

## Unlevered Stock Beta Calculator

<http://spreadsheetml.com/finance/unleveredbeta.shtml>

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## ConnectCode's Financial Modeling Templates

*Have you thought about how many times you use or reuse your financial models? Everyday, day after day, model after model and project after project. We definitely have. That is why we build all our financial templates to be reusable, customizable and easy to understand. We also test our templates with different scenarios vigorously, so that you know you can be assured of their accuracy and quality and that you can save significant amount of time by reusing them. We have also provided comprehensive documentation on the templates so that you do not need to guess or figure out how we implemented the models.*

*All our template models are only in black and white color. We believe this is how a professional financial template should look like and also that this is the easiest way for you to understand and use the templates. All the input fields are marked with the '\*' symbol for you to identify them easily.*

*Whether you are a financial analyst, investment banker or accounting personnel. Or whether you are a student aspiring to join the finance world or an entrepreneur needing to understand finance, we hope that you will find this package useful as we have spent our best effort and a lot of time in developing them.*

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# 1. Unlevered Stock Beta

The Beta is a measure of the risk of a company. In general, when considering the risks of a company, we can categorize them into financial and business risks. The business risk relates to the risk of running the business while financial risk relates to the risk of borrowing money for running the business. Sometimes, it is useful to just compare the business risk of the different companies without the effects of the financial risk. Or in other words, compare risks without the effects of leverage.

Unlevering a Beta allows us to remove the financial risk or effects of leverage, i.e. to consider the risk of a company assuming it has zero debt.

## 1.1 Unlevered Beta Worksheet

This worksheet shows us how to calculate the Unlevered Beta from the company's Beta.

	A	B	C	D	E	F
1	<b>Unlevered Beta</b>					
2						
3						
4	Tax Rate(T)*					20.00%
5	Levered Beta (B)*					1.2
6	Debt to Equity Ratio (DER)*					0.6
7	Unlevered Beta					0.810810811

Tax Rate(T)\* - The Tax Rate of the company.

Levered Beta (B)\* - The company's leverage Beta, also known as the Stock Beta.

Debt to Equity Ratio (DER)\* - The company's debt to equity ratio.

Unlevered Beta - The Unlevered Beta is calculated as follows:

$$\text{Unlevered Beta} = \text{Levered Beta} * (1 / (1 + (1 - \text{Tax Rate}) * \text{Debt to Equity Ratio}))$$

## 1.2 Levered Beta Worksheet

The Levered Beta can be calculated from the Unlevered Beta through the following worksheet

	A	B	C	D	E	F
1	<b>Levered Beta</b>					
2						
3						
4	Tax Rate(T)*					20.00%
5	Unlevered Beta*					0.81
6	Debt to Equity Ratio (DER)*					0.6
7	Levered Beta (B)					1.20

Tax Rate(T)\* - The Tax Rate of the company.

Unlevered Beta\* - The company's beta without the effects of leverage.

Debt to Equity Ratio (DER)\* - The company's debt to equity ratio.

Levered Beta (B) - The Levered Beta is calculated as follows:

$$\text{Levered Beta} = \text{Unlevered Beta} * (1 + ((1 - \text{Tax Rate}) * \text{Debt to Equity Ratio}))$$