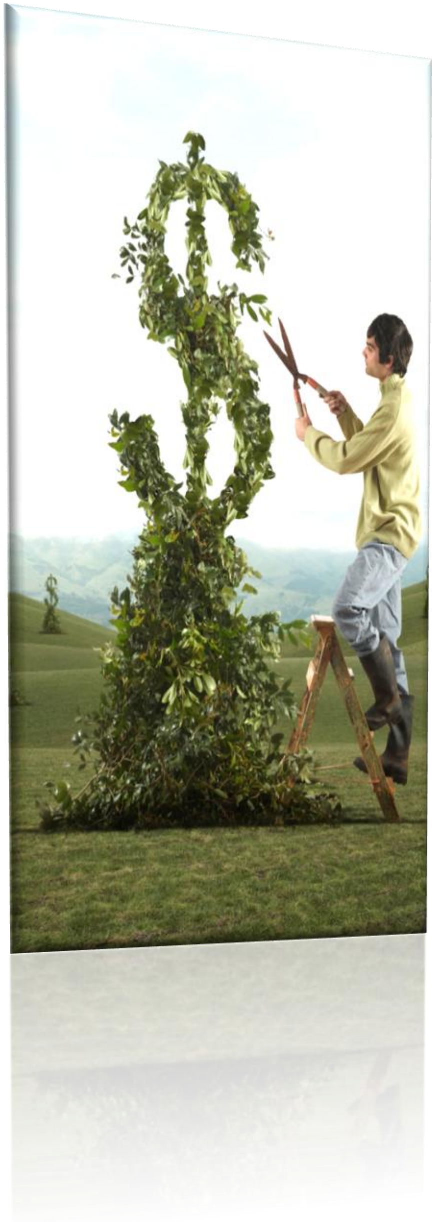


Lesson 5. Finance

5.1. Financial analysis

5.2. Financial resources

5.3. Investments appraisal

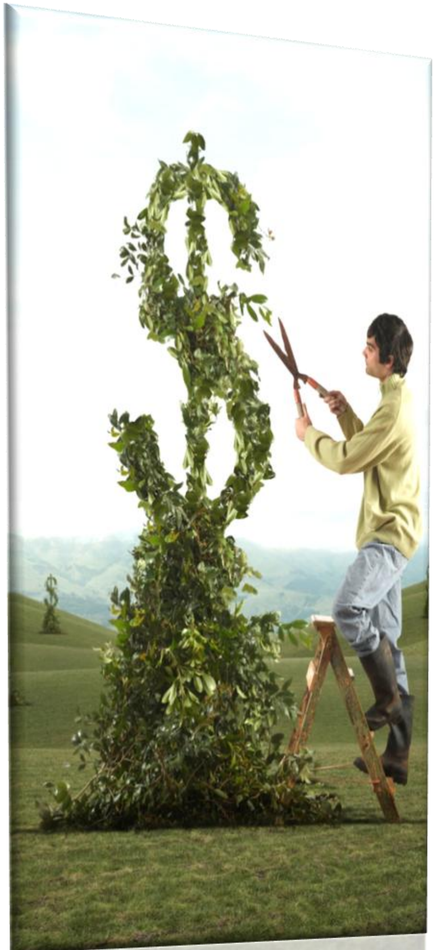
At a glance

Lesson 5 focuses on the firm's financial function.

Firstly, we will review some key concepts on accounting and some indicators about the firm's financial situation will be introduced.

Secondly, several forms of acquiring funds will be studied. These funds, called financial capital, are required to purchase the firm's assets and finance its operations.

Not only is Finance the area responsible for finding the best sources of funds but also the best way to use them. For this reason, we will last study some criteria to evaluate and decide among projects with the aim of maximizing the firm's value.



Lesson 5. Finance

5.1. Financial analysis

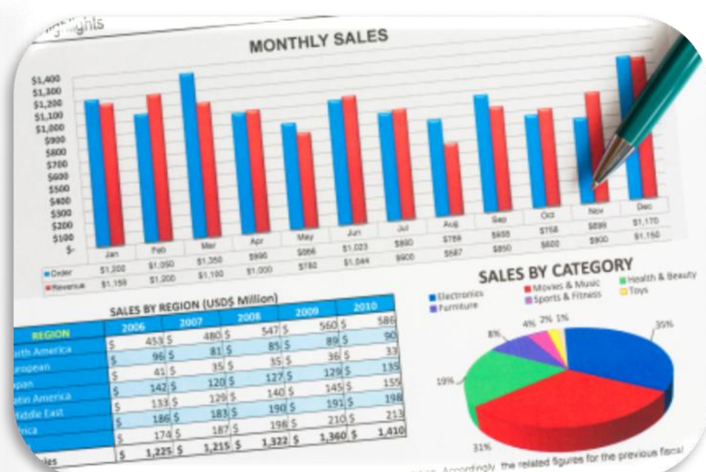
5.2. Financial resources

5.3. Investments appraisal

A. INTRODUCTION

Annual report:
An annual publication that public corporations must provide to stakeholders to describe their operations and financial conditions.

- Chairperson/CEO letter
- Business review (strategy, business areas, organization, HR...)
- Corporate governance information
- Corporate Social Responsibility information
- Financial statements



A. INTRODUCTION

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- Chairperson/CEO letter
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- Corporate governance information
- Corporate Social Responsibility information
- **Financial statements**

Financial statements:
Accounting information that provides stakeholders with a broad picture of an organization's financial condition and its recent financial performance.

- Balance sheet
- Profit and loss statement / income statement

A. INTRODUCTION

Accounting: Who uses it?

Managers

Decision making within the company

Stockholders

Purchase / sale of shares

Employees

Motivation and bonuses

Creditors

Assess a firm's creditworthiness

Suppliers

Will the firm be able to pay orders?

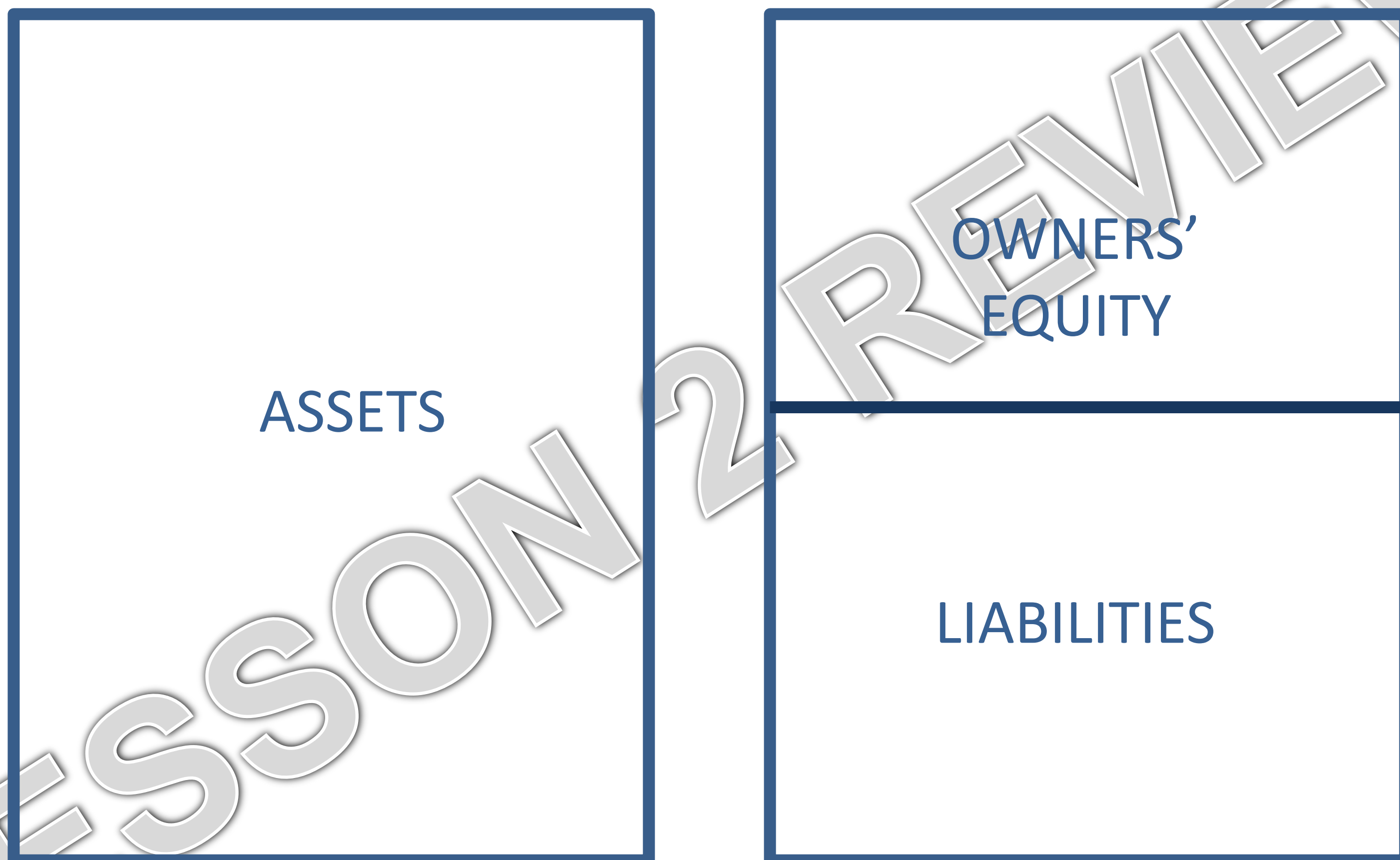
Government

Meeting the SEC requirements of the

B. BALANCE SHEET

A balance sheet is often described as a "snapshot” of a firm's financial condition. It represents the assets, liabilities and ownership equity of the firm in a given point in time.

B. BALANCE SHEET



Assets = Liabilities + Owners’ equity

B. BALANCE SHEET

It summarizes a firm's financial position at a specific point in time

Assets = Liabilities + Owners' Equity

Assets
things of value that the firm owns

E.g.:

- *Cash*
- *Inventories (stocks): raw materials, consumer products…*
- *Investments: machines, tools, computers…*

Liabilities
indicates what the firm owes to outsiders

E.g.:

- *Accounts payable (debts to suppliers)*
- *Taxes*
- *Loans*

Owners' Equity
the claims owners have against their firm's assets

E.g.:

- *Capital contributed by owners*
- *Reserves (retained earnings)*

B. BALANCE SHEET

Assets are generally classified into:

- **Current assets** or short-term assets:

Assets that the firm expects to use up or convert into cash within a year.

E.g.: cash, inventories, accounts receivable…

- **Non-current assets** or long-term assets:

Assets that tend to remain in the business for a longer period of time.

E.g.: buildings, land, vehicles, equipment…

B. BALANCE SHEET

Similarly, debt is usually divided into:

- **Current liabilities** or short-term debt:

Debts that come due within a year of the date on the Balance Sheet.

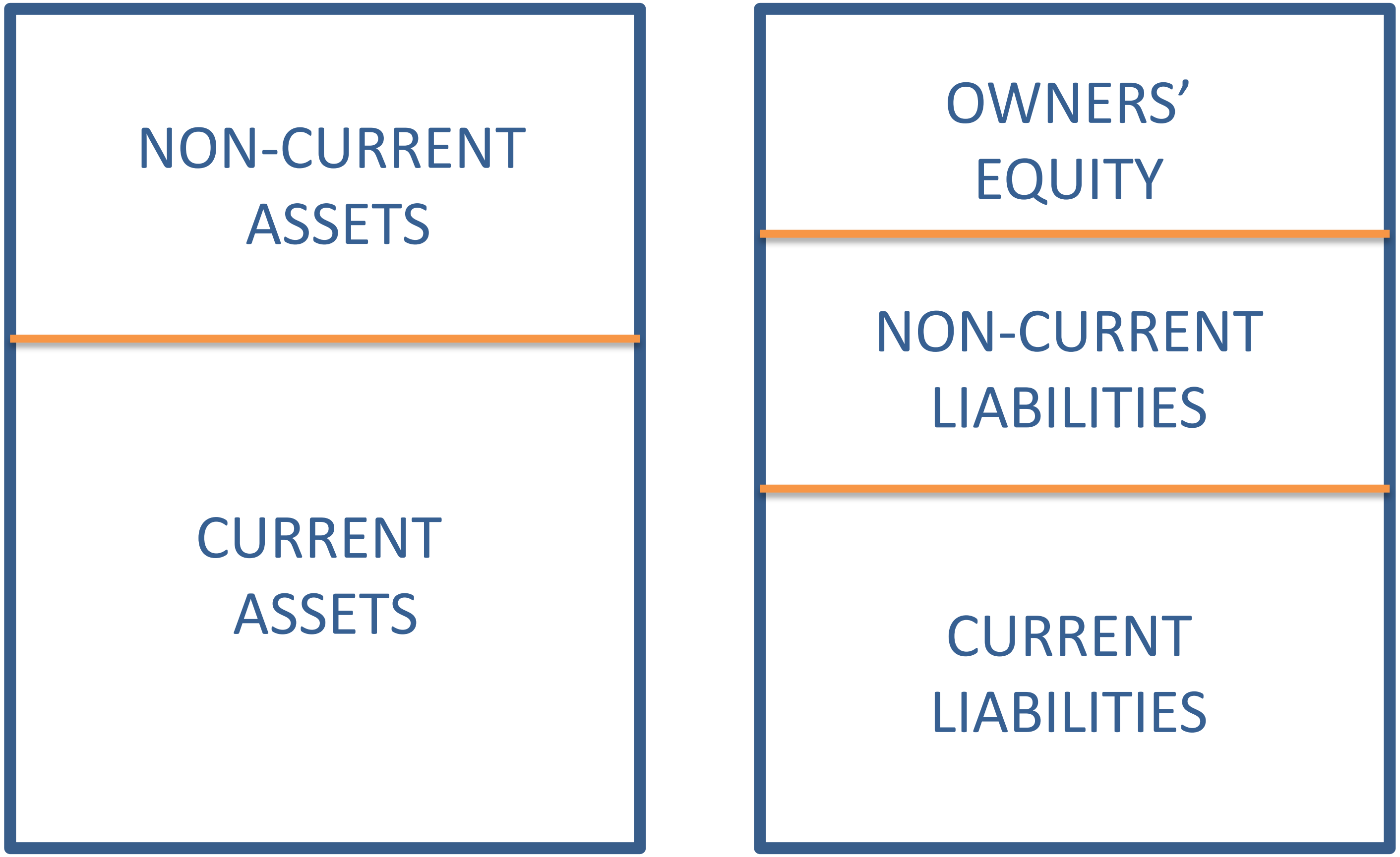
E.g.: accounts payable, wages payable, taxes payable…

- **Non-current liabilities** or long-term debt:

Debts that don't come due until more than a year after the date on the Balance Sheet.

E.g.: long-term loan, bonds payable…

B. BALANCE SHEET



NC Assets + C Assets

=

Owners' equity + NC Liabilities + C Liabilities

B. BALANCE SHEET

Bigbux, Inc.
Balance Sheet
December 31, 201X

Assets (Resources owned by the firm)

Equals

Liabilities (What the firm owes to outsiders)

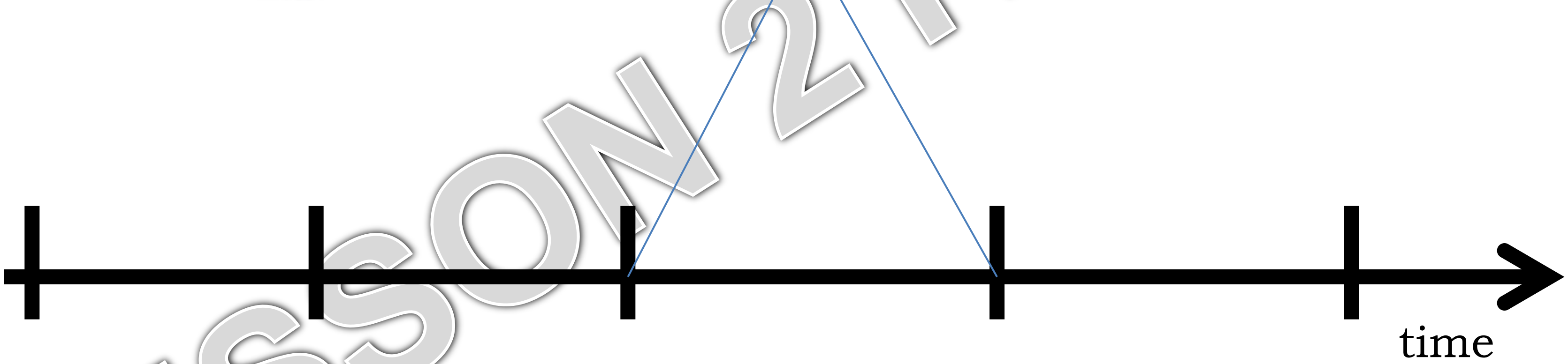
Plus

Owners' (or Stockholders') Equity (The claims owners have on their firm's assets)

ASSETS	
Current Assets	
Cash	$188,000
Accounts receivable	187,000
Inventory	396,000
Total current assets	771,000
Plant, Property and Equipment	997,000
Less: Accumulated depreciation	-64,000
Net plant, property and equipment	$933,000
Total Assets	$1,704,000
LIABILITIES	
Current Liabilities	
Accounts payable	$220,000
Wages payable	300,000
Total current liablities	520,000
Long-term Liabilities	
Long-term loan	380,000
Total Liabilities	$900,000
STOCKHOLDERS' EQUITY	
Common Equity	
Common stock	$300,000
Retained earnings	504,000
Total Stockholders' Equity	$804,000
Total Liabilities and Stockholders' Equity	$1,704,000

The balance sheet "balances," reflecting the equality expressed in the accounting equation.

C. INCOME STATEMENT



A profit and loss statement displays the “bottom line” (profit or loss) after calculating the revenues recognized for a specific period and the costs charged against these revenues. It always represents a period of time.

C. INCOME STATEMENT

+ SALES REVENUE
- PRODUCTION COSTS (COST OF GOODS SOLD)

GROSS INCOME)
- SELLING, GENERAL AND ADMINISTRATIVE COSTS

EARNINGS BEFORE INTEREST AND TAXES (EBIT)
- INTEREST (= Ki * Debt)

EARNINGS BEFORE TAXES (EBT)
- TAXES (= Tax rate * EBT)

NET INCOME

C. INCOME STATEMENT

It summarizes a firm's operations over a given period of time in terms of profit and loss

Revenue – Expenses = Net Income

Revenue
the increase in the amount of assets the firm earns

Expenses
the cash the firm spends or other assets it uses to generate revenue

Net Income
the profit or loss the firm earns

C. INCOME STATEMENT

Net Sales		$20,000,000
Cost of Goods Sold		16,000,000
Gross Profit		$4,000,000
Selling Expense	$1,500,000	
General & Administrative Expenses	1,000,000	
Total Operating Expenses		2,500,000
Earnings before Interest and Taxes (EBIT)		$1,500,000
Interest Expense		500,000
Earnings before Taxes		$1,000,000
Income Taxes (at 30%)		300,000
Net Income		$700,000

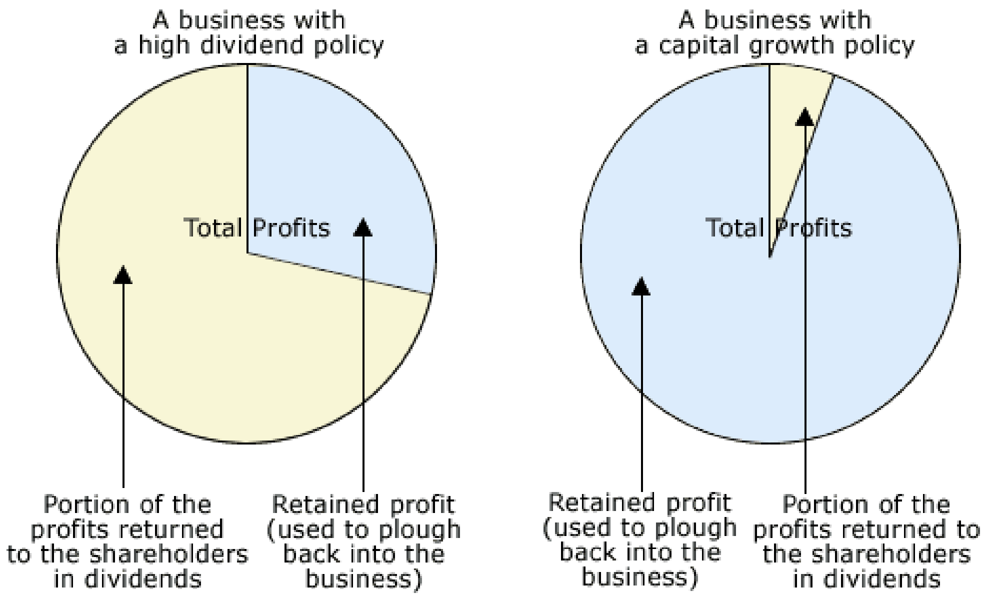
C. INCOME STATEMENT

Net income is called the **'bottom line'** of the Income Statement but it is such an important measure of the **firm's operating success**.

But Income Statements usually include additional information below the net income, as this can be allocated to shareholders via a **dividend**, or kept within the company as **retained earnings**.

The **Board of Directors** decides the portion to be distributed among the shareholders (paid out as dividends) and the portion to be retained by the firm to be reinvested in its activities or to pay debt.

C. INCOME STATEMENT



This decision has a great impact on investors, and hence on the **market value** of the firm.

Investors seeking **high current income** prefer companies with a high dividend payout ratio (**high dividend policy**). However, investors seeking **high capital growth** may prefer a lower payout ratio (**capital growth policy**) because capital gains are taxed at a lower rate.

C. INCOME STATEMENT

EBITDA
=
EBIT + D + A

EBIT is a widely-used indicator to evaluate how a firm is performing operations, as it does not consider neither interest nor taxes.

In this regard, the use of ***EBITDA*** is spread as an alternative, as it **removes the arbitrary and subjective judgments that can go into calculating depreciation and amortization** (useful lives, residual values and depreciation methods).

Amortization (intangible assets) & Depreciation (tangible assets): spreading an asset's cost over that asset's useful life

D. FINANCIAL ANALYSIS

Unlike the **Economic Analysis**, which studies the profitability of the firms…

$$ROA = \frac{EBIT}{A} = \frac{EBIT}{S} \cdot \frac{S}{A} = ROS \cdot AT \qquad ROE = \frac{EBT}{E} \qquad ROE = ROA + (ROA - k_i) \cdot \frac{D}{E} = ROA + FL$$

…the **Financial Analysis** focuses on the financial situation of the firm, which encompasses:

- **Liquidity** is a firm's ability to meet its short-term debt obligations. A *company with adequate liquidity* has enough cash available to pay its bills.

-**Solvency** is a firm's ability to meet its long-term debt obligations. A *solvent company* is one that owns more than it owes; i.e., it has a positive book value and a manageable debt.

D. FINANCIAL ANALYSIS

Solvency and liquidity refer to an **firm’s financial health**. Both are important –healthy companies are both solvent and possess adequate liquidity.

A firm that is insolvent must enter **bankruptcy**; a firm that lacks liquidity can also be forced to enter bankruptcy even if it is solvent.

“I’m going for a loan. Do I look solvent?”

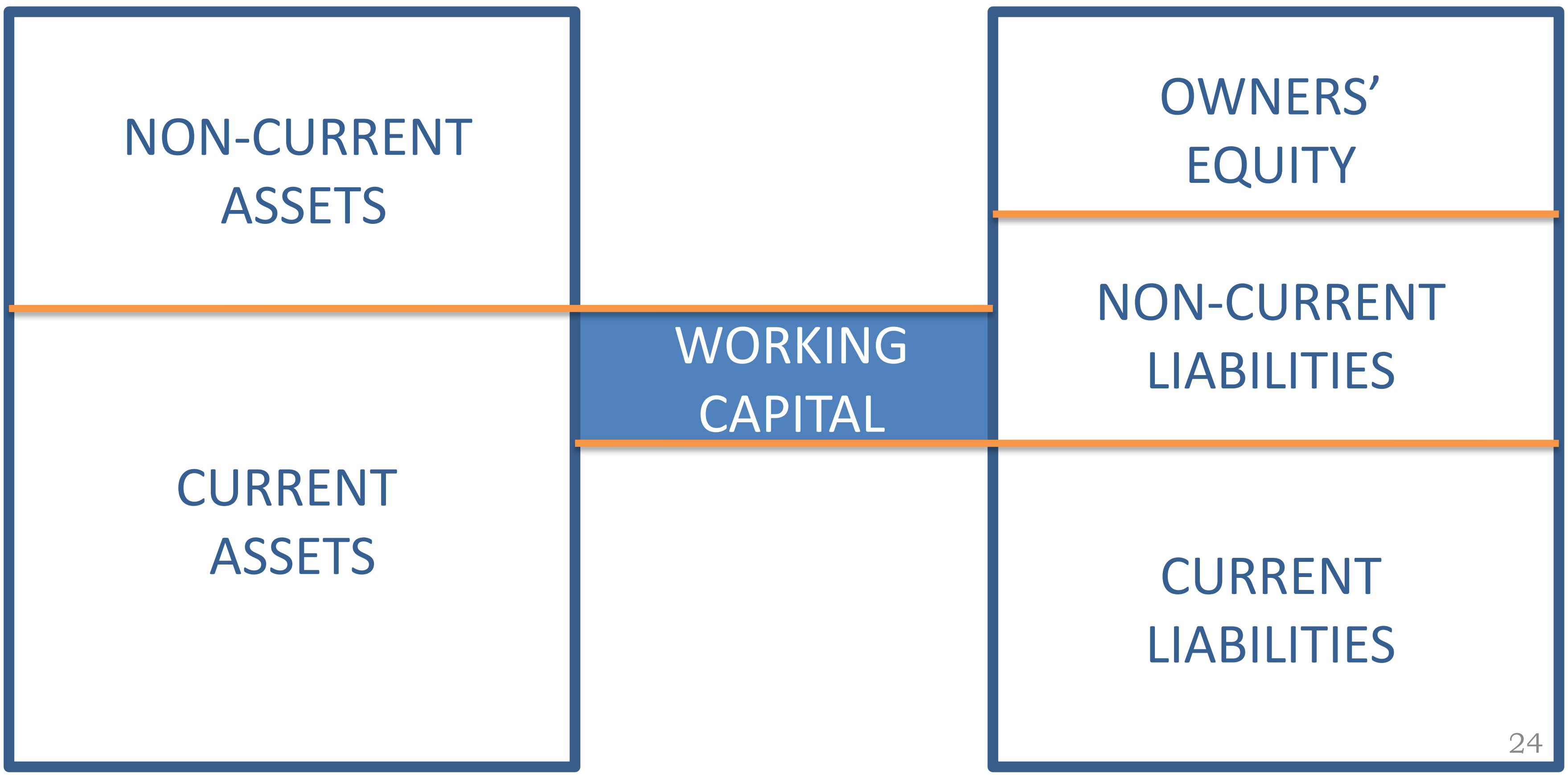
D. FINANCIAL ANALYSIS

Bankruptcy is a **legal proceeding** involving a person or business that is unable to repay outstanding debts. In other words, it is a determination of insolvency made by a court of law with resulting legal orders intended to **resolve the insolvency**.

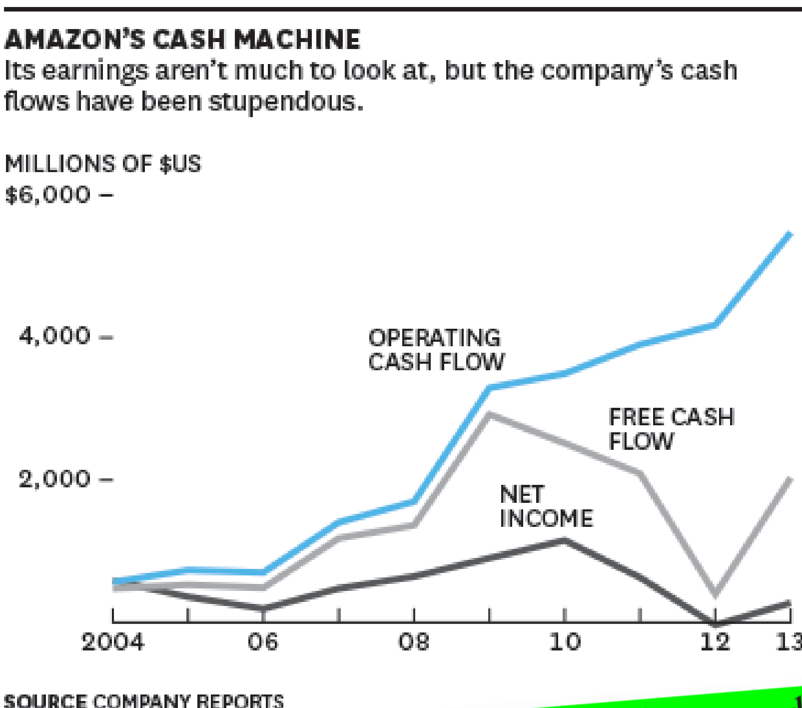
D. FINANCIAL ANALYSIS: LIQUIDITY RATIOS

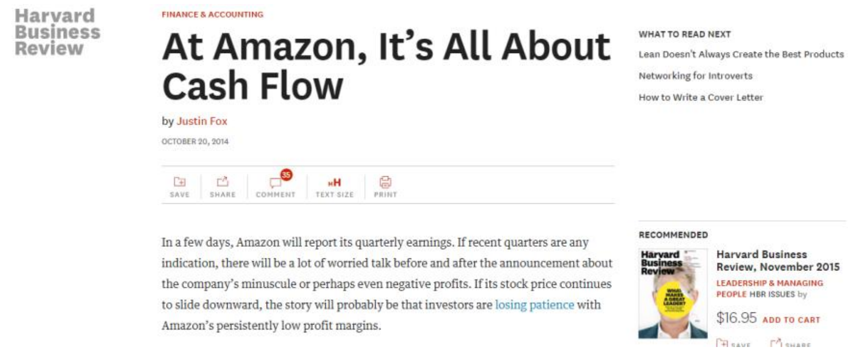
WORKING CAPITAL = CURRENT ASSETS - CURRENT LIABILITIES

Working capital measures a company's ability to meet its short-term debt obligations. If a company's current assets do not exceed its current debt, then it may run into trouble paying back creditors in short term.



amazon





Harvard Business Review

FINANCE & ACCOUNTING

At Amazon, It's All About Cash Flow

by Justin Fox

OCTOBER 20, 2014

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In a few days, Amazon will report its quarterly earnings. If recent quarters are any indication, there will be a lot of worried talk before and after the announcement about the company's minuscule or perhaps even negative profits. If its stock price continues to slide downward, the story will probably be that investors are losing patience with Amazon's persistently low profit margins.

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Harvard Business Review, November 2015

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In Amazon's case, all this cash is being used to finance the company's continued explosive growth. The company doesn't need to borrow; it doesn't need to issue stock. It can just keep spending its own cash to attack new sectors and upgrade its offerings.

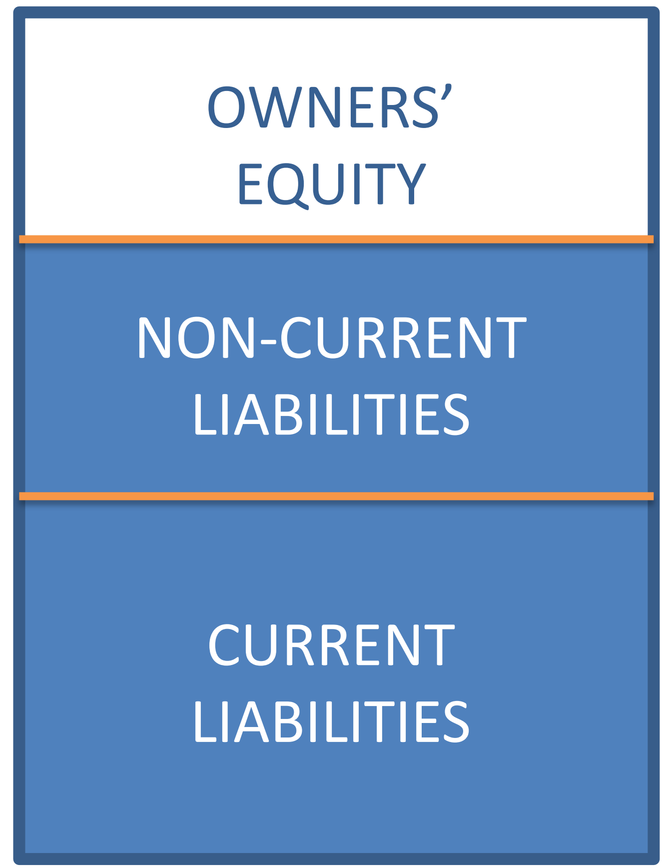
D. FINANCIAL ANALYSIS: SOLVENCY RATIOS

DEBT-TO-EQUITY RATIO = LIABILITIES / EQUITY

DEBT-TO-ASSETS-RATIO = LIABILITIES / ASSETS

A rising debt-to-equity ratio (or debt-to-assets ratio) implies high interest expenses, but it can allow managers to increase the firm's return on equity.

It should be highlighted that beyond a certain point it may affect a company's credit rating, making it more expensive to raise more debt (risk premium).



D. FINANCIAL ANALYSIS

The following points should be borne in mind when using solvency and liquidity ratios:

- ***Get the Complete Financial Picture***: Use both sets of ratios – liquidity and solvency – to get the complete picture of a company's financial health, since making this assessment on the basis of just one set of ratios may provide a misleading depiction of its finances.
- ***Compare Apples to Apples***: These ratios vary widely from industry to industry, so ensure you're comparing apples to apples. A comparison of financial ratios for two or more companies would only be meaningful if they operate in the same industry.
- ***Evaluate the Trend***: Analyzing the trend of these ratios over time will enable you to see if the company's position is improving or deteriorating. Pay particular attention to negative outliers to check if they are the result of a one-time event or indicate a worsening of the company's fundamentals.

Key concepts

Annual reports and financial statements.

Review Balance Sheet
Current and non-current assets
Current and non-current liabilities

Review Income Statement
Retained earnings and dividends: high dividend policy vs. capital growth policy
EBIT vs. EBITDA: depreciations and amortizations

Financial vs. Economic Analysis
Liquidity, solvency and bankruptcy
Liquidity ratio: working capital.
Solvency ratio: D/E and D/A ratios.