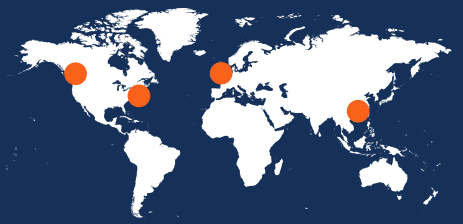
# Financial Analysis Fundamentals

# CFI Instructors



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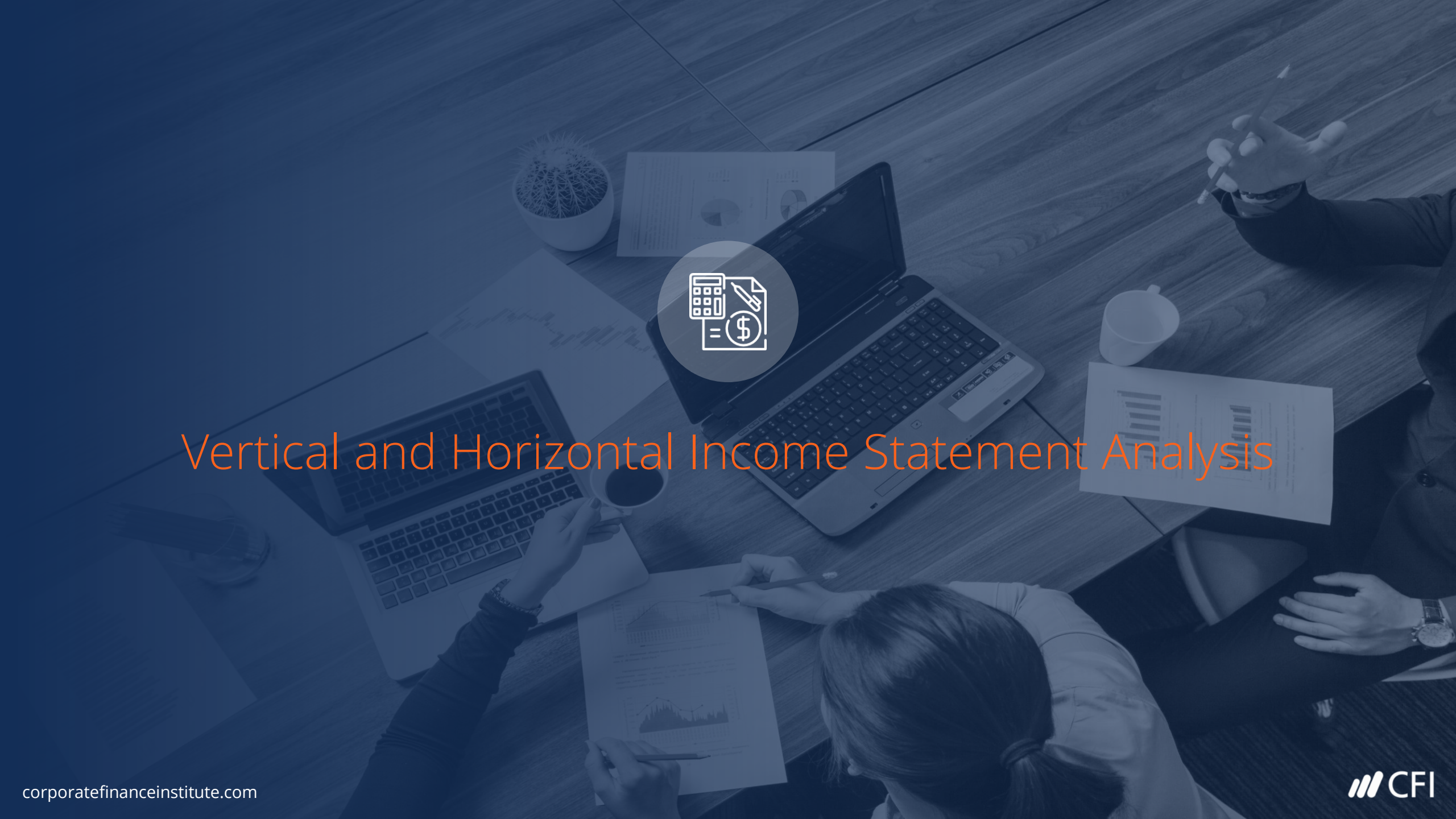


# Vertical and Horizontal Income Statement Analysis

# Session objectives

Learn the key components of the income statement

Perform vertical and horizontal analysis

Benchmark against other companies in the industry

# Financial analysis

There are many important steps, such as trend and ratio analysis, in preparing a financial analysis. The starting point is the financial statements:

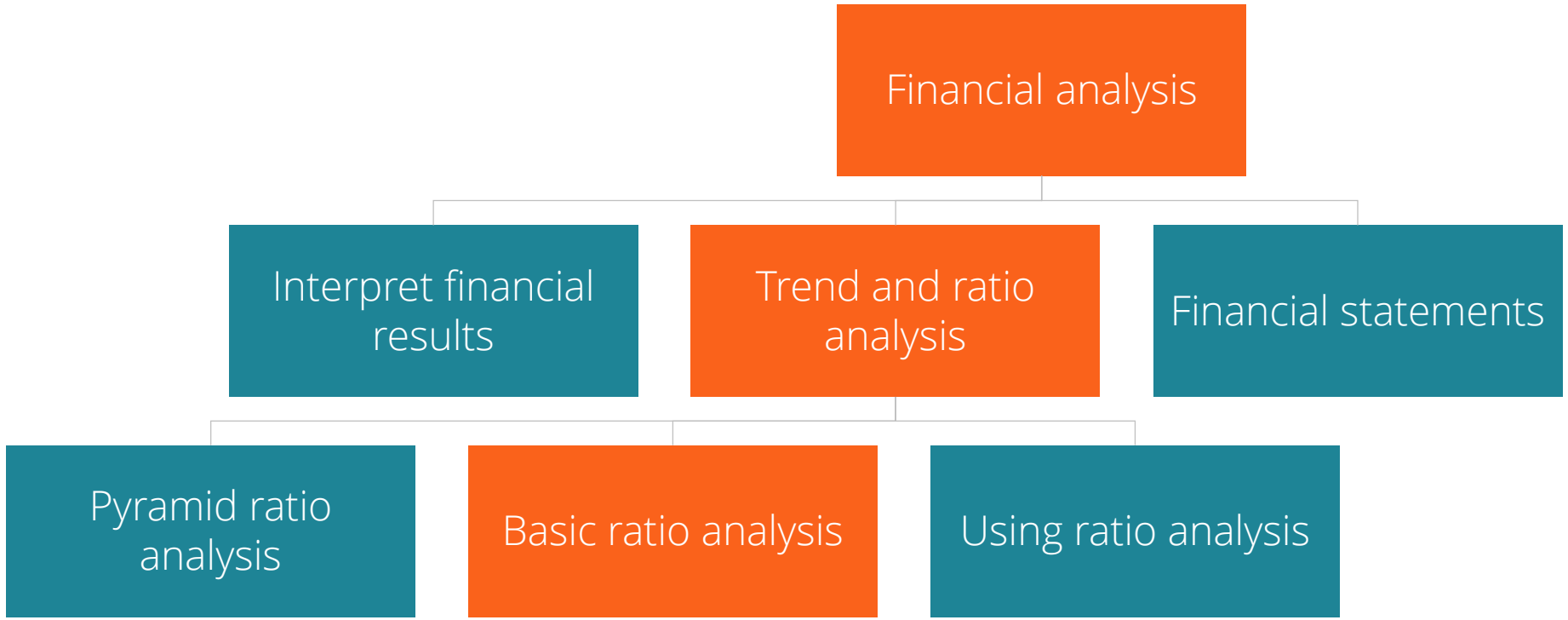
**Income statement**

**Balance Sheet**

**Statement of Cash Flows**

# Financial analysis

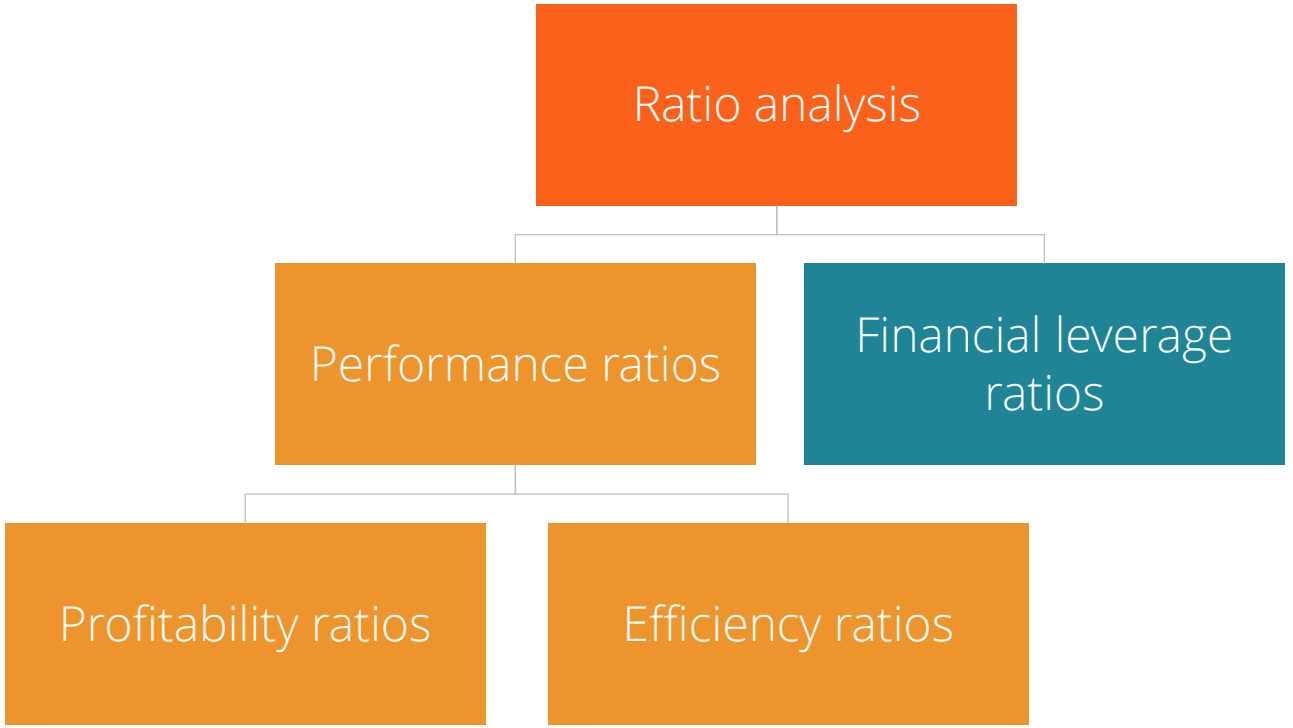
There are many important steps, such as trend and ratio analysis, in preparing a financial analysis. The starting point is the financial statements:



# Components of ratio analysis

**Ratio analysis covers two basic groups.**

When analysing the income statement, we use performance ratios – specifically those related to profitability.



# A breakdown of the income statement

| Tensel | | | | | |
|---|---|---|---|---|---|
| **Income statement** | | | | | |
| $ millions | **Year 1** | **Year 2** | **Year 3** | **Year 4** | |
| **Sales revenues** | **81,422** | **84,698** | **88,236** | **90,637** | Sales revenues |
| COGS/COS | (38,121) | (37,756) | (36,327) | (42,938) | Direct costs |
| **Gross profit** | **43,301** | **46,942** | **51,909** | **47,699** | Gross profit |
| Research and development | (5,884) | (6,421) | (7,893) | (6,812) | Research & development |
| Marketing | (23,507) | (26,569) | (29,732) | (30,009) | Marketing |
| Sales | (1,764) | (1,931) | (2,530) | (2,563) | Sales |
| General and administration | (2,960) | (2,803) | (2,762) | (2,947) | General & administration |
| **EBIT (operating profit)** | **9,186** | **9,218** | **8,992** | **5,368** | Income from ops |
| Interest | (1,073) | (1,102) | (1,147) | (1,182) | Interest inc/exp |
| Taxes | (2,761) | (2,429) | (2,193) | (1,764) | Taxes |
| **Net income** | **5,352** | **5,687** | **5,652** | **2,422** | Net income |

**Sales revenues** are the most important components of the income statement and are used in several of the ratios seen throughout the module.

**Cost of good sold** relates to direct labor and raw materials needed to create the product or service that is being sold, as well as depreciation on manufacturing equipment used in production.

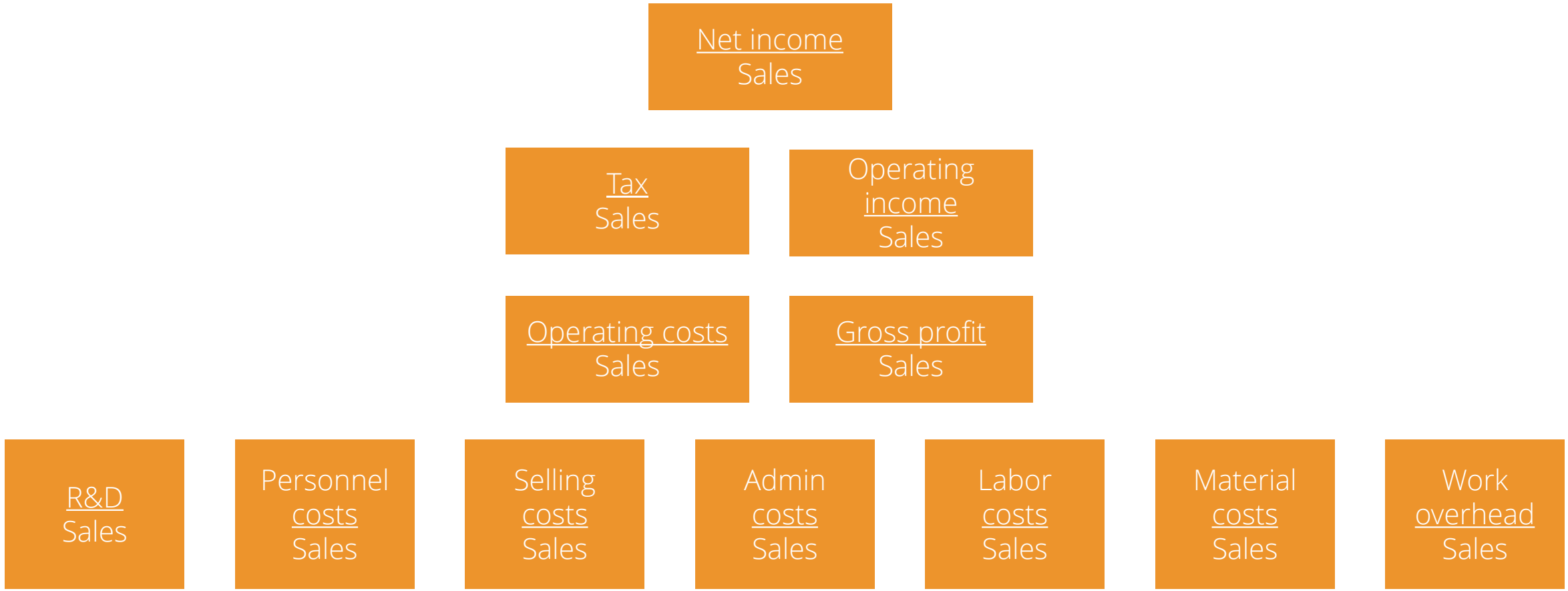
**Gross profit** tells us what the gross margin is before we take into account any other costs needed to keep the company running.

**Indirect expenses** are those required to keep the company going. The most common are: research & development, marketing, sales, and general & administration.

**Operating income** is used to pay the government, creditors, and ultimately the shareholders.

**Net income** is the final part of the income statement and represents what is remaining to be paid to the shareholders.

# Vertical analysis



# Gross profit margin

There are three key profitability ratios:

$$\frac{\text{Gross profit}}{\text{Sales}} = \textbf{Gross profit margin} \%$$

# Operating profit margin

$$\frac{\text{EBIT}}{\text{Sales}} = \text{Operating profit margin } \%$$

# Net profit margin

$$\frac{\text{Net income}}{\text{Sales}} = \text{Net profit margin} \%$$

# Efficiency ratio

The tax ratio is the efficiency ratio that demonstrates how well managing tax.

$$\frac{\text{Tax expense}}{\text{Pre-tax income}} = \textbf{Tax ratio}$$

# Solvency ratio

The interest coverage ratio tells us whether the company will be able to cover what it owes in interest to its creditors.

$$\frac{\text{EBIT(DA)}}{\text{Interest expenses}} = \textbf{Interest coverage ratio}$$

# Horizontal analysis

| Tensel | | | | | |
|---|---|---|---|---|---|
| **Income statement** | | | | | |
| CAD millions | **Year 1** | **Year 2** | **Year 3** | **Year4** | **Year 5** |
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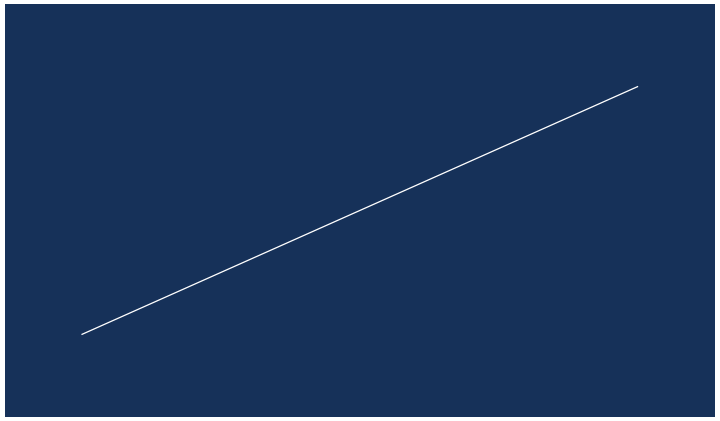
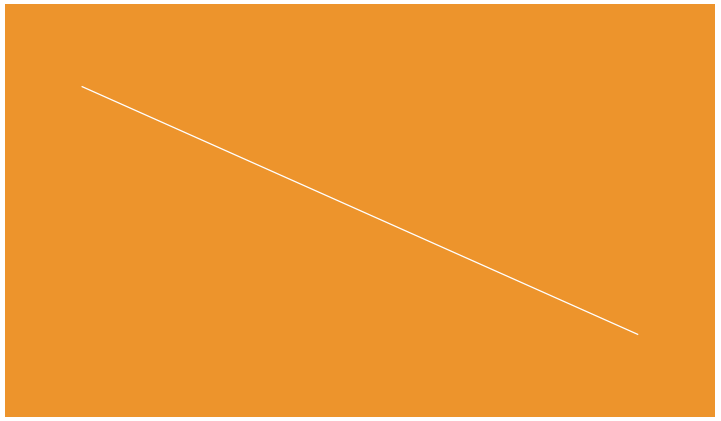
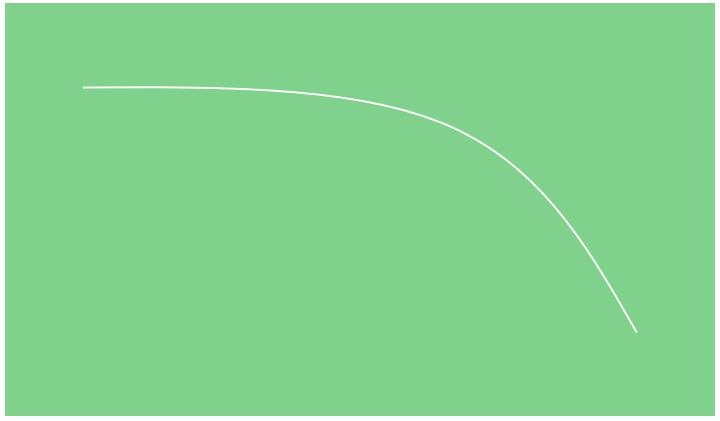
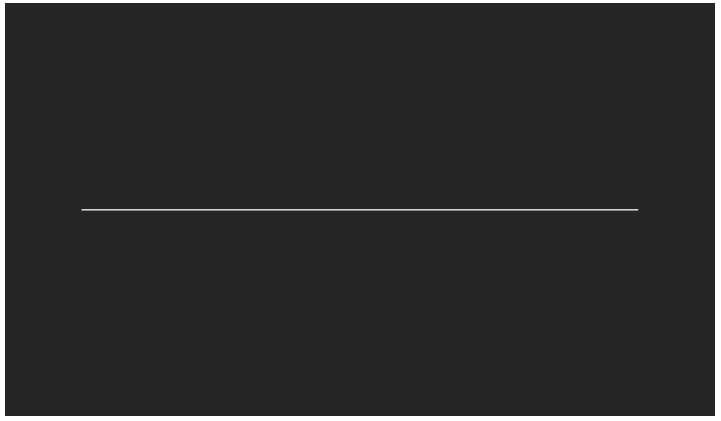
Use calculations from the past five years to perform trend analysis and predict future performance

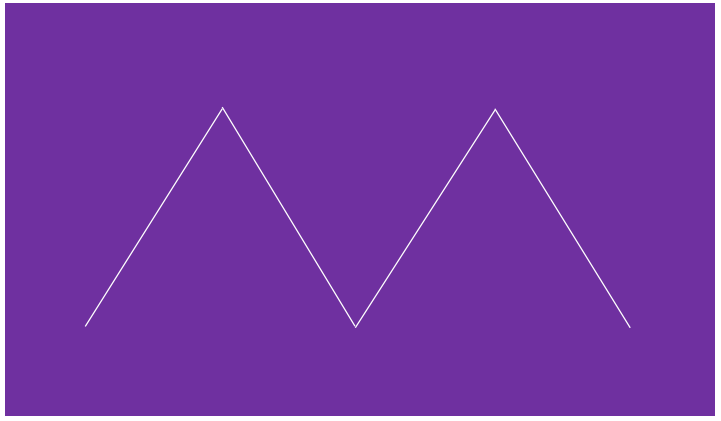
# Horizontal analysis











# Benefits of horizontal analysis

Are margins rising or failing?

Is performance improving or declining?

What is causing margins to fall?

Are margins impacted by indirect costs?

# Benchmarking

**There are different ways to benchmark:**

- Compare your company to two or more competing companies
- Compare your company's ratios to the industry average

**Your competitor/ Industry average**

VS

**Your company**

# Sources of benchmarking information

**Where can you find a competitor's statements?**

- Three key online sites including EDGAR, SEDAR and RNS
- Competitors' investor relations websites

Historical ratios for companies can be found on MSN Money and Google Finance, but allow very little control over the information and provide little insights on the calculation of ratios.

Professional sources such as Bloomberg, Capital IQ, and equity research reports provide detailed information but are more costly.

# Conclusion

Understand past performance, to predict future success

Income statement analysis is just the first step to the overall analysis

Use vertical and horizontal analysis, as well as benchmarking, to maximize your company's performance

Make better investment and credit decisions from outside the company

# Balance Sheet and Leverage Ratios

# Session objectives

Determine the financial strength of a company by analyzing the balance sheet

Use the balance sheet to determine how efficiently a company is being run

# Financial analysis

There are many important steps, such as trend and ratio analysis, in preparing a financial analysis. The starting point is the financial statements:

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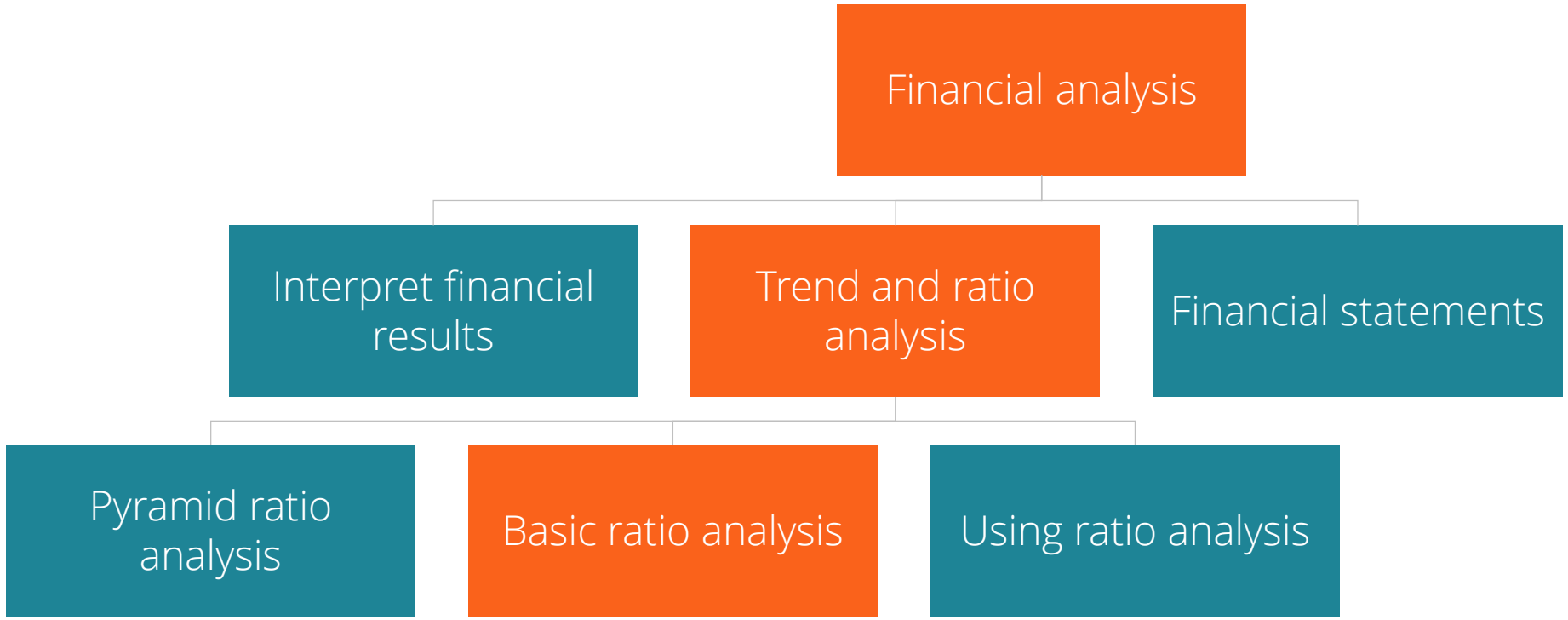
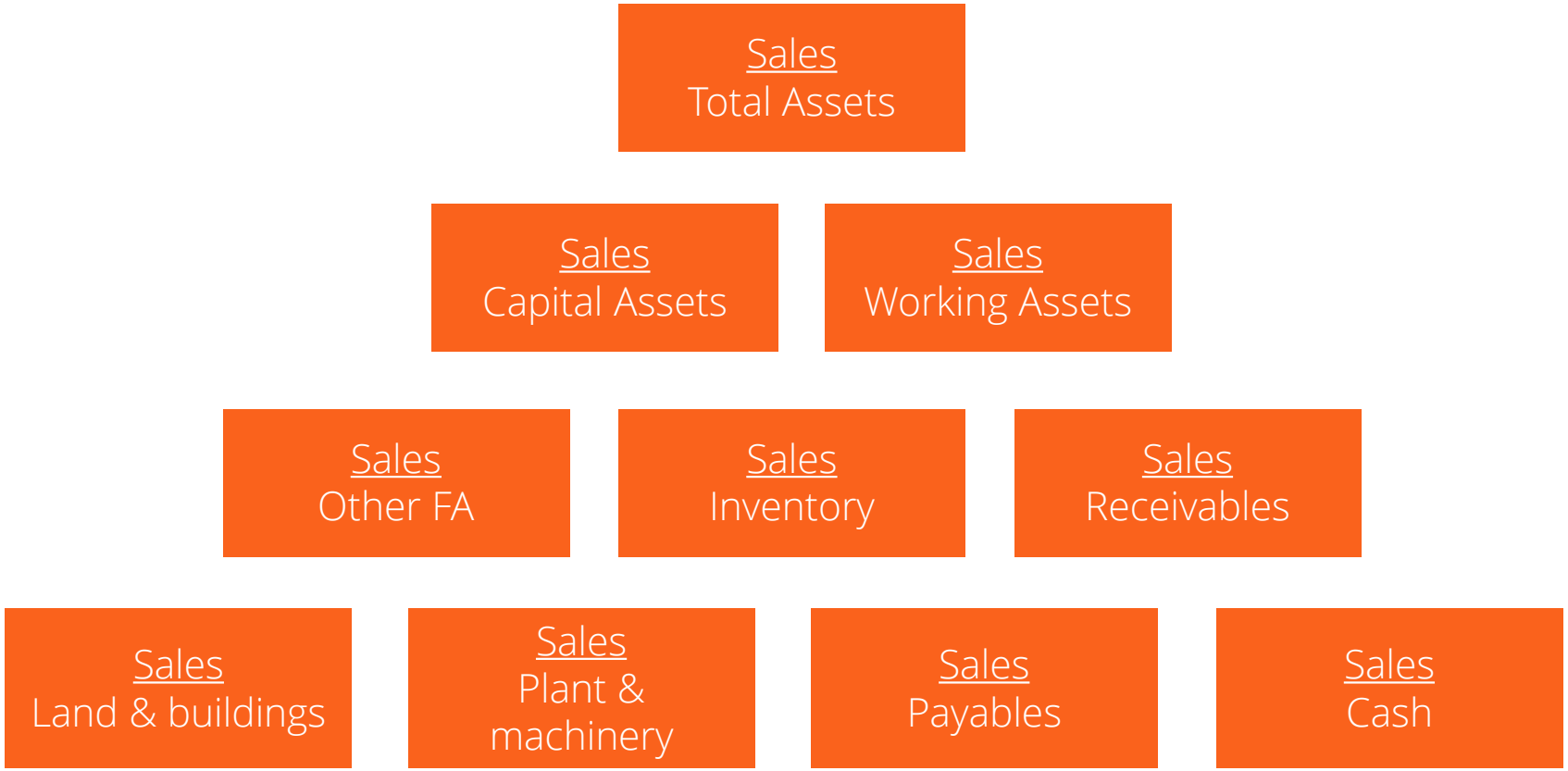


# Financial analysis



# Components of ratio analysis

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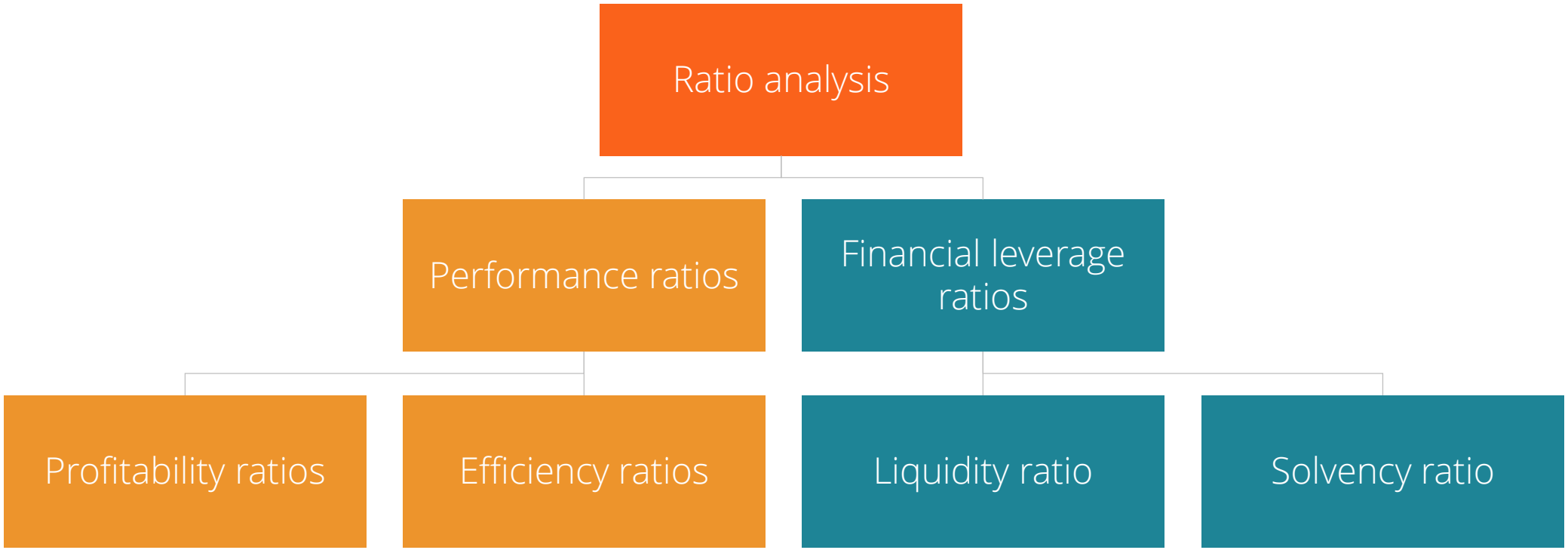


# Short term liquidity ratios

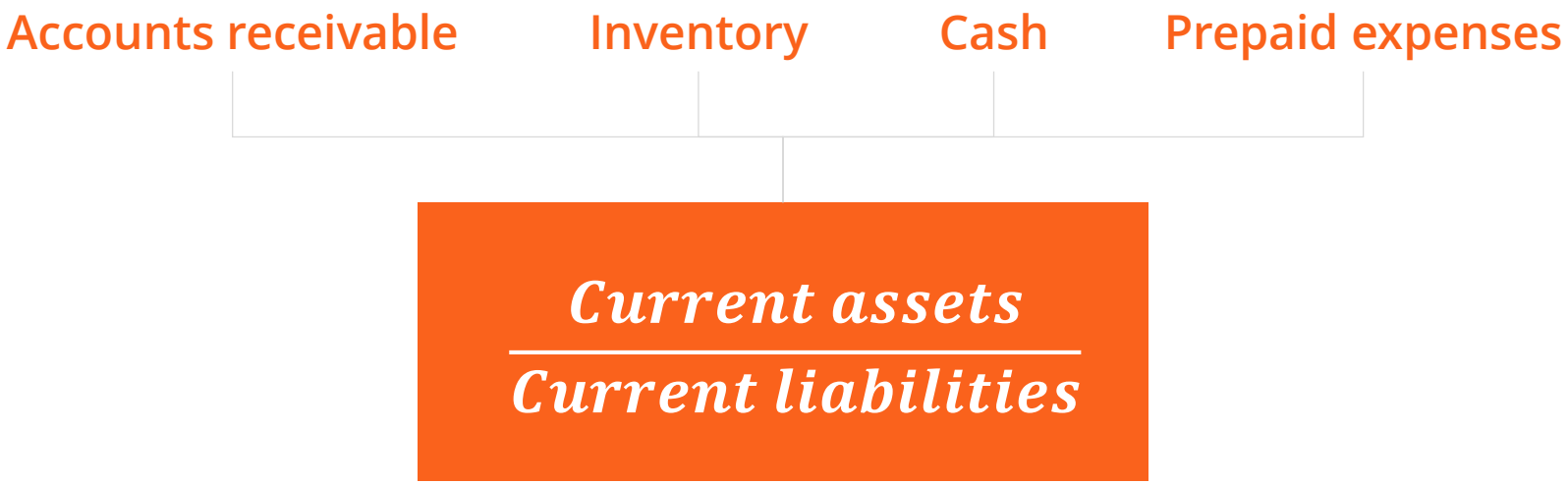
1

**Current ratio**

2

**Quick ratio**

# Current ratio




**Generic rule of thumb is 2:1**

# Quick ratio or acid test ratio

$$\frac{Current\ assets\ -\ Inventory}{Current\ liabilities}$$

**Generic rule of thumb is 1:1**

# Asset turnover ratio

$$\frac{Sales\ Revenue}{Total\ (or\ net)\ Assets}$$

**Tells us:**

How efficient is the company in using assets to generate revenue?

For every 1 dollar of assets, how many dollars of revenue the company generates?

# Conclusion

**Always use trend analysis to determine:**

- What are the ratios doing?
- Are they improving or deteriorating?

Short term liquidity ratios are an early warning signal to cash flow issues.

# Working capital overview

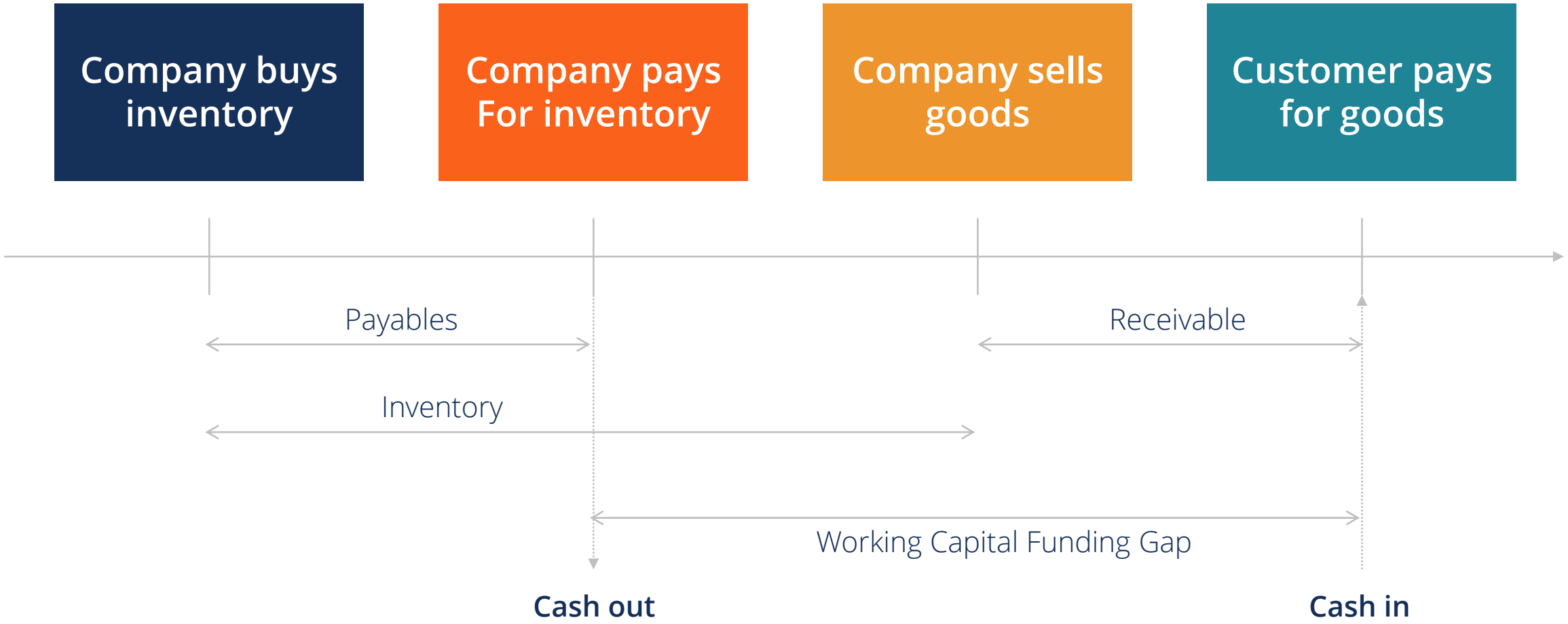
## Working capital

**Current Asset – Current Liabilities**

# Working capital overview

# Working capital overview

# Working capital funding gap



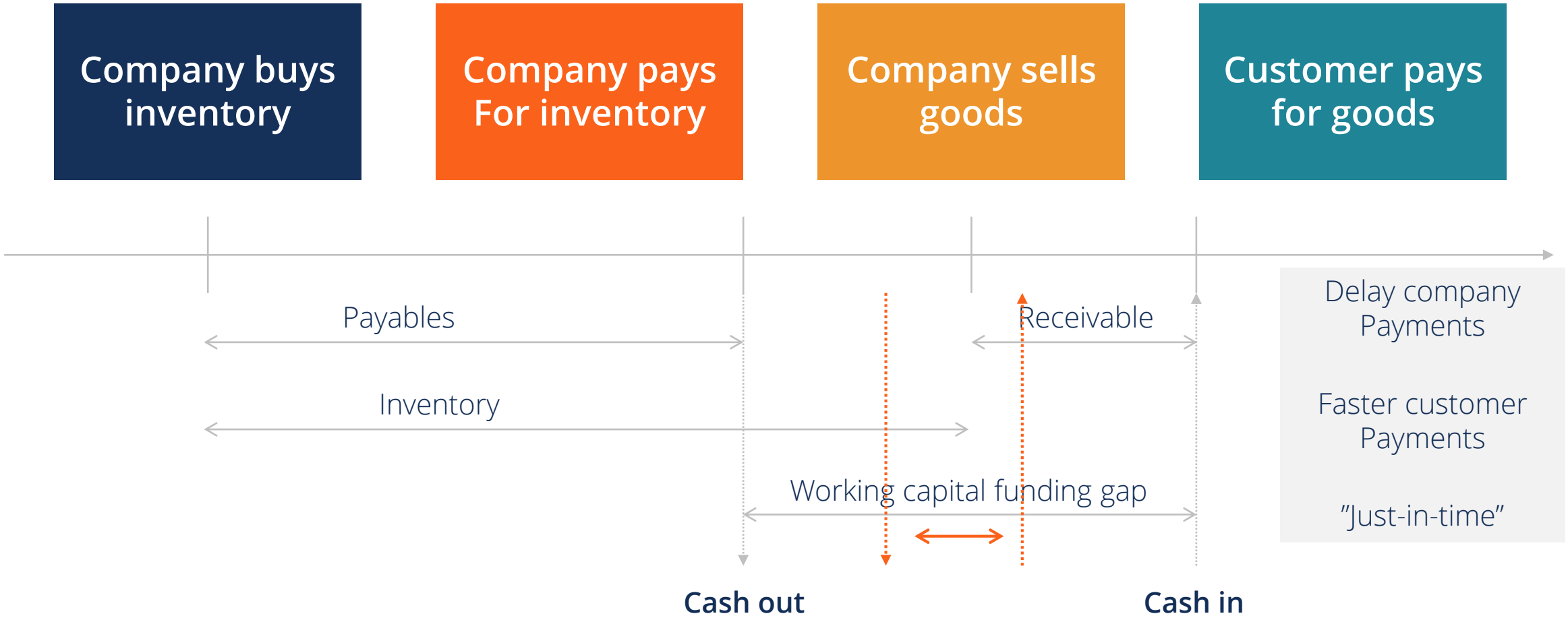
# Working capital funding gap

## What would happen to the working capital funding gap?

**Increase**

**Decrease**

# Working capital funding gap



# The working capital efficiency ratios

**2**

**Ratios for each**

Inventory, Accounts receivable, Accounts payable

+

Working capital efficiency ratio

# Inventory

## Inventory efficiency ratios

$$\frac{Cost\ of\ sales}{Inventory}$$

Inventory turnover ratio

$$\frac{Inventory\ X\ 365}{Cost\ of\ sales}$$

Inventory days ratio

# Accounts receivable

## Accounts receivable efficiency ratios

$$\frac{Sales}{Accounts\ rec.}$$

Receivable turnover ratio

$$\frac{Accounts\ rec.\ X\ 365}{Sales}$$

Receivable days ratio

# Accounts payable

## Accounts payable efficiency ratios

$$\frac{Cost\ of\ sales}{Accounts\ pay.}$$

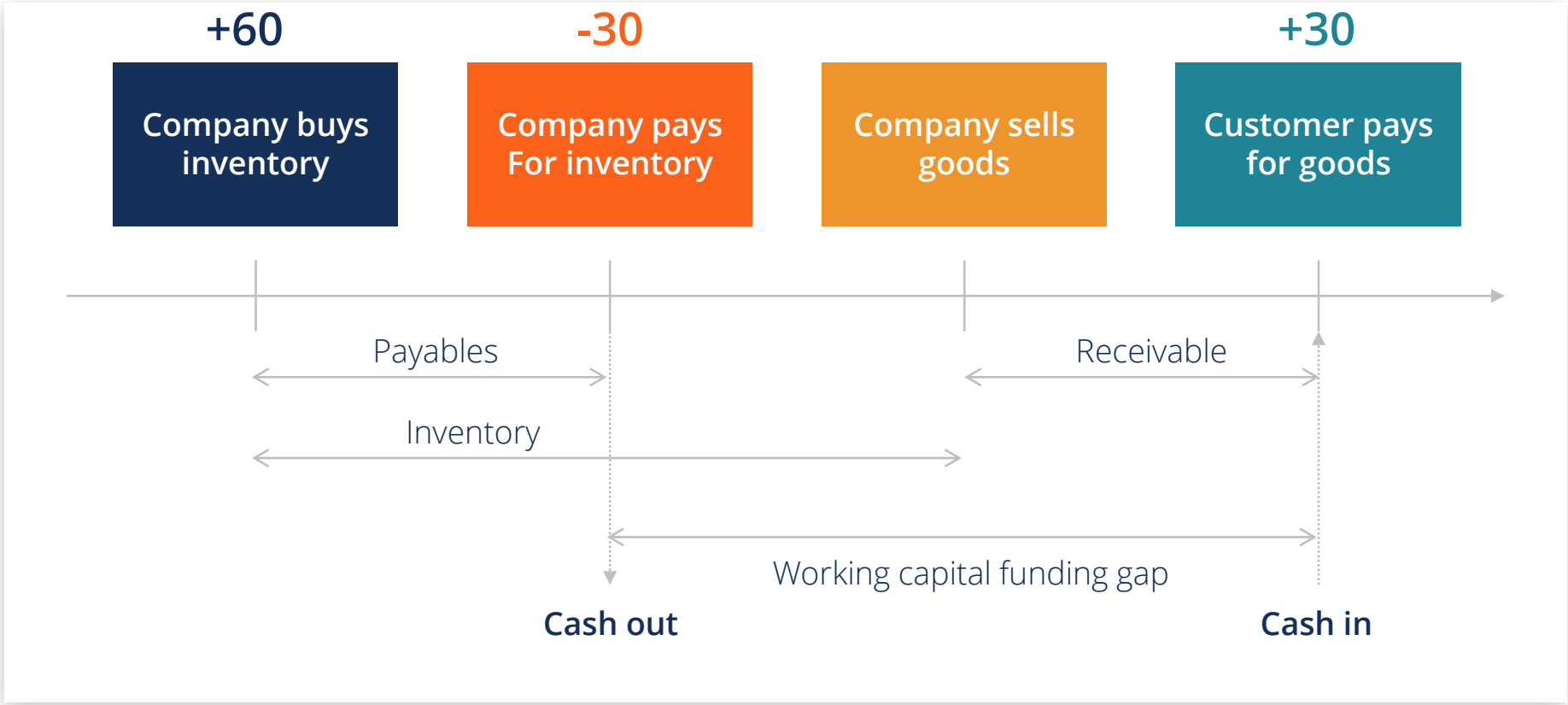
Payable turnover ratio

$$\frac{Accounts\ pay.\ X\ 365}{Cost\ sales}$$

Payable days ratio

# The funding gap

Inventory days plus accounts receivable days minus accounts payable days will leave you with the working capital funding gap expressed as days.



# PP&E efficiency ratio

**Property, plant and equipment ratio**

$$\frac{\text{Sales}}{\text{PP\&E}} = \textbf{PP\&E turnover ratio}$$

If the ratio is comparatively low, it means either sales are low or you have invested too much in PP&E.

# Conclusion

Financial analysis is important in understanding a company's financial condition and performance

Use in conjunction with information from the income statement to gain valuable company insights

With ratio and trend analysis you can build expectations of future performance

Performance can be improved to increase operational efficiencies

# Cash Flow Statement and Ratios

# Session objectives

Understand the inflows and outflows of cash throughout the year

Calculate solvency and leverage ratios

Examine funding options for an organization looking to grow

# Financial analysis

There are many important steps, such as trend and ratio analysis, in preparing a financial analysis. The starting point is the financial statements:

**Income statement**

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# Analyzing cash flow groups

**Cash flow**

Each category of the statement of cash flows enables you to analyze the movement of funds in the company

## Asset management

Asset management relates specifically to the management of investment in the company and is where commitment to growth can be seen.

- Working capital
  - Absorbing
  - Releasing
- Capital expenditure
  - >amortization
  - <amortization
- Acquisitions

## Operational management

Operational management refers to the operational strategy followed by an organization.

- Margin management
- Volume management
- Operating profit

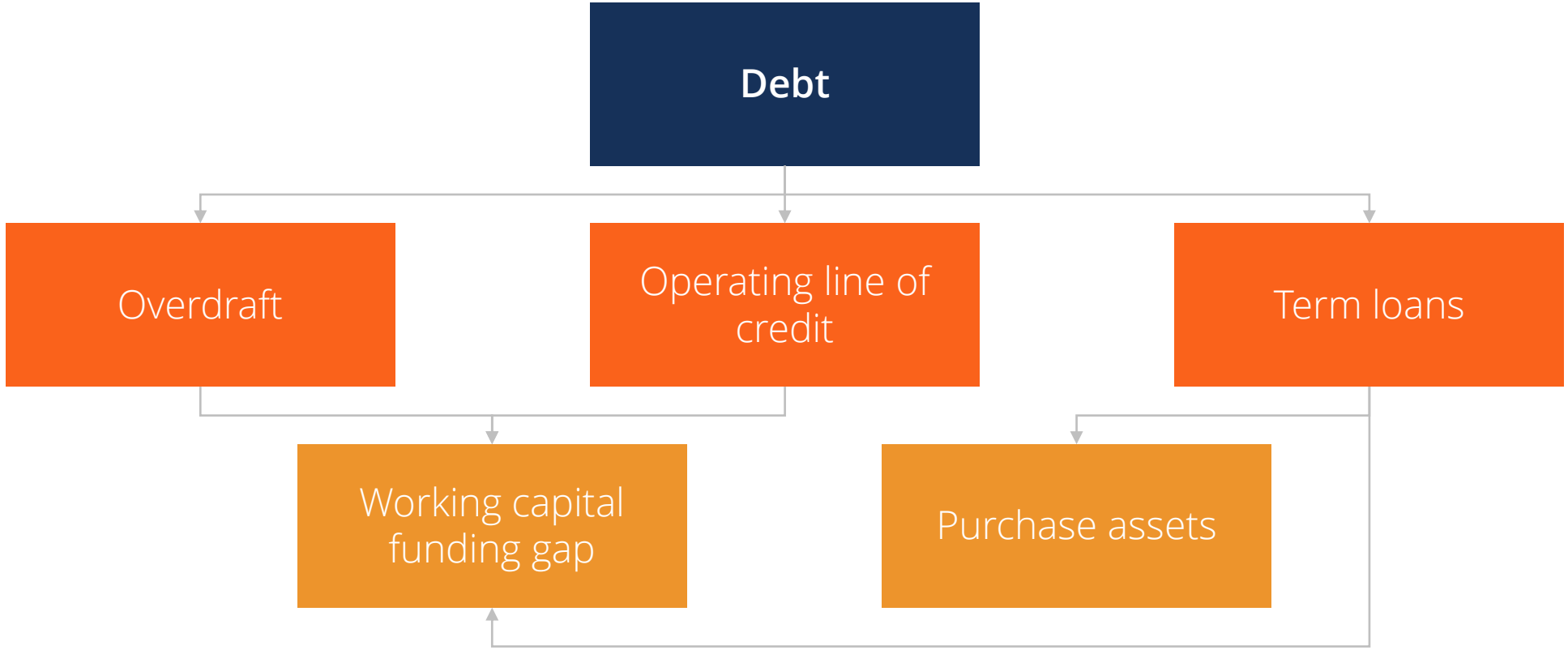
## Financing strategy

Financing strategy reflects decisions made by management in relation to the "leverage" of the company.

- Debt / Equity
- Long-term / Short-term
- Other instruments
- Interest / Dividends

# Understanding debt

There are many options available when looking for debt financing:



# Debt financing

- Bonds are a common form of debt financing
- The normal contract with rate of interest is called the ”coupon”
- Issuing bonds is a common method of raising funds
- Most useful in funding long-term investments

> A bond is a debt instrument requiring the issuer (also called the debtor or borrower) to repay to the lender/investor the amount borrowed plus interest over some specified period of time

Source: Frank Fabozzi Bond
Market analysis & strategies

# Types of bonds

**Fixed rate**

- Have coupons that remain constant throughout the life of the bond

**Inflation-linked**

- Principal amount indexed to inflation
- Interest rate is fixed, but principal and interest payments grow

**Floating rate**

- Have coupons linked to an interest rate benchmark
- Coupon reset periodically (e.g. every 3 months)

**Callable**

- The issuer has the right to repay the bond before the maturity date

**Zero coupon**

- Pay no interest
- Trade at a discount from their value at maturity

**Convertible**

- Can be converted into shares of stock in the issuing company

# Warrants and convertibles compared

## Bonds with warrants

- Tend to be more common in private placements
- The warrant can be detached
- Warrants are exercised for cash

## Convertible bonds

- Convertible bonds are issued publicly
- The bond and the option are bundled together
- Bonds are exchanged for common stock

# Types of syndicated loans

Syndicated lending is where two or more banks provide credit to one borrower in one agreement.

| | |
|---|---|
| **Term loans** | A loan with a fixed maturity and normally featuring the amortization of principal |
| **Revolving credit facilities** | Offering the borrower the right, but not the obligation to draw a loan |
| **Standby facilities** | Lines only expected to be used in extraordinary circumstances (e.g. commercial paper backup) |

# Leasing as an option

When an asset is leased, it remains the property of the lessor. Different accounting standards treat leases differently depending on how the lease is structured.

## Capital (finance) lease

Usually longer term; most of the risks and rewards of ownership transfer to lessee

Recorded on balance sheet

## Operating lease

Usually shorter term; risks and rewards do not transfer to the lessee

Recorded in income statement

# Leasing as an option

**Capital (finance) lease**

A capital of finance lease is a way to borrow funds for assets directly through the assets' owner

# Leasing as an option

**Operating lease**

An operating lease is a way to obtain use of an asset until it is no longer required or useful

# Who can tap into the debt markets

**To raise debt financing…**

- Show a history of profitability
- Have assets that can be pledged as security

**If a company is not yet profitable…**

- Raise equity financing
- Dilute the existing shareholder to raise capital

# Equity types – common shares

Equity consist largely of common shares. Ownership of common shares normally entitles the holder to:

| | |
|---|---|
| **Voting rights** | A right to vote on appointments to the board of directors |
| **Ownership** | An equal share in earning after obligations to debt holders and preferred stockholders are met |
| **Residual claim** | A residual claim on the business and therefore have the ultimate control of the company's affairs |

# Equity types – preferred share varieties

**Cumulative**

- Entitle holder to fixed rate of dividend and if unpaid arrears cumulate

**Convertible**

- Right to convert the preferred stock into common stock at a specified future date at a specified rate of conversion

**Participating**

- Have extra rights. In addition to receiving fixed dividend also participate in company's surplus profit

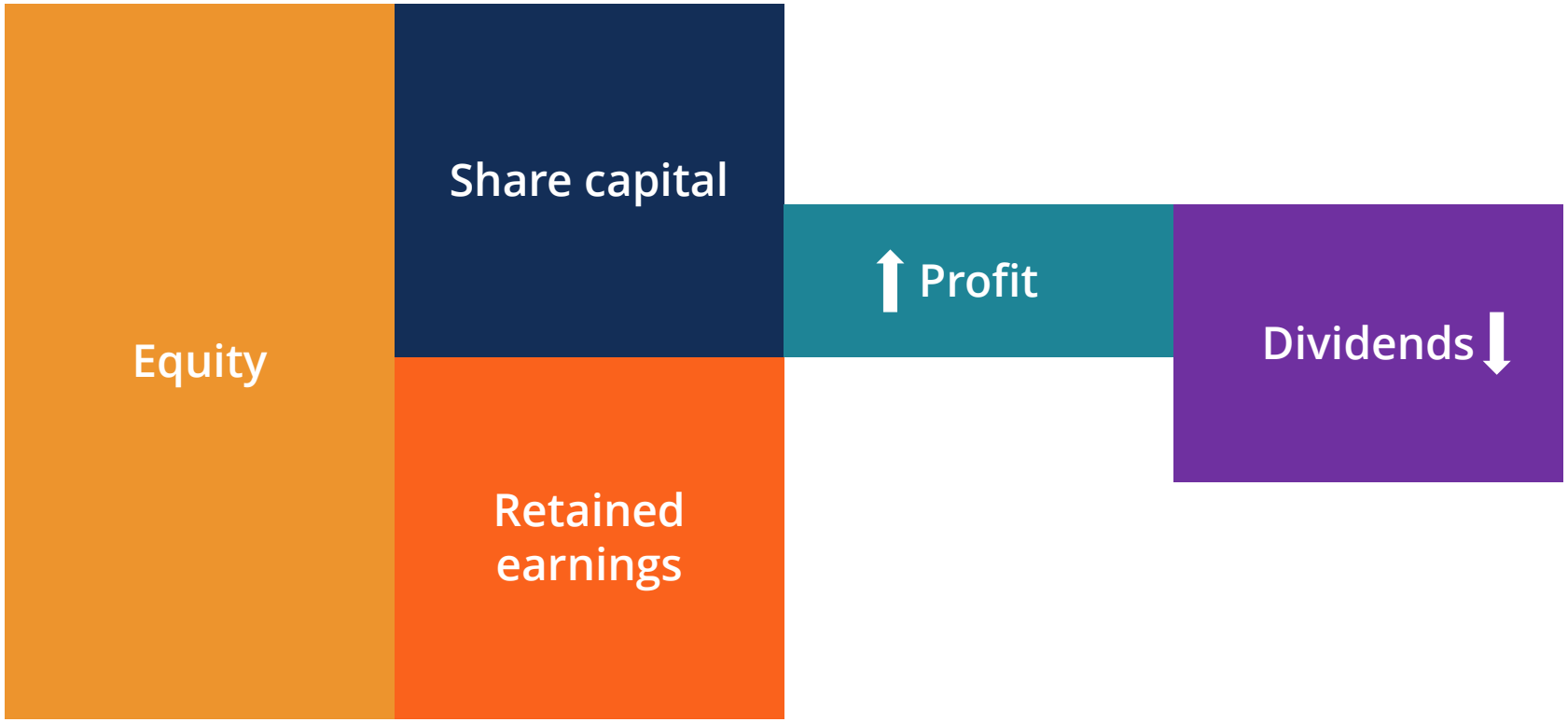
**Retractable**

- Right to "retract" the share and pay the owner in cash at a specified price at maturity

**Redeemable**

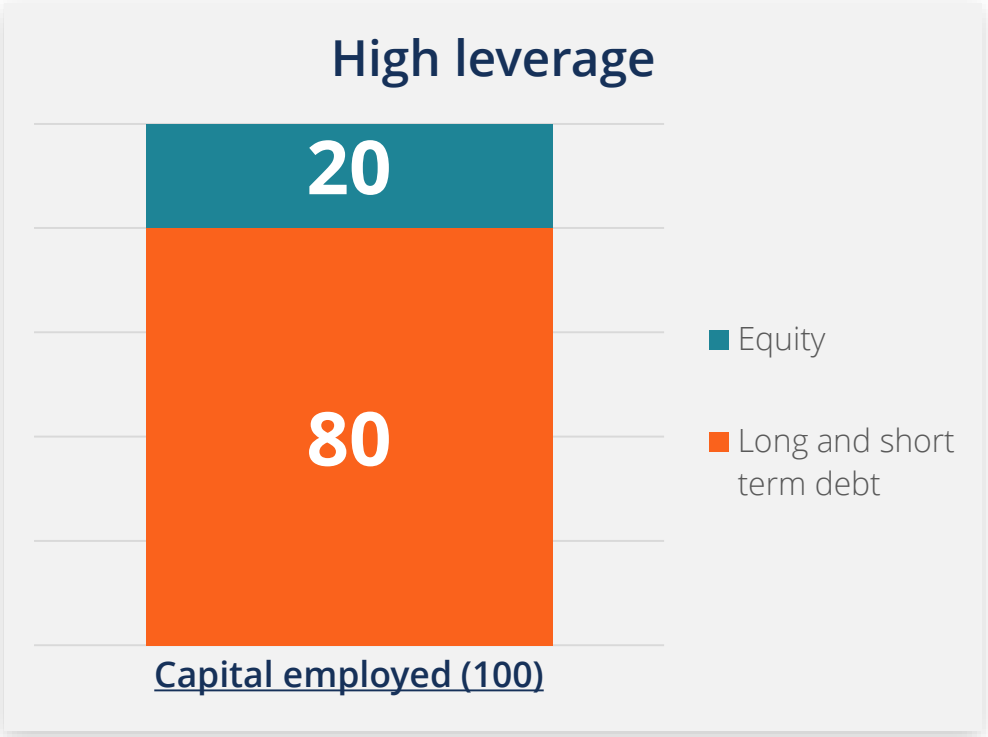
- Will be redeemed at a specified future date at the option of either the company of the shareholder

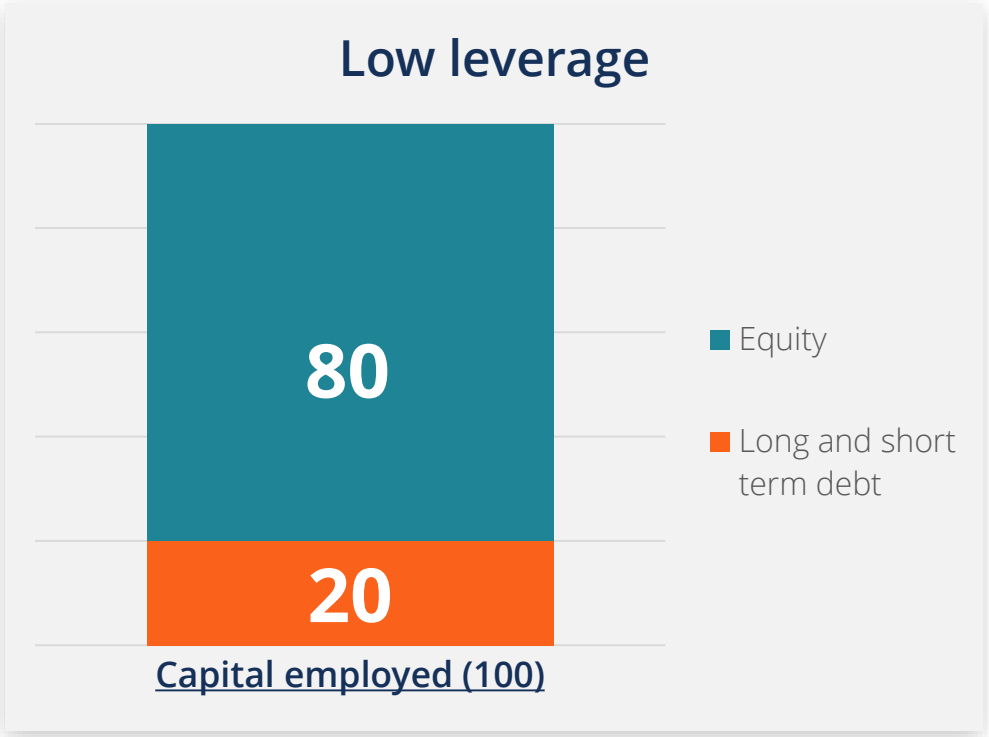
# Retained earnings



# Managing the financing of business - leverage

Leverage expresses the relationship between funding provided by lenders and funding provided by shareholders.



# Growing the business using debt

**Investment in assets**

Invest in PP&E
Increase cash working capital

# Growing the business using debt

This is how you increase the leverage of the company by increasing debt rather than equity.


Increase debt
Borrow from the bank

# The benefits of leverage

Leverage is effective for a number of reasons:

## Reason 1

It is often very quick and inexpensive to obtain a loan of extension of a line of credit from the bank

## Reason 2

A short term line of credit may be ideal for increasing inventory for a seasonal business, and a long term fixed payment loan for a significant investment in equipment to be used to increase production over a longer time period

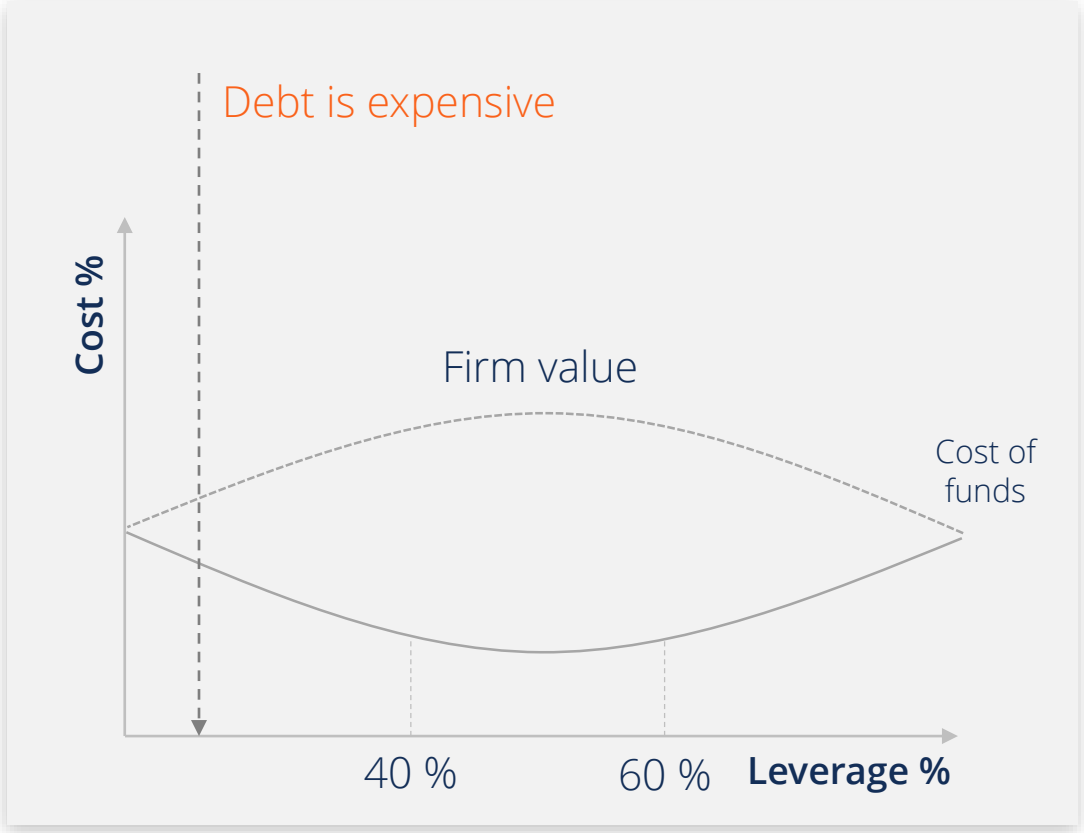
## Reason 3

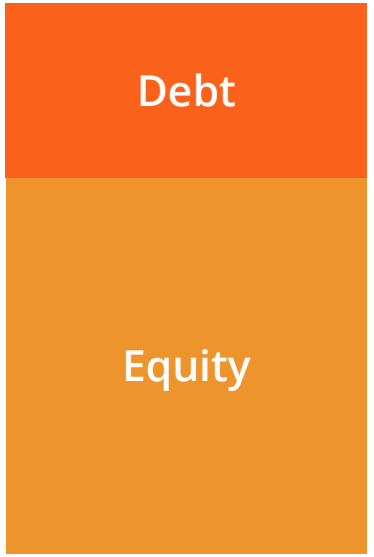
Increasing debt the current shareholders can increase the value of the company without having to reduce their share of the company

## Reason 4

If a company requires a large amount of funds intended for long term use and investment in the company, a share offering may be the best option

# An effective capital structure



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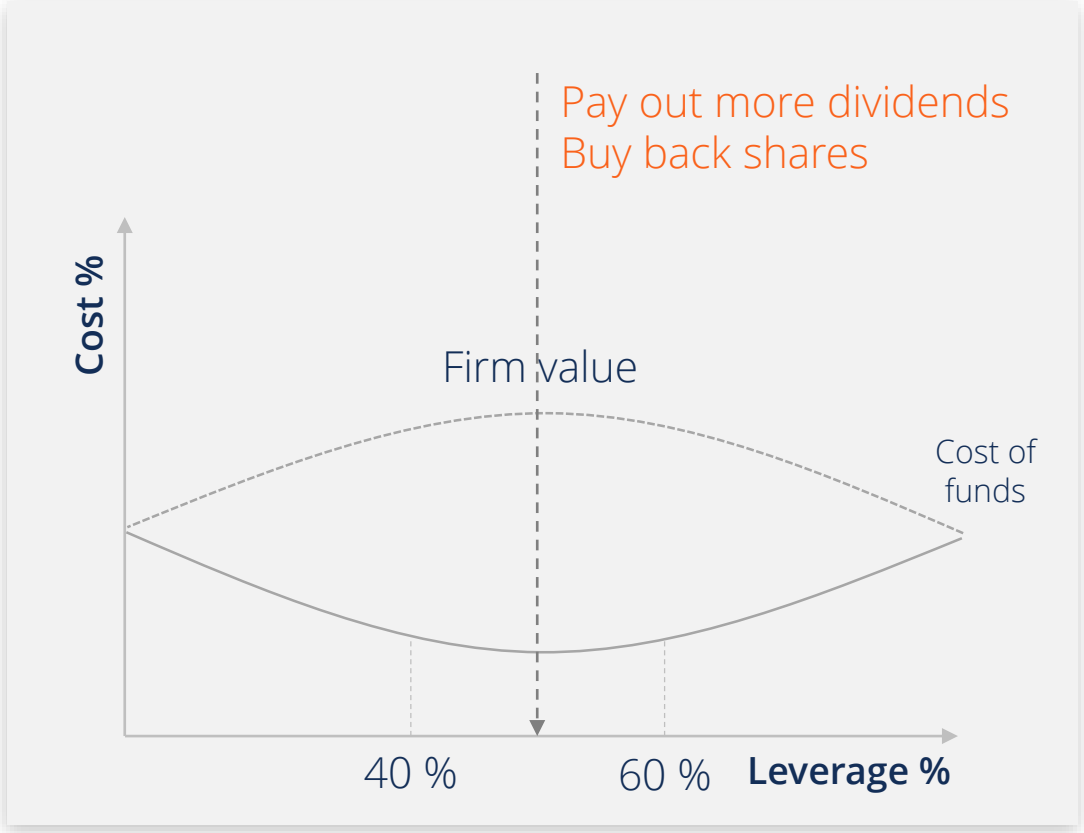


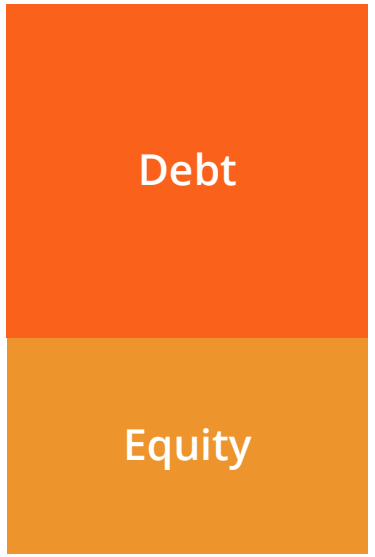

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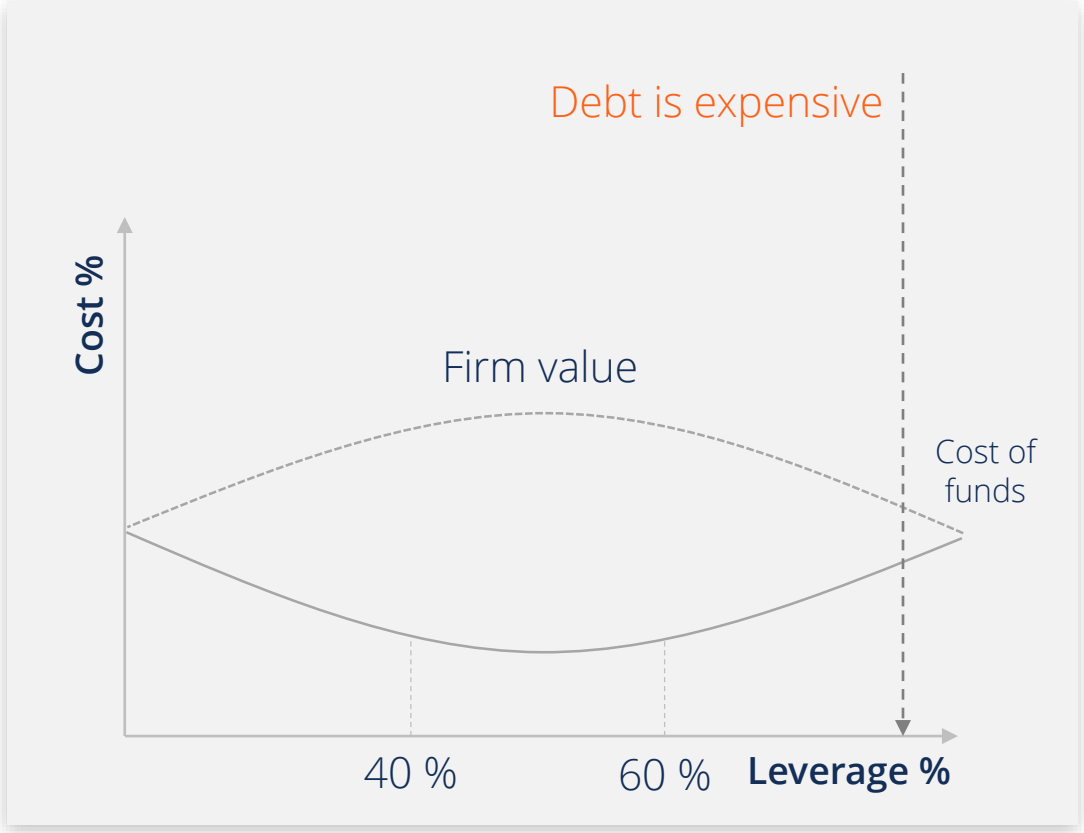


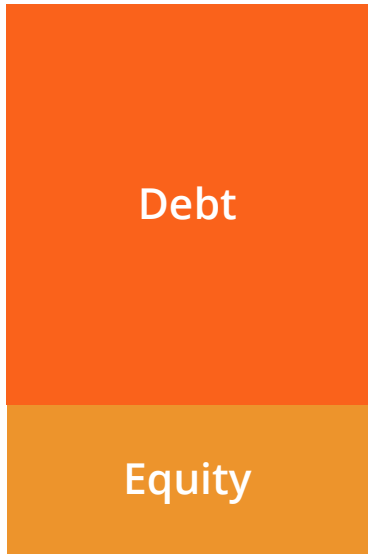

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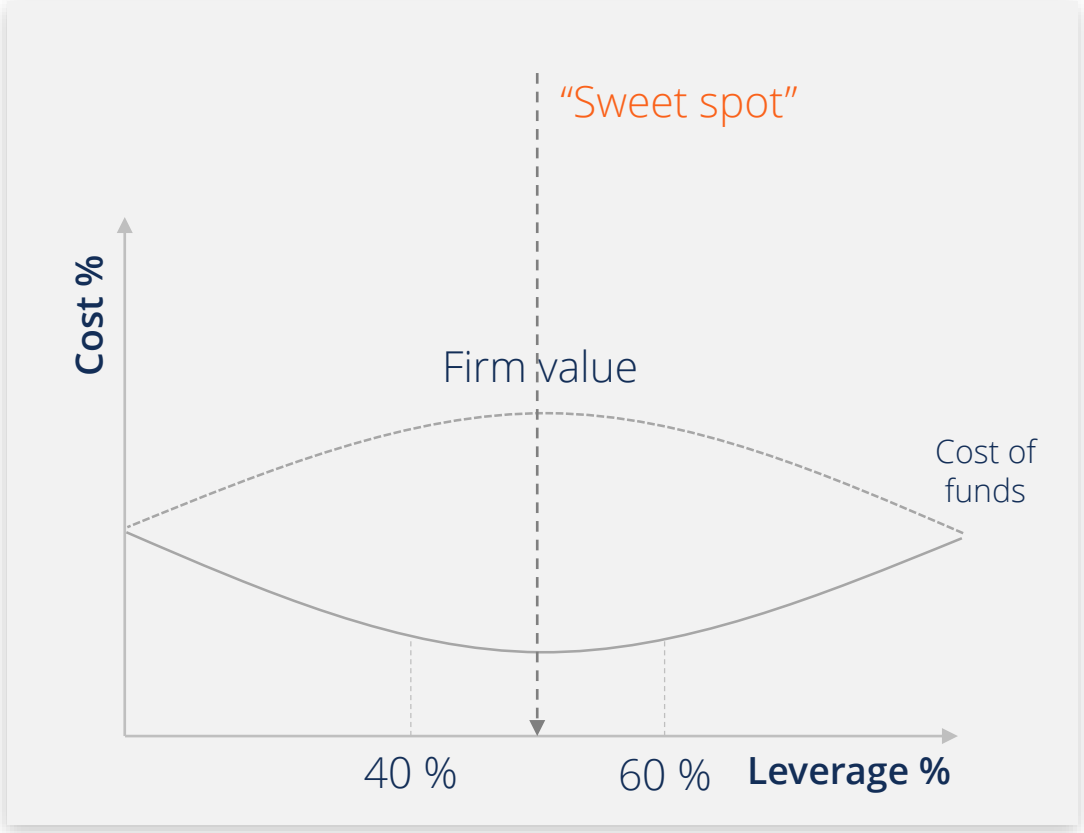
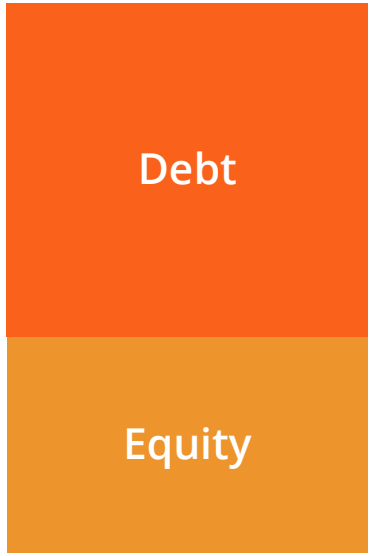


# Leverage ratios

There are several different ratios to use in order to assess the leveraging of a company:

| | | | |
|---|---|---|---|
| Debt to equity (or debt to capital) | = | $\frac{\textit{Interest bearning liabilities}}{\textit{Total shareholder's equity}}$ | If the ratio is greater than 100%, more of an organization's funding comes in the form of debt rather than equity |
| Debt to TNW* | = | $\frac{\textit{Interest bearning liabilities}}{\textit{Equity} - \textit{Intangible assets}}$ | A ratio of 1 would be reasonable, but if it's greater than 1, then attention should be paid to how a company is managing its financing activities |
| Total liabilities to equity | = | $\frac{\textit{Total liabilities}}{\textit{Equity}}$ | The ratio would be used with conjunction with the debt to equity ratio to determine the impact that operational liabilities has on the funding of the business |
| Total assets to equity | = | $\frac{\textit{Total assets}}{\textit{Equity}}$ | If the ratio is low, the company may be underleveraged. If the company number is high, then the organization, while taking advantage of debt, may be over-levered |
| Debt to EBITDA | = | $\frac{\textit{Interest bearning liabilities}}{\textit{EBITDA}}$ | This ratio is used to assess the amount of leverage relative to EBITDA, this ratio is commonly used by lenders. Can range by industry from 1 – 5 times |

# Conclusion

Analyze how management is raising and using funds by reviewing cash flow of the business

Describe all the benefits and possible pitfalls of leverage

Understand how leverage can be altered using a variety of debt and equity options

The cash flow analysis is one side of the pyramid of ratios found in Module 4

# Rates of Return and Profitability Analysis

# Session objectives

Use the pyramid of ratios to explain what drives a company's financial performance

# Financial analysis

There are many important steps, such as trend and ratio analysis, in preparing a financial analysis. The starting point is the financial statements:

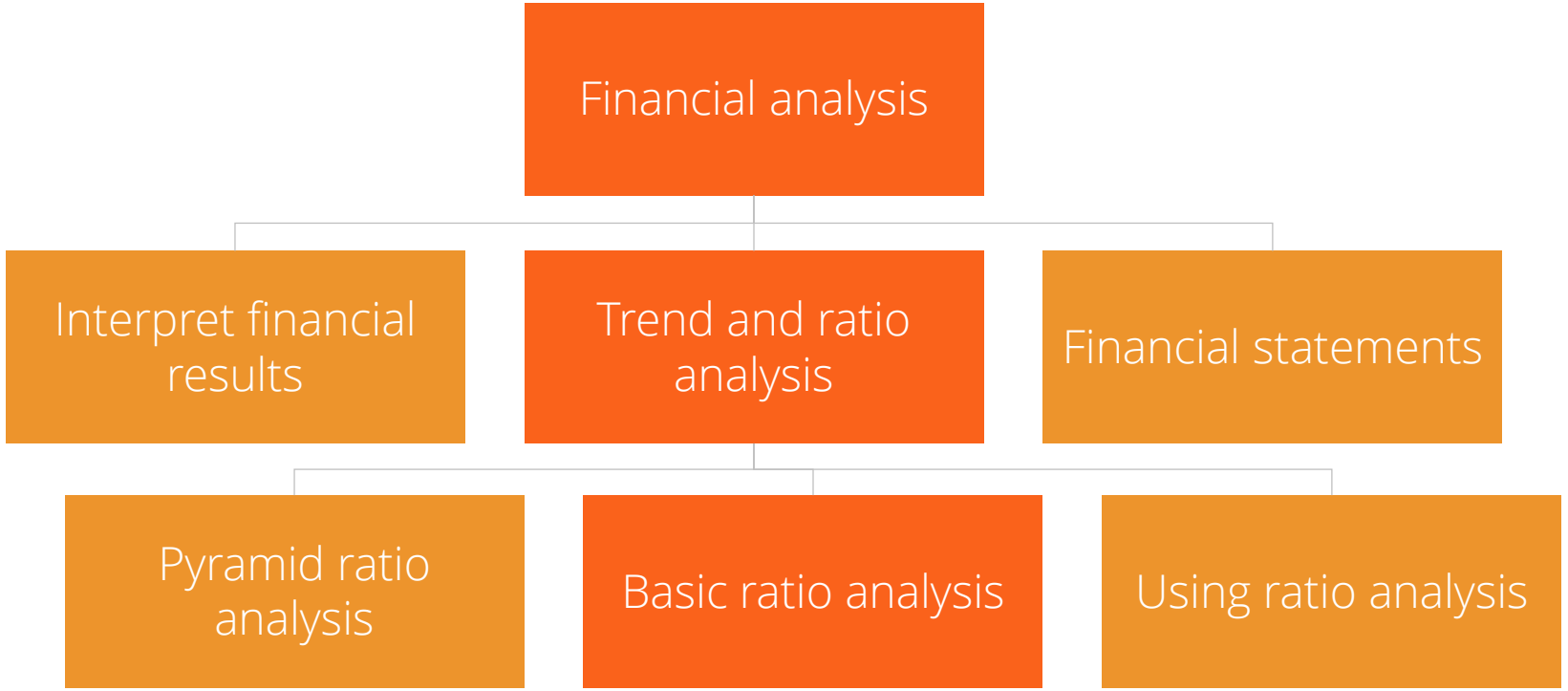
**Income statement**

**Balance Sheet**

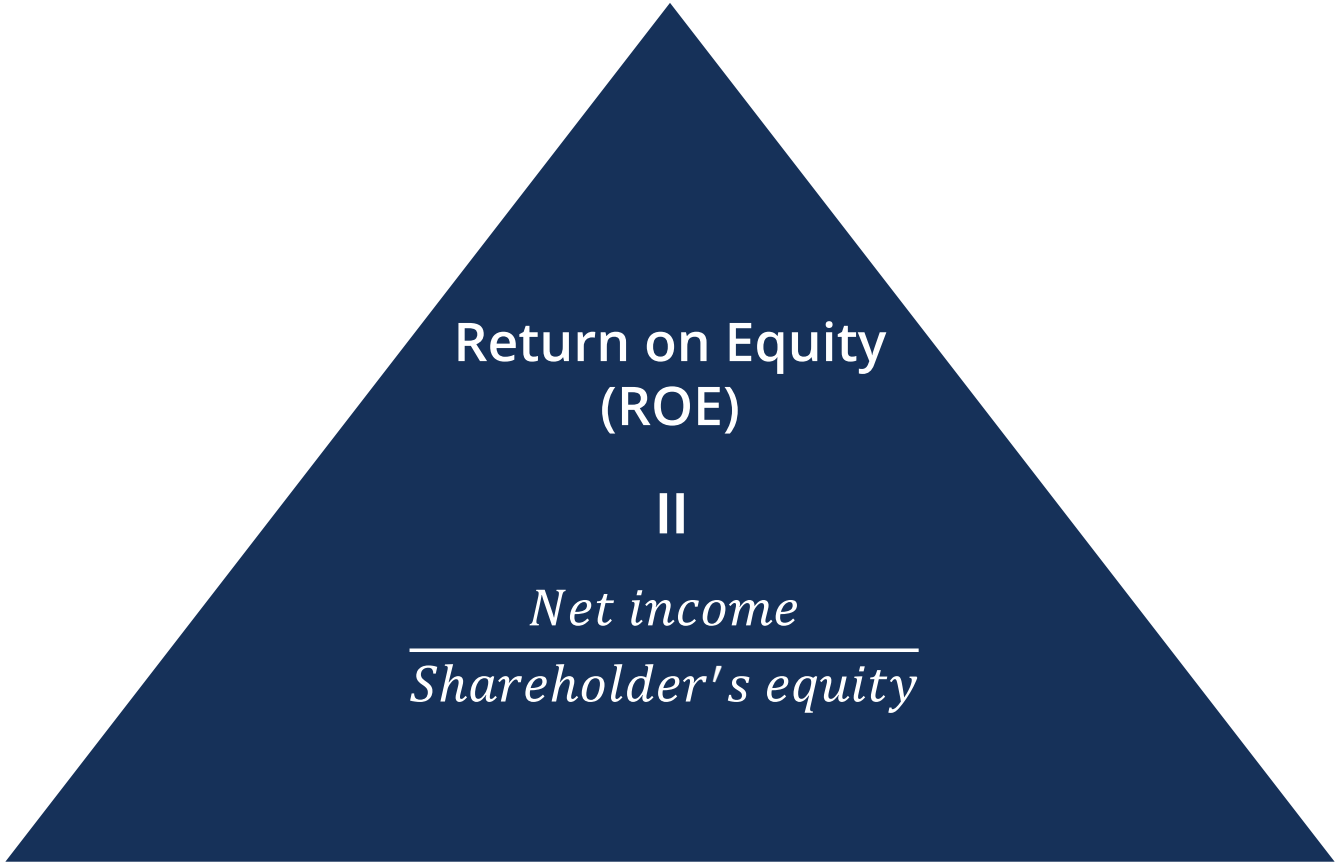
**Statement of Cash Flows**

# Financial analysis

There are many important steps, such as trend and ratio analysis, in preparing a financial analysis. The starting point is the financial statements:



# Pyramid of ratios introduction



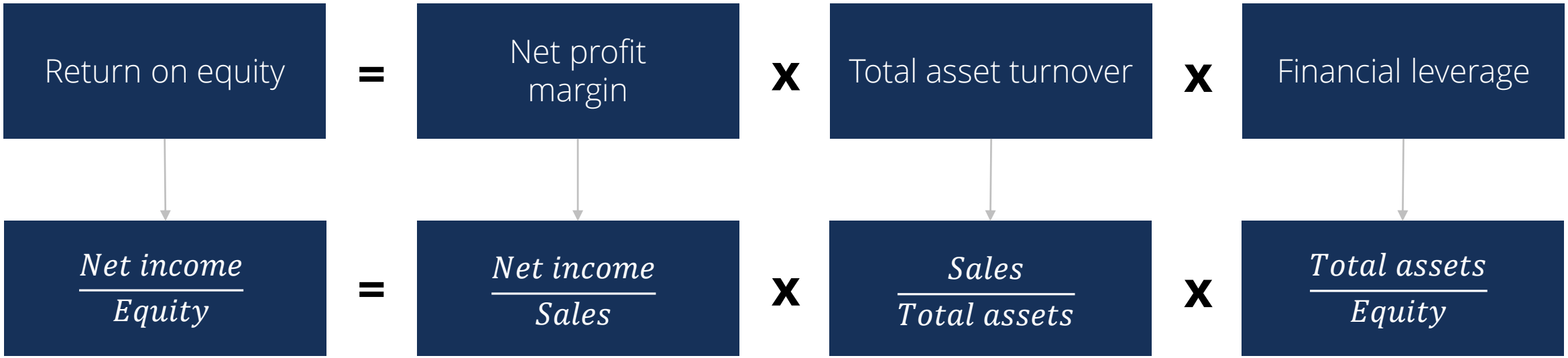
# Financial metrics

Financial Analysis
**Module 1** – Analyzing the income statement

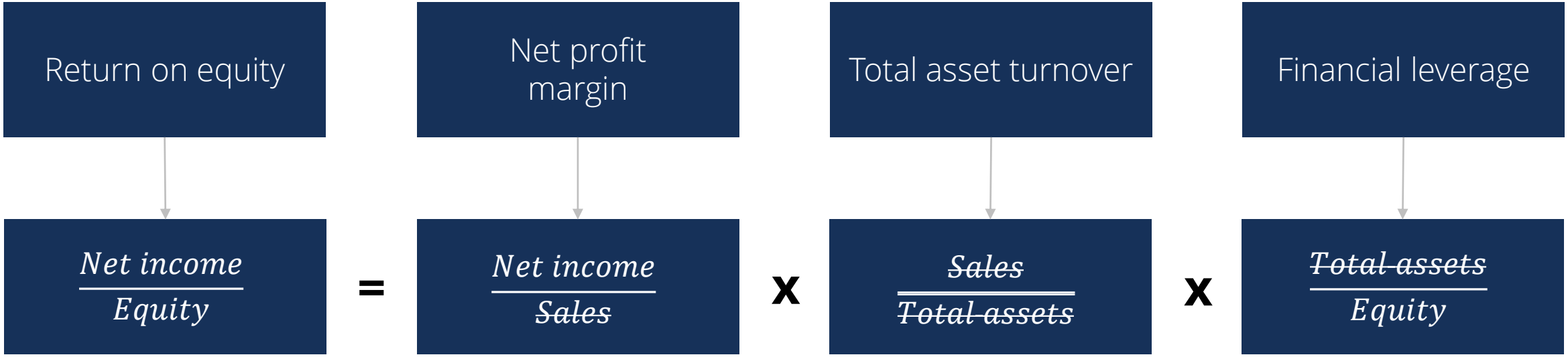
Financial Analysis
**Module 3** – Funding the business

**Return on equity**

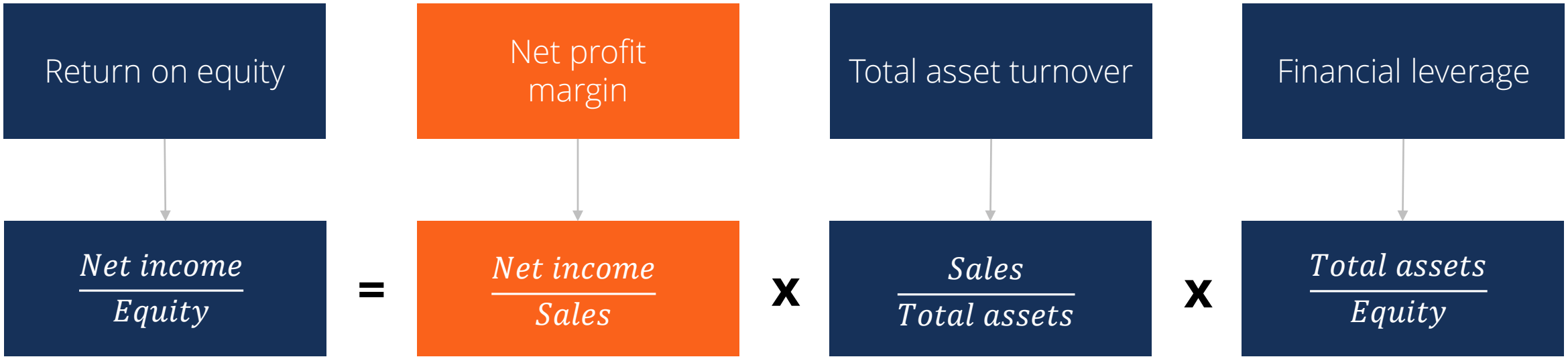
# ROE levers



# ROE levers

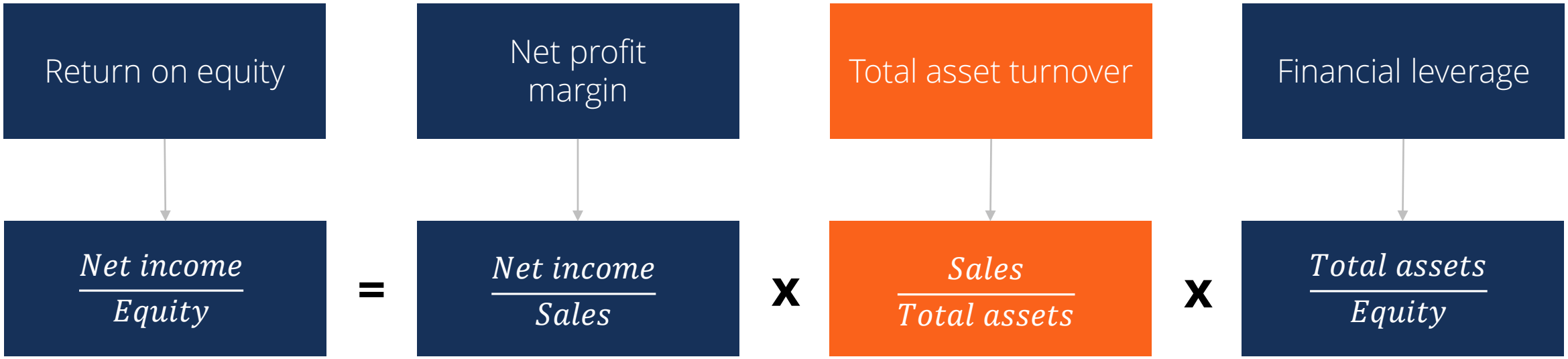

Return on equity
Net profit margin
Total asset turnover
Financial leverage
Net income / Equity
=
Net income / Sales
x
Sales / Total assets
x
Total assets / Equity

# ROE levers



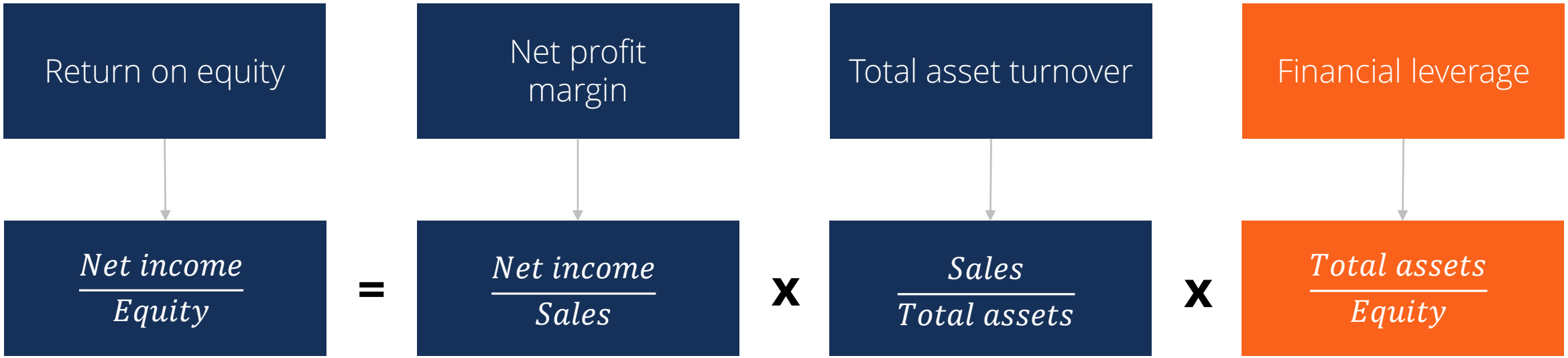

Net profit margin = Net income / Sales

# ROE levers




Total asset turnover = Sales / Total assets

# ROE levers



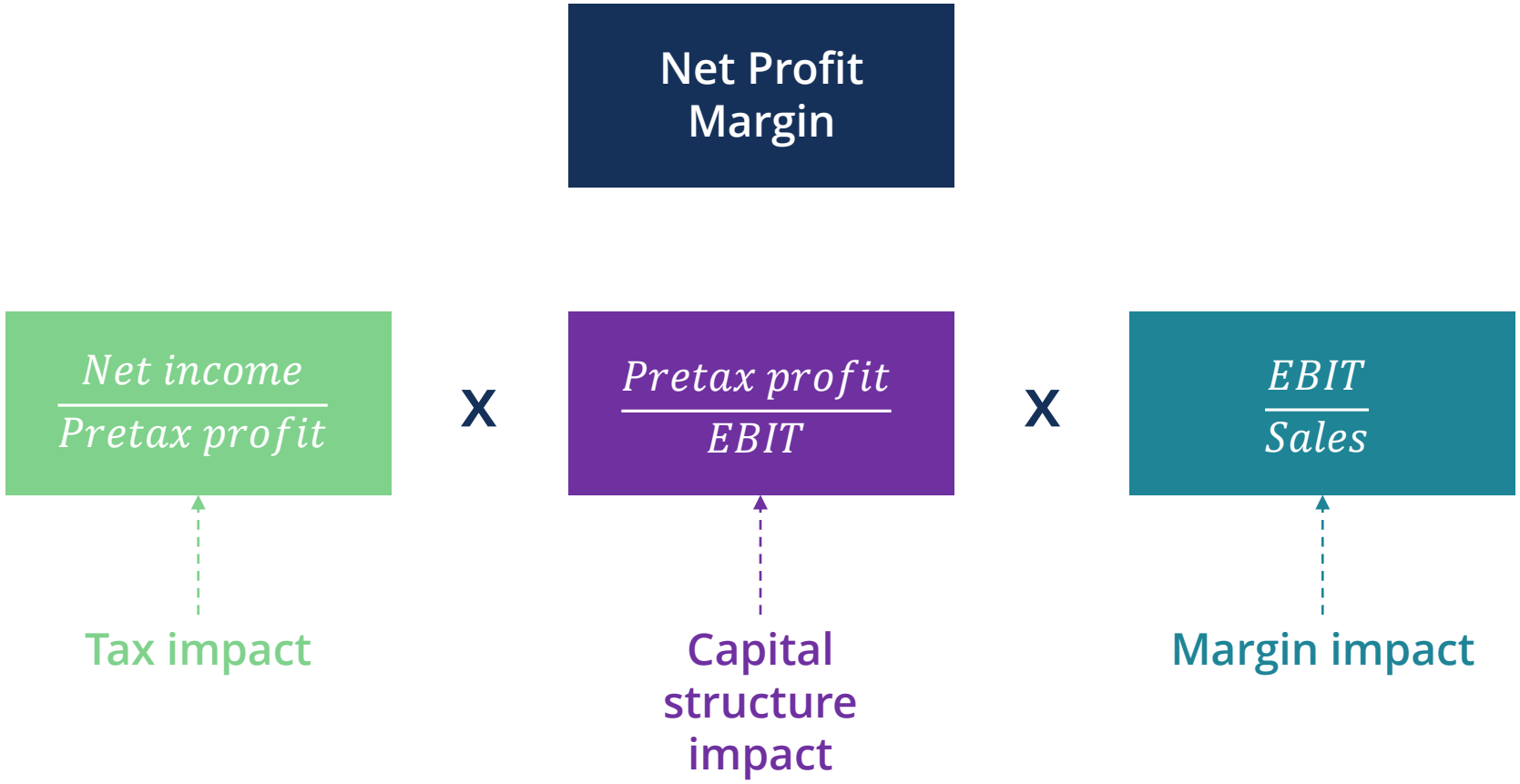

Financial leverage = Total assets / Equity

# The Dupont analysis

**ROE**

| $\frac{Assets}{Equity}$ | $\frac{Sales}{Assets}$ | $\frac{EBIT}{Sales}$ | $\frac{Pretax\ profit}{EBIT}$ | $\frac{Net\ income}{Pretax\ profit}$ |
|---|---|---|---|---|
| Leverage equity | Volume impact | Margin impact | Capital structure impact | Tax impact |

# Secondary profitability ratios



# Secondary profitability ratios

If taxes are zero, these two values would be equal, and the ratio would equal one

$$\frac{Net\ income}{Pretax\ profit}$$

=

**Tax impact**

If debt is zero, these two values would be equal, are the ratio would equal one

$$\frac{Pretax\ profit}{EBIT}$$

=

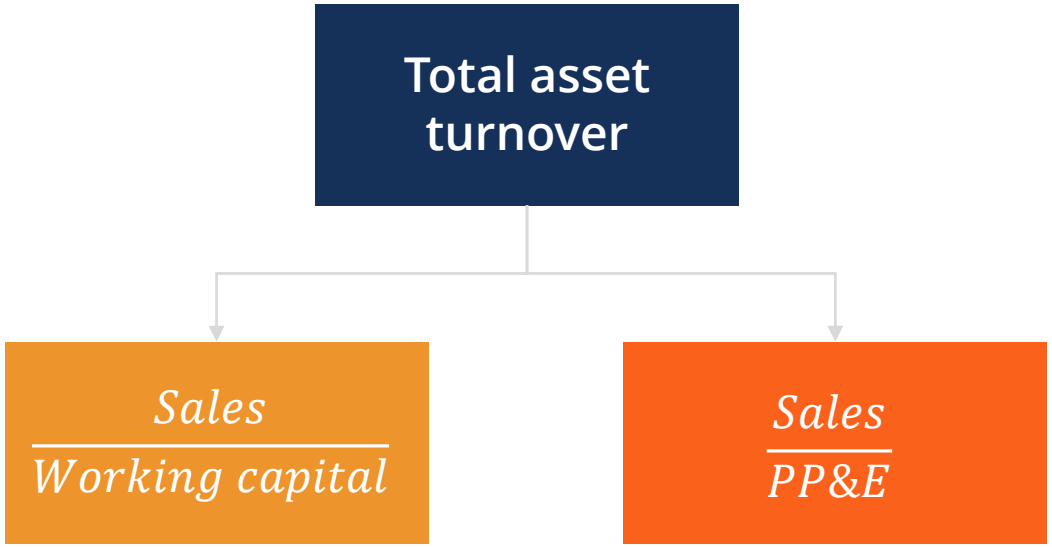
**Capital structure impact**

$$\frac{EBIT}{Sales}$$

=

**Margin impact**

# Secondary efficiency ratios



# Secondary efficiency ratios

At the time of initial investment the ratio will be driven down and will improve over time

$$\frac{Sales}{PP\&E}$$

=

**PPE turnover**

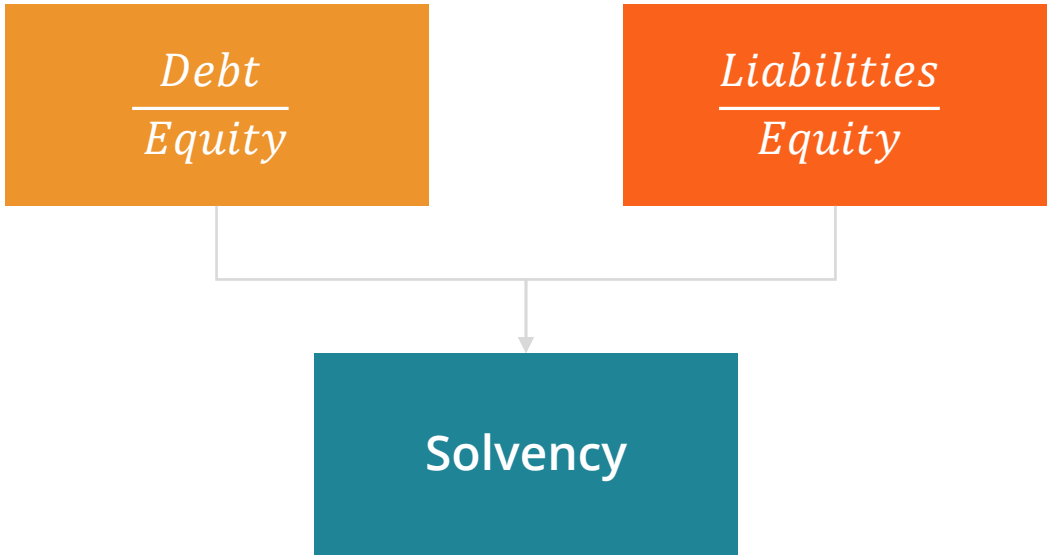
- Inventory
- Receivable
- Payable

$$\frac{Sales}{Working\ capital}$$

=

**Working capital turnover**

# Secondary leverage ratios



# Secondary leverage ratios

$$\frac{Debt}{Equity}$$

=

**Debt to equity**

$$\frac{Liabilities}{Equity}$$

=

**Liabilities to equity**

$$\frac{Assets}{Equity}$$

If a company is 100% equity funded, this ratio should equal one

# Pyramid of ratios


| Net Income / Equity | | | |
|---|---|---|---|
| Net Income / Sales | Operating Income / Sales | Net Income / Pretax Profit | Gross Profit / Sales |
| | | | Labor Costs / Sales |
| | | | R&D / Sales |
| | | | Overhead / Sales |
| Sales / Total Assets | Sales / PP&E | Sales / Working Capital | Depreciation / Sales |
| | | | Material costs / Sales |
| | | | Selling costs / Sales |
| Total Assets / Equity | Gross Debt or Net Debt / EBITDA | | Inventory Turnover |
| | | | Receivables Turnover |
| | | | Payables Turnover |
| | | | Cash Turnover |

The primary ratios make up the second tier of the pyramid. This is where the three levers of ROE are situated.

Secondary ratios are on the third tier of the pyramid. The ratios give a quick indication of profitability, efficiency and solvency.

Tertiary ratios make up the fourth tier of the pyramid, and give us further detail and breakdown of individual components.

# Primary ratios

| Return on Equity | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 18,74% | 25,43% | 32,89% | 32,22% | 32,32% |

| Net Profit Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 18,14% | 20,80% | 21,53% | 17,10% | 16,43% |

| Total Assets to Equity | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 1.16 | 1.24 | 1.40 | 1.36 | 1.34 |

| Asset Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 0.89 | 0.95 | 1.09 | 1.37 | 1.47 |

| Capital Structure Impact | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 1.16 | 1.06 | 1.05 | 1.03 | 1.01 |

| Tax Ratio | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 77,81% | 73,53% | 71,40% | 67,58% | 75,22% |

| PPE/Capital asset Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 6.33 | 6.23 | 8.51 | 8.29 | 7.64 |

| Working Capital Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 5.34 | 4.11 | 4.37 | 4.42 | 5.33 |

| EBIT Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 29,13% | 26,58% | 28,82% | 24,61% | 21,65% |

| Gross Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 55,20% | 54,58% | 51,26% | 46,07% | 44,03% |

| SG&A | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 24,96% | 17,70% | 14,66% | 13,51% | 13,85% |

| Payable Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 9.75 | 10.59 | 18.80 | 13.31 | 13.59 |

| Inventory Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 6.88 | 5.39 | 7.39 | 8.75 | 13.46 |

| Dep. & Amart. | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 2,42% | 2,53% | 1,80% | 1,76% | 2,08% |

| R&D | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 7,69% | 7,78% | 5,99% | 6,19% | 6,45% |

| Receivable Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 5.95 | 4.96 | 4.81 | 4.87 | 5.34 |

| Cash Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 4.50 | 4.49 | 5.07 | 13.24 | 9.64 |

| Solvency Ratios | | | | | |
|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2009 | 2010 |
| Total Liabilities to Equity | 0.16 | 0.24 | 0.40 | 0.38 | 0.34 |
| Debt to Equity | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |

| Liquidity Ratios | | | | | |
|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2009 | 2010 |
| Current Ratio | 4.51 | 3.51 | 2.36 | 2.29 | 2.29 |
| Quick Ratio | 4.83 | 3.54 | 2.69 | 1.87 | 2.12 |

# Secondary ratios

| Return on Equity | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 18,74% | 25,43% | 32,89% | 32,22% | 32,32% |

| Net Profit Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 18,14% | 20,80% | 21,53% | 17,10% | 16,43% |

| Total Assets to Equity | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 1.16 | 1.24 | 1.40 | 1.36 | 1.34 |

| Asset Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 0.89 | 0.95 | 1.09 | 1.37 | 1.47 |

| Capital Structure Impact | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 1.16 | 1.06 | 1.05 | 1.03 | 1.01 |

| Tax Ratio | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 77,81% | 73,53% | 71,40% | 67,58% | 75,22% |

| PPE/Capital asset Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 6.33 | 6.23 | 8.51 | 8.29 | 7.64 |

| Working Capital Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 5.34 | 4.11 | 4.37 | 4.42 | 5.33 |

| EBIT Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 29,13% | 26,58% | 28,82% | 24,61% | 21,65% |

| Gross Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 55,20% | 54,58% | 51,26% | 46,07% | 44,03% |

| SG&A | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 24,96% | 17,70% | 14,66% | 13,51% | 13,85% |

| Payable Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 9.75 | 10.59 | 18.80 | 13.31 | 13.59 |

| Inventory Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 6.88 | 5.39 | 7.39 | 8.75 | 13.46 |

| Dep. & Amart. | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 2,42% | 2,53% | 1,80% | 1,76% | 2,08% |

| R&D | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 7,69% | 7,78% | 5,99% | 6,19% | 6,45% |

| Receivable Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 5.95 | 4.96 | 4.81 | 4.87 | 5.34 |

| Solvency Ratios | | | | | |
|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2009 | 2010 |
| Total Liabilities to Equity | 0.16 | 0.24 | 0.40 | 0.38 | 0.34 |
| Debt to Equity | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |

| Liquidity Ratios | | | | | |
|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2009 | 2010 |
| Current Ratio | 4.51 | 3.51 | 2.36 | 2.29 | 2.29 |
| Quick Ratio | 4.83 | 3.54 | 2.69 | 1.87 | 2.12 |

| Cash Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 4.50 | 4.49 | 5.07 | 13.24 | 9.64 |

# Tertiary ratios

| Return on Equity | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 18,74% | 25,43% | 32,89% | 32,22% | 32,32% |

| Net Profit Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 18,14% | 20,80% | 21,53% | 17,10% | 16,43% |

| Total Assets to Equity | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 1.16 | 1.24 | 1.40 | 1.36 | 1.34 |

| Asset Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 0.89 | 0.95 | 1.09 | 1.37 | 1.47 |

| Capital Structure Impact | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 1.16 | 1.06 | 1.05 | 1.03 | 1.01 |

| Tax Ratio | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 77,81% | 73,53% | 71,40% | 67,58% | 75,22% |

| PPE/Capital asset Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 6.33 | 6.23 | 8.51 | 8.29 | 7.64 |

| Working Capital Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 5.34 | 4.11 | 4.37 | 4.42 | 5.33 |

| EBIT Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 29,13% | 26,58% | 28,82% | 24,61% | 21,65% |

| Gross Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 55,20% | 54,58% | 51,26% | 46,07% | 44,03% |

| SG&A | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 24,96% | 17,70% | 14,66% | 13,51% | 13,85% |

| Payable Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 9.75 | 10.59 | 18.80 | 13.31 | 13.59 |

| Inventory Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 6.88 | 5.39 | 7.39 | 8.75 | 13.46 |

| Dep. & Amart. | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 2,42% | 2,53% | 1,80% | 1,76% | 2,08% |

| R&D | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 7,69% | 7,78% | 5,99% | 6,19% | 6,45% |

| Receivable Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 5.95 | 4.96 | 4.81 | 4.87 | 5.34 |

| Cash Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 4.50 | 4.49 | 5.07 | 13.24 | 9.64 |

| Solvency Ratios | | | | | |
|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2009 | 2010 |
| Total Liabilities to Equity | 0.16 | 0.24 | 0.40 | 0.38 | 0.34 |
| Debt to Equity | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |

| Liquidity Ratios | | | | | |
|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2009 | 2010 |
| Current Ratio | 4.51 | 3.51 | 2.36 | 2.29 | 2.29 |
| Quick Ratio | 4.83 | 3.54 | 2.69 | 1.87 | 2.12 |

# Final ratios

| Return on Equity | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 18,74% | 25,43% | 32,89% | 32,22% | 32,32% |

| Net Profit Margin | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 18,14% | 20,80% | 21,53% | 17,10% | 16,43% |

| Total Assets to Equity | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 1.16 | 1.24 | 1.40 | 1.36 | 1.34 |

| Asset Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 0.89 | 0.95 | 1.09 | 1.37 | 1.47 |

| Capital Structure Impact | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 1.16 | 1.06 | 1.05 | 1.03 | 1.01 |

| Tax Ratio | | | | |
|---|---|---|---|---|
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| 77,81% | 73,53% | 71,40% | 67,58% | 75,22% |

| PPE/Capital asset Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 6.33 | 6.23 | 8.51 | 8.29 | 7.64 |

| Working Capital Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 5.34 | 4.11 | 4.37 | 4.42 | 5.33 |

| EBIT Margin | | | | |
|---|---|---|---|---|
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| Gross Margin | | | | |
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|---|---|---|---|---|
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| Dep. & Amart. | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
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| R&D | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
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| Receivable Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 5.95 | 4.96 | 4.81 | 4.87 | 5.34 |

| Cash Turnover | | | | |
|---|---|---|---|---|
| 2006 | 2007 | 2008 | 2009 | 2010 |
| 4.50 | 4.49 | 5.07 | 13.24 | 9.64 |

| Solvency Ratios | | | | | |
|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2009 | 2010 |
| Total Liabilities to Equity | 0.16 | 0.24 | 0.40 | 0.38 | 0.34 |
| Debt to Equity | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |

| Liquidity Ratios | | | | | |
|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2009 | 2010 |
| Current Ratio | 4.51 | 3.51 | 2.36 | 2.29 | 2.29 |
| Quick Ratio | 4.83 | 3.54 | 2.69 | 1.87 | 2.12 |

# Conclusion

Module 1
Analyzing the income statement

Module 2
Analyzing the balance sheet

Module 3
Funding the business

Module 4
Pyramid of ratios

# FMVA™ Certification

Corporate Finance Institute®

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Chair of the board

Director

Director



CFI