

## Reading 27: Understanding Cash Flow Statements

### § Relevance of Cash Flow

- The primary purpose of the statement of cash flows (SCF) is to provide:
  - Info about a firm's cash receipts & cash payments during an accounting period
  - Info about a firm's operating, investing, and financing activities
- Cash Flow Info & Decision Making: "Cash is King"
- Value = PV (cash flows)
- Reasons why cash flow can provide more info:
  - Going Concern Value
    - ◆ receivables: collectable? (應收帳款收得到嗎?)
    - ◆ inventories: overvalued? (老舊存貨還有多少價值?)
  - Choice of Accounting Policy
    - ◆ cash flow is less likely to be affected
  - Liquidity
- Important information for investment decision making presented in the statement of cash flows (SCF) includes whether:
  - Regular operations generate enough cash to sustain the business.
  - Enough cash is generated to pay off existing debts as they mature.
  - The firm is likely to need additional financing.
  - Unexpected obligations can be met.
  - The firm can take advantage of new business opportunities as they arise.

學習成果 → identify the principal purposes and uses of the statement of cash flows.

### a. Organization of Statement of Cash Flows

**Statement of Cash Flow** for the period 1/1 to 12/31 20XX

Cash flow from operations (CFO)	+/-	x x
Cash flow from investing (CFI)	+/-	y y
Cash flow from financing (CFF)	+/-	z z
<hr/>		
Equals change in cash account	=	$\Delta$ cash
+ Beginning of period cash		+Beginning cash
<hr/>		
= Ending cash balance		= <u>Ending cash</u>

➤ Types of Cash Flows

1. Operating cash flows (CFO) ← income statement items, current assets & liabilities
  - Related to normal operating activities
  - Working Capital (current assets & current liabilities)
  - Cash Collection from customers & Cash payment to suppliers, for salaries, and for interest & income taxes
  - **Interest & dividend revenue & interest expense (but dividends paid are considered financing activities)**
  
2. Investing cash flows (CFI) ← long-term assets
  - Acquisition of non-current assets & retirement of these assets
    - ⊕ Sale of property plant & equipment & long-term investments
    - ⊕ Purchase of property plant & equipment & long-term investments
    - ⊕ Cash flows from investments in:
      - JV & affiliates, long-term investment in securities
  
3. Financing cash flows (CFF) ← long-term liabilities & equity
  - Cash received from issuing or Cash paid out retiring long-term debt, stock, or paying dividends.
  - CFF includes dividends paid to stockholders but not interest (CFO) paid to creditors. (for analytical purposes, might re-classify interest payment as CFF)

➤ Types of Cash Flows

<b>Operating Activities</b>	
Inflows	Outflows
Cash collected from customers	Cash paid to employees and suppliers
<b>Interest and dividends</b> received	Cash paid for other expenses
Sales proceeds from trading securities	Acquisition of trading securities
	<b>Interest paid</b>
	<b>Taxes paid</b>
<b>Investing Activities</b>	
Inflows	Outflows
Sale proceed from fixed assets	Acquisition of fixed assets
Sale proceeds from debt& equity investment	Acquisition of debt & equity investment
<u>Principal received from loans made to others</u>	<u>Loans make to others</u>
<b>Financing Activities</b>	
Inflows	Outflows
Principal amounts of debt issued	Principal paid on debt
Proceeds from issuing stock	Payments to reacquire stock
	<b>Dividend paid</b> to shareholders

**Example**

		CFO/CFI/CFE	Inflow (+) or outflow (-)
Sale of land	\$20,000		
Collections from customers	70,000		
Payment of <b>interest</b>	1,000		
Net Income	62,000		
Cash payment of <b>dividends</b>	6,000		
Cash received from issue of long-term debt	40,000		
Payment of wages	10,000		
Purchase of equipment	90,000		
Payment to suppliers	5,000		

## Operating cash flow:

Collection from customers	\$70,000
Less: payment to suppliers	5,000
Less: payment of wages	10,000
Less: payment of interest	<u>1,000</u>
Equals: operating cash flow	\$54,000

## Investing cash flow:

Sale of land	\$20,000
Less: purchase of equipment	<u>90,000</u>
Equals: investing cash flow	(\$70,000)

## Financing cash flow:

Cash received from issue of long-term debt	\$40,000
Less: cash payment of dividends	<u>6,000</u>
Equals: financing cash flow	\$34,000

## 樣本題 (1999~2003)

In the Statement of Cash Flows, which of the following best describes whether interest received and interest paid, respectively, are classified as operating or investing cash flows?

- |    | <u>Interest Received</u> | <u>Interest Paid</u> |
|----|--------------------------|----------------------|
| A. | Operating                | Operating            |
| B. | Investing                | Investing            |
| C. | Investing                | Operating            |

解答: 利息收入及支出均為營業活動之現金流量(CFO) → Ans = A

### **b. Noncash investing and financing activities**

- Noncash investing and financing activities do not flow thru SCF because they do require the use of cash. Yet, they should be disclosed in either the footnotes or on a separate schedule as investing or financing events that did not affect cash.

樣本題 (1999)
Which of the following is reported as a noncash financing transaction on a firm's statement of cash flows?
A. Purchase of treasury stock. B. Sale of preferred stock. C. Conversion of bonds payable into common stock.
解答: 將債券轉換為股權, 並無實際的現金進出 → Ans = C

學習成果
LOS 8.27.a. compare cash flows from operating, investing, and financing activities, and classify cash flow items as relating to one of these three categories given a description of the items.
LOS 8.27.b. describe how non-cash investing and financing activities are reported.

### **c. Differences Relating to Cash Flow Classification**

	IFRS	US GAAP
Interest received	CFO <i>or</i> CFI	CFO
Dividends received	CFO <i>or</i> CFI	CFO
Interest paid	CFO <i>or</i> CFF	CFO
Dividends paid to shareholders	CFF <i>or</i> CFO	CFF
Income taxes paid	CFO Unless the expense is associated with an investing or financing transaction	CFO

學習成果 → LOS 8.27.c. contrast cash flow statements prepared under International Financial Reporting Standards(IFRS) and U.S. generally accepted accounting principles(U.S. GAAP).
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## d. e. f. Analyzing Cash Flows from Operations

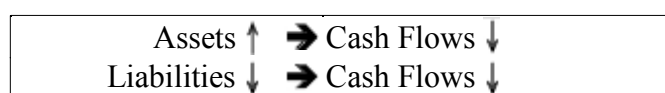
### 1. Indirect method: Net Income → CFO

#### – Working capital accounts

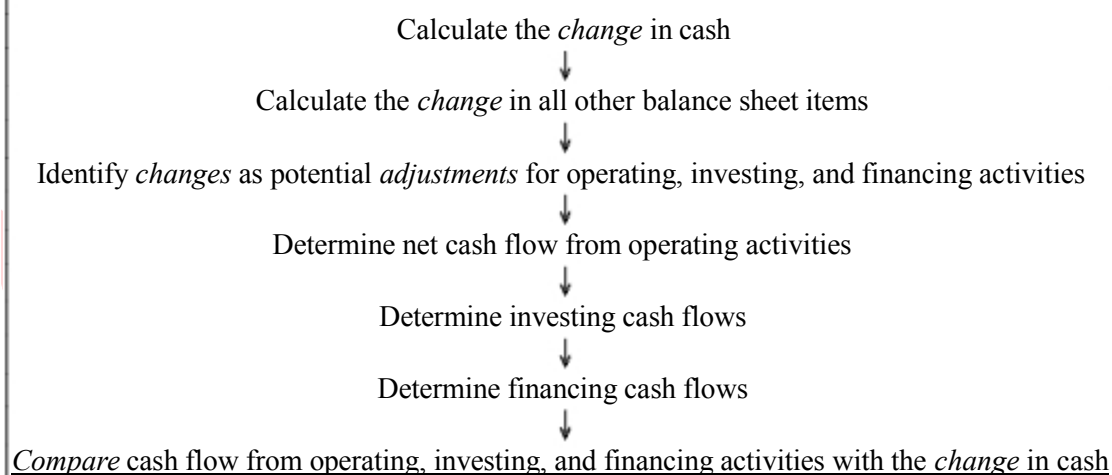
- accounts receivable
- inventory
- accounts payable

#### – non-cash items

- depreciation
- deferred tax
- interest amortization
- accrual items, such as wages payable



### Constructing the Statement of Cash Flows Using the Indirect Method



### 2. Direct method: Sales → CFO

### 3. Interpretation of Cash Flows

- a) CFO tells an analyst how much cash is being generated by the sales activity of the firm
- b) liquidity & solvency
- c) trend analysis
- d) inter-relationships between cash flow components

**Example****Balance Sheet**

<b>Assets:</b>	Ending balances	Beginning balances	<i>Net change</i>
Cash	\$292	\$100	<b>\$192</b>
Accounts receivable	280	200	80
Inventory	700	800	-100
Property, plant & equipment	1,020	1,000	20
Accumulated depreciation	-340	-300	-40
Investments	12	10	2
<b>Total assets</b>	<b>\$1,964</b>	<b>\$1,810</b>	<b>\$154</b>
<b>Liabilities:</b>	Ending balances	Beginning balances	<i>Net change</i>
Account payable	\$470	\$450	\$20
Mortgage	550	600	-50
Bank note	100	0	100
Deferred taxes	90	80	10
<b>Equity</b>			
Common stock	410	400	10
Retained earnings	344	280	64
<b>Total liabilities &amp; equity</b>	<b>\$1,964</b>	<b>\$1,810</b>	<b>\$154</b>

**Income Statement**

Sales	\$1,600
Cost of goods sold	-1,350
Gross Profit	\$250
Depreciation expense	100
Interest expense	47
Equity investment income	2
Gain on sale of equipment	10
Pretax income	\$115
Income taxes	
Current	35
Deferred	10
Net income	<u>\$70</u>

Additional Information:

- Dividends of \$6 were paid to shareholders.
- One new common share was sold at par value. Par is \$10 per share.
- Fixed assets were sold for \$30. Original cost of these assets was \$80, and \$60 of accumulated depreciation has been charged to their original cost.
- New fixed assets were purchased for \$100. To pay for this acquisition, a 10-year \$100 note was issued to an insurance company.
- The firm recognized a \$2 gain from a subsidiary using the equity method. No cash was received.

**Cash flow from operations (Direct method):**

Cash inflows:		
Sales	\$1,600	
Increase in A/R (use of cash)	<u>-80</u>	
Cash collections:		\$1,520
Cash inputs:		
Cost of good sold	-\$1,350	
Decrease in inventory (source of cash)	100	
Increase in A/P (source of cash)	<u>20</u>	
Cash inputs:		-\$1,230
Other cash outflows:		
Current income taxes	-\$35	
Interest paid	<u>-47</u>	
Other cash outflows:		<u>-\$82</u>
<b>NET Cash flow from operations:</b>		<b><u>\$208</u></b>

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**Cash flow from operations (Indirect method):**

Net Income		\$70
Add (subtract) adjustments:		
Depreciation	\$100	
Deferred taxes	10	
Gain on sale of equipment	-10	
Equity investment income	-2	
Accounts receivable (use of cash)	<u>-80</u>	
Inventory (source of cash)	100	
Accounts payable (source of cash)	<u>20</u>	
		<u>138</u>
<b>NET Cash flow from operations:</b>		<b>\$208</b>
<b>Cash flow from investing:</b>		
Purchase of fixed assets (use of cash)	-\$100	
Sale of equipment (source of cash)	<u>30</u>	
<b>NET Cash flow from investing:</b>		<b>-\$70</b>
<b>Cash flow from financing:</b>		
10-year note (source of cash)	\$100	
Sale of common stock (source of cash)	10	
Dividends paid (use of cash)	-6	
Repayment of mortgage note (use of cash)	<u>-50</u>	
<b>NET Cash flow from financing:</b>		<b><u>\$54</u></b>
<b>NET CASH FLOW:</b>		<b><u>\$192</u></b>