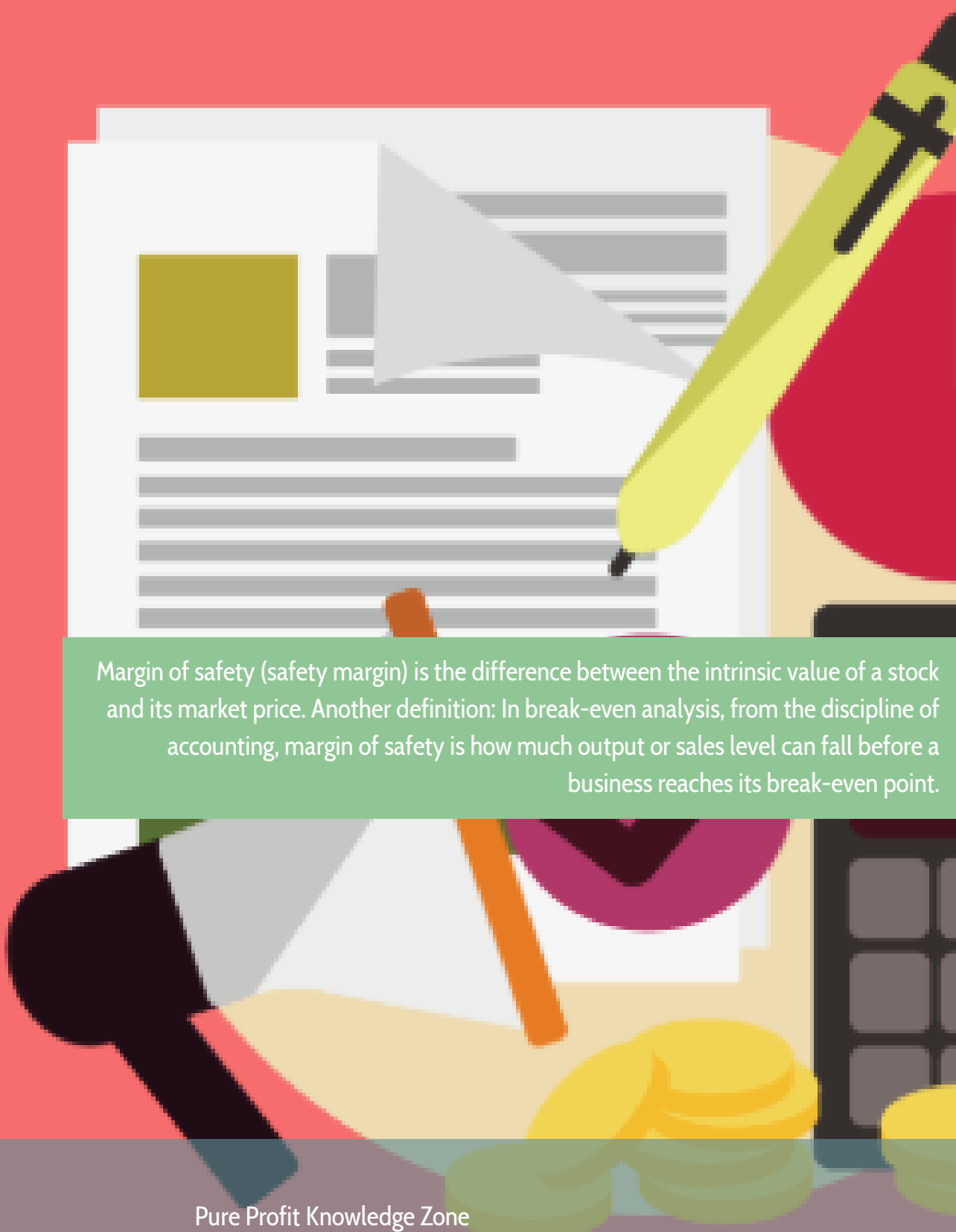
Margin of Safety



Margin of safety (safety margin) is the difference between the intrinsic value of a stock and its market price. Another definition: In break-even analysis, from the discipline of accounting, margin of safety is how much output or sales level can fall before a business reaches its break-even point.

Margin of Safety

A Dose of Safety

The margin of safety is the reduction in sales that can occur before the **break-even point** of a business is reached. This informs management of the risk of loss to which a business is subjected by changes in sales. The concept is useful when a significant proportion of sales are at risk of decline or elimination, as may be the case when a sales contract is coming to an end. A minimal margin of safety might trigger action to reduce expenses. The opposite situation may also arise, where the margin of safety is so large that a business is well-protected from sales variations.

To calculate the margin of safety, subtract the current breakeven point from sales, and divide by sales. The formula is:

(Current Sales Level – Breakeven Point) ÷ Current Sales Level

The amount of this buffer is expressed as a percentage.

Here are two alternative versions of the margin of safety:

1. ***Budget based.*** A company may want to project its margin of safety under a budget for a future period. If so, replace the current sales level in the formula with the budgeted sales level.
2. ***Unit based.*** If you want to translate the margin of safety into the number of units sold, then use the following formula instead (though note that this version works best if a company only sells one product):

(Current Sales Level - Breakeven Point) ÷ Selling Price Per Unit

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For example, Lowry Locomotion is considering the purchase of new equipment to expand the production capacity of its toy tractor product line. The addition will increase Lowry's operating costs by $100,000 per year, though sales will also be increased. Relevant

information is noted in the following table:

	Before Machinery Purchase	After Machinery Purchase
Sales	$4,000,000	$4,200,000
Gross margin percentage	48%	48%
Fixed expenses	$1,800,000	$1,900,000
Breakeven point	$3,750,000	$3,958,000
Profits	$120,000	$116,000
Margin of safety	6.3%	5.8%

The table reveals that both the margin of safety and profits worsen slightly as a result of the equipment purchase, so expanding production capacity is probably not a good idea.

The margin of safety concept does not work well when sales are strongly seasonal, since some months will yield catastrophically low results. In such cases, annualize the information in order to integrate all seasonal fluctuations into the outcome.

The margin of safety concept is also applied to investing, where it refers to the difference between the intrinsic value of a company's share price and its current market value. An investor wants to see a large variance between the two figures (which is the margin of safety) before buying stock. This implies that there is substantial upside potential for the stock price - or at least, it means any error in deriving the intrinsic value must be a big one in order to erase the margin of safety.