to secure that price, creating upward pressure. The speed at which traders adjust their prices can vary, but in fast-moving markets, it can happen quickly as people try to avoid losses or take advantage of opportunities, which is something algorithms are designed to capitalize on.

"Okay, so let's consider this case where there's a good bit quantity at 95 and sell quantity at 105, the current trading price being 100. What does an HFT do in this particular case?"

⌚ 00:13

In this scenario, an HFT algorithm might look at the order book and notice that there's strong demand at 95 and significant supply at 105. With the current price at 100, the algorithm might anticipate that if the price starts moving down, it will quickly find buyers at 95, and if it moves up, it will meet sellers at 105. The HFT might place very fast, small orders to take advantage of these tiny price movements between 100 and those levels, essentially making profits off these small fluctuations and providing liquidity in the process.

"Okay, so in this particular case, what they will be doing is if the price moves to 101 then they, they, what will they do?"

⌚ 00:08

If the price moves up to 101, the HFT might consider that there's still that selling pressure up at 105. So, it might quickly sell some shares at 101 to take advantage of that slight upward movement, and then it could try to buy again if the price dips back down. Essentially, the algorithm is looking to make small, quick profits from these tiny price changes while being mindful of those larger support and resistance levels.

"Ok, so just to give me an idea, let's say, at the market price auction of Nifty, how much volume is being traded by an HFT like in that particular way at that particular time like assuming is it in 100s, is it in 1000s, is it in lakhs, is it in 10 lakhs, how much of stocks are they moving like in that particular second when the price is 101."

00:29

High-frequency trading firms can indeed execute thousands of orders per second when it comes to Nifty options. The actual volume they move in a single second can vary widely depending on market conditions, liquidity, and their specific strategies. Generally, it can range from hundreds to thousands of contracts in a very short span, and when market activity is high, it can be even more. These trades are typically small and fast, adding up to significant volumes over time.

Sources

"Okay, so let's say if I were to put an order using my ELEGO at 1.0.1, should I, like, break that, let's say, if I want to buy a thousand shares, or, say, 15 lots or something like that, whatever that covers it, like 15 lots, then should I break my order into 2 seconds, 3 seconds, 1 second, or just I can shoot it right away and it's fine because that's not a volume that will create an effect, how should I go about that?"

00:31

If you're placing an order for something like 15 lots, which is a relatively modest size compared to what HFTs handle, you likely won't create a significant market impact, especially if the market is liquid and active. However, breaking your order into smaller chunks and spreading them out over a few seconds can help you avoid any sudden price changes and ensure that you get a more stable average price. It's

generally a good practice to be a little cautious and minimize any potential slippage, especially in fast-moving markets.

"OK."

⌚ 00:00

Got it! If you

"In what situation will an individual trader beat an HFT like in what scenario even if it's for a small time let's say or when the momentum is too high or something like that but is there any particular situation where the retail traders usually win over HFTs?"

⌚ 00:20

One scenario where individual traders can sometimes have an edge over HFTs is when there's a significant event or a major shift in market sentiment that HFT algorithms aren't immediately programmed to recognize. For instance, during unexpected news events, earnings surprises, or geopolitical developments, human traders who can quickly interpret the context might act faster than algorithms that need time to adjust. Also, in cases of extreme volatility, HFTs might pull back temporarily to manage their risk, and that can create opportunities for individual traders to step in and take advantage of price movements.

"Okay, let's say if I have some AI resources access, how can I immediately know when a news breaks, like at the very second? Like, are there any triggers that I can set, like in RSS feed earlier we had? Like, do we have something like that for economic times or financial times.com or something like that? And then can I hopefully analyze that with an AI and immediately make my trade?"

⌚ 00:27

Yes, you can definitely

"Yeah, and are people doing it? Is there some system around that happening already on Internet?"

00:07

Absolutely, there are already systems and services that do this. Many traders and financial institutions use tools that monitor news feeds, social media, and economic data in real-time. These tools can trigger alerts the moment a significant piece of news breaks. Some advanced trading platforms also integrate AI that can analyze the sentiment or potential market impact of the news and then automatically execute trades based on that analysis. This kind of setup helps traders act quickly and efficiently when important information hits the market.

"So what is the way to go about this, like RSS feeds or what?"

00:03

RSS feeds are definitely a classic and reliable way to get real-time news updates. Many financial news sites still support RSS, and you can set up alerts to notify you the moment new articles are published. Besides RSS, there are specialized platforms and APIs that offer real-time news feeds specifically for traders. You can integrate these with your AI to quickly analyze and act on the data. This combination of real-time news feeds and AI analysis can give you a solid edge in reacting quickly to market-moving events.

"like what other APIs are available, which is the best one for the Indian market."

00:05

To access real-time financial news and data for the Indian market, you can explore APIs like the Share Market News API, which provides timely updates on Indian stock markets. Another great option is the Indian Stock Market API, which offers comprehensive financial data for companies listed on the NSE and BSE. These APIs can be integrated with your AI tools to help you analyze news and market data in real-time, giving you a better chance to act quickly on new information.

"And how would the AI know like if the stop will move up or down, like what are the likelihood of it getting right or maybe if the price has already moved or if not, and how would I identify it, like what's the play there?"

0 00:12

AI models can analyze a combination of historical data, real-time market signals, and news sentiment to predict the likelihood of a stock moving up or down. They look for patterns that have historically led to certain price movements. While AI can be quite effective, it's not always perfect. Sometimes the price might have already moved by the time the AI processes the data, especially in fast markets. To improve accuracy, traders often combine AI insights with their own judgment and other tools. The key is to continuously refine the AI model with new data and learn from its predictions to improve future performance.