



Chapter 1 Overview: The Statement of Cash Flows

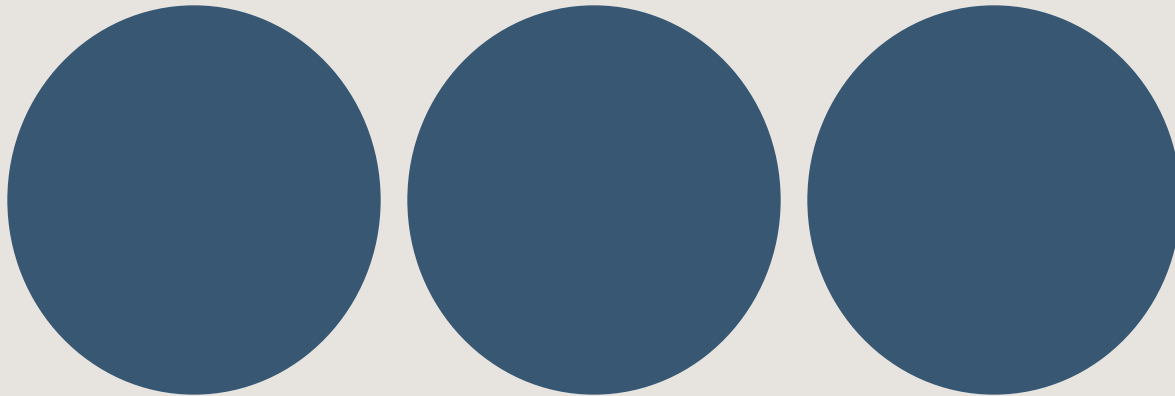
Introduction

- Accounting is based upon accrual concepts
 - Report revenues as earned and expenses as incurred rather than when received and paid
- Accrual information is perhaps the best indicator of business success or failure
- However, one cannot ignore the importance of cash flows
 - Ex) A business may appear profitable on an accrual basis, but may be experiencing delays in collecting receivables
 - Ex) A business may be paying generous dividends, but only because cash is being produced from the disposal of core assets

Introduction

- Companies broadly define “cash” to consist of cash and items that are equivalent to cash
- As a general rule, cash equivalents are short-term, highly liquid investments that mature in 90 days or less

1.1 How is Cash Flow to Be Monitored?



- The **statement of cash flows** is a required financial statement
- Provides information that is helpful in assessing the amounts, timing, and uncertainty of an organization's cash inflows and outflows
- Three broad categories:
 - Operating activities
 - Investing activities
 - Financing activities
- Significant noncash investing/financing transactions are also revealed

Operating Activities

- Operating activities are generally linked to transactions and events that enter into income
- Cash inflows from operating activities include:
 - Receipts from customers for providing goods and services
 - Cash received from interest and dividend income
 - Proceeds from the sale of “trading securities”
- Cash outflows from operating activities include:
 - Payments for inventory, trading securities, employee salaries and wages, taxes, interest, and other normal business expenses

Investing Activities

- Cash inflows from investing activities include:
 - Sale of longer-term stock and bond investments
 - Disposal of long-term productive assets
 - Receipt of principal repayments on loans made to others
- Cash outflows from investing activities include:
 - Payments made to acquire plant assets or long-term investments in other firms
 - Loans made by the entity to others

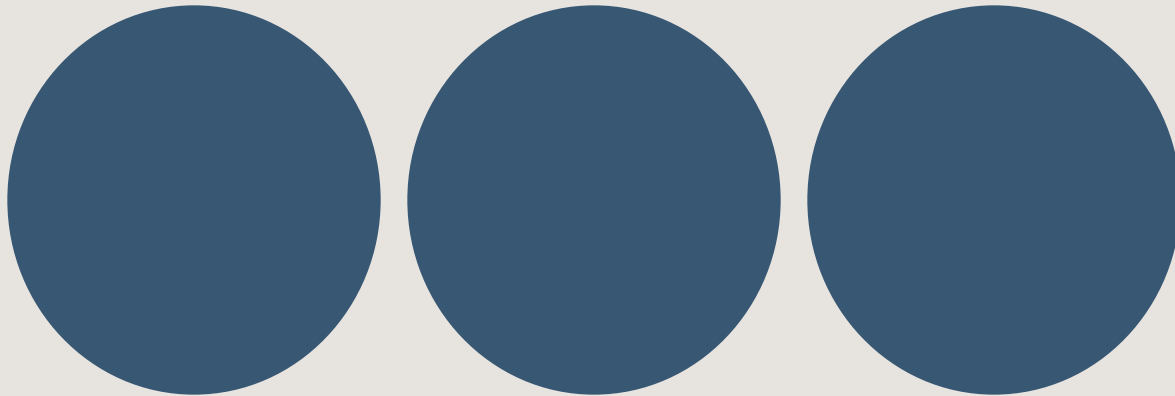
Financing Activities

- Cash inflows from financing activities include:
 - Proceeds received when a company issues its own stock or bonds
 - Borrowings under mortgage notes and loans
- Cash outflows from financing activities include:
 - Repayments of amounts borrowed
 - Acquisitions of treasury stock
 - Dividend distributions to shareholders

Noncash Investing/Financing Activities

- Some investing and financing activities do not entail a direct inflow or outflow of cash
 - Ex) A company may exchange common stock for land
- Under US GAAP, the statement of cash flows includes a separate section reporting these noncash items

1.2 A Deeper Focus on Operating Cash Flows



- The following statement of cash flows is for Emerson Corporation
- Everything within this cash flow statement is derived from the data and additional comments presented earlier
- The tan bar on the left is not part of the statement; it is to facilitate the “line by line” explanation that follows



EMERSON CORPORATION
Statement of Cash Flows (Direct Approach)
For the Year Ending December 31, 20X5

	Cash flows from operating activities:		
O1	Cash received from customers		\$ 3,000,000
	Less cash paid for:		
O2	Merchandise inventory	\$1,050,000	
O3	Wages	480,000	
O4	Interest	100,000	
O5	Other operating expenses	270,000	
O6	Income taxes	<u>300,000</u>	<u>(2,200,000)</u>
	Net cash provided by operating activities		\$ 800,000
	Cash flows from investing activities:		
I1	Sale of land	\$ 750,000	
I2	Purchase of equipment	<u>(150,000)</u>	
	Net cash provided by investing activities		600,000
	Cash flows from financing activities:		
F1	Proceeds from issuing stock	\$ 80,000	
F2	Dividends on common	(50,000)	
F3	Repayment of long-term loans	<u>(900,000)</u>	
	Net cash used in financing activities		<u>(870,000)</u>
C1	Net increase in cash		\$ 530,000
C2	Cash balance at January 1, 20X5		<u>170,000</u>
C3	Cash balance at December 31, 20X5		<u>\$ 700,000</u>
	Noncash investing/financing activities:		
N1	Issued preferred stock for building		\$ 300,000

Cash Received from Customers



Line 01

Cash received from customers

\$ 3,000,000

Cash Received From Customers

=

**Total Sales Minus the Increase in Net Receivables
(or, plus a decrease in net receivables)**

=

\$3,250,000 - (\$850,000 - \$600,000)

=

\$3,000,000

- Accounts receivable increased by \$250,000 during the year
- This means that of the total sales of \$3,250,000, a net \$250,000 went uncollected

Cash Paid for Inventory



Line 02

Merchandise inventory	\$1,050,000
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Inventory Purchased

=

**Cost of Goods Sold Minus the Decrease in Inventory
(or, plus an increase in inventory)**

=

\$1,160,000 - (\$220,000 - \$180,000)

=

\$1,120,000

- The amount of inventory actually purchased will be less than cost of goods sold if inventory on the balance sheet decreased
- This is because some of the cost of goods sold came from existing stock on hand

Cash Paid for Inventory



Line 02

Merchandise inventory	\$1,050,000
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Cash Paid for Inventory

=

**Inventory Purchased Minus the Increase in Accounts Payable
(or, plus a decrease in accounts payable)**

=

\$1,120,000 - (\$270,000 - \$200,000)

=

\$1,050,000

- Inventory purchased is only the starting point for determining cash paid for inventory
- Inventory purchased must be adjusted for the portion that was purchased on credit

Cash Paid for Operating Expenses



Line 03

Wages	480,000
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Cash Paid for Wages

=

Wages Expense Plus the Decrease in Wages Payable
(or, minus an increase in wages payable)

=

$\$450,000 + (\$50,000 - \$20,000)$

=

$\$480,000$

- Emerson paid out enough cash to cover wages expense, plus an additional \$30,000 of wages payable

Cash Paid for Operating Expenses



Line 04	Interest	100,000
Line 05	Other operating expenses	270,000
Line 06	Income taxes	<u>300,000</u>

- Cash payments for these items equaled the amount of expense in the income statement
- Had there been related balance sheet accounts (interest payable, taxes payable, etc.), then the expense amounts would need to be adjusted in a manner similar to that for wages

Noncash Expenses and Gains/Losses

- Overall, operations generated net positive cash flows of \$800,000
- Two items within the income statement were not listed in the operating activities section of the cash flow statement:
 - Depreciation is not listed because it is a noncash expense
 - The gain on sale of land is not listed because the entire proceeds will be listed in the investing activities section

Noncash Expenses and Gains/Losses

- The journal entry could be looked up:



Line 11

Sale of land	\$ 750,000
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XX-XX-X5	Cash		750,000	
	Gain			150,000
	Land			600,000
	<i>Sold land costing \$600,000 for \$750,000</i>			

- Or notice that land on the balance sheet decreased by \$600,000
- So, land must have been sold for \$750,000 to produce the \$150,000 gain

Noncash Expenses and Gains/Losses



Line 12

Purchase of equipment

(150,000)

- Equipment on the balance sheet increased by \$150,000
- The cash purchase could be confirmed by reference to the journal

Noncash Expenses and Gains/Losses



Line F1

Proceeds from issuing stock

\$ 80,000

- The cash inflow is suggested by the \$10,000 increase in common stock and \$70,000 increase in additional paid-in capital

Noncash Expenses and Gains/Losses



Line F2

Dividends on common

(50,000)

- Emerson declared \$50,000 in dividends, and since there is no dividend payable on the balance sheet, one can assume that all of the dividends were paid

Noncash Expenses and Gains/Losses



Line F3

Repayment of long-term loans

(900,000)

- The balance sheet reveals a \$900,000 decrease in long-term debt

Noncash Expenses and Gains/Losses

Line C1	Net increase in cash	\$ 530,000
Line C2	Cash balance at January 1, 20X5	<u>170,000</u>
Line C3	Cash balance at December 31, 20X5	<u>\$ 700,000</u>

- Emerson had a \$530,000 increase in cash during the year:
 - \$800,000 from positive operating cash flow
 - \$600,000 from positive investing cash flow
 - \$870,000 from negative financing cash flow
- This change in cash is confirmed by reference to the beginning and ending cash balances

Noncash Expenses and Gains/Losses



Line N1

Issued preferred stock for building

\$ 300,000

- Emerson issued \$300,000 of preferred stock for a building

Noncash Expenses and Gains/Losses

- The statement of cash flows just presented is prepared under the “direct approach”
 - Named so because the cash items entering into the determination of operating cash flow are specifically identified
 - Presentation of operating cash flows resembles a cash basis income statement
- A reconciliation of income to cash from operations must be shown
 - Usually found in the notes to the financial statements

Accounting for Bonds Payable Issued at a Premium

- Premium bonds: The stated rate of interest is greater than the market rate of interest
 - Investors will be willing to pay a higher price for the higher interest payments

Accounting for Bonds Payable Issued at a Premium


- If a company issues 100 8%, 5-year bonds when the market rate of interest is only 6%, the cash received is \$18,530 (see the previous calculations)
 - The repayment amount is \$140,000
 - \$4,000 every 6 months for 5 years, plus \$100,000 at maturity
 - The excess to repay is \$31,470
 - $\$140,000 - \$108,530$
 - Uniformly spreading the \$31,470 over 10 six-month periods produces periodic interest expense of \$3,147
 - This is different from the cash payment (\$4,000)

Accounting for Bonds Payable Issued at a Premium

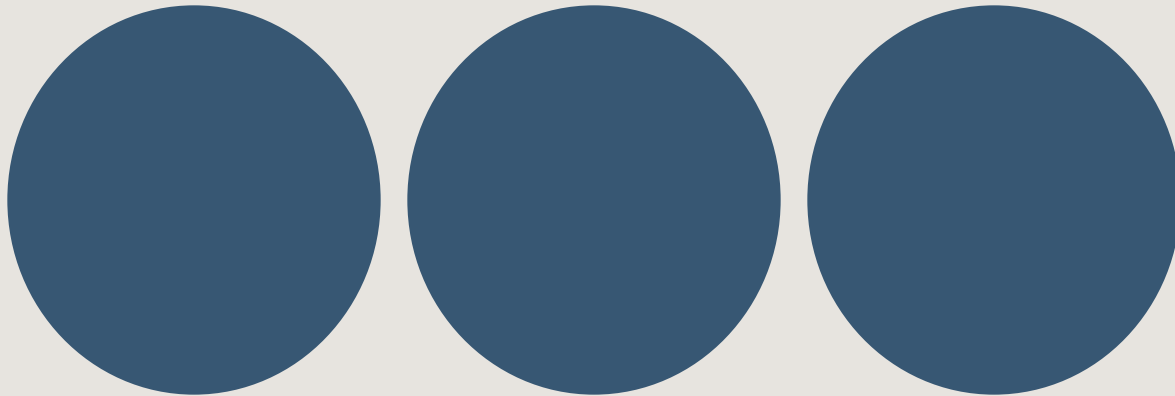
- Alternatively, the interest expense can be computed by noting that the total borrowing cost is reduced by the \$8,530 premium
 - The periodic interest payment is reduced by \$853 of premium amortization each period
 - \$8,530 premium amortized on a straight-line basis over the 10 periods
 - Interest expense is thus \$3,147
 - \$4,000 - \$853

Accounting for Bonds Payable Issued at a Premium

- The journal entries for the premium bonds are as follows:

	01-01-X1	Cash	108,530	
		Premium on Bonds Payable		8,530
		Bonds Payable		100,000
		<i>To record issue of 8%, 5-year bonds at premium</i>		
	periodically	Interest Expense	3,147	
		Premium on Bonds Payable	853	
		Cash		4,000
		<i>To record interest payment (this entry occurs on every interest payment date at 6 month intervals) and amortization of premium</i>		
	12-31-X5	Bonds Payable	100,000	
		Cash		100,000
		<i>To record payment of face value at maturity</i>		

1.3 Alternative View of Operating Activities



- The **indirect approach** is an alternative method for preparing the statement of cash flows
- Operating cash flows are presented as a reconciliation of income to cash from operating activities



EMERSON CORPORATION
Statement of Cash Flows (Indirect Approach)
For the Year Ending December 31, 20X5

Cash flows from operating activities:

Net income		\$1,000,000
Add (deduct) noncash effects on operating income		
Depreciation expense	\$ 120,000	
Gain on sale of land	(150,000)	
Increase in accounts receivable	(250,000)	
Decrease in inventory	40,000	
Increase in accounts payable	70,000	
Decrease in wages payable	<u>(30,000)</u>	<u>(200,000)</u>
Net cash provided by operating activities		\$ 800,000

Cash flows from investing activities:

Sale of land	\$ 750,000	
Purchase of equipment	<u>(150,000)</u>	
Net cash provided by investing activities		600,000

Cash flows from financing activities:

Proceeds from issuing stock	\$ 80,000	
Dividends on common	(50,000)	
Repayment of long-term loans	<u>(900,000)</u>	
Net cash provided by financing activities		<u>(870,000)</u>

Net increase in cash		\$530,000
Cash balance at January 1, 20X5		<u>170,000</u>
Cash balance at December 31, 20X5		\$ <u>700,000</u>

Noncash investing/financing activities:

Issued preferred stock for building		\$ <u>300,000</u>
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Supplemental information:

Cash paid for interest		\$ 100,000
Cash paid for income taxes		300,000

- Except for the shaded areas, this statement is identical to the direct approach
- The “reconciliation” replaces the direct presentation of the operating cash flows
- Information about cash paid for interest and taxes must also be disclosed
 - These amounts are typically found in the operating activities section of the direct approach



Net income		\$1,000,000
Add (deduct) noncash effects on operating income		
Depreciation expense	\$ 120,000	
Gain on sale of land	(150,000)	
Increase in accounts receivable	(250,000)	
Decrease in inventory	40,000	
Increase in accounts payable	70,000	
Decrease in wages payable	<u>(30,000)</u>	<u>(200,000)</u>
Net cash provided by operating activities		\$ 800,000

- Depreciation is added back to net income
 - It reduced income, but did not consume any cash
- Gain on sale of land is subtracted
 - It increased income, but is not related to operations
 - It is an investing item and the gain is not the sales price
- Increase in accounts receivable is subtracted
 - It represents uncollected sales included in income

- Decrease in inventory is added
 - It represents cost of sales from existing inventory
 - Not a new cash purchase
- Increase in accounts payable is added
 - It represents expenses not paid
- Decrease in wages payable is subtracted
 - It represents a cash payment for something expensed in an earlier period

Current Assets

Current Liabilities

Amount
Increased

subtracted

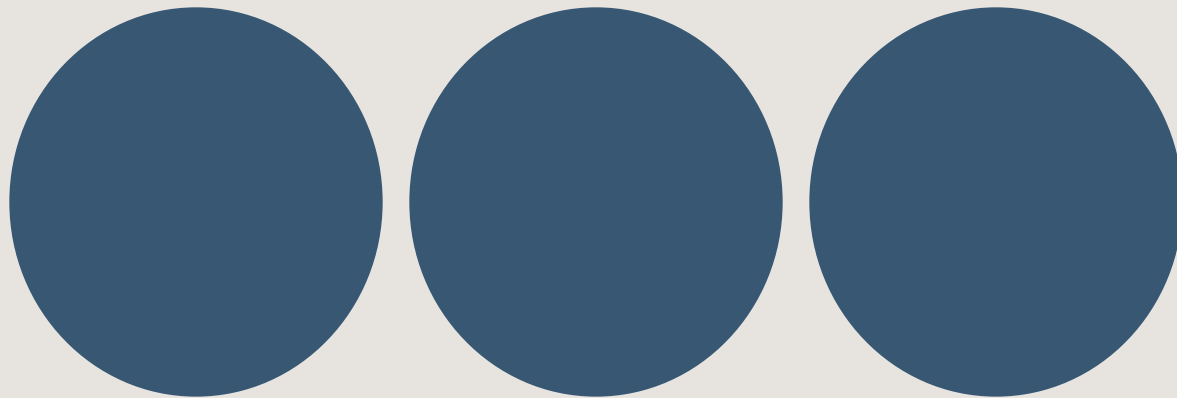
added

Amount
Decreased

added

subtracted

1.4 Using a Worksheet to Prepare the Statement



- The worksheet approach examines the change in each balance sheet account and relates it to any cash flow statement impacts
- The upper portion is the balance sheet information
- The lower portion is the cash flow statement information
- The change in each balance sheet row is evaluated and keyed to a change(s) in the cash flow statement
- The accumulated offsets (in the lower portion) reflect the information necessary to prepare a statement of cash flows



EMERSON CORPORATION
Cash Flow Statement Worksheet
For the Year Ending Dec. 31, 20X5

	20X4	Debit	Credit	20X5
Debits				
Cash	\$ 170,000	(a) \$ 530,000		\$ 700,000
Accounts receivable	600,000	(b) 250,000		850,000
Inventory	220,000		(c) \$ 40,000	180,000
Land	1,400,000		(d) 600,000	800,000
Building	700,000	(e) 300,000		1,000,000
Equipment	900,000	(f) 150,000		1,050,000
	<u>\$3,990,000</u>			<u>\$4,580,000</u>
Credits				
Accumulated depreciation	\$ 360,000		(g) 120,000	\$ 480,000
Accounts payable	200,000		(h) 70,000	270,000
Wages payable	50,000	(i) 30,000		20,000
Long-term loan payable	1,800,000	(j) 900,000		900,000
Preferred stock	-		(e) 300,000	300,000
Common stock (\$1 par)	900,000		(k) 10,000	910,000
Paid-in capital in excess of par	300,000		(k) 70,000	370,000
Retained earnings	380,000	(l) 50,000	(m) 1,000,000	1,330,000
	<u>\$3,990,000</u>			<u>\$4,580,000</u>
Cash flows from operating activities:				
Net income		(m) 1,000,000		
Depreciation expense		(g) 120,000		
Gain on sale of land			(d) 150,000	
Increase in accounts receivable			(b) 250,000	
Decrease in inventory		(c) 40,000		
Increase in accounts payable		(h) 70,000		
Decrease in wages payable			(i) 30,000	
Cash flows from investing activities:				
Sale of land		(d) 750,000		
Purchase of equipment			(f) 150,000	
Cash flows from financing activities:				
Proceeds from issuing stock		(k) 80,000		
Dividends on common			(l) 50,000	
Repayment of long-term loan			(j) 900,000	
Noncash investing/financing activities:				
Issue preferred stock for building		(e) 300,000	(e) 300,000	
Increase in cash			(a) 530,000	
		<u>\$4,570,000</u>	<u>\$4,570,000</u>	



Upper/Balance Sheet

Lower/Cash Flow Statement

(a) debit (increase) cash	credit to balance - the remaining effect as net positive cash flow
(b) debit (increase) accounts receivable	credit reflecting negative cash effect via receivables increase
(c) credit (decrease) inventory	debit reflecting positive cash effect via inventory reduction
(d) credit (decrease) land	credit gain and debit sale of land reflecting source of cash
(e) debit building (increase)/ credit preferred stock (increase)	debit and credit reflecting noncash investing/financing
(f) debit (increase) equipment	credit reflecting use of cash to purchase equipment
(g) credit (increase) accumulated deprec.	debit reflecting noncash adjustment of income
(h) credit (increase) accounts payable	debit reflecting positive cash effect via increased payables
(i) debit (decrease) wages payable	credit reflecting negative cash effect via payables reduction
(j) debit (decrease) loan payable	credit reflecting use of cash via loan repayment
(k) credit (increase) stock and paid-in capital	debit reflecting source of cash via stock issue
(l) debit (decrease) retained earnings	credit reflecting use of cash for dividends
(m) credit (increase) retained earnings	debit reflecting source of cash via income

Blue is the final balancing step, red is cash outflow,
black is cash inflow, and green is special