

Activity Sheet 4: Understanding The Beta Number

The following problems explain how the beta number reflects the movement of a company's stock compared to the overall market. The S&P 500 Index is composed of 500 major companies; it measures the average increase or decrease over a specific period of time. A beta of one indicates that the stock's price moves exactly with the overall market. For example, if the market goes up 20%, the stock price goes up 20%. Market goes down 10% stock goes down 10%.

A stock with a beta of more than one is more volatile than the market. If the market goes up, it tends to go up at a greater magnitude (i.e. market goes up 10%, stock goes up 15%). The higher the beta number, the more volatile the stock. A beta of less than one indicates that the stock's price is more stable than the market.

For example, Company A has a beta of .5, the price per share is \$50.00 and the S&P moved -4%. **To calculate how much the stock may change use the following formula**
 (S&P X Beta Number) X Cost of Share = Assumed increase/ decrease per share
 $(-.04 \times .5) 50.00 = -1.00$

Whereas a company that has a beta of 2.3, price per share \$50.00 and the S&P moved -4%
 $(-.04 \times 2.3) 50.00 = -4.60$

Notice the loss is much greater in the second company. If the S&P moved up 4%, the gain would be much greater.

NOTE: This does NOT mean the stock value moved this much on that day. It assumes the stock moved, based on its history and movement within the stock market.

Part 1: For the following problems, calculate the assumed increase or decrease per share.

Company	Beta Number	S&P 500 YTD% Change	Cost per Share	Increase/ Decrease
Computer Week	1.06	-5%	83.00	
Inter Finder	2.8	+5%	342.00	
Tea Company	.32	-4%	35.00	
Coffee Company	1.1	+4%	37.00	



Part 2: Research 3 companies in which you are interested in investing. Find the beta number, and decide if the risk is worth taking, based on what you know about company. Fill in the following chart.

To find the S&P 500 Index use the following website

<http://money.cnn.com/data/markets/sandp/>

To find the beta number of a stock use the <http://www.NYSE.com> and look up the stock value by finding symbol and typing in symbol where it says 'get quote.'

Company	Beta Number	S&P 500 YTD% Change	Cost per Share	Increase/Decrease

1. Which company is the least volatile? Most volatile?

2. Would you invest in the company that is the most volatile? Why or why not?

ANSWER KEY

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Part 1: For the following problems, calculate the assumed increase or decrease per share.

Company	Beta Number	S&P 500 YTD% Change	Cost per Share	Increase/ Decrease
Computer Week	1.06	-5%	83.00	-4.40
Inter Finder	2.8	+5%	342.00	47.88
Tea Company	.32	-4%	35.00	-.45
Coffee Company	1.1	+4%	37.00	1.63

Part 2: Research 3 companies in which you are interested in investing. Find the beta number, and decide if the risk is worth taking, based on what you know about company. Fill in the following chart.



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Company	Beta Number	S&P 500 YTD % Change	Cost per Share	Increase/Decrease
<i>TGT</i>	<i>.69</i>	<i>3.33</i>	<i>46.15</i>	<i>1.06</i>
<i>ZP</i>	<i>1.64</i>	<i>3.33</i>	<i>.84</i>	<i>.05</i>
<i>DE</i>	<i>1.68</i>	<i>3.33</i>	<i>72.71</i>	<i>4.07</i>

1. Which company is the least volatile? Most volatile?

2. Would you invest in the company that is the most volatile? Why or why not? I would not because it is more expensive than Target...I would invest in Target because you are investing less in a company that is equally as volatile.

Answers may vary on Part 2.