Chapter 6 – Statement of Cash Flows

The Statement of Cash Flows describes the cash inflows and outflows for the firm based upon three categories of activities.

Operating Activities: Generally include transactions in the "normal" operations of the firm.

Investing Activities: Cash flows resulting from purchases and sales of property, plant and equipment, or securities.

Financing Activities: Cash flows resulting from transactions with lenders and owners.

- Funds received from lenders
- Payments to lenders (not interest)
- Contributions of capital from owners (sales of stock)
- Dividend payments

The Direct Method

The direct method lists the individual sources and uses of cash. Typical line items include cash received from customers, cash paid to suppliers, cash paid for wages, etc.

Consider E3-18
Popovich Co. had the following transactions during June.

a. $20,000 of supplies were purchased with cash
b. $6,000 of supplies were consumed.
c. $60,000 of merchandise was sold. 40% of the sales were on credit. The merchandise cost Popovich $28,000.
d. $200,000 was borrowed from a bank
e. Interest of $2,000 was incurred and paid
f. $100,000 of equipment was purchased by issuing a note payable.
g. $4,000 of equipment value was consumed.

We could construct the following statement of cash flow:

Cash Flow from Operations:	
Cash received from customers	$36,000
Cash paid for supplies	(20,000)
Cash paid for interest	(2,000)
Cash provided by operations	14,000
Cash flow for investments	0
Cash flow from financing activities:	
New bank borrowings	$200,000
Net cash flow	$214,000

The problem is that these items do not come from the general ledger. There is no account for “cash received from customers”, or “cash paid for supplies”. Instead, you would have to infer the amount from the firm’s accounting system.

For example, assume the following data from the firm's accrual based accounting system (all sales are credit sales);

Accounts Receivable 1/1/00	$400,000
Accounts Receivable 12/31/00	$450,000
2000 Sales	$3,000,000

How much cash did the firm receive from customers?

First, consider the entries used to record credit sales and the collection of cash.
Dr. Accounts Receivable
Cr. Sales

Dr. Cash
Cr. Accounts Receivable

Debits to accounts receivable result from sales transactions, and the credits result from cash collections.

Therefore:

Beginning Accounts Receivable
+ Credit Sales
- Cash Received
= Ending Accounts Receivable

OR

Cash Received = Beg. AR + Credit Sales – Ending AR.

Define ΔAR = Ending AR – Beginning AR, where Δ means the change in the account balance, then:

Cash Collections = Credit Sales – ΔAR.

In our example,
Cash collections = $3,000,000 - $50,000 = $2,950,000.

There was a total of $3,000,000 in sales, but not all of it was collected in cash. Because there was an increase in AR, the cash received was less than total sales.

We can use a similar approach to go from cost of goods sold to cash payments. The balance sheet account affected by cost of goods sold is inventory. Because inventory is usually purchased on account, we also need to consider accounts payable.

Beginning Inventory	Beginning Accounts Payable
+ Purchases	+ Purchases
- Cost of Goods Sold	**- Payments**
= Ending Inventory	= Ending Accounts Payable

Δ Inventory = Ending Inventory – Beginning Inventory
Δ Accounts Payable = Ending AP – Beginning AP

COGS = Purchases – Δ Inventory
Payments = Purchases – ΔAP
Purchases = ΔAP + Payments

COGS = ΔAP + Payments – Δ inventory
Payments = COGS + Δ inventory – ΔAP

Direct Method Example

ABC Co. Balance Sheets

Account	2000	1999
Cash	$100,000	$130,000
Accounts Receivable	420,000	460,000
Inventory	800,000	700,000
Prepaid Rent	70,000	50,000
PP & E	1,000,000	800,000
Total Assets	$2,390,000	$2,140,000
Accounts Payable	$300,000	$360,000
Accrued Wages	175,000	120,000
Stockholders Equity	1,915,000	1,660,000
Total Liab & S.E.	$2,390,000	$2,140,000

ABC Co.'s Income Statement

	2000
Sales	$5,000,000
Cost of Goods Sold	3,500,000
Gross Margin	$1,500,000
Rent Expense	$240,000
Wage Expense	800,000
Depreciation Expense	150,000
Net Income	$310,000

Statement of Cash Flows Direct Method Example

Assume that accounts payable was only used to acquire inventory. Use the preceding information to compute the following:

1. Cash Received from Customers.
Sales − ΔAR
5,000,000 – (-40,000) = 5,040,000

2. Cash Paid to Suppliers for Inventory
COGS + ΔInventory − ΔAP
3,500,000 + 100,000 – (-60,000) = 3,660,000

3. Cash Paid to Landlords
Rent Expense + ΔPrepaid rent
240,000 + 20,000 = 260,000

4. Cash Paid to Employees
Wage expense – ΔAccrued wages
800,000 – 55,000 = 745,000

	2000
Cash received from customers	5,040,000
Cash paid to suppliers	-3,660,000
Cash paid to landlords	-260,000
Cash paid to employees	-745,000
Cash flows from operations	375,000

Statement of Cash Flows: Indirect Method

The indirect method uses changes in balance sheet accounts to reconcile net income to cash flows from operations.

Assets = Liabilities + Stockholders Equity
Cash + Noncash Assets = Liabilities + SE
Cash = L + SE – NCA
Δ Cash = ΔL + ΔSE – ΔNCA

This means that we can evaluate changes in cash by looking at changes in balance sheet accounts.

We can adjust this further by noting that
ΔSE = NI – Dividends

Δ Cash = ΔL + NI – Dividends – ΔNCA

To get cash flows from operations we start with net income and adjust for changes in current assets and current liabilities.

Statement of Cash Flows Indirect Method

The operating cash flow section of the Statement of Cash Flows using the indirect method has the following form:
Net Income
+ Depreciation Expense
- Δ Current Assets (minus increases, plus decreases)
+ Δ Current Liabilities (plus increases, minus decreases)
= Cash flows from operations

Following the previous example, we would have:

	2000
Net Income	$310,000
Depreciation Expense	150,000
- Δ Accounts Receivable	40,000
- Δ Inventory	(100,000)
- Δ Prepaid Rent	(20,000)
+ Δ Accounts Payable	(60,000)
+ Δ Accrued Wages	55,000
Cash Flows From Operations	375,000

Note that you get the same cash flow from operations under both methods. However, the information provided in the details is substantially different.

Investing and Financing Cash Flows

Once we have computed the cash flows from operations we need to complete the sections on investing and financing cash flows. In general this is fairly simple. Investing cash flows include purchases of long-term assets and proceeds from the disposal of long-term assets. Financing cash flows include proceeds from the issuance of long-term debt or capital stock, repayments of long-term debt, repurchases of capital stock and dividends.

Sample Problem: Use the following data to construct a statement of cash flows using the direct and indirect methods.

	2000	**1999**
Cash	$4,000	$14,000
Accounts receivable	25,000	32,500
Prepaid insurance	5,000	7,000
Inventory	37,000	34,000
Fixed assets	316,000	270,000
Accumulated Depreciation	(45,000)	(30,000)
Total assets	342,000	327,500
Accounts payable	$18,000	$16,000
Wages payable	4,000	7,000
Note payable	173,000	160,000
Capital stock	88,000	84,000
Retained earnings	59,000	60,500
Total Liabilities & Equity	342,000	327,500

	2000
Sales	$200,000
Cost of goods sold	(123,000)
Depreciation expense	(15,000)
Insurance expense	(11,000)
Wage Expense	(50,000)
Net Income	1,000

During 2000 declared and paid dividends of $2,500
During 2000, ABC paid $46,000 in cash to acquire new fixed assets. The accounts payable was used only for inventory. No debt was retired during 2000.

Direct Method

Cash Flow from Operations:	
Cash received from customers	207,500
Cash paid for inventory	-124,000
Cash paid for insurance	-9,000
Cash paid for wages	-53,000
Cash flow from operations	21,500
Cash Flow from Investments:	
Cash paid for fixed assets	-46,000
Cash flow from financing activities:	
Cash dividend payments	-2,500
Proceeds from issuance of note payable	13,000
Proceeds from issuance of stock	4,000
Cash flows from financing activities	14,500
Net Cash Flow	-10,000
Beginning Cash Balance	14,000
Ending Cash Balance	4,000

Indirect Method

Cash Flow from Operations:	
Net Income	1,000
Depreciation Expense	15,000
Δ Accounts receivable	7,500
Δ Prepaid insurance	2,000
Δ Inventory	-3,000
Δ Accounts payable	2,000
Δ Wages payable	-3,000
Cash Flow from Operations	21,500
Cash Flow from Investments:	
Cash paid for fixed assets	-46,000
Cash flow from financing activities:	
Cash dividend payments	-2,500
Proceeds from issuance of note payable	13,000
Proceeds from issuance of stock	4,000
Cash flows from financing activities	14,500
Net Cash Flow	-10,000
Beginning Cash Balance	14,000
Ending Cash Balance	4,000