Learning objectives
- Discuss working capital management
- Identify the effect of seasonality on monthly cash flows
- Explain the purpose of long-term financial planning
- Use the percent of sales method to construct pro-forma financial statements
- Identify spontaneous assets and liabilities, internally generated funds, and financing decision variables
- Compute 'Outside (External) Funds Needed'

Responsibilities of the Financial Manager
1. Managing the working capital
2. Estimating the seasonal fund needs
3. Long-term financial planning: forecasting long-term fund requirements

Working Capital on the Balance Sheet

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>LIABILITIES and EQUITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Assets:</td>
<td>Current Liabilities:</td>
</tr>
<tr>
<td>Cash</td>
<td>Notes Payable</td>
</tr>
<tr>
<td>Net Accounts Receivable</td>
<td>Accounts Payable</td>
</tr>
<tr>
<td>Inventories</td>
<td>Accrued Expenses</td>
</tr>
<tr>
<td></td>
<td>Current Portion of LT Debt</td>
</tr>
<tr>
<td>Net Fixed Assets</td>
<td>Long-Term Debt</td>
</tr>
<tr>
<td></td>
<td>Equity</td>
</tr>
<tr>
<td>Total Assets</td>
<td>Total Liabilities and Equity</td>
</tr>
</tbody>
</table>

Net Working Capital (NWC)

Net Working Capital (NWC) represents the investment needed to maintain the cash, credit, and inventory necessary for operations - varies over time

Net Working Capital (NWC) = Current Assets - Current Liabilities

Efficient management of current assets and current liabilities reduces the investment in NWC

Related liquidity ratios:
- Current ratio = Current assets / Current liabilities

Working Capital - Cash

1. Determining minimum cash requirements, maintaining the checking account, and managing the cash balance

Related liquidity ratios:
- Quick ratio = \( \frac{\text{Current assets} - \text{Inventories}}{\text{Current liabilities}} \)

Related financial statement:
- Statement of Cash Flows (operating activities)
Working Capital - Credit

2. Setting credit policy (for customers) and managing the collection of accounts receivable

Related activity ratios:

Average collection period = \( \frac{\text{Account receivable}}{\text{Annual credit sales}} \times 360 \)

Book example 5.1-5.6 (page 135): Cost benefit analysis of a new credit policy

Working Capital - Inventory

3. Establishing inventory target levels and managing inventory turnover

Related activity ratios:

Inventory conversion period = \( \frac{\text{Inventories}}{\text{Cost of goods sold}} \times 360 \)

Inventory turnover ratio = \( \frac{\text{Cost of goods sold}}{\text{Inventories}} \)

Working Capital - ST Debt

4. Establishing and maintaining banking relations to ensure access to short-term (ST) funds

- Short term funds offset effects on cash flow (CF) volatility:
  - Predictable / expected events: seasonality
  - Surprise / unexpected events: accidents

Seasonality and Cash Budgets

- Most firms experience seasonality in sales:
  - Weather
  - Holidays
- Seasonality in sales leads to cash flow problems whenever:
  \( (\text{cash balance + cash inflow}) < \text{cash outflow} \)
- Financial managers must plan in advance and secure funds to cover shortfalls

Working Capital - Credit

5. Negotiating and monitoring trade credit terms and managing supplier relationships

Related activity ratios:

Payables period = \( \frac{\text{Account payable}}{\text{Cost of goods sold}} \times 360 \)

Effective annual cost = \( \frac{\text{Discount percent}}{\text{Extra days if not take discount}} \times 360 \)

Working Capital - Interest

6. Monitoring and evaluating operating expenses, interest and taxes, and maintaining efficient payment patterns

Related debt utilization ratios:

Times Interest Earned = \( \frac{\text{Operating income}}{\text{Interest expense}} \)
Long-term financial planning

Why do we need long-term financial planning?

To make sure that funds are available to support firm's growth!

If the firm is not operating at full capacity → find ways to use assets more efficiently
If the firm is operating at full capacity (maximum efficiency - no idle assets) → increase investment in assets to support LT growth:
- Current assets (cash, inventory, A/R)
- Fixed assets (plant & equipment)

The financial manager must find additional funding sources to support assets growth and decide:
- How much is needed?
- What sources of funding are available?

Three sources of funds

1. "Spontaneous" liabilities:
   - Accounts payable
   - Accruals

2. Internally generated funds:
   - Addition to retained earnings

3. External funds (financing decision variables):
   - Notes payable (credit line - short-term debt)
   - Long-term debt (issue new bonds, bank loan)
   - Common stock (issue new stock - equity)

Pro-forma financial statements

To determine if and how much outside (external) funding is needed, financial managers construct pro-forma financial statements.

We will use the percent of sales method to construct pro-forma financial statements.

Textbook example: pages 142-147 (Coffy's coffee Shop)

Percent of sales method

Starting point: assume sales growth rate = g

Step 1:
   Each assets account on the balance sheet grows at the same rate as sales (g)
   Note: we assume that the growth rates of gross fixed assets, accumulated depreciation and net fixed assets are also g

Step 2:
   Each "spontaneous" liabilities account on the balance sheet grows at same rate as sales (g):
   1. Accounts payable
   2. Accruals

Step 3:
   (3a) Compute the expected net income for the projected period
   (3b) Find the addition to retained earnings:
       Addition to retained earnings = net income - dividends
   (3c) Use it to determine the retained earnings account on your pro-forma balance sheet:
       Retained earnings (t+1) = retained earnings (t) + Addition to retained earnings
Percent of sales method

Step 4:

Copy all the **financing decision variables** from the previous statement (BS):

1. Notes Payable
2. Long Term Debt
3. Common Stock

Result:

Total Assets ≠ Total Liabilities & Equity

Outside funds needed

Step 5: Holding the financing decision variables constant, calculate outside funds needed:

Outside Funds Needed (OFN) = Total Assets - Total Liabilities & Equity

Next Step: Determine financing sources

1. Increase Notes Payable (ST debt)
2. Borrow or issue new LT Debt
3. Issue new stock (equity)

Outside funds needed - Formula

An alternative way to calculate the OFN

Outside Funds Needed =

\[ \text{Change in Total Assets} + \text{Change in Spontaneous Liabilities} - \text{Change in Retained Earnings} \]

Outside funds needed - Formula

Change in Total Assets =

\[ (\text{total assets on current BS}) \times g \]

Change in Spontaneous Liabilities =

\[ (\text{spontaneous liabilities on current BS}) \times g \]

Change in Retained Earnings =

\[ +[(1+ g) \times \text{sales on current IS}] \times (\text{net profit margin}) - \text{planned dividend payment} \]

Where \( g \) = sales growth rate

Summary

Three main responsibilities of the financial manager:

- Working capital management
- Monthly cash budgeting
- Long-term financial planning
  - Determine Outside Funds Needed (OFN) to support long term growth
  - Find funding sources