

What is Operating Leverage?

- **Question:** “What is the formula for **operating leverage** when you’re analyzing a company’s financial statements?”
- “Also, what does ‘high operating leverage’ mean? Is it good or bad for a company to have high operating leverage?”
- **Plan:** Explain the concept, show the calculations, and explain the interpretation

What is Operating Leverage?

- **Answer 1:** Not just one formula! At least 3, possibly 4...
 - But they **all** relate to **fixed vs. variable costs**
 - As **sales grow**, how much trickles down into **OpInc?**
- **Answer 2:** Not a matter of “good” or “bad”
 - Any type of leverage → higher **risk**, higher *potential rewards*

What is Operating Leverage?

- **Example 1:** Microsoft – high fixed costs to develop software, pay employees, etc., but costs almost nothing to sell each additional copy
 - **10 million vs. 50,000 copies of Windows** → Almost the same expenses, high operating leverage
- **Example 2:** Consulting firm – expenses all correspond to specific clients (more billing → more employees)
 - **1,000 hours vs. 100 hours** → Almost 10x the expenses for 1,000 hours, low operating leverage

What is the Formula?

- **Formula 1:** $\text{Fixed Costs} / (\text{Fixed Costs} + \text{Variable Costs})$
 - **Problem:** Companies don't spell this out
- **Formula 2:** $\% \text{ Change in OpInc} / \% \text{ Change in Sales}$
- **Formula 3:** $\text{Net Income} / \text{Fixed Costs}$
- **Formula 4:** $\text{Contribution Margin} / \text{Operating Margin}$

Is High Operating Leverage “Good”?

- **Positive:** As sales grow, the company’s operating income grows by a substantially higher amount, and its operating margin actually increases
- **Negative:** But when sales fall or the industry experiences a downturn, things get bad very quickly!
- **Financial Leverage:** Similar to the risk of using debt in a leveraged buyout – more upside, but also more risk

Is High Operating Leverage “Good”?

- **So How Do You Use This?** Depends on your firm’s investment strategy...
- **On Balance:** *Most* PE and other investment firms will prefer companies with higher operating leverage → higher chance of earning outsized returns
- **The “Ceiling”:** Tends to be lower when variable costs are much higher

Recap and Summary

- **Operating Leverage:** How does revenue growth translate into Operating Income?
- **Formulas:** Ideally look at Contribution Margin / Operating Margin or Fixed vs. Variable Costs...
- **Non-Ideal:** $\% \text{ Change in OpInc} / \% \text{ Change in Sales}$
- **Meaning:** Higher risk, but also higher potential rewards