

3.7: Understanding the Degree of Operating Leverage

What is the degree of operating leverage?

Degree of Operating Leverage (DOL) is a measure of the proportion of fixed costs to a business's overall cost structure. OL tells a business how sensitive profit is to changes in sales volume. The formula for DOL is as follows:

$$\text{Degree of Operating Leverage} = \frac{\text{Contribution Margin}}{\text{Net profit or income}}$$

How can we use the operating leverage statistic?

The Degree of Operating Leverage (DOL) statistic is most often used to compare different businesses, rather than as a tool for sensitivity analysis for a single firm. Let's try an example using two cafes – Stockmarket Cafe and Universal Cafe.

	Stockmarket Cafe	Universal Cafe
Total contribution margin	180,000	180,000
Net income or profit	90,000	120,000
Operating leverage (= CM / Net income)	2	1.5

Now we have our DOL for both firms – Stockmarket is 2 and Universal is 1.5. What on earth does this mean? It means that for Stockmarket Cafe, if sales increase (or decrease), net income or profit will increase (or decrease) by 2 times the percentage change. That is, if sales increases by 10%, then profit will increase by 20%. Looking at Universal Cafe, if sales increase (or decrease), net income or profit will increase (or decrease) by 1.5 times the percentage change. Using the same 10% increase in sales, at Universal Cafe, profit will increase by 15% (1.5 x 10%).

Which of these two firms is the better investment? Stockmarket Cafe or Universal Cafe?

Is it as simple as higher is better?

No! Remember that Operating Leverage uses contribution margin, and does not take into account any fixed costs. So while OL is one number, it should be looked at in conjunction with other measures. Businesses that have high fixed costs and lower variable costs (one reason could be high levels of automated machinery) will have a higher operating leverage. Businesses that have higher variable costs and therefore lower operating leverage, may have lower fixed costs. To make a more informed decision – examining the number of units to be sold to break even could be useful in assessing which firm may be a better investment.

Investopedia has produced a summary video about the [Degree of Operating Leverage](#) [link opens a YouTube video]

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