

* شركات الوساطة المالية : Securities firms انواع

- ① brokerage firms → help buyers and sellers of financial securities to be matched for a specific commission (وساطة)

شركات الوساطة المالية مسجلة بشهر اسم
- ② Investment banks (بنوك استثمار)

help in raising financial capital, mergers (اندماج) and acquisitions (مشتراة)

- ③ mutual funds (صناديق الاستثمار)

تعمل كمجموعة فيها وانما كمدى يمكن استثمار
وهناك اشخاص يبيعونها بشهرها الصندوق

issue shares of their own and the (pooling of funds) ← صناديق استثمار

are reinvested in other corporate and governmental securities

Finance Companies: (شركات تمويل)

Role → give loans only

ولا تستقبل

العوائد تكون عالية جداً (اعلى من فوائد البنوك) ويأخذ الربح الناس

لما البنك ما يبيعهم بغير شروط

Nov. 2. Sat.

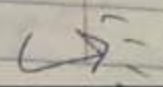
المالية الإلكترونية Financial institution

2. Financial market (البورصة) المكان الإلكتروني (network) where demanders and supplies of funds can do their business transactions directly.

* Financial securities are usually sold in financial markets ... تتم بيع الأوراق المالية (treasury) ... شركات الوساطة المالية (security firms) ويباع لكل العام general public بفرض السهم يكون في البورصة لكن لو كان البيع لأشخاص محددين specific people لا تباع في البورصة لأنه البورصة لا يتم التبريد بين المشترين (يكون الكمال الذي يشتريه اشخاص شركة بالقرض)

- Types of offering financial securities:

- ① public offering → selling stocks for the general public (publicly held corporation شركة عامة)
- ② Privat placement → selling stocks for a specific group of people (privately held corporation شركة خاصة) such as : insurance co., pension fund



* Types of market securities maturity: ③

- money market

it describes the financial relationship between short term demanders and suppliers of funds

- Capital market

it describes the financial relationship between long term demanders and suppliers of funds

• سوق النقد money, Capital/market سوق الأوراق المالية: Note

• سوق الأوراق المالية سوق الأوراق المالية: Note.

* Business Taxes

- الضريبة (taxing)

Ex: Taxable income = \$60,000

tax Expense = ?

tax rate = ?

$$\begin{aligned} * \text{ Tax} &= 7500 + (25\% * (60,000 - 50,000)) \\ &= 7500 + (25\% * 10,000) \\ &= 7500 + 2500 = \$10,000 \end{aligned}$$

$$* \text{ Tax rate} = \frac{\text{Tax expense}^{(\text{liability})}}{\text{Taxable income}} = \frac{10,000}{60,000} = \%16,6$$

a. Contractual saving organization

- (1) Insurance companies :
IT collects premium to protect individuals and Businesses against losses
- (2) Pension funds استثمار
collects premiums to protect individuals against Job losses

b. Securities Firms -
Financial Securities :

- short-term

maturity: less than one year , جلد

- 1- Treasury bills
- 2- Negotiable CDs
- 3- Commercial banks paper

- Long term

maturity: more than one year

- 1- Bonds →
- 2- preferred stocks
- 3- Common stock

No maturity مستحق
ownership . ملاك

* Business and the governments → Net demanders of Funds



* Types of Financial institutions

① Depository Institutions : مؤسسات الائحة

Role → Accept deposits and gives loans

a. Commercial banks : البنوك التجارية ← [Most important]

Role → Accept deposits and gives loans to individual, businesses and governments.
 (الفترة الأكبر) عندما استأنته يوظف قروضه للأفراد.

b. Saving banks :

Role → accept deposits and gives loans mainly to individuals.
 متخصصة بأخذ القروض للأفراد

c. Credit union (تعاونيات)

Role → accept deposits and gives loans only to members
 تقبل الودائع وتعطي قروض فقط للأفراد التعاونيات
 تداول حوائك

② Non-Depository instit.

كل المؤسسات المالية التي لا تقبل الودائع ولا تعطي قروض
 لكنها تتخذ اقساط (القروض)

Financial market

(1)
Primary market

سوق بيع الأوراق المالية لأول مرة
(مباشرة إلى المالك)
Securities 01

Where the initial sale of securities happen

(The transaction happens between the issuer and the investor.)

(2)
Secondary market
(البورصة)

سوق إعادة تداول الأوراق المالية بين المستثمرين
Where securities are

Sold between investors

(Secondary market البورصة)

[organized securities Exchange]
(Broker - market)

تتميز بوجود مكان للتداول والتداول
الوساطة المالية (Brokers) يتوسطون
البايعين والشراء ويؤخذون عمولة معينة

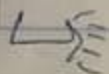
- physical trading floor
- brokers usually match the buyers with the sellers of securities for a specific commission

Example: NYSE (new york stock exchange)

[over the counter]
(Dealer - market)

- Net work بين البائعين والشراء
- Dealers usually buy and sell financial securities from their own portfolio (market-makers)

EX: Nasdaq NY



(b) Average tax rate = $\frac{\text{tax expense}}{\text{Taxable income}}$

* year 2009 tax rate = $\frac{9,150}{57,000} = 16,23\%$

* year 2010 tax rate = $\frac{11,000}{64,000} = 17,19\%$

* year 2011 tax rate = $\frac{11,625}{66,500} = 17,48\%$

* year 2012 tax rate = $\frac{13,835}{75,250} = 18,39\%$

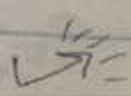
* There is a positive, direct relationship between The Taxable earning and the average

P2-3

Year	marginal tax rate
2009	25%
2010	25%
2011	25%
2012	34%
2013	34%

(a) * As tax liability increase the marginal tax rate has increased

(b) * As for the taxable earning: unless taxable earning are in another range, the marginal rate will not change
 earning ال لسا نفسه الشريحة & يتغير ال marginal



شركة (1)

شركة (2)

(3)

Earnings after tax = 102,000

\$120,000

Wed. Nov. 6

(1)

الدواجز التي تتوزع على الغير من الشركة هي (dividance)

(3) Dividend income (70% - 80%) of dividiance income is Excluded (مستثناة) from taxes

30% 20%

إذا كانت الشركة تمتلك 20% من الأسهم في شركة أخرى، تكون مستثناة من الضرائب

- If a corporation owns less than 20% of other corporation's stocks then 70% of the dividiance received will be Excluded from taxes

- If a corporation owns more than 20% (20% - 30%) of other corporation's stocks then 80% of the dividiance received will be excluded from taxes

علا ما زاد ملكيته (أسهم) في شركة أخرى يزيد الاستثناء

إذا كانت الشركة تمتلك أكثر من 20% من أسهم شركة أخرى تكون الاستثناء كامل (ما يدفعه هو الربح)

6

* Tax will decrease because the corporation will receive an 80% dividend exclusion

(d) Interest income is taxable, whereas dividends income 70% - 80% is excluded from taxes

(e) Tax Liability = \$123,000

P2-5 EBIT = \$250,000

Tax rate = 35%

(a) Interest expense = \$0

(Earnings to be distributed) (EAT) net income $\frac{1}{5}$

* EBIT 250,000

- Interest Exp 0

EBT 250,000

- Tax (35%) 87,500

EAT = Net Income \$162,500

(b) Interest expense = \$8,500

* EBIT 250,000

- Interest Exp 8,500

EBT 241,500

- Tax (35%) 84,525

EAT = NI \$156,975

(c) Tax Liability 87,000 @ > tax Liability 84,525
 (tax deductible) interest expense is the reason
 behind the difference in the tax liability

بعض قبله من الضرائب قال (income) ياكسي taxable income
 اقل فاكيد انساك دايج يكون اقل .

P2-6

(a) Vehicle 1
 Capital loss = 1350 - 2500 = (\$1,150)

Vehicle 2

Capital loss = 1,900 - 3000 = (\$1,100)

(b) Vehicle 1

* اشارة لا تدفع عليها ايرسة فقط الربح

(income before tax)

C. loss \$ - \$1,150

Tax 40% - \$460

EAT (\$690)

اشارة تدفع لانها تدفع

شدة الربح ياك اذ دفع

Tax saving

اشارة ياك الربح انظاري
Vehicle one

①

Capital gain = selling price - purchase price

العربية - مبيعات والشراء

②

P2-2

(year)	EBT / taxable earning pretax earnings
2009	\$ 57,000
2010	\$ 64,000
2011	\$ 66,500
2012	\$ 75,250
2013	\$ 79,350

p. 99

②

$$* \quad 2009, \text{ tax} = 7500 + (25\% \cdot (57,000 - 50,000))$$

$$= \$9250$$

$$* \quad 2010, \text{ tax} = 7500 + (25\% \cdot (64,000 - 50,000))$$

$$= \$11,000$$

$$* \quad 2011, \text{ tax} = 7500 + (25\% \cdot (66,500 - 50,000))$$

$$= \$11,625$$

$$* \quad 2012, \text{ tax} = 13,750 + (34\% \cdot (75,250 - 75,000))$$

$$= \$13,835$$

$$* \quad 2013, \text{ tax} = 13,750 + (34\% \cdot (79,350 - 75,000))$$

$$= \$15,229$$

* As taxable earnings increase the tax liability has also increased

P2-4 Worldwide Contractors Corporation

4

gross profit = \$ 520,000

Operating Expenses = \$ 235,000

interest income = \$ 15,000 (received)

owns 15% of multiple wine corporations stock

Dividend income = \$ 25,000

Tax rate = 40%

70% dividend exclusion (الغاء)

← silbas
(photos)

(a) interest received = \$ 15,000 & tax = 40%

* Tax liability on interest received = $(15,000 \times 40\%)$
= \$ 6,000

EAT (الربح) = \$ 9,000 $(15,000 - 6,000)$

* Tax liability on dividend received = $(25,000 \times 40\% \times 30\%)$
= $[\$ 3,000]$ 70% dividend exclusion (الغاء 30%)

EAT = \$ 22,000 $(25,000 - 3,000)$ (الربح المتبقية)

(b) EACS : (الربح المتبقية للاداء)

* gross profit 520,000

- operation expense 235,000

operating profit 285,000

- interest expense 0

Earnings before tax 285,000

Tax rate (40%) (114,000) $(40\% \times 285,000)$

Net income \$ 171,000

(from operations)

25

5

(b) (6,000 + 3,000) ↑

$$* \text{ EACS} = 171,000 + 9,000 + 22,000 = \$202,000$$

* (الربحية الشافية)

gross profit	52,000
- operating expense	235,000
EBIT	285,000
- interest expense	(0) → ما يوجد عليها فوائد
EBT	285,000
+ interest received	15,000
+ taxable dividend received	7,500 → (25,000 × 30%)
Taxable income	\$307,500
- tax (40%)	123,000 → (307,500 × 40%)
Net Income	184,500
+ non-taxable dividends	17,500 → (25,000 × 70%)
EACS	\$202,000

© Dividend income = 25,000 ← للفرد (مفتوح)

- exclusion 80%	= 20,000
Taxable income	5,000
- tax 40%	[2,000]
EAT	3,000

لصاحب الدخل
المقتضى
الضريبة

→

Ex: Taxable income = \$50,000

لوعسى على الشركة الادنى بطلب نفس المبلغ (الاجور)

$$* \text{Tax} = 0 + (15\% * (50,000 - 0))$$

$$= 15\% * 50,000 = \$7,500$$

Note: اذا كانت الفائدة

Corporations usually pay taxes on:

- ① ordinary income → income from operations
العربية على الربح
- ② interest income (e.g. interest received from bonds)

Note: Interest Expense is a tax deductible (corporations

don't pay taxes on interest expense) بعضهم قبل دفع العربية

so اننا يدفع العربية على الربح حتى على المصاريف

Example: p: 94

Tax rate = 40%

Tax Expense = \$

Earnings after tax = ?

	Dept company	No Dept company
EBIT	\$200,000	200,000
Interest	\$30,000	0

200,000 - 30,000 =

* EBT → \$170,000

\$200,000

* Tax rate → \$68,000

\$80,000

Expense (40% x 170,000)

(40% x 200,000)

→

(4) (5)

* Net cash flow = CFO + CFI + CFF

المشروع → موجبة

P168-169

Cash out flow ← طرح و Cash in flow ← جمع

** Net cash flow = Δ in cash + Δ in marketable. Sec (bal)

Baker corporation

Cash flow statement (000)

for the year ended Dec. 31, 2015

Net Income \$ 180

+ Depreciation \$ 100

+ Decrease in A.R \$ 100

+ Decrease in inventory \$ 300

+ increase in A.P \$ 200

- decrease in Accruals \$ 100

Cash flow provided by operating act. \$ 780

Cash Flow from Investing act

- gross fixed Assets 300

Cash flow used by Investing (300)

(3)

Δ in gross Fixed Assets
 (Fixed assets) $\frac{\text{the Accumulated Depreciation}}{\text{من مخصص}} \leftarrow$
 (cash in) \leftarrow إذا زاد \leftarrow يعني شريته (cash out) وإذا قلته يعني بيعته (cash in)

③ Financing activities:

إذا زاد يعني اذابت (إشرا إن) وإذا قلت يعني سددت الدين (كاشاوت)

Δ in short-term interest-bearing debts (Notes payable)

***Note**: أي دين قصير الاجل عليه فوائد غير التغيير فيه ليس تحويل
 V.mpo!

- Δ long-term debts, liabilities
 - Δ preferred stocks
 - Δ Common stocks @ par
 - Δ additional paid in excess of par
 - Δ Dividends paid
- } → O. Eq

** Any increase in Receivables (A/R ...) is cash out

لأنه يزيد الدين (شئنا مصري)

** إذا ال Depreciation ما كان واضح من ال income statement عيّن
 الحصول عليه من ال B.S من خلال الفرق بين ال
 Accumulated depreciation.

$$\boxed{\text{Depreciation} = \text{the Acc. Dep. بين الوقت}}$$

** Dividends paid is Always cash out (طرح)

Nov. 27. Wed. (1/2 of 2015) (1/2 of 2014) (1/2 of 2013)

Cash flow from financing act.

- Note payable + 100

+ long term debt 200

- Dividance (80)

Cash flow provided by financing 20

* $RE_{2015} = RE_{2014} + NI - \text{dividance}$ ← عريف الـ RE
 $600 = 500 + 180 - \text{dividance}$ RE الـ 2014
 $[80 = \text{Dividance}]$

→ (common st. @ par) و (preferred stocks) الـ RE الـ 2015
لا يوافق التغيير بين السنتين فإذا (غيره) الـ RE الـ 2014

* $\text{Net cash flow} = \text{CFO} + \text{CFI} + \text{CFF}$
(1780 + 300 + 20) = 500

* $500 = \text{D cash} + \text{D in marketable securities}$
لا يتم شيئا

* Free cash flow is cash flow available to both owners and creditors after all activities.

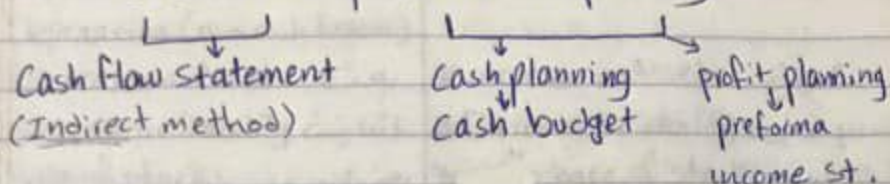
* $\text{FCF} = \text{OCF} - \text{NFAI} - \text{NCAI}$

Free cash flow operating cash flow Net fixed assets investment Net current Assets investment

Sat. Nov. 23

①

* Chapter 4 *
Cash Flow & Financial planning



④ Cash Flow statement:
is a financial statement that shows cash in flows & cash out flows from 3 business activities which include:
Operating, investing and financing
① ② ③

* To prepare a cash flow statement one income st. and two balance sheets are needed.

Ex: IF we want to prepare a cash flow statement for the year ended Dec. 31, 2018 we need:

- 1- Income st. for the year 2018
- 2- Balance Sheet for the year 2018
- 3- Balance Sheet for the year 2017

↳

Indirect method

* Cash flow Statement *

For the year ended Dec. 31, 2019

operating activities

- Net Income
 + Depreciation (non-cash Expense)
 - increase in Account. R \ + decrease in Account. R
 - increase in inventory \ + decrease in inventory
 + increase in Accounts. p \ - decrease in Accounts. p
 + increase in Accruals \ - decrease in Accruals
 + increase in Accrued liabilities \ - decrease in Accrued Liab.

Cash Flow [provided (+)] [Used (-)] by operating activities

* Cash flow from investing activities *

- increase in gross fixed assets \ + decrease in gross. F. assets
 - increase in investments \ + decrease in investments.

Cash flow provided by / used by investing activities

* Cash flow from financing activities *

- + increase in notes payable \ - decrease in Notes payable.
 + increase in long term debts \ - decrease in long term debts
 + increase in preferred. st \ - decrease in p.s
 + increase in C.S @ par \ - decrease in C.S @ par
 + increase in additional paid \ - decrease in additional
 in excess of par paid in excess of par

always - Dividends paid

Cash Flow provided / used by financing act.

- (b) To divide every expense shown in the previous year's income statement over the sales.

$$\frac{\text{Every Expense}}{\text{Sales}} = \% \text{ percent of sales}$$

not the forecasted sales

- (c) The Expense in the proforma income statement = percent of sales \times Forecasted sales (estimated)

Ex: p: 185

- (1) Forecasted sales = Q \times P

$$\text{model X} \rightarrow 1500 \times 25 = \$37,500$$

$$\text{model Y} \rightarrow 1950 \times 50 = \$97,500$$

Total forecasted sales = \$135,000

(2) * COGS $\rightarrow \frac{80,000}{100,000} = 80\%$

* operating expense $\rightarrow \frac{10,000}{100,000} = 10\%$

* interest expense $\rightarrow \frac{1,000}{100,000} = 1\%$

C.S. dividant's Tax

To calculate (operating cash flow) \Rightarrow

$$** \text{ OCF} = \text{NOPAT} + \text{Depreciation} - \text{interest}$$

\Rightarrow Net operating profit after tax (before)

$$= \text{EBIT} (1 - \text{tax rate}) + \text{Dep.}$$

$$= 370 (1 - 40\%) + 100$$

$$= 222 + 100$$

$$= 322$$

$$** \text{ NFAI} = \Delta \text{Net fixed assets} + \text{Depreciation}$$

$$= (1200 - 1000) + 100$$

$$= 300$$

$$** \text{ NCAI} = \Delta \text{CA} - (\Delta \text{A/P} + \Delta \text{Accruals})$$

$$= (2000 - 1900) - ((700 - 500) + (100 - 200))$$

$$= 100 - (200 - 100)$$

$$= 0$$

$$** \text{ FCF} = \text{CFO} - \text{NFAI} - \text{NCAI}$$

$$= 322 - 300 - 0$$

$$= 22$$

P4-6:

P: 196

$$\textcircled{A} \text{ NOPAT} = \text{EBIT} (1 - \text{tax rate})$$

$$= 2900 (1 - 40\%)$$

$$= 1740$$

$$\textcircled{B} \text{ OCF} = \text{NOPAT} + \text{Depreciation}$$

$$= 1740 + 1600$$

$$= 3340$$

$$\textcircled{C} * \text{NFAI} = \Delta \text{net Fixed Assets} + \text{Depreciation}$$

$$= (14600 - 14800) + 1600$$

$$= 1400$$

$$* \text{NCAI} = \Delta \text{CA} - [\Delta \text{AP} + \Delta \text{Accruals}]$$

$$= (9600 - 8200) - [(1700 - 1600) + (100 - 200)]$$

$$= 1400 - 0$$

$$* \text{FCF} = \text{OCF} - \text{NFAI} - \text{NCAI}$$

$$= 3340 - 1400 - 1400$$

$$= 540$$

③	Sales Revenue	135,000
-	CGS ($(80\% \times 135,000)$)	108,000
	gross profit	27,000
-	operating Expenses ($(10\% \times 135,000)$)	13,500
	operating profit	13,500
-	Interest ($(1\% \times 135,000)$)	1,350
	EBT	12,150
-	Taxes ($15\% \times 12,150$)	1,823
	net profit after tax	10,327
-	C.S dividends	4,000
	Retained earnings.	\$16,327

* This method is not as accurate.

⑤ Fixed and variable method:

According to fixed and variable method

- 1- Fixed ~~asset~~ expense will remain the same ثابتة لا تتغير
(تتغير مع تغير المبيعات)
- 2- Variable expense will be divided over sales and the new variable expense = percent of X Forecasted sales
(sales) sales

فهذه الطريقة الأولى هي الأكثر دقة من الثانية
 * العوائق لا تتغير مع المبيعات لكن تتغير مع التوقف

الصفحة 195

176-189 1/2/15/16/16

For the year ended Dec. 31, 2015

Sales 100,000
less: CGS Fixed
variable

Dec. 7, Sat. (21, 11 X 21) 21 ①

① Fixed and variable method

Exp: 187

*

vetra manufacturing proforma IN. st

For the year ended Dec. 31, 2016

Sales 135,000

less: CGS (Fixed) 40,000

method fixed & variable IN. st

Variable $\rightarrow (40\% \times 135,000)$ 54,000

(fixed) \rightarrow
المعروف كالتالي
المتغير

gross profit 41,000

less: Operating expenses fixed 5000

variable $\rightarrow (5\% \times 135,000)$ 6750

operating profit 29,250

less: interest (always fixed) 1000

EBT 28,250

less: Tax (15%) $\rightarrow (15\% \times 28,250)$ 4,238

Net profit after tax \$24,012

ex: p: 166

Installed Cost = \$40,000

recovery period = 5 years

Depreciation Expense per year = ?

* Year	Depreciation
1	$20\% \times 40,000 = \$8,000$
2	$32\% \times 40,000 = \$12,800$
3	$19\% \times 40,000 = \$7,600$
4	$12\% \times 40,000 = \$4,800$
5	$12\% \times 40,000 = \$4,800$
6	$5\% \times 40,000 = \$2,000$

Financial planning

Cash planning

↓
Cash budget

(CASH →)

profit planning

↓
Proforma In. statement

(Estimated)

* Methods Used to prepare a proforma income statement:

II Percent of sales method :-

(a)

To determine forecasted sales (Revenues) :-

$$\boxed{\text{Forecasted Sales} = Q (\text{quantity}) \times P (\text{price})}$$

b. (Fixed & variable method):

Bell's manufacturing
pre-former income statement

For the year ended Dec. 31, 2016

Sales	2,250,000
less: CGS	750,000
variable $\rightarrow (.194 \times 2,250,000)$	437,500
	<u>250,000</u>
	1,800,000

gross profit 1,062,500

less: operating expenses fixed 155,000

variable $\rightarrow (.1638 \times 2,250,000)$ 368,750

295,000
1,800,000

operating profit 538,750

less: interest 24,500

EBT 514,250

less: Tax (40%) 205,780

Net income 308,550

less: cash dividends 85,000

To retained earnings 223,550

c. Fixed and variable method is more accurate.

\rightarrow

Dec. 4: Wed.

* Depreciation: $\frac{\text{Cost} - \text{Residual Value}}{\text{Useful Life}}$

طريقة حساب الاستهلاك: $\frac{\text{التكلفة} - \text{القيمة المتبقية}}{\text{العمر المفيد}}$

- MACRS method → method used to calculate depreciation expense.

- MACRS method divided Fixed assets into Four groups according to recovery period (useful life)

تقسيم الأصول الثابتة إلى أربع مجموعات حسب مدة استرجاعها (العمر المفيد).

① 3 years

② 5 years

③ 7 years

④ 10 years

p: 166
الجدول
المعتمد

المعدل $\frac{\text{التكلفة} + \text{القيمة المتبقية}}{2}$

According to MACRS %

** $\left[\text{Depreciation Expense} = \text{MACRS rate} \times \text{Installed Cost} \right]$
(Per year) The asset ↓

التكلفة ما بعد التركيب $\frac{\text{التكلفة} + \text{القيمة المتبقية}}{2}$

(شركة ماكنة بـ 1000 وجبت أن تتركبها أياها وتبذل 500 فيكون 1500)

** $\left[\text{Installed cost} = \text{cost of the asset} + \text{installation Cost} \right]$

p4-15: Sales 2016 = 2,250,000 p:200
Interest = 24,500 (all fixed (remained unchanged))

Dividends 2016 = 85,000

a. (percentage method):

* Bells manufacturing

Preforma Income Statement

For the year ended Dec. 31, 2016

Sales 2,250,000

less: CGS $\rightarrow (.617 \times 2,250,000)$ 1,375,000

$$\frac{\text{CGS}}{\text{Sales}} = \frac{1,100,000}{1,780,000}$$

gross profit 875,000

less: Operating expenses $\rightarrow (.25 \times 2,250,000)$ 562,500

$$\frac{480,000}{1,800,000}$$

Operating profit 312,500

→ less: interest 24,500

EBT 288,000

less: Tax (40%) $\rightarrow (.40 \times 288,000)$ 115,200

Net income 172,800

less: Cash dividends 85,000

To retained earnings \$87,800