

Title: Overview and timelines of swaps in GME and XRT

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According to the new SEC rule, all swap positions have had to be reported since mid-February. These can be viewed on the DTCC website. I collected this data and examined it for swaps related to GME. Recently, there was significantly more activity than in the weeks before. I'll give you an overview.

There are four different types of swaps that are relevant for GME:

Term	Short description	Product ID
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Portfolio Swap	One party pays the other party an amount based on the price return of an equity security, and the other typically pays an interest amount on the notional value of the equity. The payout is monthly or at the expiration date.	equity-portfolioswap-pricereturnbasicperformance-singlename
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CFD	One party pays the other party an amount based on the current value of a collection of equity securities and its original value, and the other typically pays a fixed amount.	equity-contractfordifference-pricereturnbasicperformance-singlename
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Basket	Same as Portfolio swap, but the initial transaction is a basket; I guess it is similar to lending out shares. In the technical specification, it was described as "transaction type:	
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basket"		equity-portfolioswap-pricereturnbasicperformance-basket
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Swap	This is a distinguished category from the portfolio swap. I can't tell the difference. Not used for GME, but seen with other equities.	equity-swap-pricereturnbasicperformance-singlename
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Portfolio swaps seem to be the most popular, and CFDs seem to be only used for large trades. I wonder how hedging those positions influences the price of the underlying?

****Swap metrics:**** Each record has an effective date, an execution date, notional quantity (how many shares), amount (how much was paid), and a price (the assumed price of a share). Trades end at either an expiration date or they have monthly payouts.

****Swap overview:**** I set out with the goal to visualize the amount of shares and the amount of money in the swaps. As of Feb 14th to March 25th, I counted 763 records in GME with: 370 amendments, 95 increases, 2 partial terminations, 193 terminations, and 102 new trades. Each record has an effective date, an execution date, notional quantity (how many shares), amount (how much was paid), and a price (the assumed price of a share). The earliest *effective dates* are from 2019. How to read these plots: On a logarithmic plot, the superscripted number is the number of zeros, i.e., $10^6 = 1e6 = 1000000$.

I dropped canceled trades, but I left terminated trades. As a simplification, I accumulated terminated, amended and new trades and distinguish based on swap type in an overview plot that is grouped in amount, quantity, and price. This helps to visualize important dates and activity, but also may distort the diagram, for example: Someone fatfingered a large swap and terminated it 5 minutes later - which counts twice in the plot, as new trade and as a termination. Before I show you the plots, please note: ****All data of before 2022-02-14 is not complete, as the reported data starts on this date and only contains earlier positions that were amended or closed.****

[GME swaps overview plot](<https://preview.redd.it/1c479k51mdr81.png?width=3510&format=png&auto;=webp&s;=f671ecb51adbca8eea866f2b4220a8b2a63fe93>)

****Swap time series plots:****

The swap data was relatively quiet in February and until mid-March, but there is significantly more activity after Ryan Cohen bought more shares. There are many swaps with 2 mio USD amount, which might not be that well visible in the overview plot. Here is a time series based on the "Effective Date" with accumulated amount and quantity.

[GME, timeline of notional amount \(\summed up by effective date, regardless of transaction type\)](<https://preview.redd.it/bqizqw54mdr81.png?width=3510&format=png&auto=webp&s=83cd47b85f7c020666b0b69d1d7d9fa841bf02cf>)

Please note that the dates are not linear and only available data points are plotted. The largest GME trade on record with 21 million USD up to now was a portfolio swap on 2022-03-23, only to be almost surpassed by another trade with 17 million USD a few days later. Most notably, the large CFD spikes of last year in the time series form a pattern - for each of these dates, there are multiple amendments to an existing trade (almost daily). By inspection, those trades seem to be systematic, maybe done by an algorithm.

[Time series of notional quantity, i.e. the number of shares, at the trade's effective date, \(\summed up, regardless of transaction type\)](<https://preview.redd.it/a35m589omdr81.png?width=3510&format=png&auto=webp&s=c5d599b81ebb87155bc2002c30d126a709928639>)

Some of the entries also had an expiration date and can also be visualized in a timeline plot. It's not very expressive, but it gives a rough idea of the average lifetime of a swap:

[GME notional quantity on swap expiration times, if expiration date was available](<https://preview.redd.it/uwkksig3sdr81.png?width=3510&format=png&auto=webp&s=a08171c91f55b97e9f0d0d1a0b4621d8f3da1e50>)

To have a better comparison, I'll also show you the plots for our step-stock GME.N:

[GME.N swaps timeline](<https://preview.redd.it/rqltsjahndr81.png?width=3510&format=png&auto=webp&s=55e36cc6adfd55cba68c852cfbd5b4a2ac52a55a>)

There are also Swap positions for the ticker GME.N that was relatively quiet - but recently had more activity. On the evening of 2022-03-22, someone bought the equivalent of 97k shares @ 120 USD that lead to the large spike on the plot below; On 2022-04-01, there was another large trade with 100k quantity @ 170 USD. Both entries were marked as new trades.

I also include a plot of popcorn that also had a CFD-related spike.

[■ swaps overview plot](<https://preview.redd.it/hmfkj2yfpdr81.png?width=3510&format=png&auto=webp&s=63bf8d601dac3b1d8f7c10d58c9ac20557d23e1c>)

[■, swaps time series of notional quantity](<https://preview.redd.it/e8fukphrndr81.png?width=3510&format=png&auto=webp&s=66bb128ce49f7e05abfc6a2dd6c206c9b781f437>)

And the time series of our favorite ETF -- XRT -- that had an interesting basket swap.

[XRT, swaps time series on notional quantity](<https://preview.redd.it/c6eyjm6xndr81.png?width=3510&format=png&auto=webp&s=809e1d3a06da81f229bc578493dfcf6a6601e607>)

XRT has a few large spikes with portfolio swaps. For example, 2022-01-06 has a single portfolio swap with 860k shares. Or, the spike on 2022-02-25 consists of multiple large trades: The lifetime of these swaps was only set for a few weeks, until 2022-04-01, with the exception of the two largest trades (1 million and 850k million notional quantity) that did not have defined expiration date.

In my opinion, the smaller-looking spike in the basket category is more interesting: A single trade was so large that it exceeded the number range of the report field: Amount "250,000,000+", Quantity "210,000+", Effective Date 2020-08-20, Expiration Date 2025-08-22. The share price is only given as 100%, and not in USD. The closing price on that day was 51.77 USD, so I guess at minimum 4.8 million shares from the amount. The transaction was done as a basket swap -- lent-out shares...? Maybe there are even more trades like this that will probably only show up in the records in the future.

I also examined other GME-related ETFs (IJH, MEME, ...), but they had less activity and less significant

trades.

Some notes:

* I was wrong about how to use the metrics Amount / Quantity in previous posts and overestimated the volume - thanks for the intelligent comments pointing that out. *If you see any mistakes in my post, please let me know.*

* Some swaps are reported in percent, mostly basket portfolio swaps. I estimated the price into USD based on Amount/Quantity for the plot. Also, other denominations in "Price" unit (e.g., EUR) were converted to USD, except BasisPoints.

* There are some anomalies in the data. In some old trades from 2021-11-24 (hype date?), the share price is set to roughly 1\$. But the price of GME was not this low. What could explain this?

* There are also other institutions that report equity swaps, see the post of u/wellmanneredsquirrel for that information, however, I did not find relevant swap trades in those reports.

* Numbers of the GME swap data: total trades 882, dropped (canceled) 12, transactions: {'Amendment': 429, 'Termination': 208, 'Trade': 118, 'Increase': 115}, Product IDs: {'Portfolio Swap': 432, 'CFD': 419, 'Basket': 19}, Endless (without expiration date) 76, latest trade on 2022-04-01, earliest known trade on 2019-03-20, trades with recurring payments 324.