

Guide 3: PPE, Liabilities, Cash Flows & Equity

Depreciation, Bonds, SCF, Shares, Dividends, Ratios – Plus Full Cram Sheet

Videos to Watch

Topic	Video
Depreciation Mini-Series	https://youtube.com/playlist?list=PL5zKSeS09l324hTFoBXWq9T3tUY_LUrn2
Cash Flow Statement (Indirect Method)	https://youtu.be/8CH-6wdfz0Y (15 min)

Long-Lived Assets (PPE, Intangibles, Goodwill)

Three types:

1. **Property, Plant & Equipment (PPE)** – Physical assets like buildings, machines, vehicles. Depreciated over useful life.
2. **Intangible Assets** – No physical form (patents, copyrights, trademarks). Amortized if they have a finite life.
3. **Goodwill** – Extra amount paid when buying another company. Not amortized – only tested for impairment.

Capitalize vs Expense: Costs to acquire and prepare an asset for use get added to the asset's cost (capitalized). Routine repairs and maintenance are expenses.

Depreciation – Three Methods

Depreciation spreads the cost of a long-term asset over the years it helps the business earn money.

Method	Formula	Characteristic
Straight-Line	$(\text{Cost} - \text{Residual}) / \text{Useful Life}$	Same amount each year
Units of Production	$(C - R) / \text{Total Units} \times \text{This Period's Units}$	Varies with how much it's used
Double-Declining Balance	$2 \times (1/\text{Life}) \times \text{Book Value}$	More in early years, less later

Partial year: Multiply annual depreciation by (months owned / 12).

Worked Problem 1: All Three Methods

Machine cost \$100,000, residual \$10,000, 5-year life, estimated 200,000 total units.

Method	Year 1	Year 2
SL	$(\$100\text{K} - \$10\text{K})/5 = \mathbf{\$18,000}$	\$18,000
UOP	(assume 30K units in Yr1) Rate = $\$90\text{K}/200\text{K} = \$0.45/\text{unit}$ $30\text{K} \times \$0.45 = \mathbf{\$13,500}$	(45K units in Yr2) $45\text{K} \times \$0.45 = \mathbf{\$20,250}$
DDB	Rate = $2/5 = 40\%$ $\$100\text{K} \times 40\% = \mathbf{\$40,000}$	$(\$100\text{K} - \$40\text{K}) \times 40\% = \mathbf{\$24,000}$

Journal entry (same for all): Dr Depreciation Expense / Cr Accumulated Depreciation.

Disposal of PPE

When selling an asset: (1) Update depreciation to date of sale. (2) Remove the asset's cost and accumulated depreciation. (3) Record cash received. (4) Record gain (if cash > book value) or loss (if cash < book value).

Example: Cost \$80K, Accum Depr \$55K. Book Value = \$25K.

(a) Sold for \$30K: Gain of \$5K. Dr Cash \$30K, Dr Accum Depr \$55K / Cr Equip \$80K, Cr Gain \$5K.

(b) Sold for \$20K: Loss of \$5K. Dr Cash \$20K, Dr Accum Depr \$55K, Dr Loss \$5K / Cr Equip \$80K.

Liabilities and Bonds Payable

Current liabilities: Due within one year (AP, notes payable, unearned revenue, current portion of long-term debt).

Long-term liabilities: Due beyond one year (bonds, mortgages, long-term notes).

Bonds Payable

A bond is a formal loan divided into smaller units sold to investors.

Scenario	Entry
Issued at par (face value)	Dr Cash / Cr Bonds Payable
Issued at a discount (below face)	Dr Cash (proceeds), Dr Discount / Cr Bonds Payable (face)
Issued at a premium (above face)	Dr Cash / Cr Bonds Payable (face), Cr Premium
Paying interest	Dr Interest Expense / Cr Cash
Amortizing discount (adds to expense)	Dr Interest Expense / Cr Discount
Amortizing premium (reduces expense)	Dr Premium / Cr Interest Expense

Carrying Value = Face – Discount + Premium.

Interest Expense = Carrying Value × Market Rate.

Cash Interest = Face Value × Coupon Rate.

Cash Flow Statement – Indirect Method

The Statement of Cash Flows answers one question: Why did cash change during the period?

It has three sections:

- **Operating:** Cash from day-to-day business. Start with Net Income, then adjust for non-cash items and changes in working capital.
- **Investing:** Buying/selling long-term assets (PPE, investments).
- **Financing:** Borrowing, repaying debt, issuing shares, paying dividends.

Operating Section Adjustments

Adjustment	Why
Add back Depreciation	It reduced Net Income but no cash was spent
Add back Loss on Sale	It reduced NI but the cash from sale is in Investing
Subtract Gain on Sale	It increased NI but the cash from sale is in Investing
Subtract increase in Current Assets	Cash was used to increase AR/Inventory/Prepays – tied up
Add decrease in Current Assets	Cash was freed up from collecting AR/selling inventory
Add increase in Current Liabilities	Cash was preserved – didn't pay suppliers yet
Subtract decrease in Current Liabilities	Cash was used to pay down AP/accrued liabilities

Worked Problem 2: Full Statement

Net Income = \$120K. Depreciation = \$25K. Loss on sale = \$3K. AR increased \$8K. Inventory decreased \$5K. Prepaid increased \$2K. AP increased \$10K. Salaries Payable decreased \$4K.

Operating:

Net Income	\$120,000
+ Depreciation	+\$25,000
+ Loss on sale	+\$3,000
– Increase in AR	(\$8,000)
+ Decrease in Inventory	+\$5,000
– Increase in Prepaid	(\$2,000)
+ Increase in AP	+\$10,000
– Decrease in Salaries Payable	(\$4,000)
Cash from Operations	\$149,000

Investing: Purchased equipment (\$50K), Sold equipment \$12K = (\$38K).

Financing: Issued shares \$30K, Repaid loan (\$15K), Paid dividends (\$10K) = \$5K.

Net increase in cash: \$149K – \$38K + \$5K = \$116K. Add beginning cash to get ending.

Free Cash Flow = CFO – CapEx – Dividends. Shows cash available after maintaining the business.

Shareholders' Equity

Common vs Preferred Shares

Feature	Common	Preferred
Voting rights	Yes	Usually no
Dividends paid	After preferred shareholders	Before common shareholders
Dividend amount	Variable (decided each year)	Usually fixed (\$X per share or %)

Share Issuance

Example: Issue 10,000 common shares at \$15 each. Par value is \$1 per share.

- Cash received: $10,000 \times \$15 = \$150,000$
- Common Shares (par): $10,000 \times \$1 = \$10,000$
- Additional Paid-In Capital (APIC): $\$150,000 - \$10,000 = \$140,000$
- **Dr Cash \$150K / Cr Common Shares \$10K / Cr APIC \$140K**

Dividends

- **Cash dividend declared:** Dr Retained Earnings / Cr Dividends Payable
- **Cash dividend paid:** Dr Dividends Payable / Cr Cash
- **Stock dividend (small, < 25%):** Dr RE (fair value) / Cr Common Shares (par) / Cr APIC
- **Stock split:** Memo only. Par decreases, shares increase. No journal entry.

Retained Earnings

Beg RE + Net Income – Dividends = End RE.

Key Ratios – Memorize These for the Exam

Ratio	Formula
Gross Profit Margin	Gross Profit / Net Sales
Profit Margin	Net Income / Net Sales
Inventory Turnover	COGS / Average Inventory
Days in Inventory	$365 / \text{Inventory Turnover}$
Receivables Turnover	Net Credit Sales / Average AR
Average Collection Period	$365 / \text{Receivables Turnover}$
Current Ratio	Current Assets / Current Liabilities
Debt to Equity	Total Liabilities / Total Equity
EPS	$(\text{Net Income} - \text{Preferred Dividends}) / \text{Weighted Avg Common Shares}$
ROE	Net Income / Average Shareholders' Equity
Payout Ratio	Cash Dividends / Net Income
Dividend Yield	Annual Dividend Per Share / Market Price

Cram Sheet – Everything on One Page

Debit/Credit Quick Reference

- Assets ↑ = Debit. Liabilities ↑ = Credit. Equity ↑ = Credit.
- Revenue ↑ = Credit. Expenses ↑ = Debit. Dividends ↑ = Debit.
- Memory: A-D-E accounts increase on Debit.

P-U-A-A-D-S (Adjusting Entries)

- Prepaid Exp: Dr Exp / Cr Prepaid
- Unearned Rev: Dr Unearned / Cr Rev
- Accrued Exp: Dr Exp / Cr Payable

- Accrued Rev: Dr Rec / Cr Rev
- Depreciation: Dr Dep Exp / Cr Accum Depr
- Supplies: Dr Sup Exp / Cr Supplies

Depreciation

- $SL = (C - R) / \text{Life}$
- $UOP = (C - R) / \text{Total U} \times \text{U this period}$
- $DDB = 2 / \text{Life} \times \text{BV (stop at residual)}$

SCF Operating Adjustments

- + Depreciation, + Loss, – Gain
- – CA increase, + CA decrease

- + CL increase, – CL decrease

Inventory Errors

- End Inv Over → NI Over (Y1), Under (Y2)
- End Inv Under → NI Under (Y1), Over (Y2)

Perpetual Entries

- Purchase: Dr Inv / Cr AP
- Sale: Dr Cash / Cr Rev + Dr COGS / Cr Inv
- Pur. Return: Dr AP / Cr Inv
- Sales Return: Dr Sales Ret / Cr Cash + Dr Inv / Cr COGS

Bad Debt Entries

- Estimate: Dr Bad Debt / Cr Allowance
- Write-off: Dr Allowance / Cr AR
- Recovery: (1) Dr AR / Cr Allowance (2) Dr Cash / Cr AR

Bonds

- Par: Dr Cash / Cr Bonds Payable
- Discount: Dr Cash, Dr Discount / Cr Bonds Payable
- Premium: Dr Cash / Cr Bonds Payable, Cr Pre-

mium

- Carrying Value = Face – Disc + Prem

Share Entries

- Issue: Dr Cash / Cr Shares (par) / Cr APIC
- Cash Div: Dr RE / Cr Div Payable
- Stock Div: Dr RE (FV) / Cr Shares (par) / Cr APIC
- Stock Split: Memo only

Bank Rec

- Bank: +Dep transit, –Outstanding chq
- Book: +Interest, –Service, –NSF

Key Ratios

- GPM = GP / Net Sales
- Inv Turn = COGS / Avg Inv
- Rec Turn = Credit Sales / Avg AR
- Current = CA / CL
- EPS = (NI – Pref Div) / Wtd Avg Shares
- ROE = NI / Avg Equity

CLOSING: Dr Rev / Cr Inc Sum. Dr Inc Sum / Cr Exp. Then Dr Inc Sum / Cr RE (if NI).

Practice Problems – Exam Style

Problem A: Depreciation (8 marks)

Asset: Cost \$75K, Residual \$5K, 5yr life, 50K total units.

Yr1 units = 12K, Yr2 units = 15K.

SL: $(\$75K - \$5K)/5 = \$14K/\text{year}$. Yr1: \$14K. Yr2: \$14K.

DDB: Rate = 40%. Yr1: $\$75K \times 40\% = \$30K$. Yr2: $\$45K \times 40\% = \$18K$.

UOP: Rate = $\$70K/50K = \$1.40/\text{unit}$. Yr1: $12K \times \$1.40 = \$16.8K$. Yr2: $15K \times \$1.40 = \$21K$.

Problem B: SCF Operating (8 marks)

NI = \$80K. Depreciation = \$12K. Gain on sale = \$4K. AR increased \$9K. Inv decreased \$6K. AP increased \$7K. Salaries payable decreased \$3K.

CFO = $\$80K + \$12K - \$4K - \$9K + \$6K + \$7K - \$3K = \$89K$.

Problem C: Share Issuance + Dividends (6 marks)

Issue 5,000 common shares at \$20, par \$2. Then declare and pay \$0.50/share cash dividend.

Issuance: Dr Cash \$100K / Cr Common Shares \$10K / Cr APIC \$90K.

Dividend declared: Dr RE \$2.5K / Cr Dividends Payable \$2.5K.

Dividend paid: Dr Div Payable \$2.5K / Cr Cash \$2.5K.

Practice MCQs

1. Which depreciation method gives the highest expense in the first year?

- (a) Straight-Line
- (b) Units of Production
- (c) Double-Declining Balance
- (d) All the same

Answer: (c) DDB accelerates depreciation – you get more expense early.

2. Asset cost \$60K, residual \$6K, 6-year life. Straight-line depreciation per year?

- (a) \$10K
- (b) \$9K

- (c) \$6K
- (d) \$20K

Answer: (b) $(\$60K - \$6K) / 6 = \$9K$.

3. **Book value = \$40K. Sold for \$35K. What is the result?**

- (a) Gain of \$5K
- (b) Loss of \$5K
- (c) No gain or loss
- (d) Gain of \$40K

Answer: (b) Sold below book value = loss.

4. **A \$100,000 bond issued for \$97,000 is a:**

- (a) Par bond
- (b) Discount bond
- (c) Premium bond
- (d) Cannot be determined

Answer: (b) Issued below face value = discount bond.

5. **Why is depreciation added back in the SCF operating section?**

- (a) Depreciation generates cash
- (b) It's a non-cash expense that reduced Net Income
- (c) It's a financing activity
- (d) GAAP requires it

Answer: (b) Depreciation reduced Net Income but no cash was actually spent.

6. **Accounts Receivable increased by \$10K. SCF adjustment:**

- (a) +\$10K
- (b) -\$10K
- (c) No change
- (d) +\$5K

Answer: (b) More AR means more sales on credit = cash not collected yet = subtract.

7. **Sale of equipment is classified as:**

- (a) Operating
- (b) Investing
- (c) Financing
- (d) Non-cash

Answer: (b) Sale of long-term assets = investing activity.

8. **NI = \$100K, Depreciation = \$20K, AR increased \$15K, AP decreased \$5K. CFO?**

- (a) \$90K
- (b) \$110K
- (c) \$100K
- (d) \$130K

Answer: (c) $\$100K + \$20K - \$15K - \$5K = \$100K$.

9. **Dividends paid are shown in which section of the SCF?**

- (a) Operating
- (b) Investing
- (c) Financing
- (d) Either

Answer: (c) Cash paid to shareholders = financing activity.

10. **Issuing 5,000 shares at \$15 (par \$1). Credit to Common Shares?**

- (a) \$75K
- (b) \$5K
- (c) \$70K
- (d) \$50K

Answer: (b) $5,000 \times \$1 \text{ par} = \$5,000$. The excess (\$70K) goes to APIC.