

ACC101 – CHAPTER 12

Statement of Cash Flows



Key Terms and Concepts to Know

The Statement of Cash Flows reports the sources of cash inflows and cash outflow during an accounting period. The inflows and outflows are divided into three sections or categories based on the underlying cause or nature of the cash flows:

- **Operating Activities**
- **Investing Activities**
- **Financing Activities**

Because the statement explains the changes in the cash balance during the period, the beginning and ending balances in Cash are not included in these three sections. The beginning cash balance is added to the total of the three sections to determine the ending balance for cash in what could be considered a fourth section of the statement.

At times, companies enter into investing and financing transactions that do not involve cash, such as issuing common stock to purchase land. These transactions are not reported on the statement of cash flows because they do not provide or use cash. Instead, they are reported in a separate section or note which is presented after the ending cash balance.

Operating Activities

Operating Activities include the events and transactions that determine net income. Those transactions and events that do not provide or use cash are excluded to determine cash flows from operating activities.

Examples of non-cash transactions include depreciation, depletion and amortization expense and gains and losses from the sale of plant assets and the retirement of bonds.

There are two methods of preparing the operating activities section: Indirect Method and Direct Method. Both methods calculate the same total of cash flows from operating activities, although the methodologies are considerably different.

Indirect Method

The indirect method starts with net income and adjusts it for non-cash transactions and other cash used by or provided by normal daily activities.

Net Income

Add: Noncash expenses (i.e., depreciation and amortization)
Losses on sales or retirements
Decreases in Current Assets
Increases in Current Liabilities related to operations*

Deduct: Increases in Current Assets
Decreases in Current Liabilities related to operations*
Gains on sales or retirements

=Net Cash Flows from Operating Activities

*Note that changes in non-operating current liabilities are included elsewhere on the statement. For example, changes in dividends payable are combined the dividends declared to calculate dividends paid in the financing section.

Direct Method

The direct method starts with the entire accrual-basis income statement (not just net income) and converts it line-by-line to the cash basis. The resulting cash inflows and outflows are the cash flows used by or provided by normal daily activities. For example, accrual-basis sales are converted to cash collected from customers by adding the decrease or deducting the increase in trade accounts receivable.

The direct method is preferred by the FASB as it provides more useful information the users of the financial statements. The FASB requires that, if the direct method is

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used, that a reconciliation of net income to net cash provided or used by operating activities be provided in the footnotes or as part of the statement. This reconciliation frequently looks quite similar the cashflow from operating activities section prepared using the indirect method.

Cash received from customers:

- Sales (+decrease in A/R OR -increase in A/R)

Less: payments to creditors and for expenses

- Cost of Merchandise Sold
 - +increase in inventories OR -decrease in inventories
 - +decrease in A/P OR -increase in A/P
- Operating Expenses
 - +decrease in accrued expenses OR -increase in accrued expenses
- Interest Expense
 - +decrease in interest payable OR -increase in interest payable
- Income Tax Expense
 - +decrease in income tax payable OR -increase in income tax payable

=Net Cash Flows from Operating Activities

Investing Activities

Operating Activities include events and transactions that affect long-term assets. For example, the journal entry to record the sale of land with a cost of \$100,000 for \$120,000 would be:

Cash	120,000	
Land		100,000
Gain on sale of land		20,000

The effect of this transaction is to reduce long-term assets by \$100,000. On the statement of cash flows, the cash proceeds are reported as an inflow in the investing activities section and the gain is deducted from net income in the operating activities section as noted above.

If equipment is purchased for \$75,000, the journal entry would be:

Equipment	75,000	
Cash		75,000

The \$75,000 would be reported as a use of cash in the investing section.

Cash inflows from:

Sale of Long-term Assets

- Property, Plant or Equipment
- Intangible assets
- Investments

Less: Cash outflows from:

Purchase of Long-term Assets

- Property, Plant or Equipment
- Intangible assets
- Investments

=Net Cash Flows from Investing Activities

Financing Activities

Financing Activities include events and transactions that affect long-term liabilities and equity. For example, the journal entry to record the issuance of bonds with a face value of \$100,000 would be:

Cash	100,000	
Bonds Payable		100,000

The effect of this transaction is to increase long-term liabilities by \$100,000. On the statement of cash flows, the cash proceeds are reported as an inflow in the financing activities section.

If the bonds are subsequently retired at 101, the journal entry would be

Loss	1,000	
Bonds Payable	100,000	
Cash		101,000

The effect of this transaction is to reduce long-term liabilities by \$100,000. On the statement of cash flows, the cash spent is reported as an outflow in the financing activities section and the loss is added to net income in the operating activities section as noted above.

Dividends paid are also included in the financing activities section. Dividends paid are not part of the operating activities section because dividends do not appear in the income statement. They are reported in the financing activities section because they relate to the equity section of the balance sheet and cash flows from changes in equity are reported in this section.

Whenever the beginning balance does not equal the ending balance for dividends payable, the dividends paid may have to be calculated using the following formula:

$$\begin{array}{rcccc} \text{beginning} & + & \text{dividends} & - & \text{ending} & = & \text{dividends} \\ \text{balance} & & \text{declared} & & \text{balance} & & \text{paid} \end{array}$$

If the beginning balance equals the ending balance for dividends payable or there are no beginning and ending balances for dividends payable, then the dividends paid equals the dividends declared.

Cash inflows from:

Issuing debt or equity securities

- Issuing bonds
- Issuing Stocks (Common and Preferred)
- Reissuing Treasury Stocks
- Issuing other long-term debts (mortgage payable, notes payable)

Less: Cash outflows from:

Retiring debts, repurchasing equity securities and paying dividends

- Payments to retire bonds
- Payments to retire other long-term debts
- Payments for Dividends
- Payments to purchase Treasury Stock

=Net Cash Flows from Financing Activities

Again, Non-cash Financing and Investing Activities, such as issuing stock to retire bonds, are reported in a separate schedule that appears after the bottom of the Statement of Cash Flows.

Practice Problem #1

Identify which section of the statement of cash flows each of the following events would appear in (operating, investing, financing or in a separate schedule)

- a. Purchased a Patent
- b. Sold Treasury stock
- c. Net Income
- d. Sold long-term investments
- e. Purchased a building
- f. Issued bonds.
- g. Paid dividends
- h. Recorded depreciation expense for the year
- i. Issued common stock to retire a mortgage
- j. Purchased treasury stock

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Practice Problem #2

For each of the following situations indicate the items to be reported on the statement of cash flows. Be sure to include the section of the statement the item would appear in and the amount.

- a. The board of directors declared cash dividends totaling \$240,000 during the current year. The comparative balance sheet indicates dividends payable of \$50,000 at the beginning of the year and \$60,000 at the end of the year.
- b. An analysis of the general ledger accounts indicates that office equipment, which had cost \$245,000 and on which accumulated depreciation totaled \$95,000 on the date of sale, was sold for \$130,000 during the year.
- c. An analysis of the general ledger accounts indicates that delivery equipment, which had cost \$39,000 and on which accumulated depreciation totaled \$23,000 on the date of sale, was sold for \$20,000 during the year.
- d. During the year the company issued 5,000 shares of \$10 par Common Stock for \$50 per share.
- e. During the year the company purchased land with a mortgage note payable.
- f. Depreciation reported on the income statement was \$55,000.
- g. Bonds Payable of \$60,000 were retired.

Example #1

Given the following information and using the indirect method prepare the Cash Flows from Operating Activities section of the statement of cash flows.

	<u>End of Year</u>	<u>Beginning of Year</u>	<u>Change</u>
Cash	\$ 23,500	\$ 37,400	(13,900)
Accounts receivable (net)	84,500	80,350	4,150
Inventories	100,200	94,300	5,900
Prepaid expenses	4,970	5,300	(330)
Accounts payable (creditors)	71,400	68,900	2,500
Salaries Payable	5,320	6,450	(1,130)

Net Income reported on the income statement for the current year was \$134,800.
Depreciation recorded on buildings and equipment was \$27,400 for the year.

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Solution #1

Cash Flows from Operating Activities

Net Income			\$134,800
Add: Decrease in prepaid expenses	\$ 330		
Increase in Accounts Payable	2,500		
Depreciation Expense	<u>27,400</u>	+ 30,230	
			165,030
Deduct: Increase in Accounts Receivable	\$ 4,150		
Increase in Inventories	5,900		
Decrease in Salaries Payable	<u>1,130</u>	- 11,180	
Net Cash Flows from Operating Activities			\$153,850

Practice Problem #3

Given the following information and using the indirect method prepare the Cash Flows from Operating Activities section of the statement of cash flows.

	End of Year	Beginning of Year	Change
Cash	\$345,000	\$386,000	
Accounts Receivable	554,300	567,800	
Merchandise Inventory	693,000	672,400	
Prepaid Expenses	27,000	24,000	
Accounts Payable (creditors)	510,000	527,400	
Wages Payable	39,500	36,000	

The net income reported on the income statement for the current year was \$465,000, which included a gain on sale of investments of \$3,000. Depreciation recorded on store equipment for the year amounted to \$99,800.

T-Account Method of Analyzing Accounts

By analyzing each transaction and each change in a ledger account for the year in terms of how it has affected cash, all of the data necessary to prepare the Statement of Cash Flows can be prepared.

Analyzing the following comparative balance sheet and additional information will illustrate this method.

Dowling Company			
Comparative Balance Sheet			
December 31, 2002 and 2001			
	2002	2001	Incr/Decr
Assets			
Cash	140,350	95,900	44,450
Accounts receivable (net)	95,300	102,300	(7,000)
Inventories	165,200	157,900	7,300
Prepaid Expenses	6,240	5,860	380
Investments (long-term)	35,700	84,700	(49,000)
Land	75,000	90,000	(15,000)
Buildings	375,000	260,000	115,000
Accumulated Depreciation--buildings	(71,300)	(58,300)	(13,000)
Machinery and Equipment	428,300	428,300	-
Accumulated Depreciation--mach/equip	(148,500)	(138,000)	(10,500)
Patents	58,000	65,000	(7,000)
Total Assets	1,159,290	1,093,660	65,630
Liabilities & Stockholders' Equity			
Accounts payable (mdse creditors)	43,500	46,700	(3,200)
Accrued Expenses (operating expenses)	14,000	12,500	1,500
Income taxes payable	7,900	8,400	(500)
Dividends payable	14,000	10,000	4,000
Mortgage note payable, due 2002	40,000	-	40,000
Bonds payable	150,000	250,000	(100,000)
Common Stock	450,000	375,000	75,000
PIC-excess of par-CS	66,250	41,250	25,000
Retained Earnings	373,640	349,810	23,830
Total liabilities & stockholders' equity	1,159,290	1,093,660	65,630

Additional Information:

- a. Net Income, \$98,500
- b. Depreciation expense reported on the income statement: buildings, \$13,000, machinery & equipment, \$10,500.
- c. Investments costing \$49,000 were sold for \$60,000.
- d. Patent amortization reported on the income statement, \$7,000.
- e. Land costing \$15,000 was sold for \$15,000
- f. A mortgage note was issued for \$40,000.
- g. A building costing \$115,000 was constructed.
- h. 2,500 shares of common stock were issued at 40 in exchange for the bonds payable.
- i. Cash dividends declared were \$74,670.

Goal: Each Account balance in the analysis, except for the cash accounts, should have a balance equal to the amount in the Increase/Decrease column above.

Cash - Operating		Cash - Investing		Cash - Financing	
(increases)	(decreases)	(inflows)	(outflows)	(inflows)	(outflows)
a) 98,500 N.I.	c) 11,000 gain	c) 60,000 sold	g) 115,000 to	f) 40,000 issue	70,670 div. Pd
b) 23,500 Depr.	▲ 7,300 Invent	investments	const. Bldg	mortgage	
d) 7,000 Amort.	▲ 380 Prep. Exp.	e) 15,000 sold			
▼ 7,000 A/R	▼ 3,200 A/P	land			
▲ 1,500 Accr. Exp.	▼ 500 Inc. Tx Pay				

Retained Earnings		Accum. Depr.-Bldg		Accum. Depr.-M/E	
i) 74,670 div.	a) 98,500 N.I.		b) 13,000		b) 10,500
	23830				
Investments		Patents		Land	
	c) 49,000		d) 7,000		e) 15,000
Mortgage Note Payable		Building		Dividends Payable	
	f) 40,000	g) 115,000		70,670 pd	i) 74,670 decl.
					4,000
Common Stock		PIC-excess of par-CS		Bonds Payable	
	h) 75,000		h) 25000	h) 100,000	

- a) Net Income increases Cash-Operating and increases Retained Earnings.
- b) Depreciation Expense is added back to Cash-Operating (noncash expense) and it increases Accumulated Depreciation on the Building and Machinery & Equipment.
- c) Selling investments increases Cash-Investing for the selling price of \$60,000, decreases Investments for the cost of \$49,000, and the gain of \$11,000 is deducted from Cash-Operating.
- d) Patent amortization is added back to Cash-Operating (noncash expense) and it decreases the Patent account.
- e) Selling land increases Cash-Investing for the selling price of \$15,000, and decreases land for the cost of \$15,000. No gain or loss.
- f) Issuing a mortgage note increases Cash-Financing and increases Mortgage Note Payable.
- g) Constructing a building increases the Building account and decreases Cash-Investing.

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- h) Issuing stock to retire bonds is a noncash financing/investing activity that will be listed at the end of the Statement of Cash Flows. This transaction increased Common Stock and PIC-excess of par-CS and decreased Bonds Payable.
- i) Dividends declared increase Dividends Payable and decrease Retained Earnings.
- j) The remaining items listed in the Cash-Operating account above are the changes in the current asset and current liability accounts.
- k) The Dividends Payable account needs to be analyzed to determine the dividends actually paid. The credit from (i) indicates an increase in the account of \$74,670. The change in the account taken from the balance sheet indicates the account increased by only \$4,000 for the year; therefore \$70,670 must have been paid. This is shown in Cash-Financing as an outflow.

Dowling Company			
Statement of Cash Flows			
For the year ended December 31, 2002			
Cash Flows from Operating Activities			
Net Income		98,500	
Add: Depreciation Expense	23,500		
Amortization Expense	7,000		
Decrease in A/R	7,000		
Increase in Accrued Expenses	1,500	39,000	
		137,500	
Deduct: Gain on Sale	11,000		
Increase in Inventory	7,300		
Increase in Prepaid Expense	380		
Decrease in A/P	3,200		
Decrease in Income Tax Payable	500	22,380	
Net Cash Flows from Operating Activities			115,120
Cash Flows from Investing Activities			
Cash received from selling investments	60,000		
Cash received from sale of land	15,000	75,000	
Less: Cash paid to construct a building		(115,000)	
Net Cash Flows used for Investing Activities			(40,000)
Cash Flows from Financing Activities			
Cash received from issuing a mortgage		40,000	
Less: Cash paid for dividends		(70,670)	
Net Cash Flows used for Financing Activities			(30,670)
Increase in Cash			44,450
Cash at the beginning of the year			95,900
Cash at the end of the year			140,350
Schedule of Noncash Financing/Investing Activities			
Common Stock was issued to retire Bonds Payable		100,000	

SAMPLE MULTIPLE CHOICE QUESTIONS

1. If a loss of \$15,000 is incurred in selling (for cash) office equipment having a book value of \$50,000 the total amount reported in the cash flows from investing activities section of the statement of cash flows is:
 - a. \$22,000
 - b. \$78,000
 - c. \$35,000
 - d. \$15,000

2. Land costing \$78,000 was sold for \$100,000 cash. The gain on the sale was reported on the income statement as other income. On the statement of cash flows, what amount should be reported as an investing activity from the sale of the land?
 - a. \$22,000
 - b. \$78,000
 - c. \$100,000
 - d. \$178,000

3. On the statement of cash flows, the cash flows from operating activities section would include:
 - a. Receipts from interest on short-term notes receivable
 - b. Receipts from the issuance of capital stock
 - c. Payments for the acquisition of investments
 - d. Payments for cash dividends

4. A business issues 20-year bonds payable in exchange for preferred stock. This transaction would be reported on the statement of cash flows in:
 - a. The cash flows from investing activities section
 - b. The cash flows from operating activities section
 - c. The cash flows from financing activities section
 - d. A separate schedule

5. A statement of cash flows would not disclose the effects of which of the following transactions?
 - a. Purchase of treasury stock
 - b. Bonds payable exchanged for capital stock
 - c. Stock dividends declared
 - d. Capital stock issued to acquire plant assets

6. Depreciation on factory equipment would be reported in the statement of cash flows prepared by the indirect method in:
 - a. The cash flows from financing activities section
 - b. The cash flows from investing activities section
 - c. The cash flows from operating activities section
 - d. A separate schedule

7. The statement of cash flows classifies cash receipts and payments into four activity categories.
 - a. True
 - b. False

8. Under the indirect method, noncash expenses are added to net income.
 - a. True
 - b. False

9. Which of the following would be classified as an operating activity?
 - a. Payment of a cash dividend
 - b. Sale of equipment
 - c. Making a loan to another entity
 - d. Payment of interest

10. Which of the following is not an operating activity?
 - a. Payment of taxes
 - b. Dividends received
 - c. Payment of a cash dividend
 - d. Payment to suppliers

11. The indirect method of preparing the statement of cash flows begins with
 - a. Collections from customers
 - b. Cash sales
 - c. Net income
 - d. Beginning Cash Balance

12. Under the indirect method of preparing the statement of cash flows, an increase in accounts receivable is:
 - a. Added to net sales
 - b. Deducted from net sales
 - c. Added to net income
 - d. Deducted from net income

13. Under the indirect method of preparing the statement of cash flows, which of the following is added to net income in the operating activities section?
- Gain on sale of equipment
 - Depreciation expense
 - Increase in accounts receivable
 - Decrease in accounts payable
14. Under the indirect method of preparing the statement of cash flows, which of the following is deducted from net income in the operating activities section?
- Gain on sale of land
 - Amortization expense
 - Decrease in inventory
 - Increase in wages payable
15. Assume a company sold a piece of equipment for \$3,000. The original cost was \$15,000 and the accumulated depreciation prior to the sale was \$10,000. What amount, if any, would appear in the operating activities section of the statement of cash flows using the indirect method?
- \$0
 - \$2,000
 - \$3,000
 - \$15,000
16. Which of the following would be classified as a financing activity?
- Purchase of treasury stock
 - Receipt of dividends
 - Sale of an investment in bonds
 - Purchase of a Patent
17. Which of the following would be classified as an investing activity?
- Purchasing an investment in bonds
 - Payment of a dividend
 - Issuing Common Stock
 - Payment of interest
18. According to the comparative balance sheet, the balance of the Dividends Payable account at the beginning and end of the year was \$54,000 and \$52,500 respectively. The Retained Earnings Statement indicates that \$80,000 in dividends was declared during the year. What amount of dividends was paid out during the year?
- \$80,000
 - \$54,000
 - \$78,500
 - \$81,500

19. Given the following information and using the indirect method, calculate the cash flows from operating activities.

	End of Year	Beginning of Year	Change
Cash	\$ 38,500	\$ 44,200	
Accounts receivable (net)	79,200	68,800	
Inventories	90,700	81,100	
Prepaid expenses	4,500	6,500	
Accounts payable	65,000	72,800	
Salaries Payable	5,900	5,400	

Net Income reported on the Income Statement for the current year was \$115,000, which included a loss on sale of land of \$8,000. Depreciation recorded on office equipment for the year amounted to \$48,000.

- a. \$129,700
 - b. \$137,700
 - c. \$144,700
 - d. \$145,700
20. A corporation issued \$2,000,000 of 20-year bonds for cash at 108. How would this transaction be reported in the statement of cash flows?
- a. \$2,000,000 inflow in cash flows from financing activities
 - b. \$2,000,000 inflow in cash flows from investing activities
 - c. \$2,160,000 inflow in cash flows from financing activities
 - d. \$2,160,000 inflow in cash flows from investing activities

SOLUTIONS TO PRACTICE PROBLEMS

Practice Problem #1

- a. Investing
- f. Financing
- b. Financing
- g. Financing
- c. Operating
- h. Operating
- d. Investing
- i. Separate Schedule
- e. Investing
- j. Financing

Practice Problem #2

a. Dividends Payable

	50,000
X	240,000
Outflow	60,000

$$50,000 + 240,000 - X = 60,000$$

$$290,000 - X = 60,000$$

$$X = 230,000 \text{ dividends paid} = \text{Financing}$$

- b. Investing Inflow of \$130,000
Book Value: $245,000 - 95,000 = \$150,000$
Loss of \$20,000 is reported in the Operating Activity Section and is added back to net income
- c. Investing Inflow of \$20,000
Book Value: $39,000 - 23,000 = \$16,000$
Gain of \$4,000 is reported in the Operating Activity Section and is deducted from net income
- d. Financing Inflow of \$250,000
- e. Separate Schedule
- f. \$55,000 is reported in the Operating Activity section and is added back to net income
- g. Financing Outflow of \$60,000

Practice Problem #3

Cash Flows from Operating Activities

Net Income		465,000
Add: Depreciation Expense	99,800	
Decrease in A/R	13,500	
Increase in Wages Payable	<u>3,500</u>	<u>116,800</u>
		581,800
Deduct: Gain on Investments	3,000	
Increase in Mdse Inv.	20,600	
Increase in Prepaid Exp.	3,000	
Decrease in A/P	<u>17,400</u>	<u>44,000</u>
Net Cash Flows from Operating Activities		537,800

SOLUTIONS TO MULTIPLE CHOICE QUESTIONS

1. C: 50,000 BV - 15,000 loss = 35,000 selling price
2. C: Selling Price \$100,000 is reported as an investing activity
3. A
4. D
5. C
6. C
7. B: Three Categories; Operating, Investing and Financing
8. A
9. D
10. C
11. C
12. D
13. B
14. A
15. B: Selling Price of \$3,000 less Book Value (15,000 – 10,000) of \$5,000 = \$2,000 loss
16. A
17. A
18. D: Beg. Bal. 54,000 + Dividends Declared 80,000 – End. Bal. 52,500 = 81,500 paid
19. D:

Net Income	115,000	
Add: Loss	8,000	
Depr.	48,000	
Decr. Prepaid	2,000	
Incr. Sal. Pay	<u>500</u>	58,500
Deduct: Incr. A/R	10,400	
Incr. Invent.	9,600	
Decr. A/P	<u>7,800</u>	<u>(27,800)</u>
Net Cash Flows from Operating Activities		145,700
20. C: 2,000,000 * 1.08 = 2,160,000 inflow from financing