CASH FLOW ANALYSIS

- Sold goods with cash 8000
- cash Dr 8000
- sales cr 8000

- sold goods on credit
- Debtor dr 8000
- Sales 8000

- What happened to cash…??
- Any effect on profit and loss a/c?
- (sales amount increased). What does it mean?

- Purchased goods with cash 8000
- Goods purchase Dr 8000
- Cash cr 8000

- Purchased goods on credit
- Goods purchase dr 8000
- Creditor a/c 8000

- What happened to cash…??
- Any effect on profit and loss a/c?

- Inventory in the beginning was 100
- Inventory in the end was 150
- What does this mean?
- What increased and what decreased (assume all was cash transaction).

- What happens if inventory purchase was done on credit.
- Goods(inventory) dr 50
- Creditor cr 50
- Beginning inventory 100
- Ending inventory 150
- (cash flow decrease 50)
- Beginning Creditor 0
- Ending creditor 50
- (creditor increased by 50).. Cash flow increase by 50.
- Net cash flow is zero.

CASH FLOW AND PROFIT EFFECT

R	**Effect**	**On**
	Profit	Cash
Repayment of loan		
Sale on credit		
Buy asset with cash		
Receive cash payment from debtor		
Depreciation of asset		
Buy stock with cash		

R	Effect	On
	Profit	Cash
Repayment of loan	None	decrease
Sale on credit	Increase	None
Buy asset with cash	None	Decrease
Receive cash payment from debtor	None	Increase
Depreciation of asset	Decrease	None
Buy stock with cash	None	decrease

IDENTIFY THE GROUPS OF BUSINESS ACTIVITIES FOR FINANCIAL REPORTING

- **Operating activities** are transactions that involve the firm's everyday lines of production and trade. Sales and their related costs are typically a firm's primary operating activities. Other examples of operating activities include paying taxes and buying short-term assets and taking on short-term liabilities to support the firm's ordinary business.
- **Investing activities** are the firm's transactions to acquire or dispose of long-term assets. Purchases and sales of property, plant and equipment are investing activities, as are purchases and sales of securities issued by others.
- **Financing activities** are transactions through which the firm raises or repays capital. These include issuing or repaying debt, issuing or repurchasing stock, and paying dividends to shareholders.

CASH FLOW FROM OPERATING ACTIVITIES (CFO)

- sometimes referred to as "cash flow from operations" or "operating cash flow," consists of the inflows and outflows of cash resulting from transactions that affect a firm's net income. It includes most of the operating expensed (SG&A), prepayments and outstanding payments, and changes in the balance of those items.

CASH FLOW FROM INVESTING ACTIVITIES (CFI)

- consists of the inflows and outflows of cash resulting from the acquisition or disposal of long-term assets and certain investments. It includes cash spent on buying new assets, and cash received on selling old assets.

CASH FLOW FROM FINANCING ACTIVITIES (CFF)

- consists of the inflows and outflows of cash resulting from transactions affecting a firm's capital structure. It includes items like dividends paid. Increase in capital raised.

Operating Activities

Inflows	*Outflows*
Cash collected from customers	Cash paid to employees and suppliers
Interest and dividends received	Cash paid for other expenses
Sale proceeds from trading securities	Acquisition of trading securities
	Interest paid
	Taxes paid

Investing Activities

Inflows	*Outflows*
Sale proceeds from fixed assets	Acquisition of fixed assets
Sale proceeds from debt & equity investments	Acquisition of debt & equity investments
Principal received from loans made to others	Loans made to others

Financing Activities

Inflows	*Outflows*
Principal amounts of debt issued	Principal paid on debt
Proceeds from issuing stock	Payments to reacquire stock
	Dividends paid to shareholders

DIRECT METHOD

- Under the **direct method**, each line item of the accrual-based income statement is converted into cash receipts or cash payments.
- The direct method begins with cash inflows from customers and then deducts cash outflows for purchases, operating expenses, interest, and taxes.

- The **direct method** presents operating cash flow by taking each item from the income statement and converting it to its cash equivalent by adding or subtracting the changes in the associated balance sheet accounts.
- Cash collected from customers is typically the main component of CFO. Cash collections are calculated by adjusting sales revenues for changes in accounts receivable and changes in unearned (deferred) revenue.
- Cash used in the production of goods and services (cash inputs) is calculated by adjusting cost of goods sold (COGS) for any change in inventory and any change in accounts payable.
- Cash operating expenses are calculated by adjusting selling, general, and administrative (SG&A) expenses for the changes in any related accrued liabilities and/or prepaid expenses.
- Cash paid for interest is calculated by adjusting interest expense for any change in interest payable.
- Cash paid for taxes is calculated by adjusting income tax expense for any change in taxes payable and/or deferred taxes.

- A firm has net sales of $3,500,
- Net profit of $1,000,
- depreciation expense of $500,
- cost of goods sold (COGS) of $1,500,
- and cash taxes of $500.
- Also, inventory decreased by $100,
- and accounts receivable increased by $300.
- What is the firm's cash flow from operations?
- **A)** $1,200. **B)** $1,300. **C)** $1,800.

- *Direct Method*
- Net Sales +3,500
- Change in Accts. Rec. (300) a use
- COGS (1,500)
- Cash Taxes (500)
- Change in Inv. <u>+100 a source</u>
- CFO **1,300**

- Using the **indirect method**, operating cash flow is calculated in four steps:
- Begin with net income.
- Subtract gains or add losses that resulted from financing or investing cash flows (such as gains from sale of land).
- Add back all noncash charges to income (such as depreciation and amortization) and subtract all noncash components of revenue.
- Add or subtract changes to balance sheet operating accounts as follows:
- Increases in the operating asset accounts (uses of cash) are subtracted, while decreases (sources of cash) are added. Increases in the operating liability accounts (sources of cash) are added, while decreases (uses of cash) are subtracted.

INDIRECT METHOD

- Under the **indirect method**, net income is converted to operating cash flow by making adjustments for transactions that affect net income but are not cash transactions. These adjustments include eliminating noncash expenses (e.g., depreciation and amortization), nonoperating items (e.g., gains and losses), and changes in balance sheet accounts resulting from accrual accounting events.
- Notice that under the indirect method, the starting point is net income, the "bottom line" of the income statement.

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- Also, inventory decreased by $100,
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- What is the firm's cash flow from operations?
- **A)** $1,200. **B)** $1,300. **C)** $1,800.

ANSWER 1B

- *Indirect Method*
- Net profit +1,000
- Depreciation +500
- Change in Inv. + 100 a source
- Change in Accts. Rec. (300) a use
- CFO **1,300**

FOR THE YEAR ENDED DECEMBER 31ST, WAS AS FOLLOWS:

- Sales $3,000,000
- Purchases 1,800,000
- Inventory at Beginning 500,000
- Inventory at Ending 800,000
- Accounts Receivable at Beginning 300,000
- Accounts Receivable at Ending 200,000
- Other Operating Expenses Paid 400,000
- Based upon this data and using the direct method, what was Jefferson Corp.'s cash flow from operations (CFO)
- **A)** $900,000. **B)** $1,200,000. **C)** $800,000.

JEFFERSON

- Cost of goods sold was (beginning inventory plus purchases less ending inventory) ($500,000 + $1,800,000 − $800,000 =) $1,500,000. Cash flow from operations under the direct method is calculated by:
- Cash collections: $3,000,000
- Decrease in account receivable ($300,000 − $200,000)= 100,000
- net cash inflow is cash collection($3,000,000) + reduction of receivable ($300,000 − $200,000)) = 3,100,000.
- Less direct cash expenses: $1,800,000 (cost of goods sold plus increase in inventory) of ($1,500,000 + $300,000)
- Less other cash outflows of $400,000
- CFO = ($3,100,000 – 1,800,000 – 400,000) = $900,000

DETERMINE THE CASH FLOW FROM **FINANCING** GIVEN THE FOLLOWING TABLE.

- *Item* *Amount*
- Cash payment of dividends $30
- Sale of equipment $10
- Net income $25
- Purchase of land $15
- Increase in accounts payable $20
- Sale of preferred stock $25
- Increase in deferred taxes $5

- **A)** $15.
- **B)** $20.
- **C)** -$5.

ANSWER

- CFF = 25(Sale of Stock) − 30(Div Paid) = -$5
- All the rest are not financing activities. They are mostly operating activities

INDIRECT METHOD CFO

- Pacific, Inc.'s financial information includes the following, with "change" referring to the difference from the prior year (in $ millions):
- Net Income 27
- Change in Accounts Receivable +4
- Change in Accounts Payable +1
- Change in Inventory +5
- Change in Retained Earnings +21
- Dividends declared and paid +4

- Using the indirect method, cash flow from operations is net income less increase in accounts receivable, plus increase in accounts payable, less increase in inventory, plus loss on sale of equipment, less gain on sale of real estate.
- 27 – 4 + 1 – 5 = $19 million.
- Note: retained earnings and dividends are financing activities and not operating activities.

MARK INDUSTRIES' INCOME STATEMENT AND RELATED NOTES FOR THE YEAR ENDED DECEMBER 31 ARE AS FOLLOWS (IN $)

- Sales 42,000,000
- Cost of Goods Sold (32,000,000)
- Wages Expense (1,500,000)
- Depreciation Expense (2,500,000)
- Interest Expense (1,000,000)
- Income Tax Expense (2,000,000)
- Net Income 3,000,000
- During the year:
- Wages Payable increased $100,000.
- Accumulated Depreciation increased $2,500,000.
- Interest Payable decreased $200,000.
- Income Taxes Payable increased $500,000.
- Dividends of $100,000 were declared and paid.
- Mark Industries' cash flow from operations (CFO) for the year ended December 31 was:
- A) $5,900,000.
- B) $4,800,000.
- C) $4,400,000.

ANS

- Using the indirect method, net income is increased by depreciation expense, the increase in wages payable and the increase in income taxes payable, and then is reduced by the decrease in interest payable. Dividends paid are financing activities. $3,000,000 + $2,500,000 + $100,000 + $500,000 - $200,000 = $5,900,000.

COGS = begin inventory + purchase – closing inventory

or,

- Closing inventory =
- Beginning inventory + purchases
- – Cost of goods sold

- Ending cash balance =
- Beginning cash balance
- + Operating cash flow
- + Investing cash flow
- + Financing cash flow

- Operating cash flow was 20000
- Investing cash flow was -6000
- Financing cash flow was 8000
- Beginning cash balance was 5000

- What is the ending cash balance?