Analysis for Financial Management 2026 Release 1st edition Higgins Solutions Manual

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Analysis for Financial Management, 2026
SUGGESTED ANSWERS TO EVEN-NUMBERED PROBLEMS

Chapter 1

2. Management is either foolish or thinks its board is. Earning $100 million on a $5 billion equity investment is a return of 2 percent, which is below any reasonable cost of equity. If we were board members, we would vote to cut management's compensation, not raise it. We would also criticize them for apparently attempting to deceive the board.

4. a. Cash rises $500,000; plant and equipment falls $300,000; equity rises $200,000.
   b. Net plant and equipment rises $80 million; Cash falls $32 million; Bank debt rises $48 million.
   c. Net plant and equipment rises $60 million; cash falls $60 million.
   d. Cash falls $40,000; Accounts payable falls $40,000.
   e. Cash falls $240,000; Owners' equity falls by $240,000 (via an increase in Treasury stock).
   f. Cash rises $80,000; Inventory falls; Accrued taxes, Owners' equity, and possibly other cost categories rise such that the algebraic sum equals $80,000.
   g. Accounts receivable rise $120,000. Other categories change as described in part f.
   h. Cash falls $50,000. Owners' equity falls by $50,000 (via Retained earnings).

6. a. **R&E Supplies, Inc.** Sources and Uses Statement 2022–2025 ($ thousands)

Sources of cash:	
Decrease in cash and securities	$259
Increase in accounts payable	2,205
Increase in current portion long-term debt	40
Increase in accrued wages	13
Increase in retained earnings	537
Total	$3,054
Uses of cash:	
Increase in accounts receivable	$1,543
Increase in inventories	1,148
Increase in prepaid expenses	4
Increase in net fixed assets	159
Decrease in long-term debt	200

Total	$3,054

b. Insights:

i. R&E is making extensive use of trade credit to finance a buildup in current assets. The increase in accounts payable equals almost three fourths of total sources of cash. Increasing accounts receivable and inventories account for almost 90 percent of the uses of cash.

ii. External long-term debt financing is a use of cash for R&E, meaning that it is repaying its loans. A restructuring involving less reliance on accounts payable and more bank debt appears appropriate.

8. Accounting income will be the value of the parcels sold, less their original purchase price. So if all parcels are sold, the income is 5 × $16 million + 5 × $8 million − $100 million = $20 million. Economic income will be the increase in the market value of the land, whether sold or not, over the period. At the end of the first year, this will be $20 million. Answers to each part of the question appear below.

Question	*Accounting Income*	*Economic Income*
a.	$20 million	$20 million
b.	$0	$20 million
c.	−$10 million	$20 million
d.	$30 million	$20 million

e. Too many companies have tried this. If the market value of a piece of land falls, the owner loses whether he sells or not. The market price of the land fell because people thought the future income stream to the owners was worth less. Continuing to hold the property forces the owner to accept the lower income. Whether the loss is recognized or not might affect accounting earnings, but has nothing to do with reality.

10. The accounting profits from Desmond's brewery are expected to be $80,000. These accounting profits do not include the implicit cost of the entrepreneur's time. Desmond's time is worth at least $90,000, the current income he will have to forego to manage the brewery. When these implicit opportunity costs are included, income falls to:

$$\$400,000 - \$320,000 - \$90,000 = -\$10,000$$

This new venture will clearly reduce Desmond's income, not increase it.

12. a.

Company	*A*	*B*	*C*
End-of-year cash balance	$150 million	$30 million	$120 million

b. It appears that company C retired more debt than it issued, repurchased more stock than it issued, or some combination of the two.

c. We'd prefer to own company A. A appears to be a growing company as evidenced by the sizable net cash used in investing activities, and its negative net cash flow from operations may well be due to increasing accounts receivable and inventories that naturally accompany sales growth. Company B appears not to be growing, so its negative net cash flows from operations are probably due to losses or to increasing receivables and inventories relative to sales, a trend denoting poor management of current assets.

d. We don't think there is necessarily any cause for concern. It appears company C is a mature, slow-growth company that is returning its unneeded operating cash flows to investors in the form of debt repayment, share repurchase, dividends, or some combination of these. This is a perfectly viable strategy in the absence of attractive investment opportunities.

14. See suggested solutions to Excel problems at McGraw-Hill's *Connect.*

Chapter 2

2. a. Price-to-earnings ratios are highly dependent on future growth expectations, so it's likely an AI company would have a higher P/E ratio than a railroad company.
   b. The financial institution should have a higher debt-to-equity ratio because the liquid, relatively safe nature of its assets enables it to borrow more money at attractive rates. And in the case of banks, deposit insurance enables the institution to collect low-cost deposits. The principal asset of financial institutions tends to be relatively safe loans that generate relatively predictable income streams. The uncertain income stream of the high-tech company makes it less creditworthy, suggesting a lower debt-to-equity ratio, all else equal.
   c. The appliance manufacturer should have a higher profit margin because it adds more value to its product than a grocer does and hence can charge a higher markup over cost.
   d. The jewelry store should have a higher current ratio. Jewelry stores typically need to have a lot of expensive display inventory on hand and often offer payment plans to customers. Online bookstores, on the other hand, typically carry little inventory and rely on credit card sales involving little accounts receivable.

4. a. ROE will most likely fall. The numerator of the ratio, net income, will decline because the acquired company is losing money. Unless the acquiring firm's equity declines due to the acquisition, a highly unlikely event, ROE will decline.
   b. This, however, is not important to the decision. This is another example of the *timing* problem. If the technology company has great promise, it may make complete sense to acquire the business even though it is currently losing money. The proper way to evaluate the acquisition is by estimating the target's fair market value and acquiring it at a lower price. This is the topic of Chapter 9.

6. Your colleague's argument has a couple of holes in it. First, your colleague has forgotten the *timing* problem. The investment has consequences over many years, and it is inappropriate to base the decision on only one year's results. As will be discussed beginning in Chapter 7, the appropriate rate of return for evaluating investment opportunities is not the division's accounting ROI but a rate that specifically incorporates the time value of money.

Second, your company's performance appraisal system is faulty. Investment return should be judged against a minimum acceptable return, not the division's historical

return. An implication of the performance system used by your company is that divisions with very low returns will want to make lots of investments because many will promise returns higher than the division's ROI. Conversely, high return divisions, such as yours, will find few opportunities beating the division's ROI.

8. a. R&E Supplies, Inc. ratio analysis:

Ratio Type	*2022*	*2023*	*2024*	*2025*
Profitability ratios:				
Return on equity (%)	30.9	28.6	24.2	16.8
Return on assets (%)	11.3	10.3	7.7	5.0
Return on invested capital (%)	19.6	19.8	18.3	13.6
Profit margin (%)	3.3	2.9	2.4	1.4
Gross margin (%)	16.0	15.0	15.0	14.0
Turnover-control ratios:				
Asset turnover (X)	3.4	3.6	3.2	3.5
Fixed-asset turnover (X)	87.4	111.0	54.6	71.8
Inventory turnover (X)	8.4	8.5	7.1	7.8
Collection period (days)	43.8	47.4	47.5	51.1
Days' sales in cash (days)	21.9	14.6	14.6	7.3
Payables period (days)	39.1	45.0	64.7	66.1
Leverage and liquidity ratios:				
Assets to equity (%)	274.5	276.7	314.4	339.3
Total liabilities to assets (%)	63.6	63.9	68.2	70.5
Total liabilities to equity (%)	174.5	176.7	214.4	239.3
Long-term debt to equity (%)	80.5	65.4	54.3	43.9
Times interest earned (X)	5.9	6.2	5.6	5.3
Times burden covered (X)	*	3.5	3.5	3.1
Current ratio (X)	2.8	2.4	1.8	1.7
Acid test (X)	1.8	1.5	1.1	1.0

* Would require current portion long-term debt from 2021 in order to calculate.

b. Insights:

- All of the profitability ratios are down. ROE, while still respectable, has fallen by almost half, and the profit margin is down by more than half. This suggests problems on the income statement.

- Leverage is up and liquidity is down. Liabilities now constitute over 70 percent of assets, and the current ratio has fallen almost 40 percent.

- Asset turnover has been reasonably steady, although the collection period has risen over 15 percent. The payables period has almost doubled, and at 66 days, appears quite long.

- R&E Supplies' rapid growth causes a continuing need for external financing. Falling operating margins have exacerbated this need. The company appears to have met this need by reducing liquidity (days' sales in cash is down from 21.9 days to 7.3) and by increasing trade financing. At the same time, long-term debt to equity has fallen. The company would probably be advised to replace some of its trade financing with a bank loan, part of which is longer-term. It also should rethink its pricing-growth strategy. One might argue that R&E has been "buying growth" by underpricing its product.

10. a. i. Liabilities-to-equity ratio = 200/300 = 0.67

ii. Times interest earned = EBIT/interest expense = 120/28 = 4.29

iii. Times burden covered = EBIT/[interest + principal repayment/$(1-tax\ rate)$]

$= 120/\left[28+24/(1-0.40)\right]=1.76$

b. i. To fail to cover the existing interest payments, the times-interest-earned ratio has to fall below one. $(4.29-1)/4.29=76.7\%$, or $(120-28)/120\ =76.7\%$

ii. To fail to cover the interest and sinking fund payment, the times-burden-covered ratio has to fall to below one. c, or $\left[120-\left(28+24/(1-0.4)\right)\right]/120=43.3\%$ (The difference is due to rounding.)

iii. To fail to cover interest, principal, and dividend payments we must further subtract the impact of dividends on EBIT.

$[120-\left(28+\left((24+0.30\times 20)/(1-0.4)\right)\right]/120=(120-78)/120=35\%$

12. A = Citigroup. The high debt ratio and low times interest earned are characteristic of financial firms. Also, as a financial firm, gross margin and inventory turnover are not applicable.

B = Caterpillar. The biggest giveaway is that the inventory turnover is very low, indicative of Caterpillar's longer production process and less frequent sales. Also, the collection period is high, which would be expected given the big-ticket items that Caterpillar sells.

C = Wendy's. The very high inventory turnover is the clearest indicator of a fast-food restaurant. You can't leave that food sitting around for too long.

D = Walmart. The low profit margin is characteristic of supermarkets or discount retailers. The collection period is low because as a retailer Walmart does not offer credit terms to its customers. Also, the relatively large difference between the current ratio and the acid test is indicative of the large amounts of inventory that Walmart carries.

E = Apple. There isn't one clear giveaway here, but the high profit margin is indicative of Apple's premium product, the high price-to-earnings ratio reflects strong investor expectations, and the relatively high inventory turnover reflects the high demand for Apple's products.

F = Meta. The current ratio and the acid test are close (and inventory turnover is not applicable), reflecting the fact that Facebook and Instagram do not carry product inventory. The high profitability ratios and price-to-earnings ratio are characteristic of a company that has a strong competitive position and for which investors have high expectations.

14. a.

Component	Q1	Q2	Q3	Q4
Collection Period	27.0	27.0	27.0	27.0
Days Inventory Outstanding	92.8	320.6	455.6	23.4
Payables Period	18.0	36.0	36.0	6.0

b.

Cycle Type	Q1	Q2	Q3	Q4
Operating Cycle	119.8	347.6	482.6	50.4
Cash Conversion Cycle	101.8	311.6	446.6	44.4

Both the operating and cash conversion cycles increased significantly in Q2 and Q3 before dropping dramatically in Q4. The biggest reason for the variation is changes

in the level of days inventory outstanding. Glacier produces new products for inventory throughout the year, even though sales are lower in the summer months (Q2 and Q3). As a result, the company builds up significant inventory until it reaches the peak sales period in Q4. Once it begins to sell the inventory in Q2, the cash conversion cycle drops.

c. The operating cycle measures the length of time between when a company acquires inventory and when its customers pay. The cash conversion cycle is the length of time between when cash goes out the door until it comes back in. Both of these increase to very high levels in Q3, which means Glacier will need a lot of seasonal funding until it sells enough of its products in Q4.

See also the spreadsheet for this problem at McGraw-Hill's *Connect* or at www.mhhe.com/Higgins13e.

16. See suggested solutions to Excel problems at McGraw-Hill's *Connect* or at www.mhhe.com/Higgins13e.

Chapter 3

2. Historical analysis helps decide for which financial statement items a percent-of-sales forecast might be appropriate. For example, a stable trend in the collection period would tell you that, unless you expect changes in the management of the accounts receivable, future collection periods should continue along this trend.

4. a. True. External funding required = Total assets − (Liabilities + Equity), so an increase in accounts receivable, an asset account, will increase external funding required; i.e., the additional accounts receivable will need to be financed.
   b. False. When executed properly, cash flow forecasts and pro forma financial statements should give the same estimate for external funding required.
   c. False. An annual forecast for 2026 showing no external funding required only assures the company that no cash shortfall is likely at the end of 2026. If the business has significant seasonality, cash shortfalls could still be likely at other times during 2026.

6. a. If the collection period is 60 days, May cash receipts from March sales will equal half of March sales or $200,000. In addition, the company will receive cash from half of May sales, or $260,000. The total is $460,000. The May accounts receivable balance should be the last 60 days' worth of credit sales. May credit sales were $260,000 and April's were $325,000, thus the accounts receivable balance would be $585,000.
   b. With a 45-day collection period, cash collected on May 1 is from credit sales made in mid-March, and collections on May 31 are from credit sales made in mid-April. Therefore, cash receipts from credit sales are from the period mid-March through mid-April, or (400,000/2 + 650,000/2)/2 = $262,500. Adding sales for cash of $260,000, the total is $522,500. The accounts receivable balance would be May's credit sales and half of April's credit sales, or 260,000 + 325,000/2 = $422,500.

8. New equity equation: = C37 + D28. New net sales equation: = C19 + C19*D4.

10. Westmark Cash Budget for First Three Months of 2026:

Cash Flow Items	*January*	*February*	*March*
Cash receipts:			
Sales for cash	$120,000	$48,000	$48,000
Collections from credit sales	960,000	480,000	192,000
Total cash receipts	1,080,000	528,000	240,000
Cash disbursements:			
Payment for purchases	540,000	1,200,000	300,000
Wages	180,000	180,000	180,000
Interest payments	0	0	90,000
Principal payments	0	0	210,000
Dividends	0	0	300,000
Tax payments	0	180,000	0
Total cash disbursements	720,000	1,560,000	1,080,000
Net receipts (disbursements)	360,000	−1,032,000	−840,000
Determination of cash needs:			
Beginning cash	300,000	660,000	−372,000
Net receipts (disbursements)	360,000	−1,032,000	−840,000
Ending cash	660,000	−372,000	−1,212,000
Minimum cash desired	150,000	150,000	150,000
Cash surplus (deficit)	$510,000	−$522,000	−$1,362,000

Clearly, the treasurer had better concern himself with where to borrow money. Westmark will need over $1.3 million by the end of March.

12.

Westmark Industrial, Inc.
Cash Flow Forecast
1st Quarter 2026 ($ thousands)

Sources of cash:	**Amount**
Cash from operations:	
Profit after tax	−$80
Depreciation	30
Increase in liabilities or reduction in assets:	
Bank loan	**1,362**
Cash	150
Accounts receivable	768
Inventory	0
Total sources	$2,230
Uses of cash:	
Dividends	$300
Decreases in liabilities or increases in assets:	
Accounts payable	1,500
Current portion long-term debt	210
Taxes payable	220
Total uses	$2,230

14. a.

Toys-4-Kids
2026 Quarterly Pro Forma Forecast
Assuming Level Production
($ thousands)

Particulars	***Qtr 1***	***Qtr 2***	***Qtr 3***	***Qtr 4***
Net sales	$300	$375	$3,200	$5,000
Cost of sales	195	244	2,080	3,250
Gross profit	105	131	1,120	1,750
Operating expenses	560	560	560	560
Profit before tax	(455)	(429)	560	1,190
Income taxes	(182)	(172)	224	476
Profit after tax	(273)	(257)	336	714
Cash	$200	$200	$200	$200
Accounts receivable	225	281	2,400	3,750
Inventory	1,747	2,946	2,308	500
Current assets	2,172	3,427	4,908	4,450
Net plant & equipment	1,000	1,000	1,000	1,000
Total assets	$3,172	$4,427	$5,908	$5,450
Accounts payable	$222	$222	$222	$222
Accrued taxes	(182)	(172)	224	476
Current liabilities	40	50	446	698
Long-term debt	400	400	400	400
Shareholders' equity	2,727	2,470	2,806	3,520
Total liabilities & equity	$3,167	$2,920	$3,652	$4,618
External financing required	**$5**	**$1,507**	**$2,256**	**$832**

b. Profits more than double, from $253,000 to $520,000. (Remember, this ignores the increase in interest expense due to increased borrowing.)
c. Level production causes ending inventory to rise from $500,000 each quarter to a high of $2,946,000 in quarter 2. The external financing required jumps over