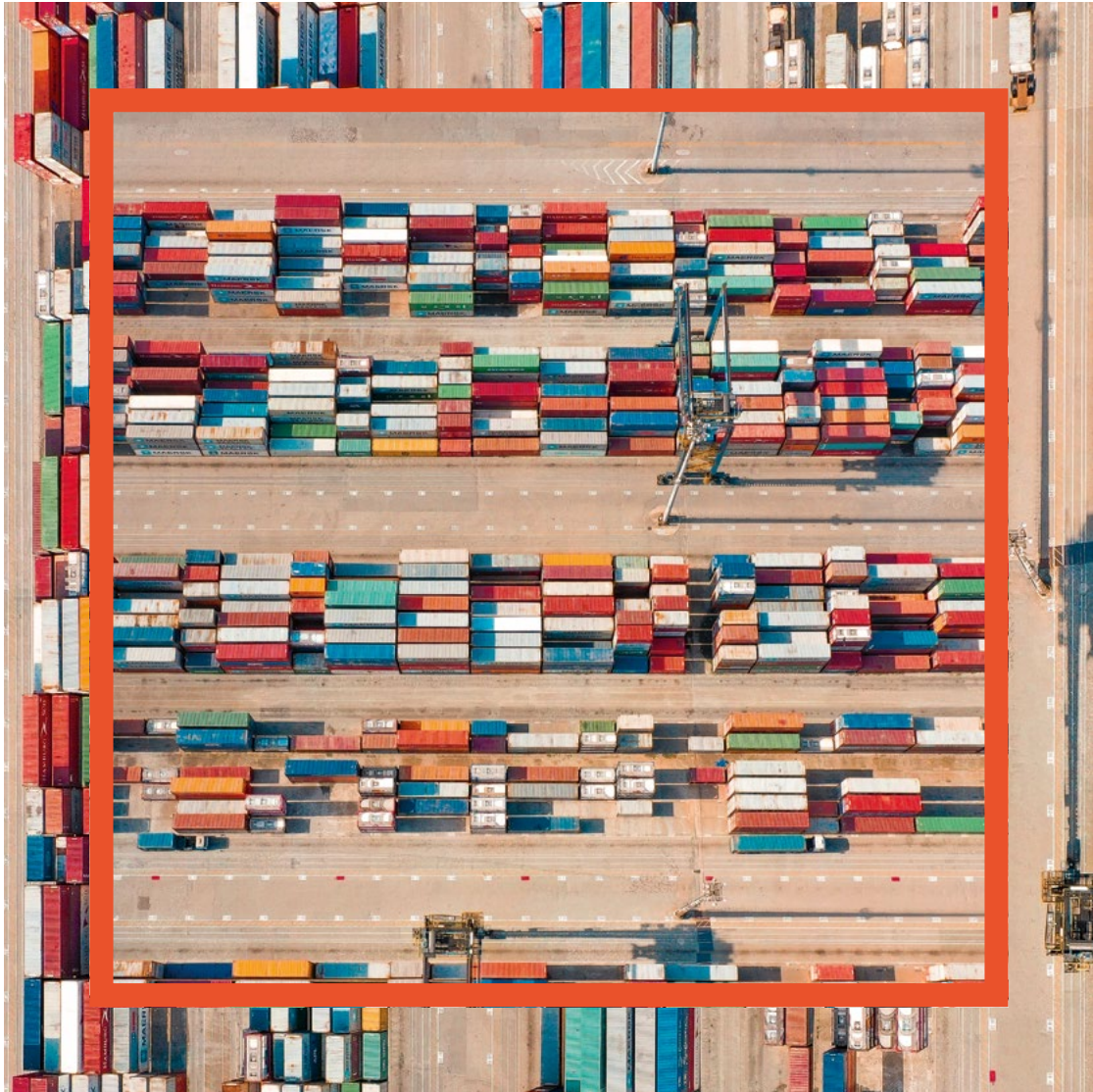


# INTRODUCTION TO STOCK INVESTING

## Corporate Analysis



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## KEY MEASURES

### 1. Revenue

**Revenue is the income generated from normal business operations and includes discounts and deductions for returned merchandise. It is the top line or gross income figure from which costs are subtracted to determine net income.**

Revenue is money brought into a company by its business activities. Revenue is also known as sales, as in the price-to-sales ratio - an alternative to the price-to-earnings ratio that uses revenue in the denominator.

PERIOD ENDING:	TREND	31/12/2018	31/12/2017	31/12/2016	31/12/2015
Total Revenue		USD 232'887'000	USD 177'866'000	USD 35'987'000	USD 107'006'000
Cost of Revenue		USD 139'156'000	USD 111'934'000	USD 88'265'000	USD 71'651'000
Gross Profit		USD 93'731'000	USD 65'932'000	USD 47'722'000	USD 35'355'000
<b>Operating Expenses</b>					

Amazon Income Statement (Values in 000's)

### 2. Net income

**Net income - NI is equal to net earnings (profit) calculated as sales less cost of goods sold, selling, general and administrative expenses, operating expenses, depreciation, interest, taxes and other expenses.**

This number appears on a company's income statement and is an important measure of how profitable the company is. Businesses use net income to calculate their earnings per share.

PERIOD ENDING:	TREND	31/12/2018	31/12/2017	31/12/2016	31/12/2015
Net Income		USD 10'073'000	USD 3'033'000	USD 2'371'000	USD 596'000
Net Income Applicable to Common Shareholders		USD 10'073'000	USD 3'033'000	USD 2'371'000	USD 596'000

Amazon Income Statement (Values in 000's)

### 3. EBITDA

**EBITDA, or earnings before interest, taxes, depreciation, and amortization, is a measure of a company's overall financial performance and is used as an alternative to simple earnings or net income in some circumstances.**

EBITDA can be used to compare companies against each other and industry averages. Also, EBITDA is a good measure of core profit trends because it eliminates some extraneous factors and allows a more «apples-to-apples» comparisons. This measure can be used as a shortcut to estimate the cash flow available to pay the debt of long-term assets.

EBITDA is calculated in a straightforward manner, with information that is easily found on a company's income statement and balance sheet:

**EBITDA = Net Income + Interest + Taxes + D&A**

Where D = Depreciation & A = Amortization

### 4. EBIT

**Earnings before interest and taxes is an indicator of a company's profitability. One can calculate it as revenue minus expenses, excluding tax and interest. EBIT is also referred to as operating earnings, operating profit, and profit before interest and taxes.**

EBIT measures the profit a company generates from its operations, making it synonymous with operating profit. By ignoring taxes and interest expense, EBIT focuses solely on a company's ability to generate earnings from operations, ignoring variables such as the tax burden and capital structure.

EBIT is an especially useful metric because it helps to identify a company's ability to generate enough earnings to be profitable, pay down debt, and fund ongoing operations.

EBITDA is calculated in a straightforward manner, with information that is easily found on a company's income statement and balance sheet:

**EBIT = Revenue – COGS – Operating Expenses Or EBIT = Net Income + Interest + Taxes**

### 5. FCF (Free Cash Flow)

**Free cash flow is the cash a company produces through its operations, less the cost of expenditures on assets. In other words, free cash flow (FCF) is the cash left over after a company pays for its operating expenses and capital expenditures, also known as CAPEX.**

Free cash flow represents the cash a company generates after cash outflows to support operations and maintain its capital assets. Unlike earnings or net income, free cash flow is a measure of profitability that excludes the non-cash expenses of the income statement and includes spending on equipment and assets as well as changes in working capital.

	2014	2015	2016	2017	2018	5-YEAR TREND
Free Cash Flow	1.95B	7.33B	9.71B	6.41B	17.3B	
Free Cash Flow Growth	-	276.14%	32.40%	-33.96%	169.83%	

Amazon FCF trend

Interest payments are excluded from the generally accepted definition of free cash flow. Investment bankers and analysts who need to evaluate a company's expected performance with different capital structures will use variations of free cash flow like free cash flow for the firm and free cash flow to equity, which are adjusted for interest payments and borrowings.

**FCF = Operating Cash Flow – Capital Expenditures**

**Free cash flow is an important measurement since it shows how efficient a company is at generating cash.**

Investors use free cash flow to measure whether a company might have enough cash, after funding operations and capital expenditures, to pay investors through dividends and share buybacks.

### 6. Dividend

**A dividend is the distribution of reward from a portion of the company's earnings and is paid to a class of its shareholders.** Dividends are decided and managed by the company's board of directors, though they must be approved by the shareholders through their voting rights.

Dividends can be issued as cash payments, as shares of stock, or other property, though cash dividends are the most common. Along with companies, various mutual funds and exchange traded funds (ETF) also pay dividends.

DECLARED	RECORD	PAYABLE	AMOUNT	TYPE
30 July, 2019	12 August, 2019	15 August, 2019	USD 77	Regular cash
30 April, 2019	13 May, 2019	16 May, 2019	USD 77	Regular cash
29 January, 2019	11 February, 2019	14 February, 2019	USD 73	Regular cash

Apple dividend history (2019)

# MARKET VALUE MEASURES

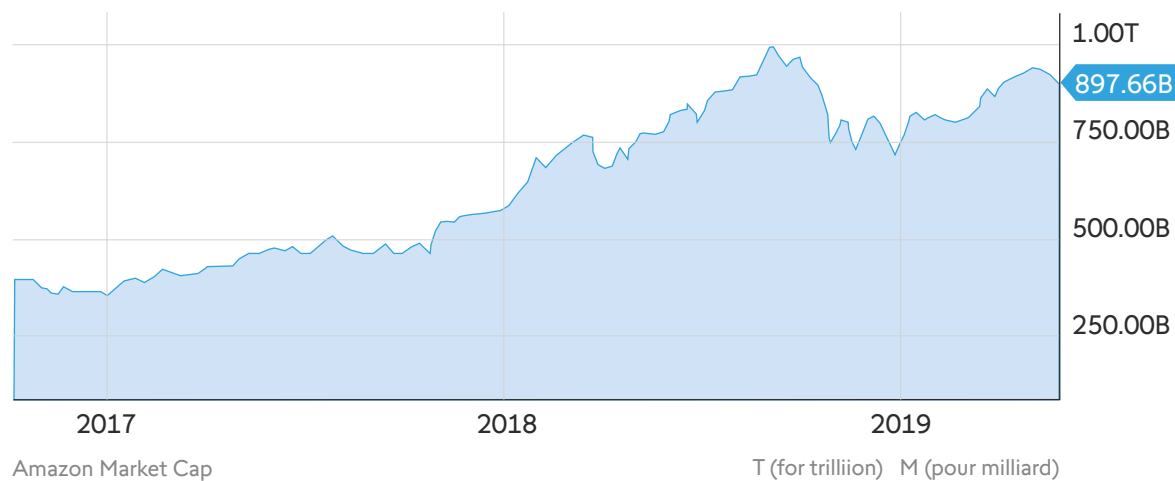
Market value measures indicate how the market (investors) view the company's financial prospects (based on market price of the stock). These ratios can only be computed for publicly-traded companies.

## 1. Market capitalization

Market capitalization refers to the total dollar market value of a company's outstanding shares. It is calculated by multiplying a company's shares outstanding by the current market price of one share.

<b>Large Cap</b>	Market cap <b>higher than USD 10 billion</b>
<b>Mid Cap</b>	Market cap between <b>USD 2 billion and USD 10 billion</b>
<b>Small Cap</b>	Market cap between <b>USD 300 million and USD 2 billion</b>

Using market capitalization is critical because **company size is a basic element of your analysis**, mainly for assessing risk (the smallest companies being the riskiest)

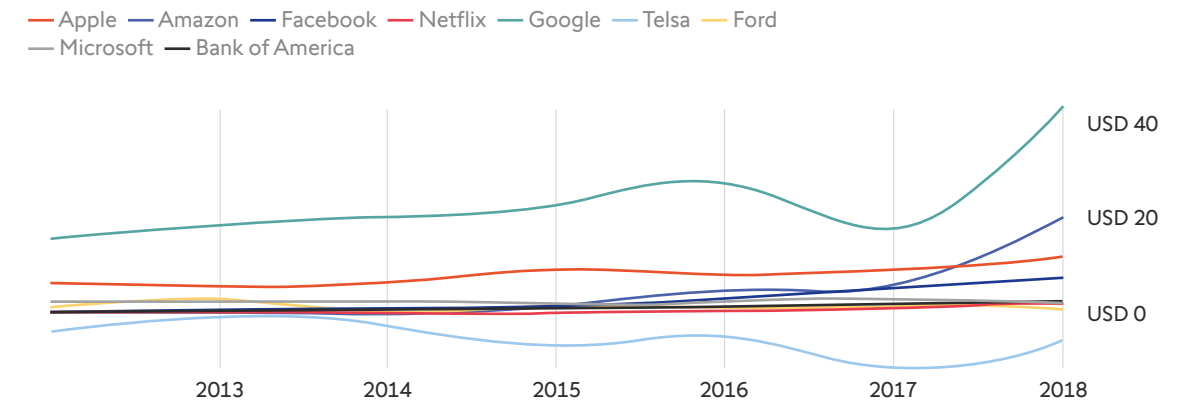


## 2. EPS (Earnings Per Share)

The EPS shows the portion of a company's profit that is allocated to each outstanding share of common stock.

Investors usually compare the EPS of several companies within the same industry to get a better understanding of how the company is performing relative to its peers.

$$EPS = \frac{\text{Net income}}{\text{Average outstanding common shares}}$$



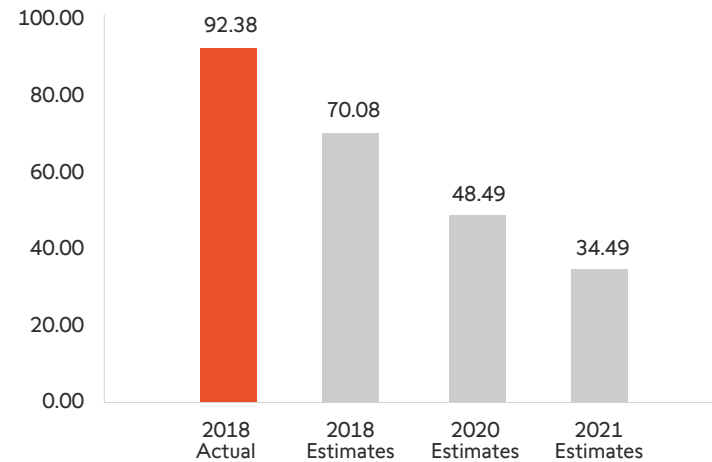
## 3. P/E Ratio (Price-Earnings ratio)

P/E ratios are used by investors and analysts to determine the relative value of a company's shares against its peers. It can also be used to compare a company against its own historical record.

$$P/E \text{ Ratio} = \frac{\text{Price per share}}{EPS}$$

**A stock's P/E tells us how much investors are willing to pay per dollar of earnings.**

Generally, a high P/E ratio means that investors are anticipating higher growth in the future. The current average market P/E ratio is roughly 20x to 25x.



Amazon P/E Ratio. Sources: NASDAQ

## 4. Beta

**A beta (the Greek letter  $\beta$ ) coefficient is a measure of the volatility of an individual stock in comparison with its market. It is used as the most common measure of risk.**

A company with a higher beta has greater risk and also greater expected returns.

<b>High <math>\beta</math> (<math>&gt; 1</math>)</b>	<b>A company with a <math>\beta</math> that's greater than 1 is more volatile than the market.</b> For example, a high-risk technology company with a $\beta$ of 1.75 would have returned 175% of what the market return in a given period.
<b>Low <math>\beta</math> (<math>&lt; 1</math>)</b>	<b>A company with a <math>\beta</math> that's lower than 1 is less volatile than the market.</b> For example, consider an electric utility company with a $\beta$ of 0.45 would have returned only 45% of what the market returned in a given period.
<b>Negative <math>\beta</math> (<math>&lt; 0</math>)</b>	<b>A company with a negative <math>\beta</math> is negatively correlated to the returns of the market.</b> For example, a gold company with a $\beta$ of -0.2 would have returned -2% when the market was up 10%.

## 5. Alpha

**Alpha (the Greek letter  $\alpha$ ) is a term used in investing to describe a strategy's ability to beat the market, or its «edge».** It is thus also often referred to as «excess return» or «abnormal rate of return».

Alpha is used in finance as a measure of performance, indicating when a strategy, trader, or portfolio manager has managed to beat the market return over some period.

Mathematically speaking, Alpha is the rate of return that exceeds a financial expectation. We will use the CAPM formula as an example to illustrate how Alpha works exactly:

$$R = R_f + \beta * (R_m - R_f) + \text{Alpha} \rightarrow \text{Alpha} = R - R_f - \beta * (R_m - R_f)$$

Where:

- $R$  = the security's or portfolio's return
- $R_f$  = the risk-free rate of return
- $\beta$  = systemic risk of a portfolio
- $R_m$  = the market return

# PROFITABILITY MEASURES

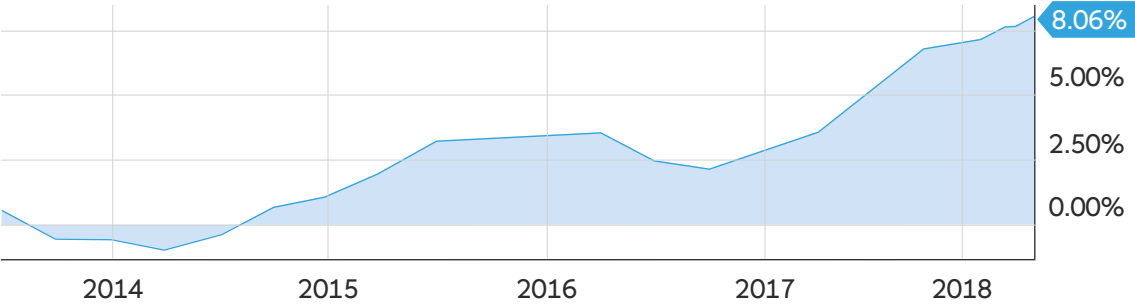
Profitability measures show how well the firm uses its assets and manages its operations. Profitability ratios are used to assess a business’s ability to generate earnings relative to its revenue, operating costs, balance sheet assets, and shareholders’ equity over time.

## 1. ROA (Return on Assets)

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets.

ROA should be compared using similar companies or using its previous performance. ROA takes into account a company’s debt, while ROE does not.

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$$



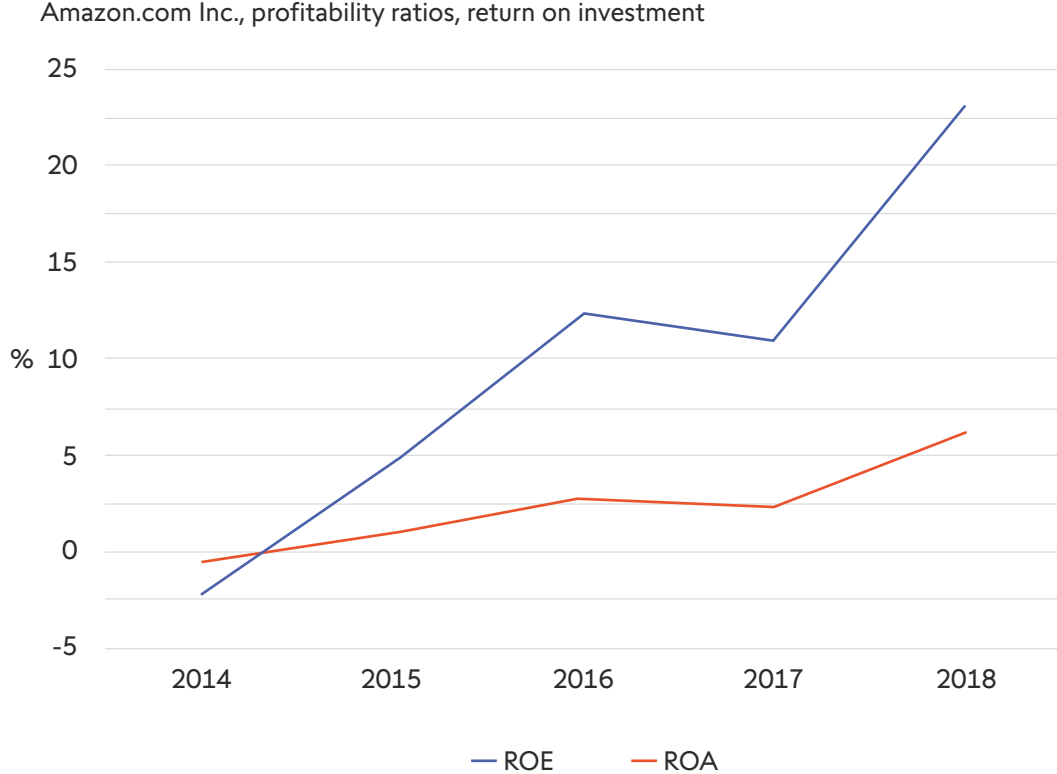
Amazon ROA

## 2. ROE (Return on Equity)

ROE is considered a measure of how effectively management is using a company’s assets to create profits.

ROE should be compared using similar companies or using its previous performance.

$$ROE = \frac{\text{Net Income}}{\text{Total Equity}}$$





# LIQUIDITY MEASURES

«Liquidity» refers to the ease and quickness with which assets can be converted to cash—without a significant loss in value. The more liquid a firm’s assets, the less likely the firm is to experience problems meeting short-term obligations.

## 1. Current Ratio

The current ratio measures a company’s ability to pay short-term obligations or those due within one year. A company’s current ratio should be compared with its peers and the industry average.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

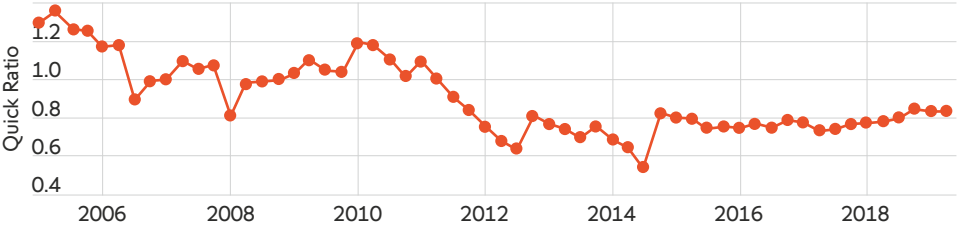
<b>Current ratio &gt; industry avg</b>	Management may not be using their assets efficiently.
<b>Current ratio = industry avg</b>	Generally considered <b>acceptable</b>
<b>Current ratio &lt; industry avg</b>	May indicate a higher risk of distress or default

## 2. Quick Ratio

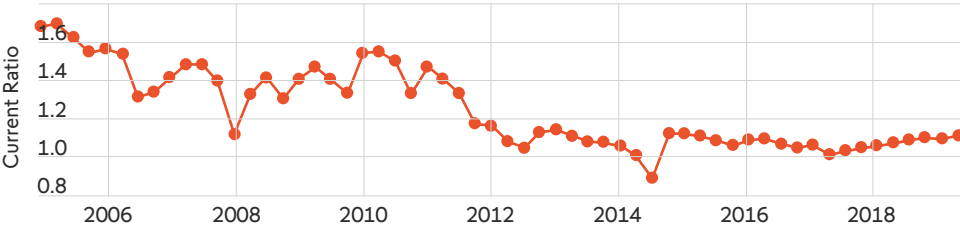
Similarly to the current ratio, the quick ratio is an indicator of a company’s short-term liquidity position and measures a company’s ability to meet its short-term obligations with its most liquid assets.

The reason why we subtract inventory is that inventory’s liquidity can sometimes be a problem (not easily sellable).

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$



Amazon quick ratio history



Amazon current ratio history

# SOLVENCY MEASURES

Solvency is the ability of a company to meet its long-term debts and financial obligations.

## 1. Leverage Ratios

### Total Debt Ratio

The higher the debt ratio, the more leveraged a company is, implying greater financial risk.

Debt ratios vary widely across industries, with capital-intensive businesses such as utilities and pipelines having much higher debt ratios than other industries such as the technology sector.

$$\text{Total Debt Ratio} = \frac{\text{Total Assets} - \text{Total Equity}}{\text{Total Assets}}$$

### Debt to Equity Ratio

The Debt/Equity ratio is a measure of the degree to which a company is financing its operations through debt versus wholly owned funds.

$$\text{Debt/Equity} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

## 2. Coverage Ratios

### Times Interest Earned

The Time Interest Earned ratio indicates how many times a company can cover its interest charges on a pretax earnings basis.

$$\text{Times Interest Earned} = \frac{\text{EBIT}}{\text{Interest}}$$

# NEXT STEPS – START TRADING WITH SWISSQUOTE

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