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SCHOOL OF BUSINESS ADMINISTRATION IN KARVINA

STATEMENT OF CASH FLOWS

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OUTLINE OF THE LECTURE

1. Statement of cash flows
2. Operating activities
3. The indirect method
4. Investing and financing activities
5. Free cash flow

STATEMENT OF CASH FLOWS (1)

- three major financial statements are required for external reports - an income statement, a balance sheet, and a statement of cash flows
- the statement of cash flows highlights the major activities that impact cash flows and, hence, affect the overall cash balance
- managers focus on cash for a very good reason - without sufficient cash at the right time, a company may miss golden investment opportunities or may even go bankrupt
- the statement of cash flows answers question that cannot be easily answered by looking at the income statement and balance sheet

STATEMENT OF CASH FLOWS (2)

- the statement of cash flows is a valuable analytical tool for managers as well as for investors and creditors, although managers tend to be more concerned with forecasted statements of cash flows that are prepared as part of the budgeting process

- the statement of cash flows can be used to answer crucial question such as:
  - Is the company generating sufficient positive cash flows from its ongoing operations to remain viable?
  - Will the company be able to repay its debts?
  - Will the company be able to pay its usual dividend?
  - Why do net income and net cash flow differ?
  - To what extent will the company have to borrow money in order to make needed investments?

STATEMENT OF CASH FLOWS (3)

- managers prepare the statement of cash flows by applying a fundamental principle of double-entry bookkeeping - the change in the cash balance must equal the changes in all other balance sheet accounts besides cash; two basic equations that apply to all asset, contra-asset, liability, and stockholders equity accounts; these equations will help you compute various cash inflows and outflows that are reported in the statement of cash flows

Basic Equation for Asset Accounts:

Beginning balance + Debits – Credits = Ending balance

Basic Equation for Contra-Asset, Liability, and Stockholder s Equity Accounts:

Beginning balance – Debits + Credits = Ending balance

STATEMENT OF CASH FLOWS (4)

- the statement of cash flows summarizes all of a company s cash inflows and outflows during a period, thereby explaining the change in its cash balance

- in a statement of cash flows, cash is broadly defined to include both cash and cash equivalents

- cash equivalents consist of short-term, highly liquid investments such as Treasury bill, commercial paper, and money market funds that are made solely for the purpose of generating a return on temporarily idle funds

- most companies invest their excess cash reserves in these types of interest-bearing assets that can be easily converted into cash; because such assets are equivalent to cash, they are included with cash in a statement of cash flows

ORGANIZING THE STATEMENT OF CASH FLOWS (1)

- to make it easier to compare data from different companies, U.S. generally accepted accounting principles (GAAP) and International Financial Reporting Standards (IFRS) require companies to follow prescribed rules when preparing the statement of cash flows

- one of these rules requires organizing the statement into three sections that report cash flows resulting from **operating activities**, **investing activities**, and **financing activities**

ORGANIZING THE STATEMENT OF CASH FLOWS (2)

- **operating activities** generate cash inflows and outflows related to revenue and expense transactions that affect net income
- **investing activities** generate cash inflows and outflows related to acquiring or disposing of noncurrent assets such as property, plant, and equipment, long-term investments, and loans to another entity
- **financial activities** generate cash inflows and outflows related to borrowing from and repaying principal to creditors and completing transactions with the company s owners such as selling or repurchasing shares of common stock and paying dividends

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OPERATING ACTIVITIES: DIRECT AND INDIRECT METHOD

- U.S. GAAP and IFRS allow companies to compute the net amount of cash inflows and outflows resulting from operating activities, which is known formally as the **net cash provided by operating activities**, using either **direct** or **indirect method**

- both of these methods have the same purpose, which is to translate accrual-based net income to a cash basis

OPERATING ACTIVITIES: DIRECT METHOD

- under the **direct method**, the income statement is reconstructed on a cash basis from top to bottom
  - for example, cash collected from customers is listed instead of revenue, and payments to suppliers is listed instead of cost of goods sold
- in essence, cash receipts are counted as revenues and cash disbursements pertaining to operating activities are counted as expenses
- the difference between the cash receipts and cash disbursements is the net cash provided by operating activities

OPERATING ACTIVITIES: INDIRECT METHOD

- under the **indirect method**, net income is adjusted to a cash basis
- that is, rather than directly computing cash sales, cash expenses, and so forth, these amounts are derived indirectly by removing from net income any items that do not affect cash flows
- the indirect method has an advantage over the direct method because it shows the reasons for any differences between net income and net cash provided by operating activities

THE INDIRECT METHOD: A THREE-STEP PROCESS (1)

The indirect method adjusts net income to net cash provided by operating activities using a three-step process.

- the first step is to add depreciation charges to net income
- depreciation charges are the credits to the Accumulated Depreciation account during the period - the sum total of the entries that have increased Accumulated Depreciation
- to compute the credits to the accumulated depreciation account we use the equation for contra-assets

Basic Equation for Contra-Asset Accounts:

Beginning balance – Debits + Credits = Ending balance

THE INDIRECT METHOD: A THREE-STEP PROCESS (2)

- the second step is to analyze net changes in noncash balance sheet accounts that impact net income
- the third step in computing the net cash provided by operating activities is to adjust for gains/losses included in the income statement
- under U.S. GAA/ and IFRS rules, the cash proceeds from the sale of noncurrent assets must be included in the investing activities section of the statement of cash flows
- to comply with these rules, the gains and losses pertaining to the sale of noncurrent assets must be removed from net income as reported in the operating activities section of the statement of cash flows

INVESTING AND FINANCIN ACTIVITIES: GROSS CASH FLOWS (1)

- U.S. GAAP and IFRS require that the investing and financing sections of the statement of cash flows disclose gross cash flows

- to compute gross cash flows for the investing and financing activities sections of the statement of cash flows, we will begin by calculating the changes in the balance of each applicable balance sheet account

- as with the current assets, when a noncurrent asset account balance (including Property, Plant, and Equipment; Long-Term Investments; and Loans to Other Entities) increases, it signals the need to subtract cash outflows in the investing activities section of the statement of cash flows

INVESTING AND FINANCIN ACTIVITIES: GROSS CASH FLOWS (2)

- if the balance in a noncurrent asset account decreases during the period, then it signals the need to add cash inflows
- the liability and equity accounts (Bonds Payable and Common Stock) are handled in the opposite fashion
- if a liability or equity account balance increases, then it signals a need to add cash inflows to the financing activities section of the statement of cash flows
- if a liability or equity account balance decreases, then it signals a need to subtract cash outflows

INVESTING AND FINANCIN ACTIVITIES: GROSS CASH FLOWS (3)

Property, Plant and Equipment

- when a company purchases property, plant, and equipment it debits the Property, Plant, and Equipment account for the amount of the purchase
- when it sells or disposes of these kinds of assets, it credits the Property, Plant, and Equipment account for the original cost of the asset
- to compute the cash outflows related to Property, Plant, and Equipment we use the basic equation for assets

Basic Equation for Asset Accounts

Beginning balance + Debits – Credits = Ending balance

INVESTING AND FINANCIN ACTIVITIES: GROSS CASH FLOWS (4)

Retained Earnings

- when a company earns net income it credits the Retained Earnings account and when it pays a dividend it debits the Retained Earnings account
- to compute the amount of a cash dividend payment we use the basic equation for stockholders equity accounts

Basic Equation for Stockholders Equity Accounts

Beginning balance – Debits + Credits = Ending balance

FREE CASH FLOW

- **free cash flow** is a measure used by managers to look at the relationship among three numbers from the statement of cash flows - net cash provided by operating activities, additions to property, plant, and equipment (also called capital expenditures), and dividends
- **free cash flow** measures a company s ability to fund its capital expenditures for property, plant, and equipment and its dividends from its net cash provided by operating activities
- the equation for computing free cash flow is as follows:

Free cash flow = Net cash provided by operating activities – Capital expenditures - Dividends

STATEMENT OF CASH FLOWS

	Cash Inflow	Cash Outflow
Operating activities		
Collecting cash from customers	√	
Paying suppliers for inventory purchases		√
Paying bills to insurers, utility providers, etc		√
Paying wages and salaries to employees		√
Paying taxes to governmental bodies		√
Paying interest to lenders		√
Investing activities		
Buying property, plant, and equipment		√
Selling property, plant, and equipment	√	
Buying stocks and bonds as a long-term investment		√
Selling stocks and bonds held for long-term investment	√	
Lending money to another entity		√
Collecting the principal on a loan to another entity	√	
Financing activities		
Borrowing money from a creditor	√	
Repaying the principal amount of a debt		√
Collecting cash from the sale of common stock	√	
Paying cash to repurchase your own common stock		√
Paying a dividend to stockholders		√

STATEMENT OF CASH FLOWS

	Increase in Account Balance	Decrease in Account Balance
Current Assets		
Accounts receivable	Subtract	Add
Inventory	Subtract	Add
Prepaid expenses	Subtract	Add
Current Liabilities		
Accounts payable	Add	Subtract
Accrued liabilities	Add	Subtract
Income taxes payable	Add	Subtract

STATEMENT OF CASH FLOWS

	Increase in Account Balance	Decrease in Account Balance
Noncurrent Assets (Investing activities)		
Property, plant, and equipment	Subtract	Add
Long-term investments	Subtract	Add
Loans to other entities	Subtract	Add
Liabilities and Stockholders' Equity (Financing activities)		
Bonds payable	Add	Subtract
Common stock	Add	Subtract
Retained earnings	*	*

*Requires further analysis to quantify cash dividends paid.

Accumulated Depreciation

		Beg. Bal.	$300
Sale of equipment	70		270
		End. Bal.	$500

STATEMENT OF CASH FLOWS

Property, Plant, and Equipment

Beg. Bal.	$1,000		
Additions	900	Sale of equipment	100
End. Bal.	$1,800		

STATEMENT OF CASH FLOWS

Retained Earnings

		Beg. Bal.	$2,000
Dividend	200	Net income	1,200
		End. Bal.	$3,000