

Small Caps:

Day1MOMO:

I consider Day1MOMO all stocks that are gapping up over 20% (previous day close -> today's open). Based on this category, I trade the following setups:

Day1MOMO - general

Day1MOMO: stocks that had a gap up in premarket (over +20%)

For this setup we need to test:

- Probability of RED CLOSE (today's close < today's open) based on multiple parameters:
 - o Premarket gap: (categories: 20-30%; 30-50%; 50-75%; 75-100%; 100-150%; 150-200%)
 - o % fade from premarket high (basically the chance of a red close if the stock opens between 0-10% from the prem high; 10-20% from prem high; 20-30% and so on; Example: XYZ closed at 5\$ on Monday. It opens at 6\$ on Tuesday (20% increase) with a premarket high at 10\$ (100% increase from the previous close). What are the odds for it to close red considering it already faded 40% from the premarket highs)
 - o Hour of premarket high (odds for the stock to close red IF the premarket high was between 4-5AM; 5-6AM; 6-7AM; 7-8AM; 8-9AM, etc);
 - o Premarket volume (again, categories; between 1-2 mil; between 2-5 mil, 5-10, etc)
 - o Volume of the first 5 / 10 / 15 minutes (this is something that it really is worth testing. We can find a relation between the volume traded in premarket and the volume traded in the first 15 minutes. If it's lower than x%, it can give higher chances of a red close for that day)
 - o Type of first 1 / 5 / 15 minutes candle (ex: probability of a red close if the stock closed the first 5 minutes with a red candle)
 - o % fade percent from the 9:30 open to 11:00 AM (ex: chance of a red close if the stock moved between 0 and -5% in the first 1.5 hours; between -5 and -10%; between 0 and +5%, etc;
- You will notice that from the get go if you calculate the probability of a red close for all stocks that gapped up over 20% (just giving it as example), it will be OVER 50%. That is an edge from the start. Applying the filters from above can lead to probabilities of over 70% -> BIG EDGE.

```
Probability of RED close for smallcaps that gap up over 10 %
True      0.731959
False     0.268041
Name: GapUpCloseRed, dtype: float64
Number of plays: 194
```

- **HOW TO CALCULATE THE ODDS??** You simply need to find all past occurrences of stocks that met the respective criteria/filter and see the % of them that closed red. Example: you query for all the stocks gapping up between 20-30% between 2021-2023. Let's say you find 500

occurrences (a single stock can have multiple occurrences; ex: AMC gapped up over 20% a lot of times in 2021-2023; we will include in the sample ALL DAYS). Let's say that out of those 500 occurrences, 350 of them resulted in a red close. $(350/500)*100 = 70\%$. Then you apply more filters, like the % fade from the premarket high. Let's take 10-20% fade. Maybe there will be only 100 occurrences now and 75% of them resulting in a red close. The goal is to verify all potential filter combinations and see where the biggest probabilities are.

Day1MOMO – premarket high clearout

- Same exact description as the setup before, **BUT**, you also want to verify if the stock has exceeded or touched the premarket high during the market hours. Let's take the same XYZ example. Close at 5\$, open at 6\$ with a premarket high of 10\$. What are the odds of it closing red if it exceeded the premarket highs between 9:30 – 11 AM; what about 11-12AM, 1-2 PM, etc.
- So for this setup you will include in the sample only the setups that exceeded the premarket highs. Then you should run exactly the same filters from the previous setup. % fade from premarket high, premarket gap, hour of premarket high, premarket volume, type of the first 1/5/15 min candles, % move from 9:30 to 11.

SecondDayPlay(2DayPlay)

I consider a 2DayPlay all stocks that were Day1MOMO and are still in play in the second day. In play = haven't faded more than 50% from the Day1 premarket high till the second day open. We can backtest the exact % and see where the best odds are.

2DayPlay – LowHangingFruit (LHF)

- Stocks that were Day1MOMO and the next day (second day) they open below the Day1 closing price (gap down).
 - o You want to apply exactly the same filters from the Day1 setups. Eventually make categories based of the distance between the second day open and first day open (it shouldn't be higher than 30%, otherwise it's not in play anymore; but maybe there are higher chances for the stocks that open between 20-30% lower than day1 vs others)
 - o **This setup was a big red % probability**

```
Probability of RED close on D2 for smallcaps that gapped up over 20 ran up over 4 % on D1 and gapped down over 7 % on D2
True      0.7
False     0.3
Name: D1Runner_RedCloseD2, dtype: float64
Number of plays: 10
```

2DayPlay – Failed Continuation

- Stocks that were Day1MOMO and the next day (second day) they gap up AGAIN (open of second day > open of day1).
 - o Again, you want to apply the same filters, but in this case you also want to verify if the close on day1 was green or red. Example: probability of red close for smallcaps that gapped up over 50% on D1, closed green, and gapped up over 20% on D2. For this setup the probability was 88% at some point last year. 9 out of 10 such occurrences were leading to a red close.

```
Probability of RED close for smallcaps that gapped up over 50 % on D1, closed GREEN and gapped up over 20 % on D2
True      0.880952
False     0.119048
Name: GapUpD1D2CloseRedD2, dtype: float64
Number of plays: 42
```

Other examples:

```
Probability of RED close on D2 for smallcaps that ran up over 30 % on D1 and gapped up over 30 % on D2
True      0.772152
False     0.227848
Name: D1Runner_RedCloseD2, dtype: float64
Number of plays: 158
```

After we find setups with edge and decent number of occurrences (at least a couple of times per month), we will get to the next stage: analyzing data to see the best way to execute (open the short right at the market open; waiting for a % increase before shorting; waiting for a certain hour) and how much to risk (average spike up), how much to target (average move down), etc.