Dr. Evil's "Stop the Game! I want to get off." Edition.

Dr. Evil has been asked to talk about GameStop and the Reddit revolution. What is it? Who's doing what to whom? Could the PRC do it to US markets? Along the way we will cover shorts, calls, puts, why Robinhood is not your friend and the plumbing of the stock market. Ultimately, Dr. Evil has found that when you're analyzing whether something flushes, you have to know how the plumbing works. If you're interested in the 'how' of the reddit-GameStop play or how "*You too can become a dangerous day trader*" - you can read the Dr. Evil-splain'in paragraphs, otherwise skip to the Evil Analysis of Evil….which would make it….evil?.

GameStop (stock ticker symbol $GME) is a struggling bricks-and-mortar video game retailer in a world that is rapidly moving online. It's cashflow positive but hasn't made a profit in two years with little long-term future. $GME stock has lost about 93% of its value since 2013. A real stinker. So, a bunch of hedge funds piled on expecting to make money from its ultimate demise… sometime in the future. Bottom line up front: They got way too greedy and got caught, legitimately, by retail investors acting in concert. Bottom-bottom line: It really wasn't about GameStop at all. It was about a structural imbalance between the real shares of stock versus shorted shares of stock. Bottom-bottom…..well you get it: It is about the emergence of decentralized swarm behavior exploiting structural imbalances in financial markets.

[Dr. Evil-splain'in] How do hedge funds make money from stocks that go down? Three ways: short the stock, sell call options or buy put options or some combination of the three. All using massive amounts of borrowed money. **Shorting a stock** is when you borrow stock and then immediately sell it. You are on the hook to return the amount of stock you borrowed at some agreed upon time in the future. You pay an upfront fee (variable rate depending on how hard it is to find stock to borrow) to the person you've borrowed the stock from. You hope that the stock drops in value between the time you borrowed & sold it, and when you have to return it. For example, you borrow 1 share of stock and sell it for $100. The stock drops to $50. You purchase a share of

stock on the market at $50 and return that share of stock to the person you borrowed it from. You net $50, the difference between the $100 sale and the $50 repurchase and return.

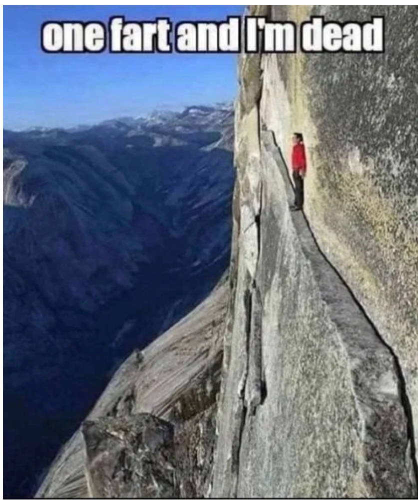
[Dr. Evil-splain'in] A call option is the option to buy a share of stock at an agreed upon price, at an agreed upon time in the future. A put option is the option to sell a share of stock at an agreed upon price at an agreed upon time in the future. If you're a hedge fund and want to juice your returns, you sell call options on the stock that you just shorted. If, for example, you've shorted at $100 and don't think that the stock will ever go up to …say $120, you can sell 'call options' at $120 to investors who think that the stock price will go up. They can call your stock at $120. This means you are obligated to sell a share of that stock at $120 to someone who bought your 'call' option. If the stock ever gets to $120, it goes "**In the Money**" from being "**Out of the Money**" which means the call option now has real value. In a majority of cases, options 'expire' without being 'exercised'. They are used as a form of price insurance.

GameStop sitting with Tesla and Amazon after reddit users make it a fortune 500 company

[Dr. Evil-splain'in] Options are contracts that have value in and of themselves. While their value is measured by the difference in the underlying stock price, they can be bought and sold….like a stock. Also, and this is big, most people buy options or short stock **ON MARGIN**. This means they've borrowed the money from the broker to borrow the stock or to sell/buy the call or put. This is another way to really juice returns. You invest $10K and buy $1MM worth of stock. You have to pay interest on what you've borrowed and have to meet **MARGIN CALLs** if the price of the stock changes against you. Lastly, most options do not get 'physically exercised', i.e. you don't deliver the actual underlying stock (or whatever) just settle up with money. This was not the case with Gamestop option holders.

Alright, so now you're a 'bona fide' *dangerous day trader*. What happened with GameStop is that hedge funds had borrowed and sold more shares than actually traded. In fact, the number of GameStop shares that sellers were obligated to repurchase and return to buyers was equivalent to 260 per cent of the shares in existence, according to Morningstar.

An online community of 6M traders on the subreddit "WallStreetBets" noticed that the amount of shorts exceeded the amount of shares and decided to have some fun. If they could drive the share price up, they could squeeze the shorts (**Short Squeeze** – yes it's a thing). Every short **ON MARGIN** would require margin calls – cash infusions by the shorting hedge fund OUCH – remember hedge funds were using massive amounts of borrowed money. They were in, not just for their initial investment, but everything they borrowed. In order to satisfy their obligation to return the amount of shares they borrowed, shorting hedge funds would have to buy shares at market price. Except the redditers, like a pitbull with a porkchop, weren't selling. They were holding. This meant the shorting hedge funds became their own worst enemy, panic buying shares at any price driving the market up even higher. However, even if hedge funds found and bought every available share on the market, they couldn't make up the 160% of imaginary shares they 'borrowed' and sold. Markets Insider estimates short sellers lost $19B on GameStop.



Minions may ask themselves quite appropriately, “How can you short more shares than there are?” The answer is you can’t. It’s illegal. In fact, it’s called “Naked Shorting” and the thought of it gives Dr. Evil chills up and down his spine…in an evil sort of way. Dr. Evil figures the 260% figure includes the declared ‘Shorts’ but also the above market call options. As the stock price rose, the call options became **IN THE MONEY** and holders could ‘call’ i.e. exercise their option demanding stock instead of net proceeds in cash. Who were the holders of above market call options? WallStreetBets redditers. They wanted stock not cash. This added to the panic buying. There is an additional theory from TheStreet.Com that market makers like Goldman Sachs, brokerages like RobinHood, Fidelity, Schwab, etc. allowed the obligation of more $GME shares than in existence on purpose. As a market maker in $GME, they used the run up in stock price as cover to then restrict retail trading and sell/lend $GME shares for their account, hammering the hedges. This would be spectacularly evil if so requiring a tip of the evil fedora to the market makers in $GME.

[Evil Analysis of Evil] So what financial lessons can be learned from $GME? Redditers approached call options like sports betting. Buying an above market “call” option for a modest upfront premium represents the limit of their exposure. However, the upside from a call option appreciating in value could hammer the short market. The short sellers and sellers of above market call options were contractually obligated to return shorted or called stock. They had to meet their obligations. If the redditers could buy up available stock fast enough, the ‘line’ like in sports betting would raise to the execution price of the call options. The hedge funds, already in panic buying mode would be joined by the panic buying sellers of call options, pretty much the same people, now searching for stock to close out their option losses.

It also showed a swarm attack executed by a decentralized, hive mind -WallStreetBets redditers. This shows that when a decentralized group acts in the aggregate they can overwhelm central planners, in this case hedge funds abetted by the NYSE and the brokerages who shut down trading. None of this would have worked if the market had precluded Naked Shorts like they are supposed to. It took thousands, if not hundreds of thousands of individual traders to match the capital weight of a few hedge funds. Collective communications, in this case reddit, offered a means to reach and coordinate activity.

Millennials “You don’t understand how bad words hurt!!”

Literally everyone born before 1995:

Could US adversaries incent runs? Yea….but not all that well. The case for the short squeeze was promulgated by a 25-year-old day trading Ohio engineer with the handle Deep-F---ingValue [you can fill in the blanks]. The thesis was individually evaluated and publicly debated on the reddit board by thousands of members of WallStreetBets. The thesis was beaten and tested until its’ case was made. Even then, it had to be attractive enough to incent thousands, if not hundreds of thousands of individual actions. The centralized planning mindset in the CCP doesn’t do well with ‘debate on the merits’, otherwise their system would collapse.

In the PRC, short selling is highly regulated by the China Securities Regulatory Commission (CSRC) and have been turned off by the government in 2008, turned back on in 2010, turned off in 2015 and back on in 2016. or ‘options’ available on PRC stock markets. Shorts are limited to a prescribed list of stocks whose trading is closely tracked by the CSRC [wouldn’t want the wrong proletariats making Yuan, that’s reserved for princelings

and ‘lingettes’.] The China Financial Futures Exchange only allows calls or puts in indexes of stock or interest rates not individual stocks. [As far as Dr. Evil can tell].

Wall Street Plumbing or Why RobinHood is not your friend.

Bottom Line Up Front: RH’s real customer is not you - you are the product.

Settlement on stock trades is, regulatorily, a T+2 day exercise, i.e. settlement takes no more than 2 days from the trade. Because the buyer does not know who the seller is, the brokers for both buyer & seller use a 3rd company called the Depository Trust and Clearing Corporation (DTCC) to actually match & “clear” stock transactions, moving title from selling broker to buying broker while ensuring proceeds are moved on time. In that time, clearing brokers have to post margin with DTCC, Wall Street’s central clearing hub. Asset price gyrations and trading surges — as with shares of GameStop — prompt the DTCC to demand more collateral. For equity options contracts (puts and calls), the primary clearing entity is OCC (Options Clearing Corp).

So, DTCC is both a central repository for Title, and also the guarantor of Title. DTCC provides its balance sheet to guarantee settlement. But its balance sheet isn't that big, so it has to tightly manage counterparty risk to guarantee accurate settlement. DTCC holds the “physical” title to your stock. This speeds up settlement: DTCC simply assigns title from one DTCC client to another, to clear the transaction. DTCC clients are the brokers, and so the title is held in "Street name" (the broker's name), not your name.

In addition to DTCC, to cut costs, some brokers like Robinhood have their own in-house clearing service. Robinhood can match in-house buyers with in-house sellers before having to go to DTCC, whose clearing activities cost money. Robinhood then makes money from selling order flows to High-Frequency Traders (HFTs), a practice under regulatory scrutiny. What do HFTs do? They buy the order flow from discount brokers like RH or Schwab or TD Ameritrade and if the order flow indicates a net buy position, they will ‘front-run’ your order by buying the stock you want to buy a nanosecond before you buy it. This drives the price up before you actually complete your trade. Sometimes this all happens in the second after you click on ‘buy’ on your brokerage app and when the broker exercises the order.

Margin accounts are Wall Street's way of denoting lending accounts. Practically speaking, in margin accounts, the client does NOT own *any* securities. Rather, margin account holders "own" a promise from their broker. The securities in the margin account are held in the ‘street name’ of the broker.

So, you bought $GME in your RH margin account: what's happens behind the scenes?

1) You buy

2) At day’s end, RH nets all the money it needs to send to DTCC

3) If RH is a net sender, it generally borrows that money cheaply via interbank lending, & sends it to DTCC

4) DTCC sends net proceeds to brokers due to receive

5) Formal settlement happens within 2 days

A couple just flagged me down honking and waving, when I stopped they told me I was about to lose my pipe wrench. I told em it was a step and it's welded on. They proclaimed me King of the Rednecks right there on the spot.

If you look at that, there are four different windows of credit risk.

1) RH vs. DTCC: Between transaction time (e.g., you buy @ 9:45am) and close of business (when net proceeds go to DTCC);

2) DTCC vs. DTCC: Between the time DTCC sends net proceeds & formally settles the transaction

3) Selling Broker vs. Selling Client: Selling Broker fronts its client credit for the proceeds immediately upon transaction;

4) DTCC vs. Selling Broker: DTCC owes the selling broker proceeds at day's end;

You're not paying anything, so RH doesn't make any money on that…or do they? It's actually not particularly important to the $GME story, but RH's real customer is not you - you are the product. RH's *real* customers are buyers of "order flow", the largest of whom is Citadel, the same Citadel that bailed out Melvin Capital with Point72 on Monday. ["A-ha" you say, "The plot thickens."]. Just because you aren't RH's real customer doesn't mean they don't care about you – they need you to be happy and active in order to continuously sell you to HFTs like Citadel. Citadel et al get a sneak peak at RH's order flow (i.e., pending trade activity) & use that to "provide you liquidity" (ie, front-run your trade). Citadel makes tiny amounts on each transaction (on average), slightly reducing the quality of your execution (on average), but allowing you to pay no explicit commission.

So now you own $GME stock in the margin account.

Actually, you don't - RH owns the stock and simply passes through many of the rights of ownership to you, crediting you with quasi-ownership.

This is important because if RH failed, you would not "own" your stocks, per se. You would be a creditor with a claim against RH. This is a key risk of margin accounts.

When you signed your customer agreement and terms of service, you gave RH the ability to take the stock you bought and lend it out to others to short. Depending on how "hard to borrow" that stock is, RH gets paid a variable rate for this stock loan.

While many brokers share the proceeds of stock lending w/ clients, RobinHood does not. RobinHood keeps it all.

What sort of interest rates on margin accounts are talking about? Lets talk $GME. When someone shorts a stock that is already heavily shorted, they have to pay a fee to borrow that stock. In the case of $GME that fee has been hovering around 30% this week. Shorts have to pay (Price x .30)/360 per day. That's a 30% APY. For RH Traders that own $GME that money, as best I can tell, is held in street name. Which means that 30% APR goes 100pct to

As always, if you are the distro and want off, please let me know. Or, if you are not on the distro and want on, please let me know. All opinions contained here within are solely the fevered imagination of Dr. Evil….otherwise know as Dave Katz, J35TNT USSOCOM