

Foundations of Accounting & Finance

Prof. Arun Kumar Gopaldaswamy

Department of Management Studies - IIT Madras

Week - 04

Lecture – 15

Preparation of Cash Flow Statement: Lone Pine Cafe (Indirect Method)

Introduction

Earlier, we explored a cash flow statement example with the Lone Pine Café using direct method, where we meticulously classified all cash transactions. However, in reality, for a business, manually tracking every cash transaction and compiling it quarterly or yearly is a difficult task. The volume of transactions, time, and effort required for this process can be overwhelming.

But is there an alternative? Yes, there is another method known as the indirect method.

Indirect method of preparation of cash flow statement

The indirect method of preparing a cash flow statement is a straightforward approach that utilizes the profit and loss statement (P&L) and the balance sheet. Instead of directly tracking cash transactions, this method involves deriving cash flow information from the P&L and balance sheet data.

So, can we decipher the cash flow statement from these two financial statements? The indirect method serves as a means to verify the accuracy of the financial statements as a whole. It allows us to interpret, draw, and decipher the cash flows based on the information provided in the opening and closing balance sheets and the P&L.

In annual reports, you'll typically find financial statements spanning at least two years. This inclusion of historical data provides valuable insights into cash movements over time. With access to both opening and closing balance sheets, we can trace the cash inflows and also the outflows.

The indirect method retains the same classifications as the direct method, encompassing cash flows from operations, investments, and financing activities. However, the difference lies in how we derive the cash flow from operating activities.

Example of Indirect Method

In the example provided, we have two cases: Case A and Case B. Let us review the details:

	Case A	Case A
Cash sales	\$75,000	\$45,000
Credit sales	0	35,000
Total sales	75,000	75,000
Supplies bought for cash and used	35,000	20,000
Supplies bought on credit and used	0	15,000
Wages paid in cash	10,000	7,000
Wages accrued (not paid)	0	3,000
Profit	30,000	30,000

In reality, what would be the cash balance? If we subtract the cash paid for supplies (\$20,000) and the cash paid for wages (\$7,000) from the cash received (\$30,000), the remaining cash balance should be \$3,000, which is 10% of the total cash received. Now, can we approach this from another angle? Can we derive it from the profit? Yes, we can derive it from the profit. Now, let's examine the indirect method.

Now, using the indirect method for Case B, we need to adjust the profit to reflect the cash flows accurately. Since profit includes non-cash items such as credit sales and accrued wages, we need to exclude them to determine the actual cash balance.

Adjustments:

1. Exclude non-cash revenue: $\$30,000 - \$45,000 = -\$15,000$
2. Add back non-cash expenditure on supplies: $-\$15,000 + \$15,000 = \$0$
3. Add back non-cash expenditure on wages: $\$0 + \$3,000 = \$3,000$

Adjusted cash balance: $\$30,000 + \$0 + \$3,000 = \$33,000$

So, the cash balance for Case B under the indirect method is \$3,000, which matches the cash balance calculated directly.

Lone Pine Café: Cash Flow statement using indirect Method

Let us revisit the cash flow statement for Lone Pine Café, but this time, we will employ the indirect method. Previously, we utilized the direct method, (Figure 1) so now we will apply the indirect approach.

Figure 1: Cash flow statement for Lone Pine for the period Nov 2 to March 30 using direct method

opening balance of cash		10,172
<i>cash flow from operations</i>		
cash received from customers	43,480	
monthly payments to partners	-23,150	
wages to parttime employees	-5480	
F & B Supplies	-10,016	
telephone and electricity	-3,270	
miscellaneous	-255	
rent payments	-7,500	
<i>cash flow from operations</i>		-6,191
<i>cash flow from investing</i>		NIL
<i>cash flow from financing</i>		
interest payment	-540	
repayment of loan	-2,100	
<i>cash flow from financing</i>		-2,640
cash and cash equilavents at the end of the period		1,341
<i>cash</i>	311	
<i>bank/ checking account</i>	1,030	
	1,341	

I. Cash flow from operating activities

Net profit or loss for the period

In the indirect method, we begin with the net profit or loss for the period. This figure is obtained from the profit and loss (P&L) statement.

Non-cash expenditures

In the indirect method, we need to add back all the non-cash expenditures accounted for during the specified period to the profit or loss. These non-cash expenditures are recorded in the profit

and loss statement but do not involve actual cash outflows. Examples include depreciation, amortization, and provisions for bad debts.

Adding back non-cash expenditures ensures that the cash flow statement accurately reflects the cash movements of the business.

1) Depreciation on an asset

Depreciation represents the decrease in the value of an asset over time due to wear and tear, obsolescence, or other factors. While depreciation is recorded as an expense in the profit and loss statement, it does not involve actual cash outflow. Therefore, in the indirect method of preparing a cash flow statement, we add back the depreciation expense to reflect the non-cash nature of this expenditure. The amount of depreciation on the asset can be obtained directly from the profit and loss statement (\$2,445). By adding back depreciation, we adjust the net profit or loss for the period to account for the non-cash impact of depreciation.

2) Operating license

The operating license expense of \$595 has been utilized during the period. However, there is no cash outflow associated with this expense since it has already been deducted as an expenditure to calculate the profit. To adjust for this non-cash expenditure in the indirect method of preparing the cash flow statement, we add back the amount of the operating license expense.

Moving forward, we examine other expenses listed in the profit and loss statement, such as rent, miscellaneous expenses, and telephone charges. If there is no outstanding amount related to these expenses recorded in the opening or closing balance sheets, we do not need to consider them for cash flow adjustments.

F&B supplies

In the indirect method of preparing the cash flow statement for Lone Pine Café, we need to analyse the utilization of F&B supplies. This involves calculating the amount of supplies utilized during the period, comparing it with the opening and closing stock, and determining the cash outflow for the purchases.

According to the income statement, F&B supplies utilized during the period amount to \$11,969. We refer to the opening balance sheet to find the opening stock of F&B supplies, which is \$2,800. Similarly, the closing stock of F&B supplies is obtained from the closing balance sheet, amounting to \$2,430. To calculate the F & B bought and used we subtract the opening stock (\$2,800) from the supplies utilized (\$11,969). Therefore, the F&B supplies bought and used amount to \$9,169. F & B bought but not used is \$2,430 which is the closing stock of F & B. Therefore, total F & B bought will be \$11,599 (\$9,169 + \$2,430). The amount of supplies purchased on credit can be obtained from the closing balance sheet under creditors for supplies, which is \$1,583. So, the cash purchases of F&B supplies are calculated by subtracting the credit purchases from the total F & B

bought. Hence, the cash purchases amount to \$10,016 (\$11,599 - \$1,583). Comparing the total expenses charged in the profit and loss statement with the cash outflow for F&B supplies, we find an excess charge of \$1953. This excess charge represents the difference between the amount charged in the profit and loss statement and the actual cash paid for supplies (\$11,969 - \$10,016). To reconcile the excess charge in the profit and loss statement with the actual cash outflow, we add back the excess expenditure to the cash flow statement. Therefore, we add back \$1953 to accurately reflect the cash flow from F&B supplies.

F & B Supplies as the income statement	11,969
Less: Opening stock of F & B	2,800
F & B bought and used	9,169
Add: F & B bought but not used	2,430
Total F & B bought	11,599
Less: credit purchases	1,583
Cash purchase	10,016
Excess charged in P&L as compared to cash flow (\$11,969 - \$10,016)	-1,953

Interest expenditure

Interest expenditure, unlike operating expenses, does not directly relate to the day-to-day operational costs of the business. It falls under the category of non-operating expenditures. Therefore, it is treated differently in financial statements.

In the cash flow statement, it is crucial to adjust for interest expenses to reflect the actual cash flow generated by the business operations accurately. For example, if the interest expenses amount to \$540, they need to be added back to ensure the cash flow statement aligns with the cash transactions of the business.

Cash revenue

Cash revenue represents the income received in the form of cash payments from customers. However, there may also be revenue generated through credit sales, where the payment is deferred to a later date. It's important to distinguish between cash revenue and credit revenue when analysing the financial performance of a business.

In the case where credit revenue contributes to a loss, it's crucial to recognize that no cash has been received at the time of the transaction. Therefore, adjustments need to be made to reflect the actual cash flow. For instance, if credit revenue contributes to a loss, the cash balance should decrease by the amount of credit revenue not yet received.

In this case, credit revenue amounts to \$870, it means that the cash balance should be reduced by the same amount to accurately reflect the cash flow from operations. By adjusting for credit

revenue, along with other non-cash expenditures such as depreciation and non-operating expenses such as interest, the cash flow from operations can be calculated more accurately.

II. Cash flow from investing activities

Investing activities refer to the financial transactions related to the acquisition and disposal of long-term assets, such as property, equipment, and investments in securities. In this case, the only investing activity mentioned is the change in the value of equipment. The equipment's value decreased from \$53,200 to \$50,755, primarily due to depreciation. Since depreciation represents the allocation of the asset's cost over its useful life and does not involve cash transactions, there is no cash flow impact associated with this change in equipment value.

Therefore, the net cash flow from investing activities is considered nil for this period, indicating that there were no significant cash flows related to investments in long-term assets during the specified time frame.

III. Cash flow from financing activities

Interest expenditure

Financing activities involve transactions related to the company's capital structure, including debt, equity, and dividends. In this case, the interest expenditure is considered a financing activity. Interest expenses represent the cost of borrowing funds, which is a cash outflow for the company. The interest expenditure mentioned amounts to \$540.

Repayment of bank loan

In the context provided, the repayment of the bank loan is a financing activity that results in a cash outflow for the company. The bank borrowing at the beginning of the period was \$21,000, and by the end of the period, it decreased to \$18,900. The reduction in bank borrowing from \$21,000 to \$18,900 indicates that the company has repaid a portion of its loan.

The difference between the initial and final bank borrowing amounts, which is \$2,100, represents the amount of the loan that the company repaid during the period. Therefore, the repayment of the bank loan resulted in a cash outflow of \$2,100.

As a financing activity, the repayment of the bank loan is reflected in the cash flow statement under the "Cash Flow from Financing Activities" section. The cash flow from financing activities includes all cash transactions related to the company's capital structure, such as borrowing, repaying debt, and issuing or repurchasing equity. In this case, the repayment of the bank loan contributes to the total cash flow from financing activities.

Total net cash flow

The total net cash flow for the period is calculated by summing the cash flows from operating activities, investing activities, and financing activities. In this case, the net cash flow is obtained by adding the cash flows from operations, investing, and financing $((-\$6,191) + 0 + (-\$2,640) = \$8,831)$

To determine the cash at the beginning of the period (\$10,172), we refer to the balance sheet or the opening cash balance. Similarly, the cash at the end of the period is obtained from the balance sheet or the closing cash balance (\$1,341).

By subtracting the cash at the beginning of the period from the total net cash flow, we arrive at the cash at the end of the period. In the provided example, the cash at the end of the period is \$1,341, which matches the calculated value (Figure 2).

Figure 2: Cash flow statement for Lone Pine for the period Nov 2 to March 30 using indirect method

profit or loss for the period		-10,854
<i>cash flow from operations</i>		
depreciation on the asset	2,445	
operating license	595	
add F & B expenses	1,953	
add back interest expenses	540	
Less credit revenue	-870	
<i>cash flow from operations</i>		-6,191
<i>cash flow from investing</i>		<i>NIL</i>
<i>cash flow from financing</i>		
interest expenses	-540	
repayment of loan	-2,100	
<i>cash flow from financing</i>		-2,640
net cash flow for the period		-8,831
<i>cash at the beginnig of the peirod nov2</i>		10,172
<i>cash at the end of the period</i>		1,341