

## Foundations of Accounting & Finance

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Week - 04

Lecture – 17

### Preparation of cash flow statement: An example (Direct Method)

#### Introduction

In this session, we will solve another problem of cash flow statement to ensure you grasp the concept fully before we proceed to financial analysis. As mentioned earlier, there are two methods for preparing a cash flow statement: the direct method and the indirect method. Let us solve this problem using both direct and indirect methods.

From the following information, prepare a cash flow statement:

#### Statement of profit and loss for the period ended 20X2

Sales	30,650
Cost of Sales	(26,000)
<b>Gross Profit</b>	4,650
Administrative and selling expenses	(910)
Depreciation	(450)
Interest Expense	(400)
Investment Income	300
Dividend Income	200
<b>Net Profit before tax and extraordinary Items</b>	3,390
Extraordinary items:	140
Insurance proceeds from disaster management	
Net Profit after extra ordinary items	3,530
Taxes on income	(300)
<b>Net. Profit</b>	3,230

*All figures are in INR*

### Balance Sheet as at end of 20X2 & 20X1

	20X2	20X1
<b>Assets</b>		
Cash and Cash Equivalents	200	25
Marketable Securities	670	135
Sundry Debtors	1,700	1,200
Interest Receivable	100	-
Inventories	900	1,950
Investments	2,500	2,500
Fixed asset at cost	2,180	1,910
Accumulated Depreciation	(1450)	(1,060)
Fixed Asset Net.	730	850
<b>Total Assets</b>	<b>6,800</b>	<b>6,660</b>
<b>Liabilities</b>		
Sundry Creditors	150	1,890
Interest Payable	230	100
Income Tax payable	400	1,000
Long-term Debt	1,110	1,040
<b>Total Liabilities</b>	<b>1,890</b>	<b>4,030</b>

#### Additional Information:

- An Amount of Rs. 250 was raised from the issue of share capital and a further Rs. 250 was raised from the long term borrowings.
- Interest expense was Rs. 400, of which Rs. 170 was paid during the period. Rs.100 relating to interest expense of the prior period were paid during the period.
- Dividends paid were Rs. 1200.
- The tax deducted at source on dividends received (included the expense of Rs 300 for the year) amounted to Rs. 40.
- During the period, the enterprise acquired property, plant and equipment for Rs. 350. Cash payments of 350 were made to purchase property, plant and equipment.
- Plant with original cost of Rs. 80 and accumulated depreciation of Rs. 60 was sold for Rs. 20.
- Sundry Debtors and Sundry Creditors include amounts relating to credit sales and credit purchases only.

#### Direct Method

##### I. Cash flow from operating activities

###### 1) Cash receipts from customers

The first step in the direct method is to analyse cash flow from operations, specifically focusing on cash receipts from customers. Let us break down what this entails. We begin with the revenue

from sales, which is derived from the profit and loss statement. In this case, the revenue for the year 20X2 amounts to ₹30,650. However, we must determine if all this revenue has been collected in cash. To do so, we see the balance sheet and consider the amount of outstanding receivables from the previous year. In this example, the receivables from the previous year 20X1 amount to ₹1,200. Thus, the total amount ideally receivable from customers is ₹31,850 (₹30,650 from current year sales + ₹1,200 from previous year's balance). However, upon examining the current year's balance sheet, we find that ₹1,700 is still outstanding in receivables. Consequently, the actual cash received from customers is ₹30,150 (₹31,850 - ₹1,700). This represents the amount of cash received from customers during the period.

To summarize, the cash receipts from customers, in this case, amount to ₹30,150. This figure reflects the actual cash inflow from customer transactions during the specified period.

<b>1. Cash receipts from customers</b>	
Sales or Revenue for the year 20X2 from P &L	30650
ADD: Receivables of the last year 20X1	1200
The money you are eligible to receive	31850
LESS: Receivables of the current year 20X2	1700
<b>Cash received</b>	<b>30150</b>

## 2) Cash outflow due to cost of sale

Let us now discuss the cash outflow resulting from the cost of sales. We will break down the process and calculations for clarity. According to the profit and loss statement, the cost of sales amounts to ₹26,000. However, we need to ascertain if this entire amount has been disbursed. To do this, let us calculate the actual cash outflow for the cost of sales. Firstly, we determine the inventory utilized, which is equivalent to the cost of sales, i.e., ₹26,000. Now, it's crucial to understand if the firm purchased all the inventory that is utilized.

To determine this, we consider the inventory levels at the beginning and end of the period. At the start of the period, the inventory was ₹1,950, and at the end, it's ₹900. Thus, the inventory we ideally purchased for utilization would be ₹24,050 (₹26,000 - ₹1,950). Further, we've purchased an additional ₹900 worth of inventory, as reflected in the closing inventory. Therefore, the total inventory purchased amounts to ₹24,950. This represents the amount we're liable to pay for inventory purchases.

Next, we need to consider if the firm has paid the entire amount. We look at the creditors' balance, which was ₹1,890 at the beginning of the period. Hence, the total amount we're liable to pay, including the opening creditors, is ₹26,840 (₹24,950 + ₹1,890). However, there's still ₹150 payables at the end of the year. Therefore, the actual cash paid for inventory purchases amounts to ₹26,690 (₹26,840 - ₹150). This figure represents the cash outflow due to the cost of sales.

To summarize, the cash outflow due to the cost of sales is ₹26,690. This figure represents the actual cash disbursed for inventory purchases during the period. Since this is a cash outflow, it's represented with a negative sign in cash flow statements.

<b>2 Cash disbursed for cost of sale</b>	
Cost of sale / inventory utilised	26000
LESS: Beginning inventory	1,950
The inventory bought for utilisation	24,050
ADD: closing inventory	900
Total inventory bought	24,950
ADD : opening creditors	1,890
Liable to pay	26,840
LESS: Payable at the end of the year	150
<b><i>cash outflow for inventory or cost of sale</i></b>	<b><i>26,690</i></b>

### 3) Admin and selling expenditure

Administrative and selling expenditure as stated in the profit and loss statement amount to ₹910. Since there are no prepayments or outstanding amounts related to administrative and selling expenses listed in the balance sheet, we can conclude that this expenditure represents a cash outflow. Therefore, the cash outflow for administrative and selling expenses is ₹910, directly derived from the profit and loss statement. Additionally, it's important to note that depreciation and interest expenditure are non-cash outflows and are not considered in the direct method analysis.

### 4) Insurance proceeds from disaster management

In this case, we have an extraordinary item: insurance proceeds from disaster management. An amount of ₹140 has been received, stemming from a significant event impacting the core operations, such as a fire in a plant or factory. When analysing such insurance proceeds, it's crucial to discern their nature. If they result from a disaster affecting the core operating purpose, like in this case, they are categorized as cash inflows from operations. However, if the proceeds stem from compensation for a financial loss unrelated to core operations or investment loss, they would be classified as investing cash inflows. In the scenario presented, where a disaster has indeed impacted operations and insurance has been claimed, the ₹140 constitutes a direct cash inflow from operations.

### 5) Taxes on income

Taxes on income are traditionally regarded as cash outflows due to business operations. This is because profits generated from core activities incur taxation obligations. However, it is essential to separate the specific nature of these taxes. While we acknowledge the presence of other income sources, such as dividends or interest, we focus solely on taxes related to core operational activities.

To compute the actual cash outflow for taxes, we examine both the profit and loss statement (P&L) and the balance sheet. The P&L indicates a tax expense of ₹300, representing the tax liability arising from our operational profits. Upon further examination, we find additional taxes payable from previous years reflected in the balance sheet (1,000). The total tax payable amounts to ₹1300. However, an outstanding amount of ₹400 remains due at the end of the year. This means that the actual amount paid towards taxes is ₹900.

However, ₹ 40 of the ₹300 tax expense pertains to tax deducted at the source on dividends received. This tax liability is deducted by the party issuing the dividends, not the recipient. Therefore, to ascertain the accurate cash outflow for taxes from operational activities, we must exclude the tax deducted at the source on dividends. After this adjustment, the actual cash outflow for taxes stands at ₹860.

<b>3 Taxes</b>	
Tax as per P & L	300
ADD: taxes payable as of 20X1	1000
Total tax payable	1300
LESS: paybles at the end of 20X2	400
Ideally tax that is paid	900
LESS: Tax deducted at source	40
<b><i>Tax paid or cash outflow due to taxes</i></b>	<b><i>860</i></b>

## II. Cash flow from investing activities

In the profit and loss statement (P&L), we identify two primary sources of income: investment income and dividend income. These inflows of cash stem directly from the investments the firm has made. Investment income encompasses returns generated from various investment vehicles, such as stocks, bonds, or mutual funds. These returns contribute to our cash inflow from investing activities.

### 1) Dividend income

Dividend income is indicated as ₹200. However, a critical aspect to consider is the actual cash received. Upon closer inspection, it is realised that while the dividend income is recorded at ₹200, there's a deduction of ₹40 as Tax Deducted at Source (TDS) by the entity distributing the dividend. This deduction, while reducing the cash received, doesn't directly impact our cash balance at this point. Consequently, the net cash flow received from dividend income amounts to ₹160.

### 2) Investment income

Investment income is ₹300 and is imperative to assess the actual cash received against the accrued income. There is an investment interest receivable of ₹100 at the end of the current year. This indicates that ₹100 of the investment income is still outstanding and has not been received yet. As

a result, the cash received from investment income amounts to ₹200, with ₹100 remaining to be collected.

### 3) Investments

The investment in fixed assets at cost for the current period amounts to ₹2180, compared to ₹1910 in the previous year. This signifies an increase of ₹270 in net fixed assets over the period. However, it is essential to distinguish whether this increase translates directly to cash outflows. During the period, the firm acquired property, plant, and equipment amounting to ₹350. As per our cash payment records, ₹350 was disbursed for these acquisitions, reflecting a direct cash outflow. Moreover, it is crucial to account for any disposals or sales of existing assets. In this context, a plant with an original cost of ₹80, depreciated to ₹60, was sold for ₹20. This transaction resulted in a cash inflow of ₹20. After considering all relevant adjustments, the net cash inflow from investing activities is ₹30.

## III. Cash flow from financing activity

### 1) Interest expenditure

In this case, the interest expenditure amounts to ₹400, indicating a cash outflow attributable to interest payments. As per the balance sheet, the interest payable at the beginning of the year is ₹100. Therefore, the total interest payable for the period amounts to ₹500 (₹100 from the previous year and ₹400 from the current period). However, it is crucial to consider the portion of interest that remains unpaid at the end of the year. As indicated, ₹230 of interest remains outstanding and is yet to be settled. To determine the actual cash outflow due to interest payments, we subtract the outstanding interest payable (₹230) from the total interest payable (₹500). This yields a cash outflow of ₹270 attributed to interest payments during the period.

<b>4 Interest payments</b>	
Interest expenses	400
ADD: Payable at the beginning of the year	100
Total Interest payable	500
LESS: Yet to pay at the end of the year	230
<b>Cash outflow due to interest payment</b>	<b>270</b>

### 2) Long term Debt

The firm's debt balance stood at ₹1040 at the beginning of the year. However, throughout the year, we borrowed an additional ₹250, resulting in a total debt balance of ₹1290. Upon reviewing the balance sheet we discovered that our actual debt balance at the end of the year was ₹1110, not ₹1290 as anticipated. This discrepancy indicates that we should have repaid a portion of our existing debt or old debt during the year. To calculate the amount of old debt repaid, we subtract

the actual debt balance (₹1110) from the anticipated debt balance (₹1290), resulting in a repayment of ₹180.

Although we borrowed ₹250 in new debt, the repayment of ₹180 reduced our overall debt burden. Therefore, the net increase in debt for the period amounts to ₹70 (₹250 borrowed - ₹180 repaid).

<b>5 Long term debt</b>	
Debt at the beginning of the year	1040
ADD: New borrowing	250
Ideal debt balance	1290
Debt balance at the end of the year	1110
<i>Debt repaid (old debt repaid)</i>	<i>180</i>

### 3) Issue of share capital

Over the past year, the firm's equity capital has seen a notable increase from ₹1250 to ₹1500. This growth can be attributed to the issuance of new shares, which injected ₹250 of fresh capital into the company. The issuance of share capital represents a cash inflow of ₹250.

### 4) Dividend paid

When dividends are disbursed to shareholders, it results in a cash outflow. In this case, the ₹1200 disbursed represents a significant cash outflow attributable to dividend payments.

## IV. Total net cash flow

The total net cash flow for the company is calculated by summing up the cash flow from operations, investing activities, and financing activities. In this case, the net cash flow amounts to ₹710 ( 1830+30+(-1150)).

When considering the cash at the beginning of the year, it includes both cash and cash equivalents. Cash equivalents are assets that can be quickly converted into cash, such as marketable securities. In our analysis, we include ₹25 of cash and ₹135 of cash equivalents, totalling ₹160. Adding the net cash outflow to the cash and cash equivalents at the beginning of the year gives us the total cash and cash equivalents at the end of the year. In this case, the total is ₹870 (Figure 1).

Figure 1: Cash flow statement for the period 20X2 using direct method

<b>Cash flow statement for the period ended 20X2</b>	
<b><i>Cash flow from operations</i></b>	
cash receipts from customers -1	30,150
cash outflow due to cost of sales -2	-26,690
cash outflow for admin and selling	-910
insurance proceeds received	140
cash outflow for taxes -3	-860
<b><i>net cash flow from operations</i></b>	<b><i>1,830</i></b>
<b><i>cash flow from investing activities</i></b>	
dividend income	160
investment income	200
cash outflow due to purchase of PPE	-350
cash inflow due to sale of PPE	20
<b><i>cash flow from investing activities</i></b>	<b><i>30</i></b>
<b><i>cash flow from financing</i></b>	
cash outflow due to interest payment - 4	-270
new debt borrowed -	250
old debt repaid 5	-180
issue of share capital	250
dividends paid	-1200
<b><i>cash flow from financing</i></b>	<b><i>-1150</i></b>
<b>NET CASH FLOW</b>	<b>710</b>
ADD: Cash & cash equivalents at the beginning of the year	160
<b>CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR</b>	<b>870</b>