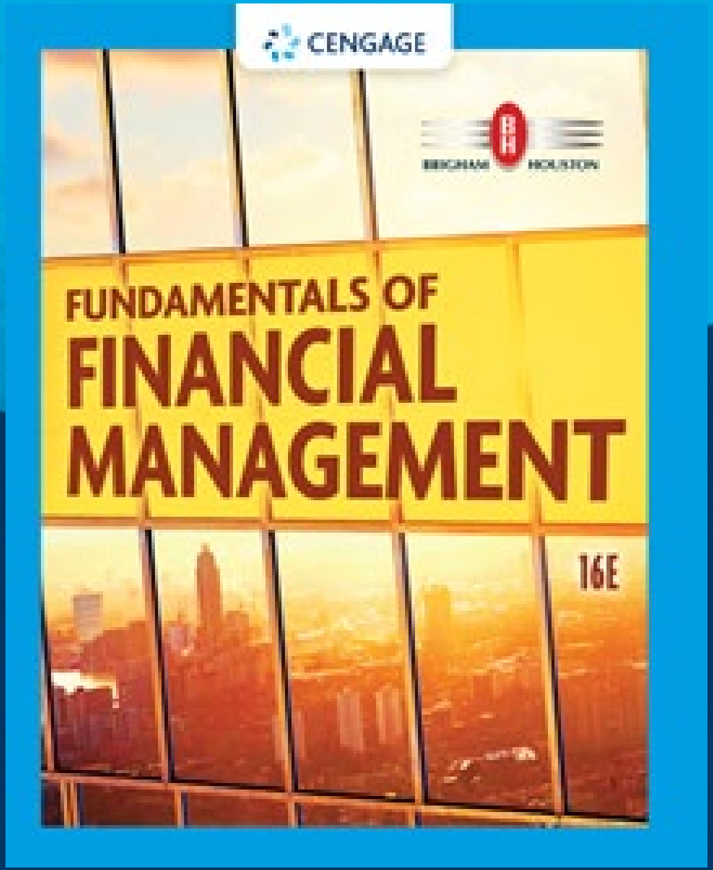

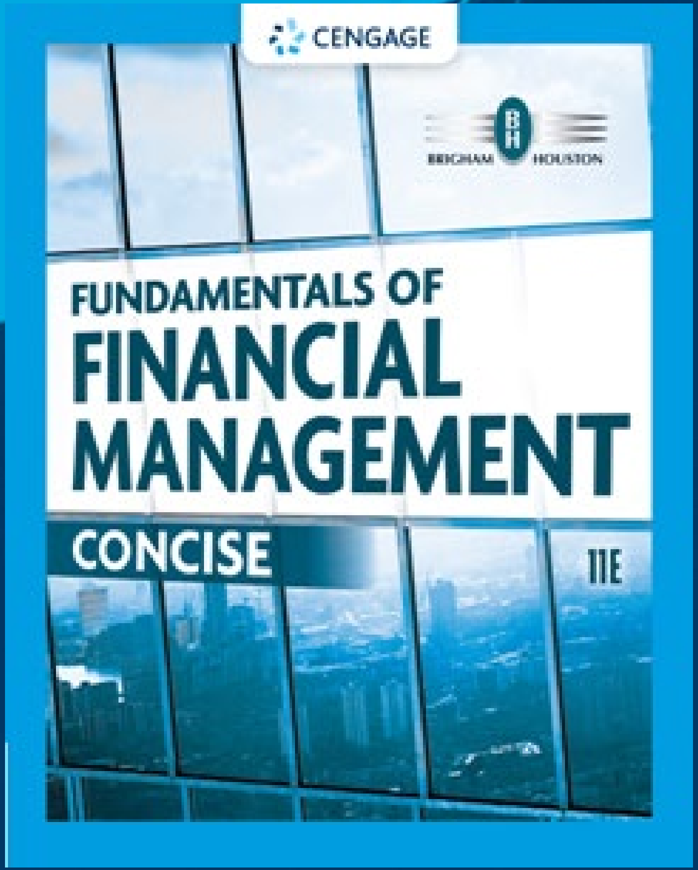

Chapter 3

Financial Statements, Cash Flow, and Taxes

Overview

- Key Financial Statements
  - Balance Sheet
  - Income Statement
  - Statement of Stockholders’ Equity
  - Statement of Cash Flows
- Free Cash Flow, EVA and MVA
- Federal Tax System

The Annual Report

- Balance sheet – provides a snapshot of a firm's financial position at one point in time.
- Income statement – summarizes a firm's revenues and expenses over a given period of time.
- Statement of cash flows – reports the impact of a firm's activities on cash flows over a given period of time.
- Statement of stockholders' equity – shows how much of the firm's earnings were retained, rather than paid out as dividends.

Overview of D’Leon Inc.

- Snack food company that underwent major expansion in 2020.
- So far, expansion results have been unsatisfactory.
  - Company’s cash position is weak.
  - Suppliers are being paid late.
  - Bank has threatened to cut off credit.
- Board of Directors has ordered that changes must be made!

Balance Sheet: Assets

	2021	2020
Cash	7,282	57,600
A/R	632,160	351,200
Inventories	1,287,360	715,200
Total CA	1,926,802	1,124,000
Gross FA	1,202,950	491,000
Less: Dep.	263,160	146,200
Net FA	939,790	344,800
Total Assets	2,866,592	1,468,800

Balance Sheet: Liabilities and Equity

	2021	2020
Accts payable	524,160	145,600
Accruals	489,600	136,000
Notes payable	636,808	200,000
Total CL	1,650,568	481,600
Long-term debt	723,432	323,432
Common stock	460,000	460,000
Retained earnings	32,592	203,768
Total Equity	492,592	663,768
Total L & E	2,866,592	1,468,800

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Income Statement

	2021	2020
Sales	6,126,796	3,432,000
COGS	5,528,000	2,864,000
Other expenses	519,988	358,672
Total oper. costs excl. deprec. & amort.	6,047,988	3,222,672
Depreciation and amortization	116,960	18,900
EBIT	(38,152)	190,428
Interest expense	122,024	43,828
EBT	(160,176)	146,600
Taxes (25%)	0	36,650
Net income	(160,176)	109,950

Other Data

	2021	2020
No. of shares	100,000	100,000
EPS	−$1.602	$1.100
DPS	$0.110	$0.275
Stock price	$2.25	$8.50
Lease pmts	$40,000	$40,000

Statement of Stockholders' Equity (2021)

	Common Stock Shares	Amount	Retained Earnings	Total Stockholders' Equity
Balances, 12/31/20	100,000	$460,000	$203,768	$663,768
2021 Net income			(160,176)	
Cash dividends			(11,000)	
Addition (subtraction) to retained earnings				(171,176)
Balances, 12/31/21	100,000	$460,000	$ 32,592	$492,592

Statement of Cash Flows (2021) (1 of 2)

Operating Activities	
Net income	($160,176)
Depreciation and amortization	116,960
Increase in accounts payable	378,560
Increase in accruals	353,600
Increase in accounts receivable	(280,960)
Increase in inventories	(572,160)
Net cash provided by operating activities	($164,176)

Statement of Cash Flows (2021) (2 of 2)

Investing Activities	
Additions to property, plant, & equipment	($711,950)
Net cash used in investing activities	($711,950)
Financing Activities	
Increase in notes payable	$436,808
Increase in long-term debt	400,000
Payment of cash dividends	(11,000)
Net cash provided by financing activities	$825,808
Summary	
Net decrease in cash	($ 50,318)
Cash at beginning of year	57,600
Cash at end of year	$ 7,282

D’Leon’s Financial Condition from Statement of CFs: Conclusions

Net cash from operations = −$164,176, mainly because of negative NI.

The firm borrowed $836,808 to meet its cash requirements.

Even after borrowing, the cash account fell by $50,318.

Net Working Capital vs. Net Operating Working Capital

- Net Working Capital = Current Assets − Current Liabilities
- Net Operating Working Capital = Operating Current Assets − Operating Current Liabilities
- Net Operating Working Capital = (Current Assets - Excess Cash) − (Current Liabilities − Notes Payable)

D'Leon's Case (1 of 6)

Did the expansion create additional after-tax operating income?

$$\text{AT operating income} = \text{EBIT}(1 - \text{Tax rate})$$

$$\text{AT operating income}_{21} = -\$38{,}152(1 - 0.25)$$

$$= -\$38{,}152(0.75)$$

$$= -\$28{,}614$$

$$\text{AT operating income}_{20} = \$142{,}821$$

D’Leon’s Case (2 of 6)

What effect did the expansion have on net operating working capital?

NOWC = (Current Assets − Excess Cash) − (Current Liabilities − Notes Payable)

$$NOWC_{21} = (\$1{,}926{,}802 - \$7{,}282) - (\$1{,}650{,}568 - \$636{,}808)$$
$$NOWC_{21} = \$905{,}760$$
$$NOWC_{20} = \$784{,}800$$

Assessment of the Expansion's Effect on Operations

	2021	2020
Sales	$6,126,796	$3,432,000
AT oper. inc.	−28,614	142,821
NOWC	905,760	784,800
Net income	−160,176	109,950

What was the free cash flow (FCF) for 2021?

$$FCF = [EBIT(1 - T) + \text{Depreciation and amortization}] - [\text{Capital expenditures} + \Delta NOWC]$$

$$FCF_{21} = [-\$38{,}152(1 - 0.25) + \$116{,}960] - [(\$1{,}202{,}950 - \$491{,}000) + \$120{,}960]$$

$$= -\$744{,}564$$

Is negative free cash flow always a bad sign?

Performance Measures for Evaluating Managers

- Accounting statements are insufficient for evaluating managers' performance because they do <u>not</u> reflect market values.

- Performance Measures

MVA = Difference between market value and book value of a firm's common equity.

$$(P_0 \times \text{Number of shares}) - \text{Book value.}$$

EVA = Estimate of a business's true economic profit for a given year.

$$\text{EBIT}(1 - T) - (\text{Total invested capital} \times \text{Cost of capital})$$

What was D'Leon's MVA in 2021 and 2020?

$MVA_{21} = (\$2.25 \times 100{,}000) - \$492{,}592$

$= -\$267{,}592$

$MVA_{20} = (\$8.50 \times 100{,}000) - \$663{,}768$

$= \$186{,}232$

Shareholder wealth has been destroyed!

What is the relationship between EVA and MVA?

If EVA is positive, then AT operating income > cost of capital needed to produce that income.

Positive EVA on annual basis helps to ensure MVA is positive.

MVA is applicable to entire firm, while EVA can be calculated on a divisional basis as well.

Does D'Leon pay its suppliers on time?

- Probably not.
- A/P increased 260%, over the past year, while sales increased by only 78.5%.
- If this continues, suppliers may cut off D'Leon's trade credit.

D’Leon’s Case (3 of 6)

Does it appear that D’Leon’s sales price exceeds its cost per unit sold?

No. The negative after-tax operating income and decline in cash position show that D’Leon is spending more on its operations than it is taking in.

D’Leon’s Case (4 of 6)

What if D’Leon’s sales manager decided to offer 60-day credit terms to customers, rather than 30-day credit terms?

If competitors match terms, and sales remain constant...

- A/R would ↑.
- Cash would ↓.

If competitors don’t match, and sales double...

- Short-run: Inventory and fixed assets ↑ to meet increased sales. A/R ↑, Cash ↓. Company may have to seek additional financing.
- Long-run: Collections increase and the company’s cash position would improve.

How did D’Leon finance its expansion?

- D’Leon financed its expansion with external capital.
- D’Leon issued long-term debt which reduced its financial strength and flexibility.

D’Leon’s Case (5 of 6)

Would D’Leon have required external capital if they had broken even in 2021 (Net income = 0)?

Yes. The company would still have to finance its increase in assets. Looking to the Statement of Cash Flows, we see that the firm made an investment of $711,950 in net fixed assets. Therefore, they would have needed to raise additional funds.

D’Leon’s Case (6 of 6)

What happens if D’Leon immediately expenses qualified business assets rather than depreciating them over a longer time period?

- No effect on physical assets.
- Fixed assets on the balance sheet would decline more quickly.
- Net income would decline in year of the asset’s purchase.
- Tax payment would decline in year of purchase.
- Cash position would improve.

Federal Income Tax System

Individual Taxes

Corporate Taxes

Corporate and Personal Taxes (1 of 2)

- Both have a progressive structure (the higher the income, the higher the marginal tax rate).
- New tax legislation in December 2017 changed individual and corporate tax rates.
- Corporations
  - Subject to flat tax rate of 21%.
  - Also subject to state tax (around 5%).
  - Business interest deduction limited to 30% of EBITDA (2018-2021) and to 30% of EBIT (thereafter).

Corporate and Personal Taxes (2 of 2)

- Individuals
  - Rates begin at 10% and rise to 37% for single individuals with incomes over $518,400 and married couples filing jointly with incomes over $622,050.
  - May be subject to state tax.
  - Increased standard deduction for single individuals to $12,400 and for married couples filing jointly to $24,800.
  - Eliminated personal exemption.

Tax Treatment of Various Uses and Sources of Funds (1 of 2)

- Interest paid: tax deductible for corporations (paid out of pre-tax income) limited to 30% of operating income, but usually not for individuals (interest on home loans up to $750,000 of principal being the exception).
- Interest earned: usually fully taxable (an exception being interest from a “muni”).
- Dividends paid: paid out of after-tax income.

Tax Treatment of Various Uses and Sources of Funds (2 of 2)

- Dividends received: most investors pay 15% taxes.
  - Single taxpayers with income < $40,000 and married couples filing jointly with income < $80,000 pay 0% on qualified dividends.
  - Single taxpayers with income > $441,450 and married couples filing jointly with income > $496,600 pay 20% taxes on qualified dividends.
  - Dividends are paid out of net income which has already been taxed at the corporate level, this is a form of “double taxation”.
  - A portion of dividends received by corporations is tax excludable, in order to avoid “triple taxation.”

More Tax Issues

- Tax Loss Carry-Forward – since corporate incomes can fluctuate widely, the Tax Code allows firms to carry losses forward indefinitely to offset profits in the future.

- Capital gains – defined as the profits from the sale of assets not normally transacted in the normal course of business, capital gains for individuals are generally taxed as ordinary income if held for a year or less, and at the capital gains rate if held for more than a year. Corporations do not receive special capital gains treatment.

- Most taxpayers pay 15% taxes on long-term capital gains.

- Single taxpayers with income > $441,450 and married couples filing jointly with income > $496,600 pay 20% taxes on long-term capital gains.