Advanced Accounting
AY 2022/2023

Lesson #4
Cash Flow Analysis

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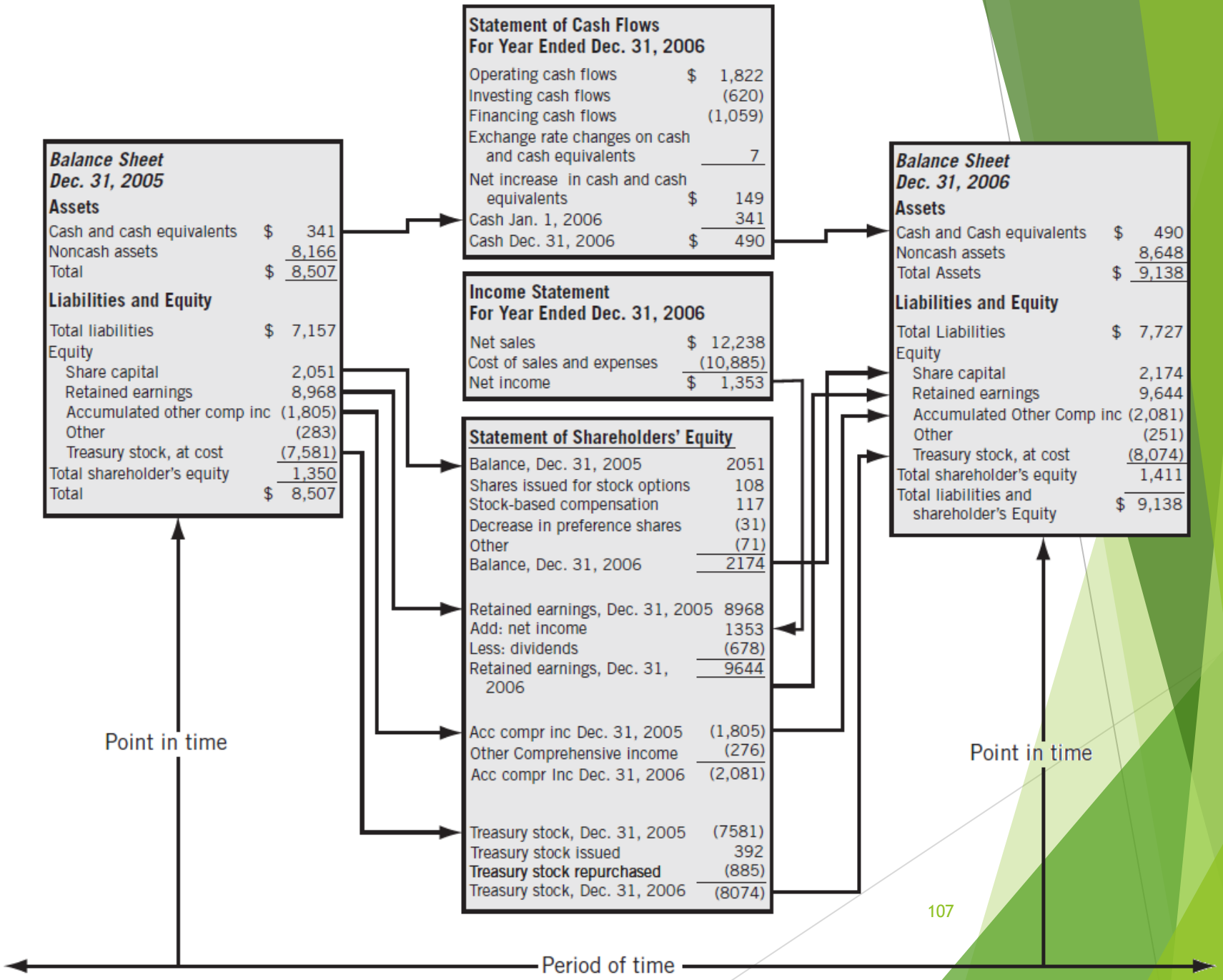
Statement of Cash Flows

- The purpose of the statement of cash flows is to provide information on cash inflows and outflows for a period.

- It also distinguishes among the sources and uses of cash flows by separating them into operating, investing, and financing activities.

Statement of Cash Flows

- The comparative balance sheet reports financial position:
  - shows whether cash increased or decreased;
  - does not show *why* cash changed;
  - covers a specific moment in time.
- The statement of cash flows reports cash flows:
  - shows where cash came from (receipts) and how cash was spent (payments);
  - reports why cash increased or decreased during the period;
  - covers a span of time and is dated the same as the income statement (e.g. “Year Ended December 31, 2016”)
  - **The communicating link between income statement and balance sheet.**


Balance Sheet
Dec. 31, 2005
Assets
Cash and cash equivalents $ 341
Noncash assets 8,166
Total $ 8,507
Liabilities and Equity
Total liabilities $ 7,157
Equity
Share capital 2,051
Retained earnings 8,968
Accumulated other comp inc (1,805)
Other (283)
Treasury stock, at cost (7,581)
Total shareholder's equity 1,350
Total $ 8,507
Statement of Cash Flows
For Year Ended Dec. 31, 2006
Operating cash flows $ 1,822
Investing cash flows (620)
Financing cash flows (1,059)
Exchange rate changes on cash and cash equivalents 7
Net increase in cash and cash equivalents $ 149
Cash Jan. 1, 2006 341
Cash Dec. 31, 2006 $ 490
Income Statement
For Year Ended Dec. 31, 2006
Net sales $ 12,238
Cost of sales and expenses (10,885)
Net income $ 1,353
Statement of Shareholders' Equity
Balance, Dec. 31, 2005 2051
Shares issued for stock options 108
Stock-based compensation 117
Decrease in preference shares (31)
Other (71)
Balance, Dec. 31, 2006 2174
Retained earnings, Dec. 31, 2005 8968
Add: net income 1353
Less: dividends (678)
Retained earnings, Dec. 31, 2006 9644
Acc compr inc Dec. 31, 2005 (1,805)
Other Comprehensive income (276)
Acc compr Inc Dec. 31, 2006 (2,081)
Treasury stock, Dec. 31, 2005 (7581)
Treasury stock issued 392
Treasury stock repurchased (885)
Treasury stock, Dec. 31, 2006 (8074)
Balance Sheet
Dec. 31, 2006
Assets
Cash and Cash equivalents $ 490
Noncash assets 8,648
Total Assets $ 9,138
Liabilities and Equity
Total Liabilities $ 7,727
Equity
Share capital 2,174
Retained earnings 9,644
Accumulated Other Comp inc (2,081)
Other (251)
Treasury stock, at cost (8,074)
Total shareholder's equity 1,411
Total liabilities and shareholder's Equity $ 9,138
Point in time
Point in time
Period of time

Statement of Cash Flows

Why cash is so relevant?

- Cash is the most liquid of assets.
  - Offers both liquidity and flexibility.
  - Both the beginning and the end of a company's operating cycle.
- Contrast: Accrual accounting and Cash basis accounting.
  - Net cash flow as the end measure of profitability.
  - Cash flow analysis helps in assessing liquidity, solvency, and financial flexibility.

Statement of Cash Flows

How do people use cash flow information?

The statement of cash flows helps to:

1. predict future cash flows. Past cash receipts and payments help predict future cash flows.
2. evaluate management decisions. Wise investment decisions help the business prosper, while unwise decisions cause the business to have problems. Investors and creditors use cash flow information to evaluate managers' decisions.
3. predict ability to pay debts and dividends. Lenders want to know whether they will collect on their loans. Stockholders want dividends on their investments. The statement of cash flows helps make these predictions.

Statement of Cash Flows

It helps address questions such as:

- How much cash is generated from or used in operations?
- What expenditures are made with cash from operations?
- How are dividends paid when confronting an operating loss?
- What is the source of cash for debt payments?
- How is the increase in investments financed?
- What is the source of cash for new plant assets?
- Why is cash lower when income increased?
- What is the use of cash received from new financing?

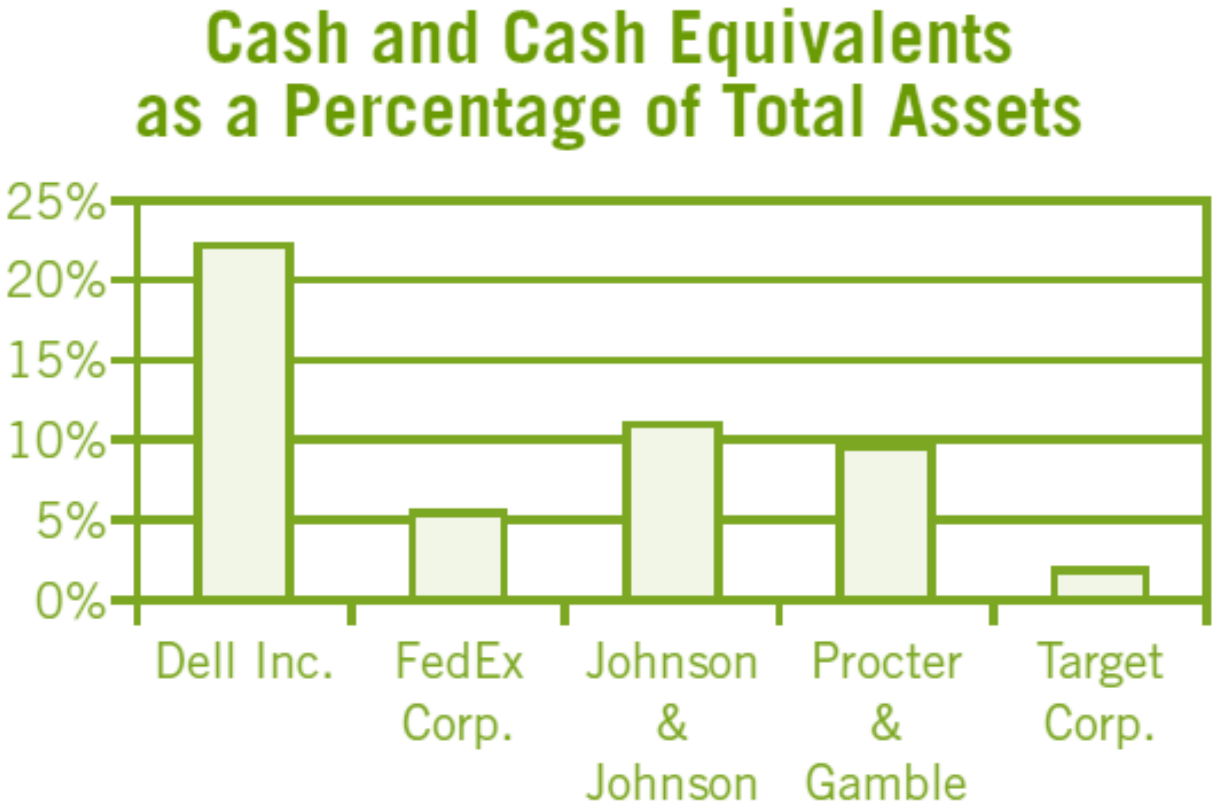
Cash Equivalents

- Highly liquid short-term investments:
  - Readily convertible into cash (three months or less)
  - So near maturity they have minimal risk of price changes due to interest rate movements.
- So close to cash it is considered as equals.
- Examples:
  - Money-market accounts
  - Investments in the government securities
  - Commercial paper
  - Short-term treasury bills
- Cash equivalents often serve as temporary repositories of excess cash.

'Cash equivalents are short-term, highly liquid investments which are readily convertible into known amounts of cash and which are subject to an insignificant risk of change in value.'

IAS 7 definition

Cash Equivalents



Basic Types of Cash Flow Activities

Operating	• Day-to-day operations
Investing	• Long-term assets
Financing	• Equity & Long-term liabilities

Operating Activities

- Most important category
  - Reflects the day-to-day operations
  - Determines the future of an organization
- Generate revenues, expenses, gains, and losses
- Affect net income on the income statement
- Affect current assets and current liabilities on the balance sheet.

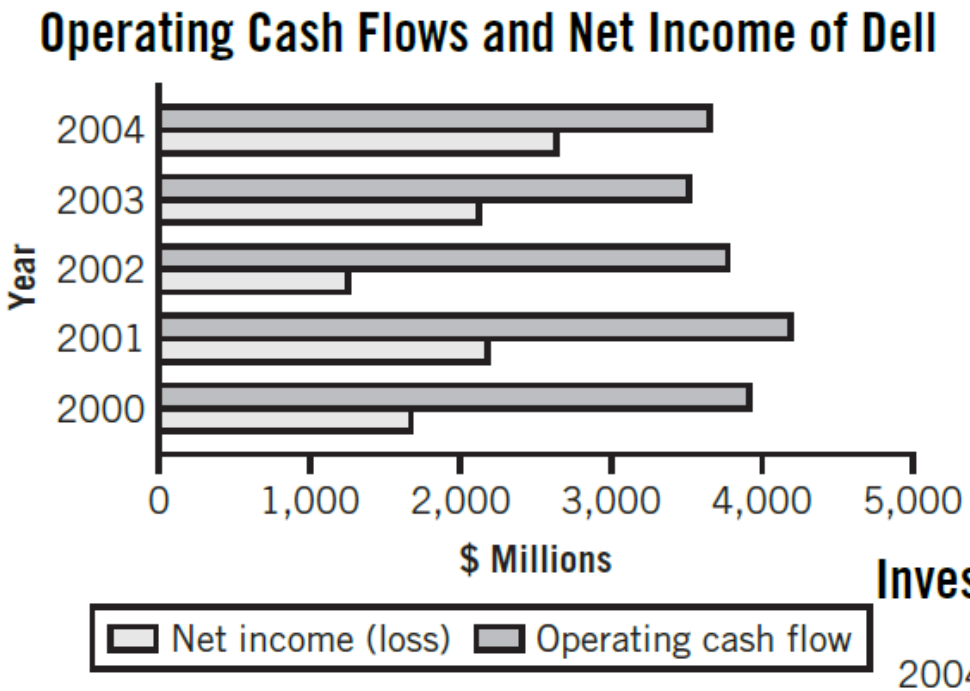
Investing Activities

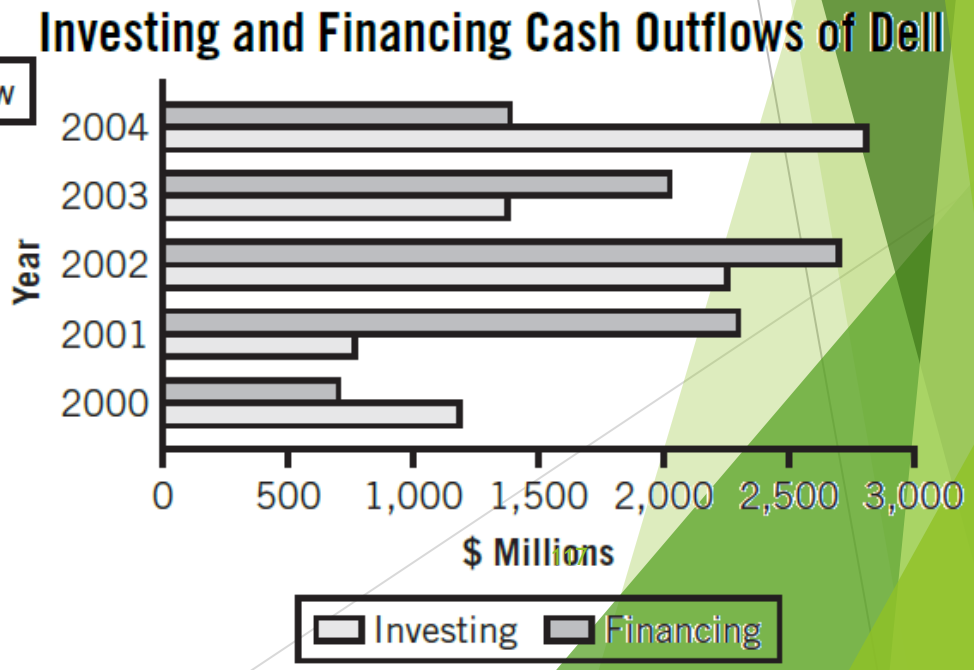
- Increase and decrease long-term assets
  - Computers, software, land, buildings, and equipment
- Include purchases and sales of these assets
  - Include long-term loans receivable from others (non-trade) and collections of those loans
- Include purchases and sales of long-term investments

Financing Activities

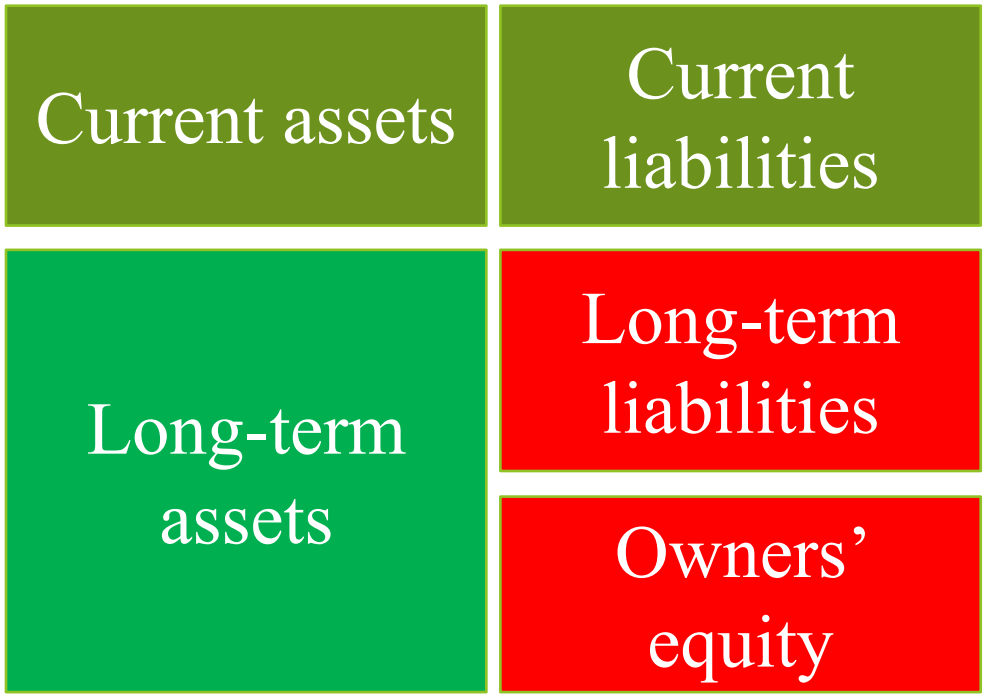
- Increase and decrease long-term liabilities and equity
- Include issuing stocks, paying dividends, and buying and selling treasury stocks
- Include borrowing money and paying off loans

Basic Types of Cash Flow Activities





Operating, Investing and Financing Activities and the Balance Sheet



Two Formats for Operating Activities

- **Indirect method**
  - Starts with net income; adjusts it to net cash provided by operating activities
  - Used by most companies
- **Direct method**
  - Restates income statement in terms of cash
  - Shows cash receipts and payments from operating activities
- Use different computations, but same operating cash flows
- No effect on investing and financial cash flows

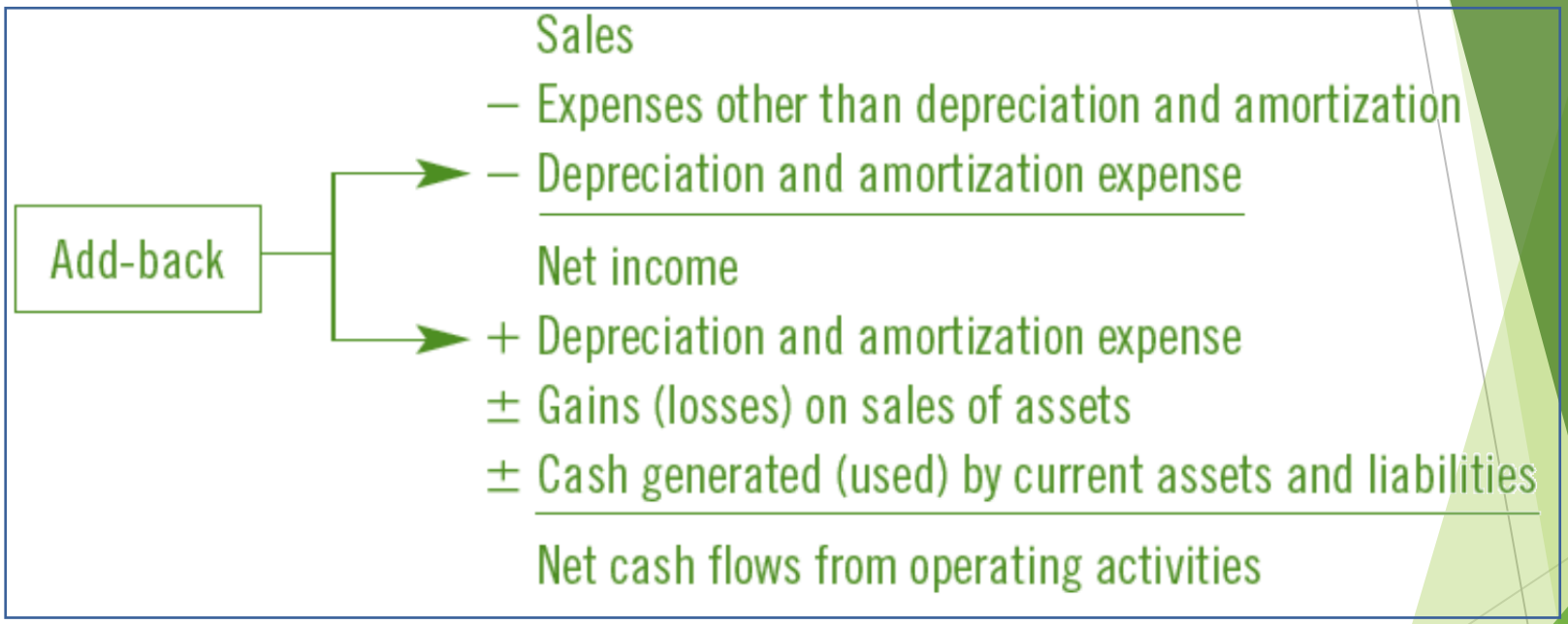
Prepare the statement of cash flows by the indirect method

- Step 1: Lay out the statement format
- Step 2: Compute the change in cash from the comparative balance sheet
- Step 3: Take the figures—Net Income, depreciation, and any gains or losses—from the income statement
- Step 4: Complete the statement of cash flows

Cash Flows from Operating Activities: Indirect Method

± Cash flows from operating activities:
Net income
Adjustments to reconcile net income to net cash provided by operating activities:
+ Depreciation / amortization expense
+ Loss on sale of long-term assets
– Gain on sale of long-term assets
– Increases in current assets other than cash
+ Decreases in current assets other than cash
+ Increases in current liabilities
– Decreases in current liabilities
Net cash provided by (used for) operating activities

Cash Flows from Operating Activities: Indirect Method



Gather Income Statement

Revenues and gains:		
Sales revenue	$286,000	
Interest revenue	12,000	
Dividend revenue	9,000	
Gain on sale of plant assets	10,000	
Total revenues and gains		$317,000
Expenses:		
Cost of goods sold	$156,000	
Salary and wage expense	56,000	
Depreciation expense	20,000	
Other operating expense	16,000	
Interest expense	15,000	
Income tax expense	14,000	
Total expenses		277,000
Net income		$ 40,000

Items from the income statement not affecting cash

Comparative Balance Sheet

	2014	2013	Increase (Decrease)
Assets			
Current:			
Cash	$ 22,000	$ 42,000	$ (20,000)
Accounts receivable	90,000	73,000	17,000
Inventory	143,000	145,000	(2,000)
Plant assets, net	460,000	210,000	250,000
Total assets	$715,000	$470,000	$245,000
Liabilities			
Current:			—
Accounts payable	$ 90,000	$ 50,000	$ 40,000
Accrued liabilities	5,000	10,000	(5,000)
Long-term notes payable	160,000	80,000	80,000
Stockholders' Equity			
Common stock	370,000	250,000	120,000
Retained earnings	110,000	80,000	30,000
Treasury stock	(20,000)	0	(20,000)
Total liabilities and stockholders' equity	$715,000	$470,000	$245,000

Changes in Current Assets (other than cash) and Current Liabilities

Effect on cash	If an increase	If a decrease
Current assets	−	+
Current liabilities	+	−

Cash Flows from Operating Activities

Refer to the balance sheet for changes in the accounts

Cash flows from operating activities:		
Net income		$ 40,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	$ 20,000	
Gain on sale of plant assets	(10,000)	
Increase in accounts receivable	(17,000)	
Decrease in inventory	2,000	
Increase in accounts payable	40,000	
Decrease in accrued liabilities	(5,000)	30,000
Net cash provided by operating activities		$ 70,000

Operations provided net cash flow of $70,000.
This amount exceeds net income of $40,000.

Cash Flows from Investing Activities

- Sales and acquisitions of long-term assets
  - Plant assets and investments
- Analyze accounts to determine activity
  - Use of T-account is helpful
- If gain or loss appears on the income statement, a long-term asset has been sold

± Cash flows from investing activities:
+ Cash receipts from sales of long-term (plant) assets (investments, land, building, equipment, and so on)
– Acquisition of long-term (plant) assets
Net cash provided by (used for) investing activities

Computing Acquisitions and Sales of Plant Assets

- Combine all the plant assets into a single Plant assets account

Plant assets, net			
12/31/13 Bal	210,000		
		Depreciation (from Inc Stmt)	20,000
Acquisitions	310,000	Cost of sold assets (COSA)	?
12/31/14 Bal	460,000		

Cash from Selling Plant Assets

- Solve cash received using the T-account and journal entry

Plant assets, net

12/31/13 Bal	210,000		
		Depreciation (from Inc Stmt)	20,000
Acquisitions	310,000	Cost of sold assets (COSA)	40,000
12/31/14 Bal	460,000		

Cash (A+)	?????	
Gain on sale of plant assets (from the income statement) (R+)		10,000
Plant assets, net (from the T-account—COSA) (A–)		40,000

Computing Cash Flows from Investing Activities Summary

Cash Receipts

From sale of plant assets	Beginning plant assets (net)	+	Acquisition	–	Depreciation expense	–	Book value of assets sold	= Ending plant assets (net)

Cash receipt = Book value of assets sold { + Gain on sale / or / – Loss on sale }

Cash Payments

For acquisition of plant assets	Beginning plant assets (net)	+	Acquisition	–	Depreciation expense	–	Book value of assets sold	= Ending plant assets (net)

Cash Flows from Financing Activities

- Issuances of and payments on long-term notes payable
- Issuances of stock and purchases of treasury stock
- Payments of dividends

± Cash flows from financing activities:
+ Cash receipts from issuance of stock
+ Cash receipts from sale of treasury stock
– Purchase of treasury stock
+ Cash receipts from issuance of notes or bonds payable (borrowing)
– Payment of notes or bonds payable
– Payment of dividends
Net cash provided by (used for) financing activities

Long-Term Notes Payable

- Review balance sheet for differences
  - Note increase in Long-term notes payable
- If new issuances or payments are known, the other can be calculated
  - If unknown, review account for debits and credits
- With knowledge of a new note, note payments can be calculated

Long-term notes payable

		12/31/13 Bal	80,000
Note payments	10,000	New notes issued	90,000
		12/31/14 Bal	160,000

Issuances of Stock and Purchases of Treasury Stock

- Review balance sheet for differences
  - Note change in Common stock of $120,000
- If either new issuances or purchases are known, the other can be calculated
  - If unknown, review account for debits and credits

Common stock			
		12/31/13 Bal	250,000
Retirements	0	Issuance	120,000
		12/31/14 Bal	370,000

Issuances of Stock and Purchases of Treasury Stock

- Review balance sheet for differences
  - Note change in Treasury stock of $20,000
- If either new issuances or purchases are known, the other can be calculated
  - If unknown, review account for debits and credits

Treasury stock			
12/31/13 Bal	0		
Purchases	20,000	Sales	0
12/31/14 Bal	20,000		

Computing Dividend Payments

- Review balance sheet for differences in Retained earnings
  - Note change in Retained earnings
- Retained earnings is changed by net income, net losses and dividends
  - Net income of $40,000 is indicated on the income statement
  - Cannot have both income and loss

Retained earnings

		12/31/13 Bal	80,000
		Net income	40,000
Dividend declarations	10,000		
		12/31/14 Bal	110,000

Net Change in Cash and Cash Balances

= Net increase (decrease) in cash during the year
+ Cash at December 31, 2013
= Cash at December 31, 2014

Net cash provided by Operating activities	–	Net cash used for Investing activities	+	Net cash provided by Financing activities		Net decrease in Cash
70,000	–	260,000	+	170,000	=	(20,000)

Net decrease in cash		$ (20,000)
Cash balance, December 31, 2013		42,000
Cash balance, December 31, 2014		$ 22,000

Example: computing cash flows from operating activities—indirect method

One Way Cellular accountants have assembled the following data for the year ended September 30, 2012:

Payment of dividends	$6,100	Net income	$ 55,000
Depreciation expense	20,000	Purchase of equipment	39,000
Cash receipt from sale of land	34,000	Decrease in current liabilities	19,000
Cash receipt from issuance of common stk.	30,000	Increase in current assets other than cash	14,000

Prepare the operating activities section using the indirect method for One Way Cellular's statement of cash flows for the year ended September 30, 2012.

Example: computing cash flows from operating activities—indirect method

One Way Cellular Statement of Cash—Partial Year Ended September 30, 2012		
Cash flows from operating activities		
Net income:		$55,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation	$20,000	
Increase in current assets other than cash	(14,000)	
Decrease in current liabilities	(19,000)	(13,000)
Net cash provided by operating activities		$42,000

Noncash Investing and Financing

- Investing and financing activities that do not affect cash
- Some examples are:
  - Acquired building by issuing stock
  - Acquired land by issuing note payable
  - Paid note payable by issuing common stock
- Reported in separate schedule or in a note
- Key—Cash not listed in entry to record transaction

Noncash investing and financing activities:		
Acquisition of building by issuing common stock		$300,000
Acquisition of land by issuing note payable		70,000
Payment of note payable by issuing common stock		100,000
Total noncash investing and financing activities		$470,000

Exercise – Gould Corporation

GOULD CORPORATION
Comparative Balance Sheets
December 31, Year 2 and Year 1

	Year 2	Year 1	Absolute Value of Change
Cash	$ 75,000	$ 51,000	$ 24,000
Receivables	48,000	39,000	9,000
Inventory	54,000	60,000	6,000
Prepaid expenses	6,000	9,000	3,000
Plant assets	440,000	350,000	90,000
Accumulated depreciation	(145,000)	(125,000)	20,000
Intangible assets	51,000	58,000	7,000
Total assets	$529,000	$442,000	
Accounts payable	$ 51,000	$ 56,000	5,000
Accrued expenses	18,000	14,000	4,000
Long-term note payable	30,000	0	30,000
Mortgage payable	0	150,000	150,000
Preferred stock	175,000	0	175,000
Common stock	200,000	200,000	0
Retained earnings	55,000	22,000	33,000
Total liabilities and equity	$529,000	$442,000	

GOULD CORPORATION
Income Statement
For Year Ended December 31, Year 2

Sales	$660,000
Cost of sales	(363,000)
Gross profit	297,000
Operating expenses	(183,000)
Depreciation & amortization	(35,000)
Gain on sale of asset	5,000
Net income	$ 84,000

1. **The company purchased a truck during the year at a cost of $30,000 that was financed in full by the manufacturer.**
2. **A truck with a cost of $10,000 and a net book value of $2,000 was sold during the year for $7,000. There were no other sales of depreciable assets.**
3. **Dividends paid during Year 2 are $51,000**

Exercise – Gould Corporation

(1) Start with Net Income

(2) Adjust Net Income for non-cash expenses and gains

(3) Recognize cash inflows (outflows) from changes in current assets and liabilities

(4) Sum to yield net cash flows from operations

(5) Changes in long-term assets yield net cash flows from investing activities

(6) Changes in long-term liabilities and equity accounts yield net cash flows from financing activities

(7) Sum cash flows from operations, investing, and financing activities to yield net change in cash

(8) Add net change in cash to the beginning cash balance to yield ending cash

Exercise – Gould Corporation

GOULD CORPORATION
Statement of Cash Flows
For Year Ended December 31, Year 2

Net income	$ 84,000	1	
Add (deduct)			
Depreciation and amortization expense	35,000	2	
Gain on sale of assets	(5,000)		
Accounts receivable	(9,000)		
Inventories	6,000		
Prepaid expenses	3,000	3	
Accounts payable	(5,000)		
Accrued expenses	4,000		
Net cash flow from operating activities			$113,000 4
Purchase of equipment	(70,000)		
Sale of equipment	7,000		
Net cash flows from investing activities			(63,000) 5
Mortgage payable	(150,000)		
Preferred stock	175,000		
Dividends	(51,000)		
Net cash flows from financing activities			(26,000) 6
Net increase in cash		7	24,000
Beginning cash			51,000
Ending cash		8	$ 75,000

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Note: Assets costing $30,000 were purchased during Year 2 and were financed in whole by the manufacturer.

Statement of Cash Flows

Special Topics

- Equity Method Investments
  - The investor records as income its percentage interest in the income of the investee company and records dividends received as a reduction of the investment balance.
  - The portion of undistributed earnings is noncash income and should be eliminated from the SCF.
- Acquisitions of Companies with Stock
  - Such acquisitions are non-cash.
  - Changes in balance sheet accounts reflecting the acquired company will not equal cash inflows (outflows) reported in the SCF.

Statement of Cash Flows

Special Topics

- Postretirement Benefit Costs
  - The excess of net postretirement benefit expense over cash benefits paid must be added to net income in computing net cash flows from operations
- Securitization of Accounts Receivable
  - Companies account for the reduction in receivables as an increase in cash flow from operations since that relates to a current asset.
  - Analysts should question whether they represent true improvement in operating performance or a disguised borrowing.

Statement of Cash Flows

Direct Method

- **The direct (or inflow-outflow) method** reports gross cash receipts and cash disbursements related to operations—essentially adjusting each income statement item from accrual to cash basis
  - Reports total amounts of cash flowing in and out of a company from operating activities
  - Preferred by analysts and creditors
  - Implementation costs
  - When companies report using the direct method, they must disclose a reconciliation of net income to cash flows from operations (the indirect method) in a separate schedule

The Direct Method

- Preferred by FASB
- Provides clearer information about cash receipts and payments
- Normally not used by private companies
  - Takes more computations and implementation costs
- Only operating activities presentation changes
  - Net cash flow from operating activities has the same amount of cash
  - Investing and Financing sections not changed
- It reports gross cash receipts and cash disbursements related to operations
- When companies report using the direct method, they must disclose a reconciliation of net income to cash flows from operations (the indirect method) in a separate schedule.

Direct Method Format

- Net cash provided is the same as indirect method

Cash flows from operating activities:		
Receipts:		
Collections from customers	$ 269,000	
Interest received	12,000	
Dividends received	9,000	
Total cash receipts		$ 290,000
Payments:		
To suppliers	$(135,000)	
To employees	(56,000)	
For interest	(15,000)	
For income tax	(14,000)	
Total cash payments		(220,000)
Net cash provided by operating activities		70,000

Direct Method Cash Flow Steps

- STEP 1: Lay out the operating section by the direct method
- STEP 2: Use the comparative balance sheet to determine the increase or decrease in cash
- STEP 3: Use the available data to prepare the statement of cash flows
- Reports only transactions with cash effects
- Essentially a cash-basis income statement

Converting Income Statement Amounts

- First item on income statement
  - Sales
  - Total of all sales, whether for cash or on account
  - Yields cash collected from customers
- Formula

Sales revenue
– Increase in Accounts receivable
Cash collections from customers

or

Sales revenue
+ Decrease in Accounts receivable
Cash collections from customers

Cash Collections from Interest

- Second item on income statement
  - Interest revenue
  - Related account is Interest receivable
  - Receivable account indicates some not received
- Formula

Interest revenue
– Increase in Interest receivable
Cash collections from interest

or

Interest revenue
+ Decrease in Interest receivable
Cash collections from interest

Cash Collections from Dividends

- Third item on income statement
  - Dividend revenue
  - Related account is Dividend receivable
  - Receivable account indicates some not received
- Formula

Dividend revenue
– Increase in Dividend receivable
Cash collections from dividends

or

Dividend revenue
+ Decrease in Dividend receivable
Cash collections from dividends

Cash Paid for Inventory

- Payments to suppliers include all payments for inventory and operating expenses
- Formula

Cost of goods sold
– Decrease in Inventory
– Increase in Accounts payable
= Cash paid for Inventory

Cost of goods sold
+ Increase in Inventory
+ Decrease in Accounts payable
= Cash paid for Inventory

Cash Paid for Operating Expenses

- Payments to suppliers include all payments for inventory and operating expenses
- Formula

Other operating expenses
+ Decrease in Accrued liabilities
= Cash paid for operating expenses

Other operating expenses
– Increase in Accrued liabilities
= Cash paid for operating expenses

Payments to Suppliers

- Payments to suppliers include all payments for inventory and operating expenses
- Formula

Cash paid for Inventory
+ Cash paid for operating expenses
= Cash paid to suppliers

Payments to Employees

- Payments to employees includes salaries, wages, other employee compensation
- Formula

Salary expense or Wages expense
+ Decrease in Accrued salaries
= Cash paid to employees

Salary expense or Wages expense
– Increase in Accrued salaries
= Cash paid to employees

Payments for Interest Expense

- Payments for interest include all payments of interest on notes and bonds
- Formula

Interest expense
+ Decrease in Accrued interest
= Cash paid for interest

Interest expense
– Increase in Accrued interest
= Cash paid for interest

Payments for Income Taxes

- Payments for income taxes for all payments of taxes on income
- Formula

Income tax expense
+ Decrease in Income tax payable
= Cash paid for income tax

Income tax expense
– Increase in Income tax payable
= Cash paid for income tax

Net Cash Provided by Operating Activities

- Add them all together

Cash flows from operating activities:		
Receipts:		
Collections from customers	$ 269,000	
Interest received	12,000	
Dividends received	9,000	
Total cash receipts		$ 290,000
Payments:		
To suppliers	$(135,000)	
To employees	(56,000)	
For interest	(15,000)	
For income tax	(14,000)	
Total cash payments		(220,000)
Net cash provided by operating activities		70,000

Converting from Indirect to Direct Method

GOULD CORPORATION
Cash Flows from Operations
For Year Ended December 31, Year 2
($ thousands)

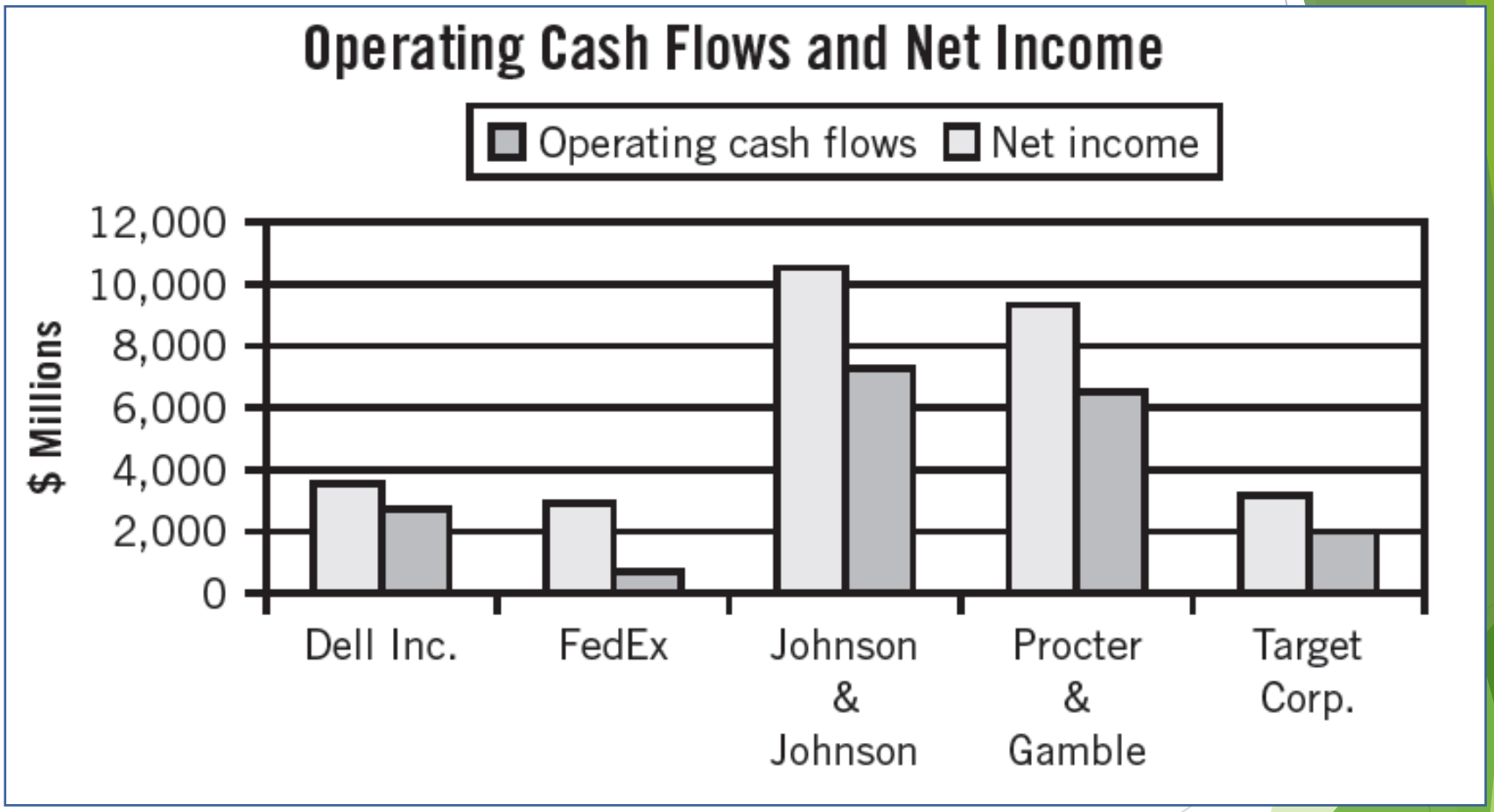
Cash flows from operating activities	
Cash receipts from customers[a]	$651,000
Cash paid for inventories[b]	(362,000)
Cash paid for operating expenses[c]	(176,000)
Net cash flows from operations	$113,000

Computations
[a]Sales of $660,000 less increase in accounts receivables of $9,000.
[b]Cost of goods sold of $363,000 less decrease in inventories of $6,000 plus decrease in accounts payable of $5,000.
[c]General, selling, and administrative expenses of $218,000 less (noncash) depreciation and amortization of $35,000, less decrease in prepaid expenses of $3,000, less increase in accrued expenses of $4,000.

Limitations in Cash Flow Reporting

- Practice does not require separate disclosure of cash flows pertaining to either extraordinary items or discontinued operations.
- Interest and dividends received and interest paid are classified as operating cash flows.
- Income taxes are classified as operating cash flows.
- Removal of pretax (rather than after-tax) gains or losses on sale of plant or investments from operating activities distorts our analysis of both operating and investing activities.

Interpreting Cash Flows and Net Income



Interpreting Cash Flows and Net Income

GOULD CORPORATION

Comparison of Accrual and Cash Reporting

	Income Statement	Operating Cash Flows	
Sales	$660,000	$651,000	Cash collections from customers
Gain on sale of asset	5,000		
	665,000	651,000	Total cash collections
Cost of goods sold	(363,000)	(362,000)	Payments to suppliers
Operating expenses	(183,000)	(176,000)	Payments for expenses
Depreciation and amortization	(35,000)		
Net income	$ 84,000	$113,000	Cash from operations

Interpreting Cash Flows and Net Income

- An income statement records revenues when earned and expenses when incurred.
  - It does not show the timing of cash inflows and outflows, nor the effect of operations on liquidity and solvency.
  - This information is available in the Statement of Cash Flows.
- Cash flows from operations (CFO) is a **broader view** of operating activities than is net income.
  - It is not a measure of profitability.
- A net measure, be it net income or cash flows from operations, is of limited usefulness. The key is information about **components** of these net measures.

Interpreting Cash Flows and Net Income

- Accounting accruals determining net income rely on estimates, deferrals, allocations, and valuations → *Subjectivity*
- CFO effectively serve as a check on net income, but not a substitute for net income.
- CFO include a financing element → useful for evaluating and projecting short-term liquidity and longer-term solvency.
- CFO exclude elements of revenues and expenses not currently affecting cash.
- Our analysis of operations and profitability should not proceed without considering these elements.

Analysis of Cash Flows

In evaluating sources and uses of cash, the analyst should focus on questions like:

- Are asset replacements financed from internal or external funds?
- What are the financing sources of expansion and business acquisitions?
- Is the company dependent on external financing?
- What are the company's investing demands and opportunities?
- What are the requirements and types of financing?
- Are managerial policies (such as dividends) highly sensitive to cash flows?

Insights from Analysis of Cash Flows

- Where management committed its resources
- Where it reduced investments
- Where additional cash was derived from
- Where claims against the company were reduced
- Disposition of earnings and the investment of discretionary cash flows
- The size, composition, pattern, and stability of operating cash flows

Good or bad news?

1. Increase in operating cash flow deriving from the securitization of accounts receivable
2. Increase in operating cash flow resulting from the reduction of inventories.
3. Increase in operating cash flow coming from increases in current liabilities.
4. ….

Company and Economic Conditions

- It's important to separate operating performance and profitability from those of investing and financing activities.
- While both successful and unsuccessful companies can experience problems with cash flows from operations, the reasons are markedly different.
- We must interpret changes in operating working capital items in light of economic circumstances.
- Inflationary conditions add to the financial burdens of companies and challenges for analysis.

Cash Flow as Validators

SCF provides us with important clues on:

- ✓Feasibility of financing capital expenditures.
- ✓Cash sources in financing expansion.
- ✓Dependence on external financing.
- ✓Future dividend policies.
- ✓Ability in meeting debt service requirements.
- ✓Financial flexibility to unanticipated needs/opportunities.
- ✓Financial practices of management.
- ✓Quality of earnings.

Measuring Cash Adequacy: Free Cash Flow

- Cash available from operations after:
  - Paying for planned investments in long-term assets
  - Paying dividends to shareholders

$$\text{Free cash flow} = \text{Net cash provided by operating activities} - \text{Cash payments planned for investments in long-term assets} - \text{Cash dividends}$$

- Used to manage operations
- If investment opportunity is available, cash is free to invest

Another definition that is widely used:

FCF = NOPAT - Change in NOA

(net operating profits after tax (NOPAT) less the increase in net operating assets (NOA))

EBITDA as Cash Flow Measure

EBITDA (earnings before interest, taxes, depreciation, and amortization)

- The using up of long-term depreciable assets is a real expense that must not be ignored.
- The add-back of depreciation expense does not generate cash. It merely zeros out the noncash expense from net income as discussed above. Cash is provided by operating and financing activities, not by depreciation.
- Net income plus depreciation ignores changes in working capital accounts that comprise the remainder of net cash flows from operating activities. Yet changes in working capital accounts often comprise a large portion of cash flows from operating activities.

Specialized Cash Flow Ratios

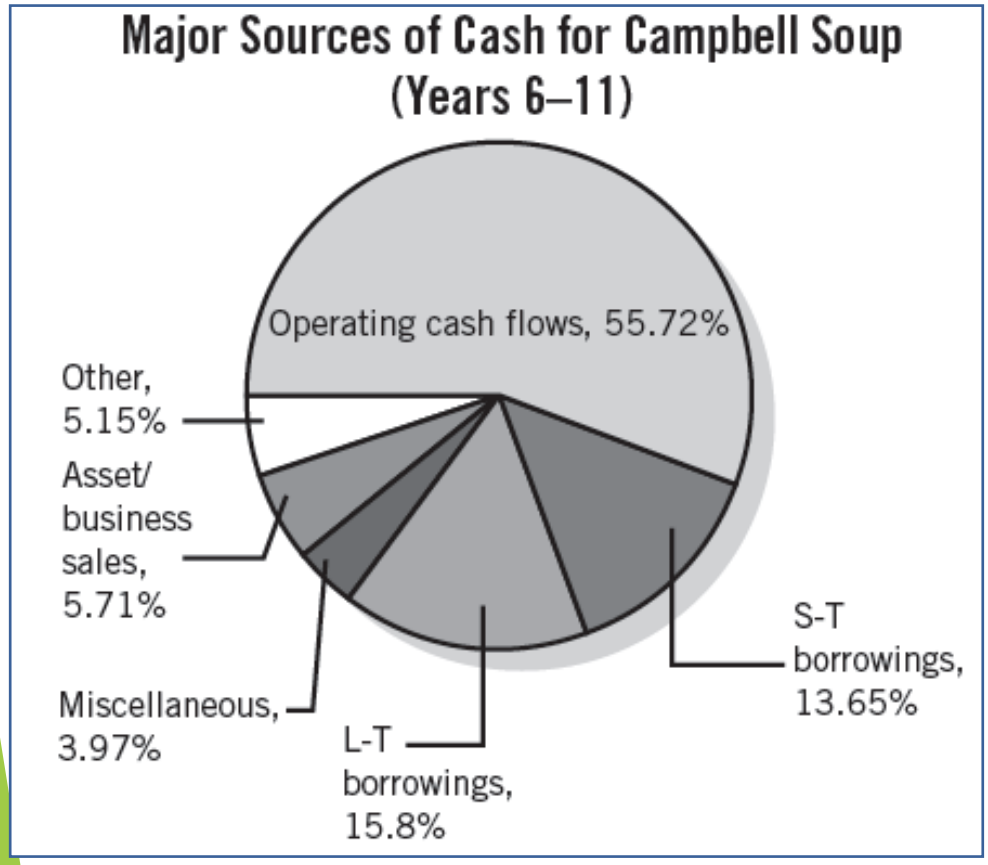
Cash Flow Adequacy Ratio – Measure of a company's ability to generate sufficient cash from operations to cover capital expenditures, investments in inventories, and cash dividends:

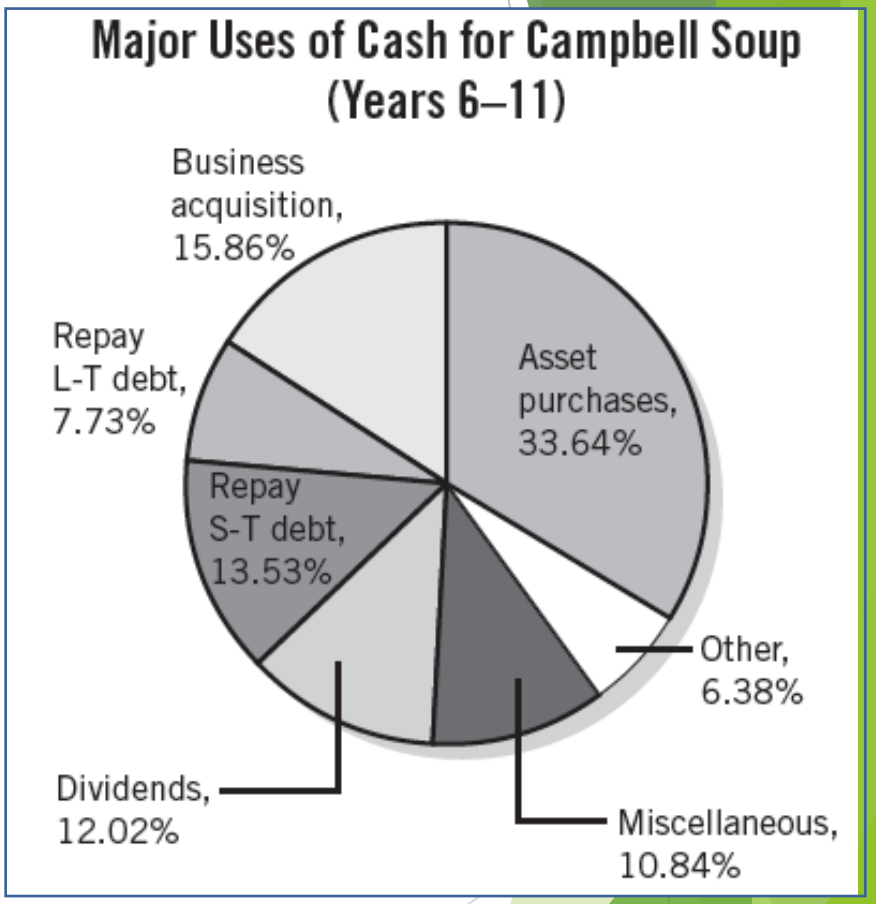
$$\frac{\text{Three-year sum of cash from operations}}{\text{Three-year sum of expenditures, inventory additions, and cash dividends}}$$

Cash Reinvestment Ratio – Measure of the percentage of investment in assets representing operating cash retained and reinvested in the company for both replacing assets and growth in operations:

$$\frac{\text{Operating cash flow} - \text{Dividends}}{\text{Gross plant} + \text{Investment} + \text{Other assets} + \text{Working capital}}$$

Case Analysis of Cash Flows of Campbell Soup





Guidelines

Question	Financial Statement	What to Look For
• Where is most of the company's cash coming from?	Statement of cash flows	Operating activities → Good sign Investing activities → Bad sign Financing activities → Okay sign
• Do high sales and profits translate into more cash?	Statement of cash flows	Usually, but cash flows from *operating* activities must be the main source of cash for long-term success.
• If sales and profits are low, how is the company generating cash?	Statement of cash flows	If *investing* activities are generating the cash, the business may be in trouble because it is selling off its long-term assets. If *financing* activities are generating the cash, that cannot go on forever. Sooner or later, investors will demand cash flow from operating activities.
• Is the cash balance large enough to provide for expansion?	Balance sheet	The cash balance should be growing over time. If not, the company may be in trouble.
• Can the business pay its debts?	Income statement	Does the trend indicate increasing net income?
	Statement of cash flows	Are cash flows from operating activities the main source of cash?
	Balance sheet	Are the current ratio and debt ratio adequate?