The Valuation School

BETA - The Right way

MASTERCLASS

VALUATION

Part - 5/30

Hellos! Good morning

- uptill now, we have covered Riskfree rate and Equity Risk premium.
- let's talk about Beta today.

Remember - Never quote beta is a return measure; It's a Risk measure Always.

Let's start →

What is Beta?

→

- Risk free Rate is minimum returns expected by shareholders without Assuming any Risk.
- ERP is return assumed to invest in equity markets of a <u>country</u>
- Beta – is to exponentiate the ERP due to Systematic Risk of the company

→

What is Beta?

- Remember, Beta is the only company specific component in CAPM (Ke) equation.
- It is a measure of systematic Risk.

What about returns on unsystematic Risk?

- It is not awarded to shareholders
- Because it can go away by diversifⁿ
- Returns are awarded only for non diversifiable Risk.

Regression Beta – How to calculate →

Step 1 – Download daily/weekly historic prices of your stock and Index. from Yahoo finance or Investing.com

Step 2 – Calculate period Returns $(P_1 - P_0)/P_0$ for both stock & Index

Step 3 – Use Excel function SLOPE

= SLOPE(Stock Return, Index Return)

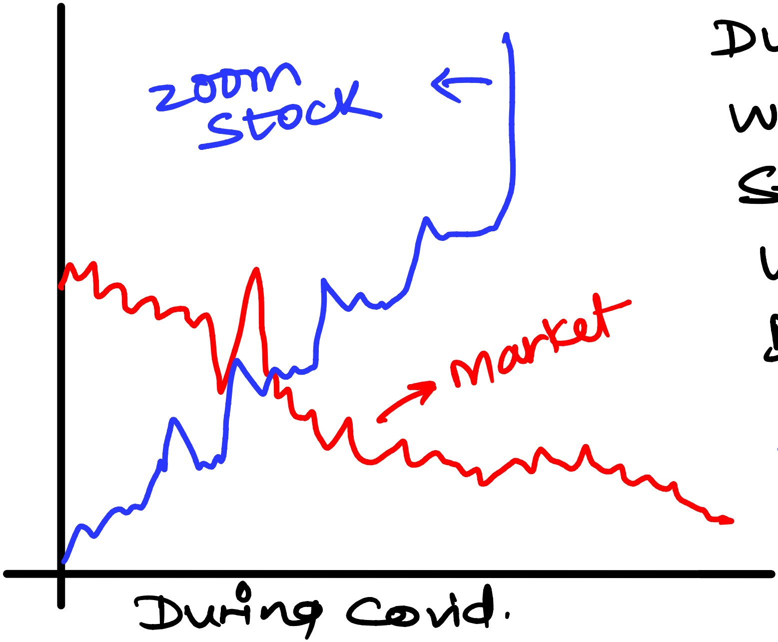
The result is **Beta.** ie. the slope of line between stock return & Index return will give you Beta.

Tips

- Try calculate it over diff return timeframe - Daily/weekly/Monthly
- Higher the timeframe = lower short term liquidity = smooth Beta.

Why Regression Beta should not be used?

① usually it is considered that Risky stocks will have ↑ Beta – Not True

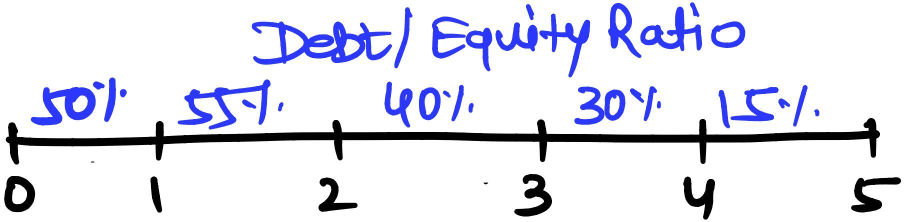


During Covid when mkt was down; zoom meet stock gave one sided upward movement and Beta of zoom was −0.83

Same happens when stock gave one sided down move – Beta goes below one.

Why Regression Beta should not be used?

(2) Regression Beta may not Reflect current debt/Equity mix.



Here the company reduced its debt to Equity ratio drastically from 50% to 15%. But if we use Regression Beta – It will consider previous high D/E and throw higher Beta.

what is difference between correlation & beta. →

(Most common Interview Qs)

<u>correlation</u> tells if two variable move togather or not & how strong is the relationship

<u>Beta</u> tells How much a variable move (along with the direction) as compared to other.

Bottom up Beta.

(Also use to calculate Beta of Private companies)

Here, we take average Beta of similar firms or sector.

But there is a issue, this avg Beta is loaded with D/E Ratio of these similar firms/sector.

→

- So we first need to unlever the Sector Beta & then relever it with our company's D/E Ratio.

Let's understand each step.

1 - Say we are calculating beta of a fmCG company

2 - firstly, find beta of comparable companies (HUL, marico etc)

3 - Unlever the beta of each company or unlever the Avg beta with Average D/E Ratio.

$$\text{Unlever Beta} = \frac{\text{Levered Beta}}{\left[1 + \left\{\underline{D/E}\,(1-T)\right\}\right]}$$

$\underline{D/E} \rightarrow$ D/E of Sector

4. Now what we got is unlevered beta of Sector.

5. Relever this Beta with our Company's D/E Ratio

$$\text{Unlevered Sector Beta} \times \left[1 + \left(D/E(1-T)\right)\right]$$

This will give us Beta of our company which is more reliable and show current D/E mix.

REPOST – To help others

follow – your man PARTH
for premium finance
content.