

Chapter 3

(Financial statements and Ratio analysis)

مخرج فصل ثالثي

عن ال

corporation

* Corporations are asked by law to prepare annual report.

* The annual report will present the corporation's performance annual report. (التقرير السنوي)

⇒ - Letter to stockholders (past performance, future plans)

← الجازات - مودك مستقبلية

- Basic financial statements:

- a) Income statement.
- b) Balance sheet.
- c) Cash flow statement.
- d) Statement of stockholders' equity.

a) Income statement:

قائمة الدخل / قائمة الأرباح والخسائر

⇒ is a financial statement that shows revenues and expenses over a specific period of time

(Manufacturing) Company

تصنيع

Income statement

for the year ended Dec 31, 2018

Sales revenue

- C.G.S

Gross profit (الربح الإجمالي)

- operating exp.

operating profit (EBIT)

→ - Rent exp.

- Utilities exp.

- Selling & marketing exp.

- Depreciation

etc.

except tax and interest exp.

الدس

Operating profit (Earnings Before Interest and Tax)
- Interest exp

Earning Before Tax (EBT)
- Tax exp.

Net income / loss (ربح أو خسارة صافية) (EAT)
- Preferred dividends (إذا كان في أسهم مفضلة)

Earning available for common stockholders

$$* EPS = \frac{\text{Net income} - \text{Preferred dividends}}{\text{\# of common stock outstanding}} = \frac{EACS}{\#C.S.O.}$$

Page 145-3 : شركة speed delivery company.

P3-3

* Rev. = \$420,000

* 10 drivers, 1 clerical assistant, David (مدير)

\$12,100 for each driver
\$10,000 per year
\$5,000 per month.

* كل (الكم) مستحقة سنوية

$$\Rightarrow \$5,000 \times 12 = \$60,000 \text{ per year}$$

$$\text{Salaries exp.} = (12,100 \times 10) + \$60,000 + \$10,000 = \$191,000$$

$$\text{Employment taxes and Benefits costs} = \$42,600 \text{ per year.}$$

* Supplies \Rightarrow \$12,400 per year.

* Travel & entertainment = \$22,000 per year.

* Lease payment (جاري) = \$2,800 \times 12 = \$33,600 per year

* Interest exp. = \$18,000

* Borrowings loan = \$150,000 (قرض)

↳ Balance sheet و Income stat. sheet.

* Tax rate = 40%

\Rightarrow Solution: (a) Speed Delivery Company
Income Statement

for the year ended Dec 31, 2014

Revenue \$420,000

- Salaries exp. \$191,000 (gross profit (مبلغ))

- Employment taxes

and benefit cost \$42,600 \Rightarrow صمد من صمد

- Supplies \$12,400

- Travel & env. exp. \$22,000

- Lease payment \$33,600

- Dep. exp. \$16,300

Operating profit (EBIT) \$102,100

- Interest exp. \$18,000

EBT \$84,100

- Tax exp. \$33,640

Net income (EAT) \$50,460 #

(tax exp.)

\$84,100 \times 0.4

= \$33,640

(b) Evaluate performance : (تقييم)

⇒ The company covered all its expenses and earned \$50,460 profits

(b) Balance Sheet Statement

قائمة الميزانية العمومية
(الميزانية ≠ الموزانة)
chapter 4

⊗ مايقترجها الربح عبر الـ assets واما بالاعادة ومشتا فتم
⊗ تراكمية (cumulative)
⊗ لا بال Income statement ← ايسة انك مايتجها بقرار السنة على
(وترتيبها ومحتوياتها مختلفة جدا)

⇒ Is a financial statement that shows the financial position at a specific point of time (لوقت محدد)

⊗ Balance sheet equation:

$$\text{Assets} = \text{Liabilities} + \text{Stockholder's equity}$$

الاستثمارات / الأسهم ← الديون ← أصول المال
(Investments) ↓
Sources of financing (مصادر التمويل)

⊗ Types of assets:

1- Current assets: (short-term debts / liquid assets)

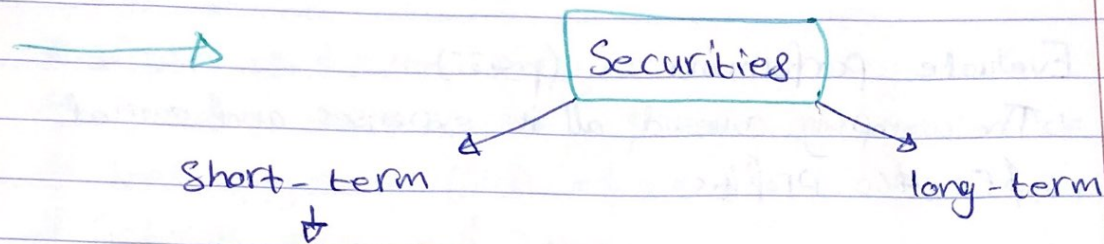
(⊗ يمكن تحويلها الى cash بسهولة)

⇒ { - Cash / almost cash.

- Equipment.

- marketable securities

⊗ تستحق بفترة أقل من سنة



تاريخ استحقاق الأوراق المالية لأقل من سنة
 maturity : less than 1 year.

(تاريخ استحقاق)

⊗ short-term sec. (marketable securities) : financial securities that can be converted into cash in less than 1 year

⊗ Marketable securities include :

أوراق مالية يصورها الشركة/الشخص
 ① Treasury bills : يشتروها : دايته الحكومة لفترة أقل من سنة
 في على فوائد (الإيراد) (المبلغ) الشركة : في بصير في دين مع الحكومة
 يستعملها بال assets تحت مسبق (فترة لين قصيرة) (Current. A.)

⊗ Marketable securities : Safe , low risk but also : low return .

⊗ لا يشجع إنو تدين الحكومة + سوقها ماضي إزادي أبغها عشانها issued by the government.
 T. bills : يكون دين (liability) مع الحكومة مش عاين أنا .

⊗ لا تصير إلا من الحكومة ← لما يكون عندها عجز بين المصاريف والإيرادات

تصير ال Treasury bills كيف ؟ → بتدائن

← بتشتريها ال corporation ← so ← بتملكها

~~debt~~

- U.S
- ⇒ - Debt instruments issued by the ↑ government.
- Maturity: less than 1 year
 - Safe and liquid.
 - Can be converted into cash quickly and easily (liquid).
 - low risk and low return.
 - U.S government usually issues the treasury bills to cover the imbalances between the tax revenues & its expenditures.
- من الموازن
- الصارف = expenses
- Debt instrument that must be repaid at maturity.

② Negotiable certificate of deposits (Negotiable CD's)

شهادة ادراج قابلة للتداول

⊛ (can be traded in the market)

⊛ (low risk, low return)

قرض: loan

من طرق التداول التي يتعامل بها البنوك التجارية

⊛ Def ⇒ Debt is instruments issued by commercial banks

(أكثر مما يصوره هو البنوك التجارية) & تاريخ استحقاق

⊛ البنك يحصل على التمويل من : ودائع الناس (Deposits)

⊛ (القروض تكون Assets)

$$\text{Bank: Assets} = L + O.E$$

- (loans) Deposits

⊛ Commercial banks issue negotiable certificate deposits as financing (to finance its investments)

من أصول استثمارها

ال Equity مال

تاريخ استحقاق لأنه

ملكية أو مال

Liability في مال

أو قرض ملكية

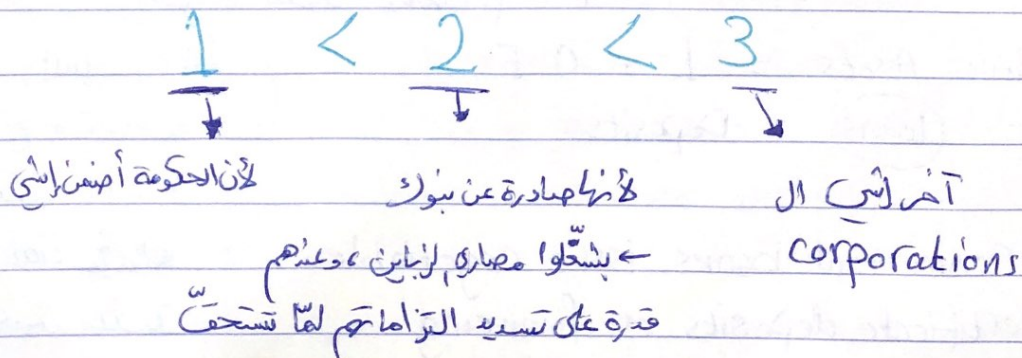
- ⇒ - Maturity: less than 1 year.
- Low risk and low return.
 - Liquid → can be converted into cash quickly and easily. (يس: حسابات الناس من البيع والشراء)

⊗ ⇐ تصبح عن البنك على أموال حالة من خلال هاي ال securities من
ال Deposits (مخاطرة قليلة) .
⊗ الودعة لأجل عليها فوائد .

③ Commercial papers: الأوراق التجارية .

- هاد النوع
- Debt instruments issued by corporations
 - Corporations issue commercial paper as a sourced financing .
 - Maturity: less than 1 year .
 - Low risk , low return .
 - Liquid

* ترتيب ال marketable securities حسب الخطورة :



* سيالة رقم 1 : Current assets

- cash

- Marketable securities

- Account Receivables / Note receivable (بروعد)

- Inventory

Low materials
work-in process.
Finished goods.

* Account Receivables : are recorded in the balance sheet under current assets if inventory (goods) was sold to customers on credit

⇒ Total current assets = cash + marketable securities + Account receivable + Inventory.

[2]- Fixed assets ⇒ long-term assets , land , buildings , plant , equipment .

can't be depreciated (لا يمكن ان يبرأ سعيها - أصول (موجبة) Asset)

less: Accumulated depreciation → حساب الاستهلاك

contra asset acc. ← المتراكم غير استهلاك

Net fixed assets → القيمة بعد حساب الاستهلاك

المتراكم خلال السنوات

3 - Intangible assets → أصول غير ملموسة
patents, copy rights, good will

$$\textcircled{*} \Rightarrow \text{Total assets} = \boxed{1} + \boxed{2} + \boxed{3}$$

Oct 10, 19
Thursday

* Types of liabilities

g) current liabilities: Short-term liabilities (debts) that should be repaid within 1 year of current liabilities.

⊗ current liab. include :-

1. Accounts Payable / Notes payable
(مستحقات) (تجارة)

eg: When the corporation purchases raw materials from the supplier on credit.

current liab. : أي دين قصير الأجل مستحق

2. Wages payable (or salaries ...)

3. Taxes payable

4. Accrued liabilities (مستحقات)

5. Short-term debt.

6. Interest payable

$$\Rightarrow \text{Total current liabilities} = \text{Acc./p.} + \text{W./p.} + \text{taxes/p.} + \text{acc. liab.} + \text{Short-term debt}$$

b) Long-term debts : (maturity : more than 1 year).

⇒ Debts that should be repaid within more than 1 year period.

⊕ long-term debts include :

1. Loans (القروض)

2. Bonds payable (السندات)

Loans (القروض)

(على قوائم)

بمسألة القروض

(loans)

ما يقدر أبوه

وأشترى لهم

ال Bonds

ببائعهم وبشركو.

Bond: long-term financial security that can be issued by corporations.

⊕ : is a debt instrument.

⇒ Bond: is a debt instrument that has a par value (face value) of \$1000, pays fixed interest rate and has a specific maturity.

e.g: Bond X , $n = 5$ years

par value = \$1000 , $i = 5\%$

Interest payment = $5\% \times 1000 = \$50$

(where i = annual interest rate) . Per year

Bond Y : par value = \$1000

$n = 10$ years , $i = 7\%$

⇒ Interest payment = $7\% \times 1000 = \$70/\text{year}$

Total liabilities = **a** + **b**
(current + long-term)

⊗ (3) Stockholders' equity : (آجر إشي بال Balance sheet)

Stockholders' equity include :

a) Preferred stock @ par value =

of preferred stock x par value (القيمة, القيمة)

~~القيمة~~

eg P.S = 10,000 shares.

Par value = \$1

⇒ Preferred stock = $10000 \times 1 = \$10,000$

b) common stock @ par

c) Additional paid in excess of par (capital).
(APIC) (علاوة الإصدار)

⊗ APIC = (Market price - par value) . # of common
Stock
outstanding

eg: Common stocks = (20,000 shares ⇒ أومبناها)

par value = \$2

offering price = \$3

issued + sold = 10,000 shares

⇒ common stock @ par = $2 \times 10,000 = 20,000$.

⇒ APIC = $(3 - 2) \cdot 10,000 = \$10,000$

(# من سعر)

d)

d) Retained earnings : (الأرباح الغير موزعة)
 Balance Sheet & Income Statement. (undivided profit)
 هي حصة الوكيل بين ال

$$\Rightarrow \text{Total stockholders' equity} = a + b + c + d$$

* P5 / 145 \Rightarrow (مات كملت ولا خربت)

	<u>Statement</u>	<u>type of account</u>
A/P	B.S	Current liab.
A/R	B.S	Current assets
Accruals	B.S	Current liab.
Acc. dep.	B.S	Fixed assets \Rightarrow contra asset account
Adm. exp.	I.S	Expenses
Buildings	B.S	Fixed assets
Cash	B.S	Current assets
Common stock @ par	B.S	Stockholders' equity
CGS	I.S	Expenses
Dep.	I.S	Expenses
Equipment	B.S	Fixed assets
General exp.	I.S	Expenses
Interest exp.	I.S	Expenses
Inventories	B.S	Current assets
Land	B.S	Fixed assets
Machinery	B.S	Fixed assets
Marketable sec.	B.S	Current assets
N/P	B.S	Current liab.
	etc

Oct 17, 19

* Basic financial statements :

1) Income statement .

4) Cash flow Stat.

2) Balance sheet Stat.

3) Stockholders' equity . \Rightarrow includes :

\Downarrow

Is a financial stat.

that shows changes

on stockholders' equity

\Downarrow

- preferred stock @ par

- Common stock @ par

- Retained earnings

- Additional Paid In Excess of Par

(" " Capital)

\Rightarrow APIC

- New issuance of preferred stocks

- New issuance of common stocks

- Repurchase of stocks : \rightarrow لقا الشركة - ترجع تشتري أسهمها

من السوق ، هاد اسمو : Treasury stocks \leftrightarrow بتأثر على

stockholders' equity .

ال

- Changes in retained earnings .

* Statement of Retained Earnings :-

\Rightarrow shows the changes in retained earnings that affect the stockholders' equity .

ترتيبها (شكلا)

\rightarrow

Statement of R.E 2018

Retained earnings beginnings balance (2017)	\$
+ Net income (2018)	
- Preferred dividends (2018)	
- Common dividends (2018)	
<hr/> Retained earning ending balance (2018)	\$

P10 Page 148 :-

R.E beg. balance = \$1,151,000 20
 Net income = net profit = EAT = \$528,000
 Preferred dividends = \$98,000
 R.E ending balance = \$1,324,000
 # of common shares outstanding = 100,000 shares

① Prepare ----- Statement of R.E .

-: + (المسألة، - اسم الشركة)

R.E beg. bal.	\$1,151,000
+ Net income	528,000
- Preferred div.	98,000
- Common div.	X: 257,000
<hr/> R.E end. bal.	<u>\$1,324,000</u>

$$X = 1,581,000 - 1,324,000 = \$257,000$$

② $EPS = \frac{\text{Net income} - \text{Preferred div.}}{\text{\# of common stocks outstanding}}$
 (معدل الربح) = $\frac{528,000 - 98,000}{100,000} = \4.3 / share
 (معدل الربح)

Net income - Preferred dividends : ملا - مالا
 Earning Available for Common stockholders : ملا - مالا
 (EACS)

③ $\text{Dividend / share} = \frac{257,000}{100,000}$ (common div. / # of Common)
 (Common) = $\$2.57 \text{ / share}$

معدل الربح 4.3 ووزعوا 2.57 منهم، وبقي 1.75 لم يستأقروا.

4 Cash Flow Statement :- قائمة التدفقات النقدية
 ⇒ Is a financial statement that shows cash inflows and cash outflows from 3 business activities which are:- operating, investing and financing
 (تدفق - استثمار - تشغيل)

(يشرحها بالتفصيل بكونها بنسب 4)

* Ratio Analysis : (مقياس + مقياس)

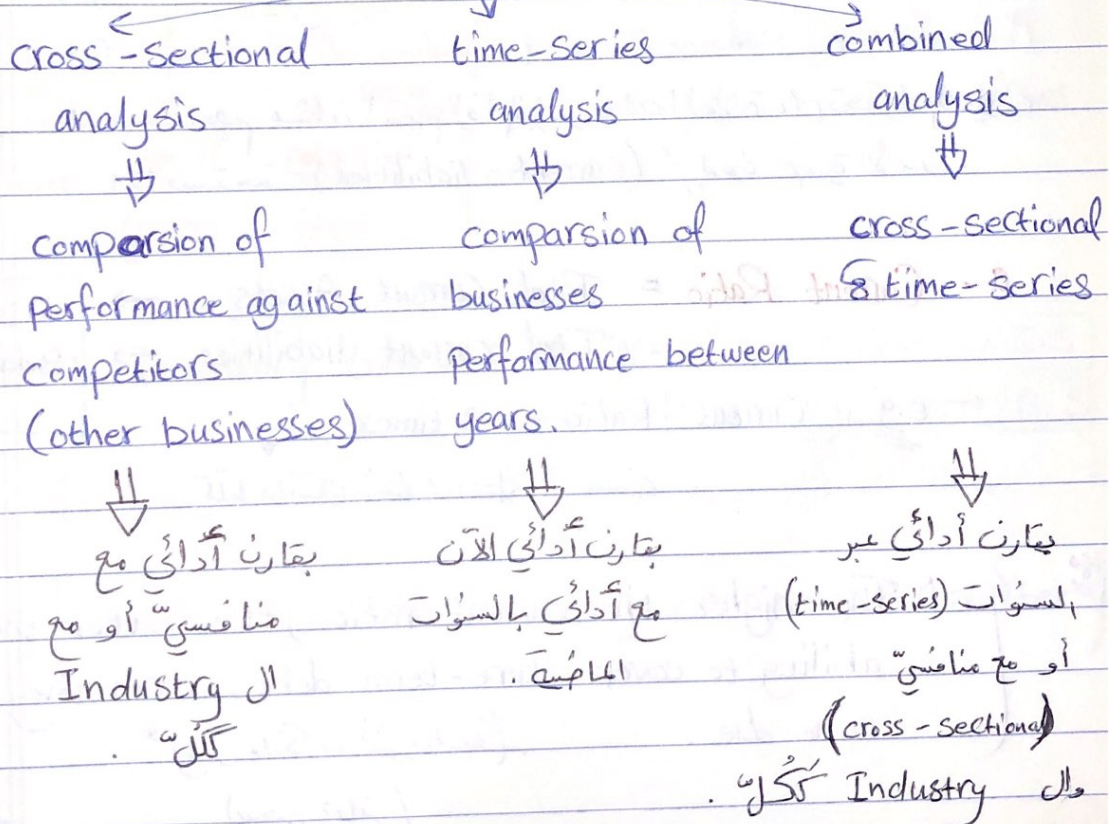
⇒ A method used to analyze the financial statement in order to evaluate the business performance.

↓
بهاى التالية

Interested parties :-

- 1) Stockholders (owners).
- 2) management.
- 3) Creditors. (أئى بيتوا البرنس)
- 4) Government.
- 5) Competitors. (المنافسين)

Ratio Analysis



* Categories of financial Ratios

1- Liquidity Ratios (2)

2- Activity Ratios (5)

3- Debt Ratios (3)

4- Profitability Ratios (6)

5- Market Ratios (2)

1- Liquidity Ratios :- These ratios help to evaluate the firm's ability to cover short-term debts as they come due.

Current Quick

بستخدمه مقياساً لقيمتها إذا لم تكن عندها القدرة على تحقيق الديون
لما تستحق (Current liabilities) / ديون قصيرة الأمد .

a- Current Ratio = $\frac{\text{Total Current Assets}}{\text{Total current liabilities}}$ → منجيبهم من ال Balance sheet

e.g : Current Ratio = 2 times → كلما كانت أعلى ← أحسن .

⇒ The higher the current ratio, the better the ability to cover short-term debts when they come due. * (ليس ما تكون كثير عالیه) .
(بيجي دوائر)

I.S = Income Statement.
B.S = Balance Sheet.

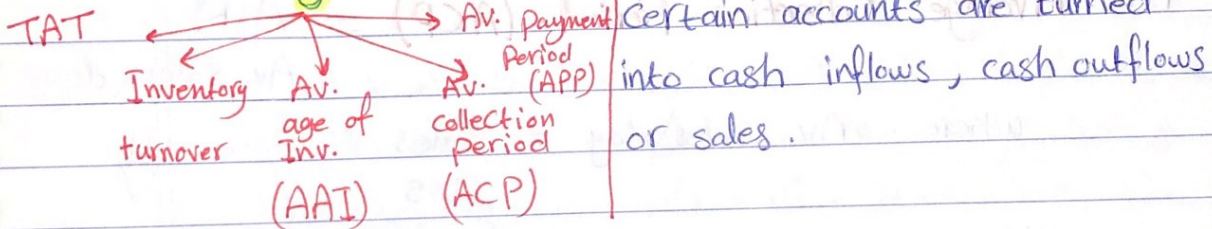
b- Quick (Acid-test) Ratio (أدق من @)

$$\text{Quick Ratio} = \frac{\text{Total current assets} - \text{Inventory}}{\text{Total current liab.}}$$

استثناء
(لا نأخذ مخزون ما يتبعوا (ماتحول إلى كاش) ← عشان حد أدق من a
from the balance sheet.

* ⇒ The higher the quick ratio, the better the firm's ability to cover short-term debts as they come due.

2- Activity Ratios :-



a- Inventory turnover = $\frac{\text{Cost of Goods Sold} \rightarrow \text{I.S}}{\text{Inventory} \rightarrow \text{B.S}}$

دوران البضاعة
(البضاعة تحولت (x) مرة لمبيعات)

* ⇒ The higher the inventory turnover, the better.

$A/R \equiv \text{Account Receivable}$
 $A/P \equiv \text{Account Payable}$

b - Average Age of Inventory (AAI) = $\frac{365}{\text{Inv. turnover (a)}}$

$$= \frac{365 \cdot \text{Inventory}}{\text{Cost of Goods sold}}$$

\Rightarrow It measures # of days needed to turn the inventory over.

e.g: AAI = 20 days :- يعني كل 20 يوم جلاب بضاعه
(بتخلص بضاعتي ويجيب غيرها)

\Rightarrow The higher the AAI, the better.

c - Average Collection Period (ACP) = $\frac{A/R}{\text{Av. Sales/day}}$

where: $\text{Av. Sales/day} = \frac{\text{Sales}}{365}$

$A/R \Rightarrow B.S$

$\text{Sales} \equiv \text{Rev.} \Rightarrow I.S$

$\Rightarrow \text{ACP} = \frac{A/R \cdot 365}{\text{Sales}}$

\Rightarrow It measures on average the # of days needed to collect the account receivable.

\Rightarrow * The goal of any business is to collect the A/R(s) as quickly as possible.

\Rightarrow The lower the ACP, the better.

$$d- \text{Average Payment Period (APP)} = \frac{\text{ANP}}{\text{Av. purchases/day}}$$

$$\text{where: Average purchases/day} = \frac{\text{Annual Purchases}}{365}$$

⇒ It measures on average the number of days needed to repay the A/P

$$\text{APP} = \frac{\text{A/P} \cdot 365}{\text{purchases}}$$

⇒ The goal of the firm is to repay the accounts payable as slowly as possible.

⇒ The longer the APP, the better.

* إذا صحتي أخر الدين وما أستدو يكون أحسن بعشان أستغل المصارف
إني صتي بشرط صاحب الدين ما يحط فوائده (وما يح يخطه) لأنو A/P
من N/P من مسجل بعقة) وما تخرب العلاقة ويبطل يديتي

$$e- \text{Total Asset Turnover (TAT)} = \frac{\text{Sales}}{\text{Total Assets}}$$

⇒ It measures how much every \$ invested in assets is generating sale.

⇒ The higher the TAT, the better.

بسن تكون عالية من زيادة ال (Sales) من من تقام ال (Total assets) أحسن ✓

3- Debt Ratios :- measure:

1- The degree of indebtiness (درجة المديونية للبرنس)

2- Ability to service the debt

↓
(القدرة على دفع الموائد التي جاية بسبب الدين)

$$a- \text{Debt Ratio} = \frac{\text{Total liab.}}{\text{Total assets}}$$

↓
It measures the degree of indebtiness.

$$\textcircled{*} \text{ Debt Ratio} < 1 \quad (< 100\%)$$

⇒ The higher the debt ratio, the higher the default risk.

↓
The default risk :- inability to repay the debts (principal or interests) when they come due.

$$b- \text{Debt-to-equity Ratio} = \frac{\text{Total liabilities}}{\text{Total common equity}}$$

↓
It measures the degree of indebtiness (too)
(بسبب أن يختلف هو المقام (a) عن)

⑧ where :-

$$\begin{aligned} \text{Total common equity} = & \text{common stock @ par} \\ & + \text{APIC} \\ & + \text{Retained Earnings} \end{aligned}$$

⇒ The higher the debt-to-equity ratio, the higher the degree of indebtedness, the higher the default risk.

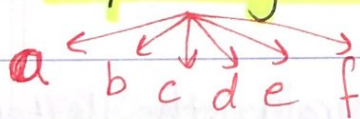
C- Times Interest Earned Ratio = $\frac{\text{EBIT}}{\text{Interest exp.}}$ → I.S. → I.S.

It measures the firm's ability to service the debt.

⇒ It measures the # of times the firm can cover its interest expense.

⇒ The higher the times interest earned, the better the firm's ability to service the debt.

4- Profitability Ratios :- measure the firm's profitability (الربحية)



a- Gross profit margin = $\frac{\text{Gross Profit}}{\text{Sales}}$ = $\frac{\text{Sales} - \text{CGS}}{\text{Sales}}$

I.S.

⇒ The higher the gross profit margin, the higher the profitability of the business.

margin : $\frac{\text{Gross Profit}}{\text{Sales}}$
Sales →

ال Gross profit margin مش كيش دقيقة ولا نلها بس بقا طر ال
 Gross profit وعلشان نحس أكثر دقة ← من خط ببال Gross profit
 → Operating profit (EBIT) ⇒ (b)

$$b- \text{Operating profit margin} = \frac{\text{Operating Profit}}{\text{Sales}}$$

⇒ The higher the operating profit margin, the better the firm's profitability.

$$c- \text{Net Profit margin} = \frac{\text{EACS}}{\text{Sales}} \rightarrow \begin{matrix} \text{I.S} \\ \text{I.S} \end{matrix}$$

(EACS ≡ Earning Available for Common Stockholders)

$$* \text{EACS} = \text{Net income} - \text{preferred dividends}$$

⇒ The higher the net profit margin, the better the firm's profitability.

* ⇒ The most accurate ratio.

$$d- \text{Return On Assets (ROA)} = \frac{\text{EACS}}{\text{Total Assets}}$$

It measures how much every \$ invested in assets is generating net profit.

كل دولار استثمرت بال Assets ← كم يكون في مقابلة ربح هاهنا
بعد تخفيض كل المصاريف بما فيها ال Preferred div. إذا في عالي

⇒ The higher the ROA, the higher the firm's Profitability.

e- Return On Equity (ROE) = $\frac{EACS}{\text{Total common equity}}$

EACS ⇒ from: I.S

Total common equity ⇒ B.S

⇒ It measures how much every \$ invested by common Stockholders is generating net profit.

(الفرق بين e و d : (أو d شاملة ، بس e : من المساهمين)

* Remember :- Total common equity = Retained earnings + Common stock @ par + APIC

⇒ The higher the ROE, the higher the firm's Prof. (∴ The better).

f- Earning Per Share (EPS) = $\frac{EACS}{\# \text{ of common stocks outstanding}}$

↓
حصة كل سهم مادي من الأرباح
↓
Common