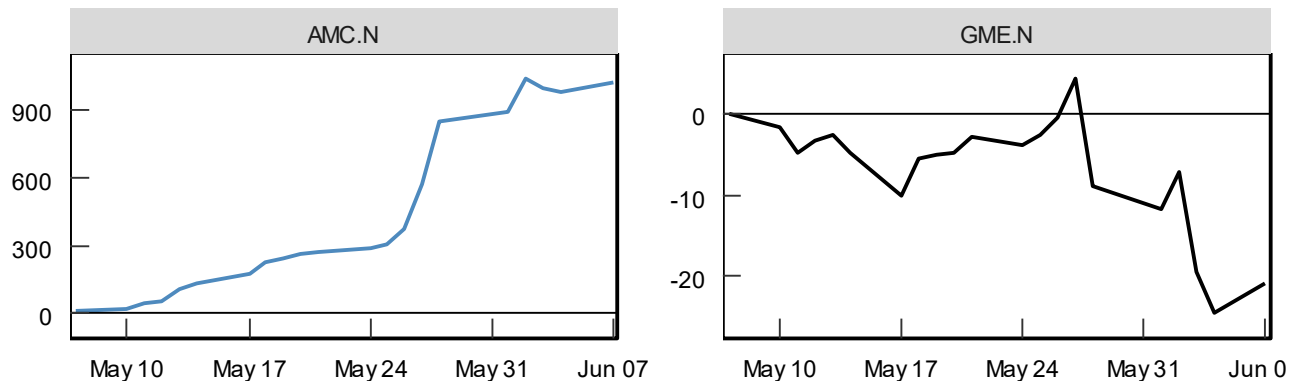


## Market structure analysis on meme stocks

### Retail flow and option gamma profile

- In this report we provide analysis on the retail flow and option gamma profile of AMC and GME. All data are as of market close on Jun 7, 2021.
- **Retail order flow:** Since a month ago, AMC has attracted over \$1Bn of net buying from retail investors. In contrast, the retail flow on GME has in fact been negative (Figure 1). Over the same period, retail market orders make up about 25% of AMC volume vs. 13% for GME. Clearly, retail traders strongly prefer AMC over GME. The difference in retail demand is also reflected in the stock performance, with AMC up 478%, vs. GME +74%. In our view, a major factor driving this preference is the much lower AMC cash price compared to GME.

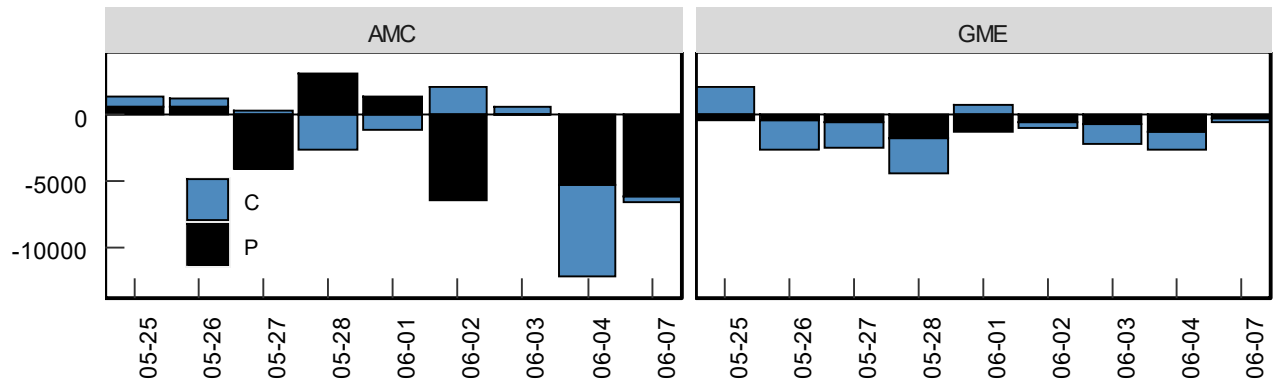
Figure 1: Estimated cumulative retail order flow (\$MM)



Source: J.P. Morgan

- When it comes to options, retail traders have the opposite preference. We identify about 9% of the AMC option trades as retail market orders, and 15% of the GME options. Of those trades, the buys and sells largely offset, leaving only 3% of the gross volume as supply/demand imbalances. Moreover, the data show retail traders to be net option sellers on both names (Figure 2). Therefore, contrary to common belief, retail order flow is far from one-sided call buying. This is consistent with the previously observed pattern of selling high (but not necessarily rich) implied volatility names by retail traders.

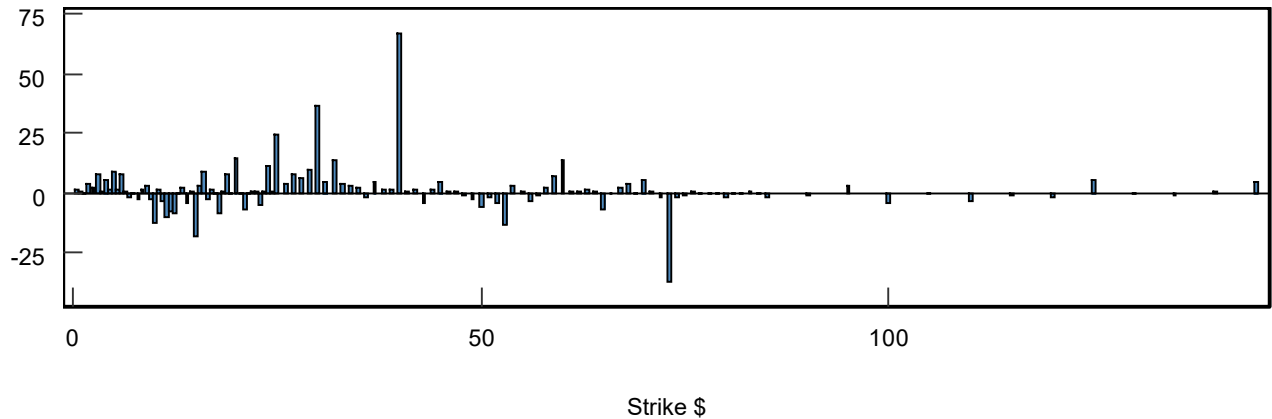
Figure 2: Estimated retail demand/supply (number of contracts)



Source: J.P. Morgan

- **Option gamma profile:** If we were to expand our scope to the overall options market, the picture also appears more nuanced. Looking at AMC first, the demand/supply has been mixed across strikes over the last month (the directionality is estimated by the Lee-Ready algorithm), but the imbalance appears to be immaterial for far OTM strikes, as seen in Figure 3.

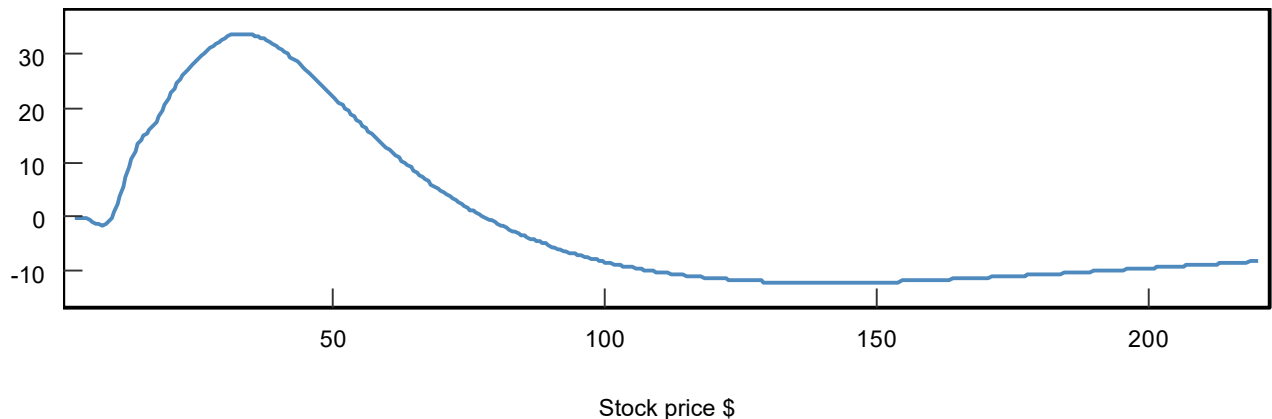
Figure 3: Estimated AMC option order flow imbalance ('000 contracts) by strike price over last month



Source: J.P. Morgan

- With the above estimates, we can construct the gamma profile as seen in Figure 4, which shows that at the peak (around \$33.6 stock price), option hedging should result in \$33.8MM of buying/selling per every 10% move up/down in stock price. Although the number appears modest compared to the \$20B+ ADV observed recently, it is still a factor worth monitoring given the heightened stock volatility.

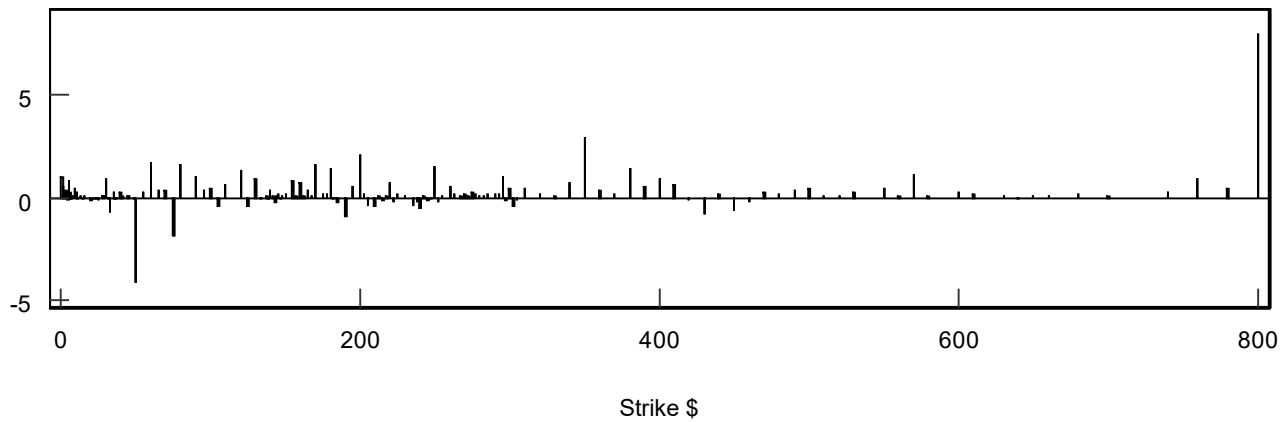
Figure 4: AMC gamma profile (\$MM) per 10% move in stock



Source: J.P. Morgan

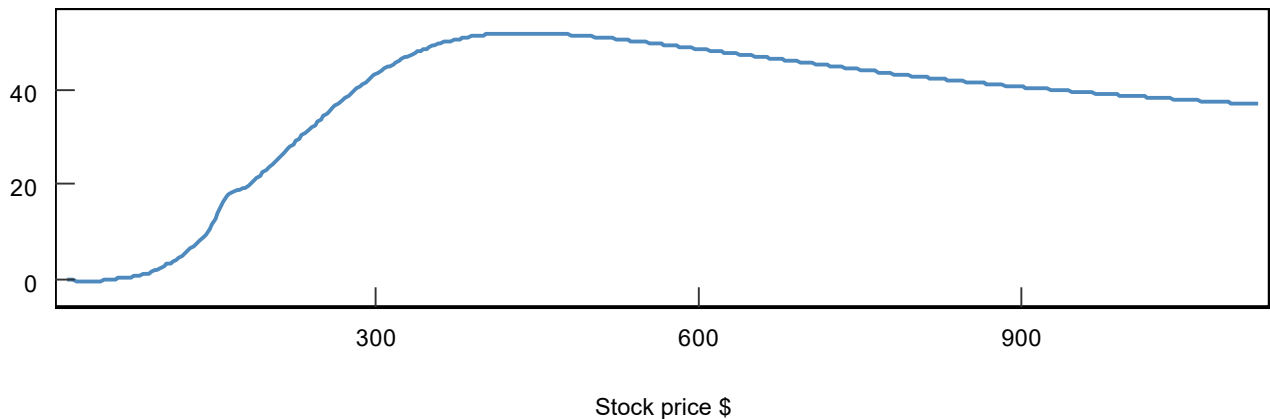
- We can apply the same exercise to GME. The peak gamma is observed at a stock price around \$440, where a 10% move up/down would induce \$52M buying/selling pressure (Figure 6).

Figure 5: Estimated GME option order flow imbalance ('000 contracts) by strike price over last month



Source: J.P. Morgan

Figure 6: GME gamma profile (\$MM) per 10% move in stock



Source: J.P. Morgan

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