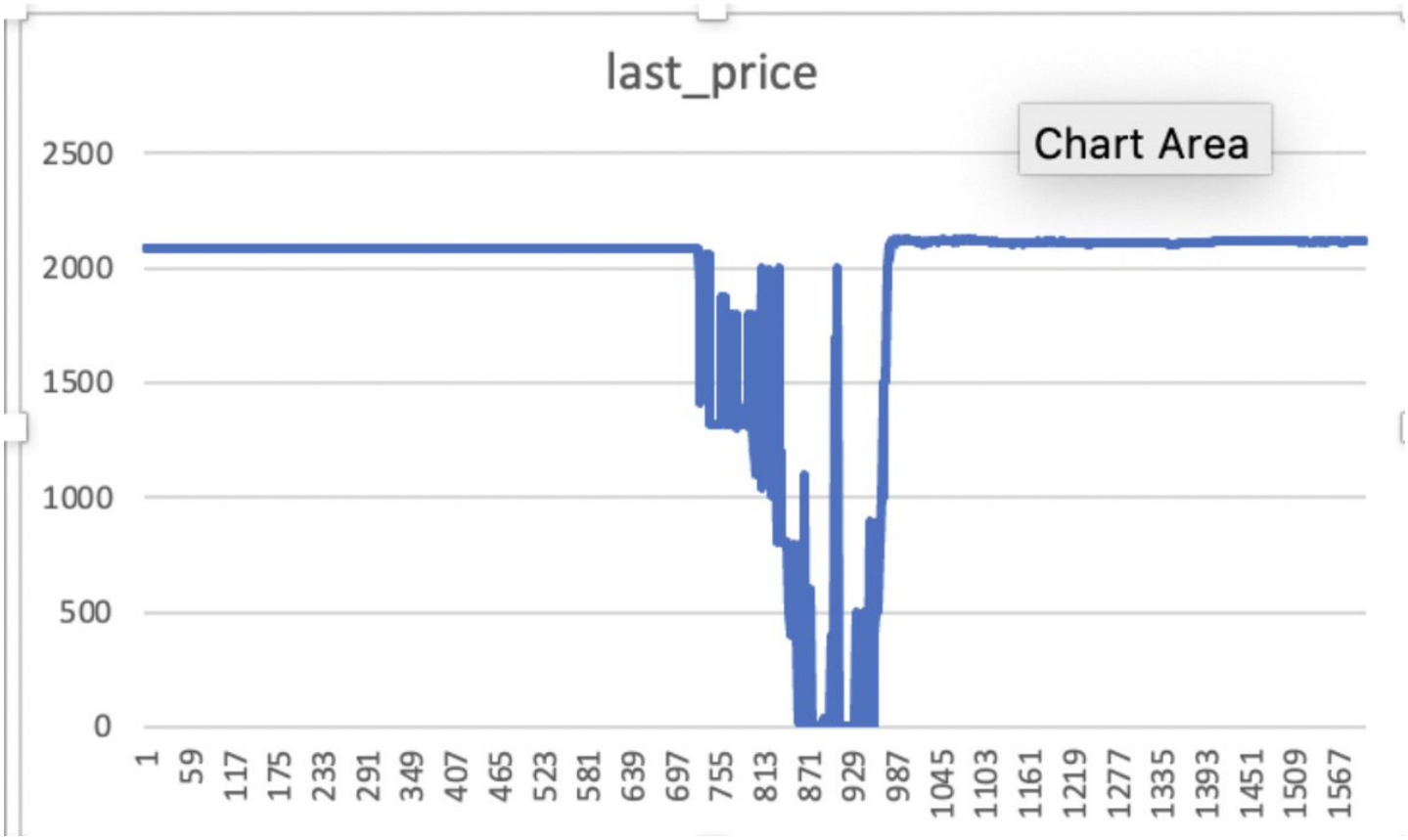
# Twitter Thread by Kirubakaran Rajendran

**Kirubakaran Rajendran**
@kirubaakaran

**Nifty 14500 CE trade which made day low price of 0.15 and day high price of 2139, due to erroneous order by a broker who lost 250 crores. Some ppl claim few others brokers made 50 to 75 crores profits. But what really happened? Here's the tick data analysis that shows true info■**

Yesterday being a weekly expiry market was so calm, not making any major movements. Nifty was trading around 16500 but there was a freak trade happened with deep In the money option 14500 CE. It was trading around 2000 levels, usually the liquidity will be very shallow with ITM

it was hovering around 2000 to 2100 levels but suddenly around 2:30 pm, the price of the option went as low as 0.15 paise. Here's the tick data price chart of 14500 CE option strike



What's really interesting about this sudden move is, usually when a freak trade happens it last for few seconds and instantly get back to its average traded price levels. But in this case, there were many buy trades executed at a very low price.

Obviously this a fat finger error trade, where a broker based out of Kolkatta, erroneously placed sell order for 14500 CE instead of 16500 CE.

# 'Fat finger' trade on NSE may have cost broker ₹250cr loss

## Brokerage Takes India's Biggest Hit After Pressing Wrong Key

TIMES NEWS NETWORK

**Mumbai:** A 'fat finger' trade, an error caused by punching a wrong key, hit the NSE's derivatives segment late on Thursday that could have caused a loss of Rs 200-250 crore to an unknown broking house which placed the order. This makes it the biggest such trading mistake in India. Nearly a decade ago, a trader at brokerage Emkay Global had incurred an estimated Rs 60-crore loss due to pressing a wrong key for price and quantity in Nifty derivative contracts.

A fat finger trade is an erroneous action due to a mouse misclick or punching a wrong key, which could lead to a huge loss for the one initiating the trade and a windfall gain for others.

On Thursday, between 2.37pm and 2.39pm, a trader sold 25,000 lots of Nifty call options at 14,500 strike at prices as low as Re 0.15. At that time, the market price for this contract was about Rs 2,100. Each lot of Nifty contract is for 50 numbers. So the estimated total loss is between Rs 200 crore and Rs 250 crore, market players said (that is, 25,000 x 50 x Rs 2,000 = Rs 250 crore).

Market players said that at least two Kolkata-based brokers made windfall gains from the incident, with one richer by Rs 50 crore and the other by Rs 25 crore.

Officially, NSE has not commented on the issue. But, according to an exchange official, since it was between brokers, there was a likelihood that the trader who put the erroneous order had insurance and the loss would be covered.

When this trade was put into the exchange, the Nifty was hovering at 16,600 level. On Thursday, the index closed 105 points up at 16,628. Market players were scrambling for answers as to how such trades, with prices so far off from the ruling market level, could hit the exchange's trading engine. Officials at broking houses said that after the 2012 fat finger fiasco on the NSE, several broking houses had installed in-house systems to detect and kill such trades even before they could be transmitted to the exchange.

A recent media report said that to neutralise fat finger trades from hitting its trading engine, the NSE was to put an alert system for trades that were at a substantial premium or discount to the market price. However, on Thursday, no such system had kicked in, an investment adviser said.

### HEAVY PRICE FOR TYPOS ON STREET

**What's fat finger trade?**

- It's an erroneous trade due to punching a wrong key on the keyboard or clicking the mouse at the wrong place
- For example, a trader sells 1L shares at ₹1,010 each while the market price is ₹1,100. The result: ₹90L loss
- So, it can be a huge loss for the initiator, and a windfall gain for others



**How do such trades get fixed?**

- Some broking houses & exchanges have in-house systems/filters to catch and stop such trades
- Some exchanges annul such trades with a warning
- Parties involved settle it among themselves too
- If taken, insurance can help too

**Fat Finger Trades Led To Big Fat Losses Abroad And In India**

| | | |
|---|---|---|
| $600bn \| Inflated order for blue-chips in **2014** at a Japanese exchange | $28bn \| Wrong transfers into several a/cs in **2018** at Deutsche Bank | ₹60cr \| Loss an Emkay Global trader caused in **Oct 2012** in Nifty contracts. It also led to a near 15% drop in the Nifty index, but failed to trigger a market-wide circuit breaker |

Tick Data Analysis:

Here's the time line analysis

This freak movement happened around 2:30 pm, when we checked the tick data of 14500 CE, we could see that last traded time was 12:57 for a long time. After 12:57 pm, there was no trade executed with the counter 14500 CE.

| last_price | last_quantity | average_pric | volume | buy_quantity | sell_quantity | ohlc | change | last_trade_time | oi | oi_day_high | oi_day_low | timestamp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2087.6 | 50 | 1983.41 | 350 | 12000 | 7750 | {'open': 1943 | 2.86530833 | 02/06/22 12:57:28 | 550 | 650 | 550 | 02/06/22 14: |
| 2087.6 | 50 | 1983.41 | 350 | 10750 | 7750 | {'open': 1943 | 2.86530833 | 02/06/22 12:57:28 | 550 | 650 | 550 | 02/06/22 14: |
| 2087.6 | 50 | 1983.41 | 350 | 10750 | 8100 | {'open': 1943 | 2.86530833 | 02/06/22 12:57:28 | 550 | 650 | 550 | 02/06/22 14: |
| 2087.6 | 50 | 1983.41 | 350 | 10750 | 8050 | {'open': 1943 | 2.86530833 | 02/06/22 12:57:28 | 550 | 650 | 550 | 02/06/22 14: |
| 2087.6 | 50 | 1983.41 | 350 | 10750 | 7950 | {'open': 1943 | 2.86530833 | 02/06/22 12:57:28 | 550 | 650 | 550 | 02/06/22 14: |
| 2063.65 | 100 | 2063.28 | 14700 | 8750 | 8300 | {'open': 1943 | 1.68518564 | 02/06/22 14:34:08 | 550 | 650 | 550 | 02/06/22 14: |
| 1942.4 | 500 | 2011.91 | 52250 | 7750 | 8050 | {'open': 1943 | -4.2893395 | 02/06/22 14:34:09 | 550 | 650 | 550 | 02/06/22 14: |
| 1407.6 | 250 | 1912.94 | 74300 | 2000 | 8100 | {'open': 1943 | -30.641307 | 02/06/22 14:34:10 | 550 | 650 | 550 | 02/06/22 14: |
| 1412.65 | 150 | 1716.62 | 119900 | 0 | 7650 | {'open': 1943 | -30.392471 | 02/06/22 14:34:11 | 550 | 650 | 550 | 02/06/22 14: |
| 2036.2 | 700 | 1721.53 | 121650 | 0 | 7600 | {'open': 1943 | 0.33260243 | 02/06/22 14:34:12 | 550 | 650 | 550 | 02/06/22 14: |
| 2036.2 | 700 | 1725.41 | 123150 | 0 | 7600 | {'open': 1943 | 0.33260243 | 02/06/22 14:34:13 | 550 | 650 | 550 | 02/06/22 14: |
| 2037.3 | 1000 | 1734.01 | 128850 | 0 | 7650 | {'open': 1943 | 0.38680431 | 02/06/22 14:34:14 | 550 | 650 | 550 | 02/06/22 14: |
| 2058.5 | 250 | 1735.39 | 129400 | 0 | 7650 | {'open': 1943 | 1.43142231 | 02/06/22 14:34:15 | 550 | 650 | 550 | 02/06/22 14: |
| 2038.35 | 550 | 1735.39 | 129400 | 0 | 7650 | {'open': 1943 | 0.43854246 | 02/06/22 14:34:15 | 550 | 650 | 550 | 02/06/22 14: |
| 2059.05 | 300 | 1738.34 | 130650 | 0 | 7650 | {'open': 1943 | 1.45852325 | 02/06/22 14:34:16 | 550 | 650 | 550 | 02/06/22 14: |
| 2059.65 | 200 | 1738.34 | 130650 | 0 | 7650 | {'open': 1943 | 1.48808791 | 02/06/22 14:34:16 | 550 | 650 | 550 | 02/06/22 14: |
| 2059.65 | 200 | 1739.32 | 131050 | 0 | 7650 | {'open': 1943 | 1.48808791 | 02/06/22 14:34:19 | 550 | 650 | 550 | 02/06/22 14: |
| 2059.65 | 200 | 1739.32 | 131050 | 0 | 7650 | {'open': 1943 | 1.48808791 | 02/06/22 14:34:19 | 550 | 650 | 550 | 02/06/22 14: |
| 2059.65 | 200 | 1739.32 | 131050 | 0 | 7650 | {'open': 1943 | 1.48808791 | 02/06/22 14:34:19 | 550 | 650 | 550 | 02/06/22 14: |
| 2059.65 | 200 | 1739.32 | 131050 | 0 | 7650 | {'open': 1943 | 1.48808791 | 02/06/22 14:34:19 | 550 | 650 | 550 | 02/06/22 14: |
| 1320.35 | 1000 | 1735.52 | 132250 | 0 | 7700 | {'open': 1943 | -34.940501 | 02/06/22 14:34:27 | 550 | 650 | 550 | 02/06/22 14: |
| 1320.35 | 1000 | 1735.52 | 132250 | 0 | 7700 | {'open': 1943 | -34.940501 | 02/06/22 14:34:27 | 550 | 650 | 550 | 02/06/22 14: |

Then around 14:34:08 a new trade happened. Next three seconds, LTP went from 2063 to 1407.

| last_price | last_quantity | average_pric | volume | buy_quantity | sell_quantity | ohlc | change | last_trade_time |
|---|---|---|---|---|---|---|---|---|
| 2063.65 | 100 | 2063.28 | 14700 | 8750 | 8300 | {'open': 1943 | 1.68518564 | 02/06/22 14:34:08 |
| 1942.4 | 500 | 2011.91 | 52250 | 7750 | 8050 | {'open': 1943 | -4.2893395 | 02/06/22 14:34:09 |
| 1407.6 | 250 | 1912.94 | 74300 | 2000 | 8100 | {'open': 1943 | -30.641307 | 02/06/22 14:34:10 |

After that, next buy order came around 14:35:01 with 2000 quantity purchased at Rs. 1320. That's almost for 1 minute no other trades executed. Just one trade executed. Again next trade executed at 14:36:08 with 500 quantity purchased at 805 Rs.

The real jackpot buy trade came in after 14:36:51 with huge quantity purchased at less than Rs.2 thousands of quantity's were purchased at extremely low price around 14:37

| last_price | last_quantity | average_pric | volume | buy_quantity | sell_quantity | ohlc | change | last_trade_time |
|---|---|---|---|---|---|---|---|---|
| 2 | 1200 | 683.56 | 704050 | 5350 | 14950 | {'open': 1943 | -99.901451 | 02/06/22 14:37:44 |
| 1 | 1000 | 661.38 | 727750 | 7900 | 16300 | {'open': 1943 | -99.950726 | 02/06/22 14:37:46 |
| 1.1 | 1100 | 659.35 | 730000 | 7750 | 17350 | {'open': 1943 | -99.945798 | 02/06/22 14:37:46 |
| 1 | 1000 | 644.19 | 747200 | 7750 | 19350 | {'open': 1943 | -99.950726 | 02/06/22 14:37:47 |
| 2 | 500 | 641.26 | 751650 | 7750 | 18850 | {'open': 1943 | -99.901451 | 02/06/22 14:37:48 |
| 0.15 | 1000 | 633.07 | 761400 | 7750 | 18850 | {'open': 1943 | -99.992609 | 02/06/22 14:37:49 |
| 1.1 | 1300 | 623.86 | 772650 | 7750 | 19050 | {'open': 1943 | -99.945798 | 02/06/22 14:37:50 |
| 2.1 | 1000 | 618.63 | 779200 | 7850 | 20800 | {'open': 1943 | -99.896524 | 02/06/22 14:37:51 |
| 2 | 200 | 612.84 | 786600 | 7850 | 18850 | {'open': 1943 | -99.901451 | 02/06/22 14:37:52 |
| 2 | 1000 | 607.34 | 796200 | 7850 | 18950 | {'open': 1943 | -99.901451 | 02/06/22 14:37:53 |
| 1.25 | 1000 | 601.96 | 805800 | 7850 | 18850 | {'open': 1943 | -99.938407 | 02/06/22 14:37:54 |
| 0.2 | 1300 | 594.74 | 815600 | 7850 | 18750 | {'open': 1943 | -99.990145 | 02/06/22 14:37:55 |
| 0.15 | 200 | 592.2 | 819100 | 7800 | 18800 | {'open': 1943 | -99.992609 | 02/06/22 14:37:56 |
| 39 | 1000 | 587.97 | 825000 | 7800 | 19350 | {'open': 1943 | -98.078297 | 02/06/22 14:37:57 |
| 500 | 1500 | 583.56 | 833650 | 7800 | 18350 | {'open': 1943 | -75.362783 | 02/06/22 14:37:58 |
| 1 | 500 | 580.55 | 839350 | 7800 | 18900 | {'open': 1943 | -99.950726 | 02/06/22 14:37:59 |
| 2 | 1500 | 573.37 | 852500 | 7800 | 21900 | {'open': 1943 | -99.901451 | 02/06/22 14:38:01 |
| 0.2 | 500 | 569.92 | 858800 | 7800 | 21100 | {'open': 1943 | -99.990145 | 02/06/22 14:38:01 |
| 0.15 | 200 | 562.09 | 874000 | 7800 | 20050 | {'open': 1943 | -99.992609 | 02/06/22 14:38:02 |
| 1 | 50 | 558.1 | 884300 | 7800 | 20100 | {'open': 1943 | -99.950726 | 02/06/22 14:38:03 |
| 1 | 200 | 557.12 | 886400 | 11600 | 20900 | {'open': 1943 | -99.950726 | 02/06/22 14:38:04 |
| 1 | 1000 | 549.41 | 898950 | 10600 | 20800 | {'open': 1943 | -99.950726 | 02/06/22 14:38:05 |
| 0.15 | 1300 | 542.42 | 910550 | 10600 | 21600 | {'open': 1943 | -99.992609 | 02/06/22 14:38:07 |
| 2 | 1000 | 541.23 | 912550 | 10600 | 21600 | {'open': 1943 | -99.901451 | 02/06/22 14:38:07 |
| 500 | 900 | 534.98 | 923250 | 10600 | 24300 | {'open': 1943 | -75.362783 | 02/06/22 14:38:08 |
| 1 | 300 | 528.18 | 938050 | 10600 | 22900 | {'open': 1943 | -99.950726 | 02/06/22 14:38:09 |
| 0.15 | 100 | 521.97 | 952100 | 10600 | 23900 | {'open': 1943 | -99.992609 | 02/06/22 14:38:10 |
| 0.15 | 500 | 513.74 | 971700 | 10600 | 22500 | {'open': 1943 | -99.992609 | 02/06/22 14:38:11 |
| 0.15 | 950 | 509.99 | 978850 | 10600 | 22550 | {'open': 1943 | -99.992609 | 02/06/22 14:38:12 |
| 0.15 | 1500 | 506.65 | 985350 | 10600 | 23550 | {'open': 1943 | -99.992609 | 02/06/22 14:38:13 |
| 20 | 1500 | 504.76 | 989050 | 10600 | 19150 | {'open': 1943 | -99.014511 | 02/06/22 14:38:14 |
| 5 | 200 | 495.86 | 1007000 | 10600 | 20100 | {'open': 1943 | -99.753628 | 02/06/22 14:38:16 |

By 14:38 price of 14500 ce came back to its average traded price of 2000 levels. Then the liquidity in the counter increased, probably people who were luck to buy at the extremely low price were liquidating their position.

Conclusion:

Many people wrongly assumed that 1000's of lots were purchased at extremely low price of 0.15 paise. No, only few quantities were filled in at this lower price. Around 920 lots were purchased at an average price of 0.95 paise & Around 142 lots were purchased at 18

| last_price | last_quan | lots |
|---|---|---|
| 1.25 | 200 | 4 |
| 1.25 | 1000 | 20 |
| 2 | 100 | 2 |
| 2 | 500 | 10 |
| 2 | 1000 | 20 |
| 2 | 1000 | 20 |
| 2 | 300 | 6 |
| 2 | 200 | 4 |
| 2 | 1300 | 26 |
| 2 | 1200 | 24 |
| 2 | 500 | 10 |
| 2 | 200 | 4 |
| 2 | 1000 | 20 |
| 2 | 1500 | 30 |
| 2 | 1000 | 20 |
| 2 | 500 | 10 |
| 2 | 1200 | 24 |
| 2.1 | 1000 | 20 |
| 5 | 200 | 4 |
| 11 | 50 | 1 |
| 11 | 100 | 2 |
| 11 | 500 | 10 |
| 15.25 | 600 | 12 |
| 15.25 | 600 | 12 |
| 15.25 | 1200 | 24 |
| 20 | 1500 | 30 |
| 20.1 | 1000 | 20 |
| 21 | 250 | 5 |
| 39 | 1000 | 20 |
| 40 | 50 | 1 |
| 40 | 50 | 1 |

If we calculate 920 lots * 50 qty * 1 Rs. = Rs. 46,000 total investment. Assuming they liquidated around 2000 Rs. then its 920*50*2000= 9.2 Crores. With an investment of around Rs.50k, someone made 10 crores. That's all, its not 100 of crores as we see in news.

So the windfalls profits or loss that we see on news media is highly exaggerated. Just because we see a extremely low price or high price in a chart doesn't necessarily mean most of the trades are executed at that extreme prices.
https://t.co/TkPTeoK5p4