**DataLend & Orbisa**

Short Squeeze Score

Requirements

Background

Description

A short squeeze is a market occurrence when the increasing cost to maintain a short position (either through high fees or an increasing stock price) forces short sellers to close their positions. Since closing a short requires the short seller to purchase/cover shares, a large amount of short covering will artificially boost the security’s price creating a short squeeze.

Since our data has a high correlation between a hedge fund’s short positions and a broker dealer’s borrows, we can estimate the ongoing cost to maintain a short position and estimate the position’s P&L over a period. In this case we are proposing a one-month period which will allow us to use existing tables within our database.

Business Case

Many Orbisa prospects have highlighted that our competitors have a short squeeze score available in their data set. A handful of DataLend clients have mentioned that the calculation would be of interest to them.

Scope

The calculation would only occur for equities on loan.

Inputs

Base Input Metrics

Price Momentum

Price momentum measures the directional change in price over the past 30 days. A positive momentum indicates a rise in security price and a loss in short sale profit. To normalize the data, the value is limited between 0 and 1 with negative values capped at 0 and values greater than 1 being capped at 1.

Total Borrow P&L

The total borrow P&L calculation uses the MD\_RESULT\_DELTA table to compute the 30-day (Fee Revenue+Price Changes)/Initial Investment.

*Fee Revenue = SUM(loan\_val\_amt\_c \* avg\_spread\_all\_amt\_c /365 /10000)*

*Price Changes/Marks = SUM((security\_price\_c – security\_price\_d) \* loan\_qty\_amt\_c)*

*Initial Investment = loan\_val\_amt\_c*

*Normalized Total Borrow P&L = case when SUM(loan\_val\_amt\_c \* avg\_spread\_all\_amt\_c /365 /10000) + SUM((security\_price\_c – security\_price\_d) \* loan\_qty\_amt\_c))/loan\_val\_amt\_c <0 then 0 when SUM(loan\_val\_amt\_c \* avg\_spread\_all\_amt\_c /365 /10000) + SUM((security\_price\_c – security\_price\_d) \* loan\_qty\_amt\_c))/loan\_val\_amt\_c >1 then 1 else SUM(loan\_val\_amt\_c \* avg\_spread\_all\_amt\_c /365 /10000) + SUM((security\_price\_c – security\_price\_d) \* loan\_qty\_amt\_c))/loan\_val\_amt\_c end*

A low or negative value indicates a profitable position, while a large or positive value indicates an unprofitable position. To normalize the data, the values range from 0.00 to 1.00. A value of 3 would still receive a value of 1, alternatively, a value of –0.50 would receive a value of 0.

Normalised Inputs

Calculation Methodology

Base Calculation

As described above, the Squeeze Score ranges from 1 to 100. Each of the weightings sum to 100, leaving the base calculation as follows:

Where *w* is the weighting and *m* is the metric input.

Weightings

The weighting of each metric can change in certain scenarios, i.e. when Days to Cover and/or Social Mentions does not exist for a security. Standard weightings listed below:

In a generic example, the re-weighting is calculated as below. Let , and be the original weight, redistributed weightings respectively and be the new weight. Then

One Metric Weight Redistributed

Two Metrics Weight Redistributed

Output

Expected Result

The data will be a 0-100 value with 2 decimal places and will be calculated with each batch result. The data will be available across Orbisa and DataLend.

Where it can be viewed

The new data point should be accessible in virtually all delivery methods:

**DL/Orbisa API Direct:**

Metrics

Research

**Excel Add-in:**

Formula - Output Field

Research - Output

**DataLend UI:**

Highlighted near Sec Info

Dashboard – Top Movers

Dashboard – Most Searched Securities

Security Search – Snapshot

Security Search – Custom Line Chart - Primary and Secondary Axis

Research – Squeeze Score, SS Yesterday, SS Last Week, SS Last Month, SS Day Diff, SS Week Diff, SS Month Diff, Filter Sortable

**Orbisa UI:**

Highlighted near Sec Info

Security Search – KPIs

Security Search – Compare Chart

Security Search – Trends - Demand Ratios

Watchlist – Select Metrics & Filter

UI Mock-ups

DataLend Security Search

Add new metric area alongside the security static. This should show the Squeeze Score (EQ Only) or Liquidity Score (Corp Only) when available and be removed when neither metric are available.

Show current score in size 28px and an absolute day-on-day change beneath, size 12px.

Colours

Orbisa Core and BBG Security Search

A new metric chip should be created underneath the static data. The Squeeze Score will take the same space that Liquidity Score does for EQ.