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Introduction

The subject of accounting is based on one guiding principle; everything else consists of details, some of which are technical, and some of which are procedural. The guiding principle is simple: all data concerning a company's activity is assigned to one of the following five categories:

1	2	3	4	5
Revenues	Expenditures	Assets	Liabilities	Cash

The first two categories (1 and 2) are the backbone of a report called a **profit and loss statement**.

The next two categories (3 and 4) are the backbone of a report called the **balance sheet**. The fifth category (5) is the backbone of a report called the **cash flow statement**.

When details are given below, it will be seen that each of these categories is a collection of smaller categories.

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Chapter 1

Registration and Documentation

Introduction

Firm is a general term for all entities that conduct business activity: Limited companies, partnerships, independent businesses, law firms, etc.

The following explanations and examples concern mostly limited companies, but they also apply to firms in general.

Name of a Company: The name of a company usually ends in the initials Ltd., which stand for limited liability. The company name in the following examples will be printed in bold text, without adding Ltd. The names of all other companies will also be printed in bold text. Every transaction or scenario that has financial consequences for a firm is accompanied by full documentation and registration. Documentation and registration make it possible to produce reports that portray a picture of the firm's situation. All activity involving documentation, registration, production of reports and their analysis is called **"financial accounting"**. Some of the reports produced in a firm are legally required, and some are designed to help the company management make business decisions. All types of reports are discussed in this course.

The department that deals with documentation, registration and production of legally required reports is called the bookkeeping department and its employees are called bookkeepers.

Documentation and "Drawers"

Every business transaction in a firm is accompanied by documentation (papers), which are called documents. Among other things, the job of the bookkeepers is to channel each document to the proper drawer.

Examples:

The examples pertain to a small furniture-making company named **USA Furniture**.

An invoice arriving from the **Electric Corporation** is filed in a drawer called **electricity expenses**.

1. When the enterprise buys wood from the **Africa Wood** company, it receives an invoice. The invoice is filed in a **wood purchases** drawer, or **wood** for short.
2. When the enterprise buys glue from the **Real Glue** company, the invoice received from **Real Glue** (a supplier) is filed in a drawer named **glue**.
3. When the enterprise sells round tables to the **Center Furniture** shop, it issues (prints) an invoice for the buyer. A copy of the invoice is filed in a drawer called **sales of round tables,** or **round tables** for short. If the enterprise sells only one type of table, the drawer will be called **tables**.

Every document has a corresponding drawer in which it will be filed. Some documents are produced by internal units within the enterprise. For example, when wood is moved from the raw materials warehouse (Warehouse A) to the production line, Warehouse A issues a document noting that the raw material has been removed from it. The document is filed in a drawer called **Warehouse A**. The document provides specifications of the wood that has been removed from the warehouse. When the goods are moved from the production line to the finished products warehouse (Warehouse B), another document is issued and filed in the **Warehouse B** drawer. In practice, a folder with dividers, or any other filing method, can be used instead of a drawer. The use of the word "drawer" is a convenient tool for visualization.

The main documents in a company are invoices received from suppliers, sales invoices given to customers, receipts obtained following payment, salary slips (for employees), bank statements, checkbooks, and internal vouchers.

More about Drawers

In order to make the explanations in the following section (called "Registration") easier to understand, assume that an additional copy of every document is filed in some "virtual drawer", as will be explained through the examples of filing below, as well as those already given.

Examples:

1. **Receiving an invoice from the Electric Corporation** - A copy of the invoice is filed in a virtual drawer called **Electric Corporation.** The original invoice is filed in a drawer called **Electricity expenses**. Filing the invoice in the **Electric Corporation** drawer is a reminder that the firm must pay the bill to the Electric Corporation.
2. **Receiving an invoice from the Africa Wood supplier of wood** - A copy of the invoice is filed in a (virtual) drawer called **Africa Wood** to remind the firm that it must pay that company for the wood. The original invoice is filed in a **wood purchases** drawer. It may be asked what happens if the company pays the bill immediately. This question will be dealt with later, but a virtual drawer is necessary in any case.
3. **Receiving an invoice from the Real Glue supplier of glue:** A virtual drawer named **Real Glue** is opened. The original invoice is filed in the **glue** drawer.
4. **Sales of round tables to Center Furniture** - A virtual drawer named **Center Furniture** is opened and a copy of the invoice is filed in it. The original is filed in a **table sales** drawer.

And so forth.

Registration

Registration is based on the documents that have been filed in drawers. A ledger file is opened, in which every ledger account represents some drawer, including the virtual drawers (all the ledger accounts are real, including the ledger accounts that represent virtual drawers). Every ledger account is given the name of the drawer that it represents.

The ledger accounts and registration – Examples

1. **Electricity expenses ledger account** Whenever a bill is received from the Electric Corporation, the following particulars of the bill are registered in a single line in the ledger account: Date, period of the bill and total bill amount. During the year, six rows in the ledger account are filled (because the Electric Corporation sends bills once every two months, totaling six per year).

The ledger accounts and registration – Examples

Electricity Expenditures Ledger Account		
Date	**Particulars**	**Amount**
March 1,2007	Electricity expenditures Between January and February 2007	$1,000
May 1, 2007	Electricity expenditures Between March and April 2007	$1,500
July 1, 2007	Electricity expenditures Between May and June 2007	$1,200
Sept. 1, 2007	Electricity expenditures Between July and August 2007	$1,800
Nov. 1, 2007	Electricity expenditures Between September and October 2007	$1,500
Jan. 1, 2008	Electricity expenditures Between November and December 2007	$1,000

2. **Wood purchases ledger account** - Every invoice received from each of the enterprise's wood suppliers will be allocated one row in the ledger account, in which the particulars of the invoice will be registered (date, quantity of wood, sum).

Wood Purchases Ledger Account		
Date	**Particulars of the Purchase**	**Amount**
Jan. 1, 2007	Purchase of wood from Africa Wood – 50 kg of planed wood	$1,000
June 1, 2007	Purchase of wood from Great Wood - 100 kg of complete wood	$2,000
Oct. 1, 2007	Purchase of wood from Africa Wood – 150 kg of complete wood	$3,000
Dec. 1, 2007	Purchase of wood from Bench Wood - 100 kg of natural wood	$2,000

In practice, the registration process is carried out using computer software. The ledger file is a computer file in which the various ledger accounts appear and every transaction is registered in the corresponding ledger account.

The next topic is the **Registration System**, which provides important background for understanding the subject.

The Registration System

Introduction

The technique of registration is actually a technical system operated by a bookkeeper. Familiarity and thorough understanding of it are not essential for someone who is not planning to work as a bookkeeper him/herself. Only a short general explanation of the method will therefore be given.

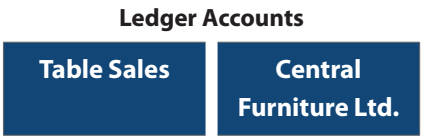
The registration system is called double entry.

This system is based on the fact that two sides are involved in every business operation: One side gives, and the other side receives. Each side is represented by a bookkeeping ledger account. A limited liability company is required to use double entry bookkeeping.

Examples

1. **The company bought wood from Africa Wood** The company **received** wood. The Africa Wood company **supplied** wood. This transaction is registered in two ledger accounts: **Wood Purchases** and **Africa Wood**. Registration in the **Wood Purchases** ledger account reflects the wood received by the company. Registration in the **Africa Wood** ledger account reflects the wood supplied by **Africa Wood.**

   The company sold tables to Central Furniture. Central Furniture received tables. The company **supplied** tables. The two ledger accounts involved in this registration are **Table Sales** and **Central Furniture.** Registration in the **Table Sales** ledger account reflects the tables sold. Registration in the **Central Furniture** ledger account reflects receipt of the tables.



2. **The company received a bill from Electric Corporation** - A brief explanation: Registration in the Electricity Expenditures ledger account reflects the electricity **received** by the company. Registration in the Electric Corporation ledger account reflects the electricity **supplied by the Electric Corporation**.

3. **The company paid the Electric Corporation** - The two ledger accounts involved in the transaction are the **company's Current Account** and the **Electric Corporation**. The registration in the **Current Account** Ledger Account represents the expenditure of cash. The registration in the **Electric Corporation** Ledger Account represents the receipt of cash.

Ledger Accounts

The company's current account	Electric Corporation

Interaction between Ledger Accounts

In order to better understand **"giving"** transactions and **"receiving"** transactions, it is important to realize that in double entry bookkeeping, interaction takes place in every business transaction. Registration in one ledger account always represents "receiving", while registration in another ledger account represents "giving". This will become clearer when the method of registration is explained.

In some of the ledger accounts in which the "receiving" of any sum of money is registered, "giving" of the amount received is also registered at a later time. On the other hand, in some of the ledger accounts in which the giving of any sum of money is registered, receiving of the same sum of money is also registered at a later time.

For the purposes of this explanation, ledger accounts will be treated as people who both give and receive. In professional terms, each of the imaginary people is called a "legal entity". In every transaction, the bookkeeper's job is to identify the account ledger in which the receiving will be registered, and the ledger account in which the payments will be registered.

The Format for Ledger Accounts

Every ledger account has four columns. The two middle columns, (2) and (3), are the heart of the ledger account.

Particulars of the Transaction (1)	Monetary Sum		
	Debit (2)	Credit (3)	Balance (4)

Explanation of the Columns

Column 1 - particulars of the transaction:

This column is for registration of the particulars accompanying the business transaction. In order to preserve uniformity in registration of particulars, the column is divided into four sub-columns.

Data are registered in each of the columns, according to the column heading. Some of the headings that require explanation will be featured in a few examples.

Example 1:

The company, **USA Furninture**, bought wood for $1,000 from the **Africa Wood** company, and recieved the following invoice:

Africa Wood Ltd.

10 Table St.

N.Y., N.Y.

INVOICE			
Date	March 1st, 2007	Number	85

Sold To: USA Furniture

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
100 Kg	Planed wood	$10	$1000
	Total for payment		**$1,000**
	Thank You For Your Order!		Sincerely yours, Africa Wood Ltd

The USA Furniture company will register this transaction in two ledger accounts:

1. **"Wood Purchases"** - the registration represents receiving.
2. **"Africa Wood"** - the registration represents giving.

The registration data is taken from the invoice.

Sub-columns for each of the ledger accounts are as follows:

Wood Purchases Ledger Account

Particulars (Column 1)			
Date	Particulars of Transaction	Reference	Contra Account
March 1, 2007	100 kg of planed wood	85	Africa Wood

Africa Wood Ledger Account

Particulars (Column 1)			
Date	Particulars of Transaction	Reference	Contra Account
March 1, 2007	100 kg of planed wood	85	Wood Purchases

An explanation of registration of particulars

1. **Date** - the date of registration in the ledger account.
2. **Reference** - the reference is usually the invoice number.
3. **Contra ledger account** - the other ledger account in which the same transaction is registered. Accountants use the term **contra account** instead of **contra ledger account**, and the shorter term will be used here from now on.
4. **Particulars of the transaction** - a summary description of the elements of the transaction. In this example, the particulars of the transaction are described as "100 kg of planed wood". The word "purchase" does not appear in the particulars of the transaction, because it is obvious that every transaction registered in the **wood purchase** ledger account and in the **Africa Wood** ledger account represents a **purchase**, unless stated otherwise.

Example 2

The **USA Furniture** company sold 10 round tables to **Central Furniture** (a customer) for $2,000, and sent the following invoice:

USA Furniture

10 Rock St.

N.Y., New York, USA

To: Central Furniture

INVOICE			
Date	April 10th, 2009	Number	219

Please pay for the purchase of tables according to the following list:

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
10	Round Tables	$200	$2,000
	Total for payment		**$2,000**
	Thank You For Your Order!		USA Furniture Ltd.

The **USA Furniture** company will register this transaction in two ledger accounts:

1. **Sales of tables** - registration represents revenue from the sale of tables.
2. **Central Furniture** - registration represents receipt (of tables).

Registration of the Particulars in the Ledger Accounts:

Sales of Tables ledger account

Particulars			
Date	**Particulars of Transaction**	**Reference**	**Contra Account**
April 10, 2007	10 round tables	219	Central Tables

Central Furniture ledger account (customer)

Particulars			
Date	**Particulars of Transaction**	**Reference**	**Contra Account**
April 10, 2007	10 round tables	219	Sales of Tables

Columns 2 and 3 - Debit and Credit

In one of these columns, and in **only one of them**, the sum listed in the invoice will be registered. But in which?

Knowing the answer is half the work of earning a diploma in bookkeeping.

Particulars of the Transaction (1)	Monetary Sum		
	Debit (2)	Credit (3)	Balance (4)

The answer is very simple: When a transaction representing receipt is registered in a ledger account, the sum is listed in the column entitled "Debit" (Column No. 2). In bookkeeping language, the ledger account has been "debited". When a transaction representing giving is registered in the ledger account, the sum is listed in the column entitled "Credit" (Column No. 3). In bookkeeping language, the account has been "credited".

In example No. 1: The **Wood Purchases** ledger account will be debited $1,000 (the sum will be listed in the "debit" column), because the company received wood. The **Africa Wood** ledger account will be credited for the same sum (the sum will be listed in the "credit" column), because Africa Wood provided wood.

In example No. 2: The **Sales of Tables** ledger account will be credited with $2,000, because the company provided tables. The **Central Furniture** ledger account will be debited for the same sum, because Central Furniture received tables.

Column 4 - Balance

The sum written in each row represents the difference between the sum in Column 2 (debit), up to and including that row, and the sum in Column 3 (credit), up to and including the same row.

When the difference is in favor of the debit column (the cumulative sum in it is greater), the sum in the balance column is accompanied by the letter D (for debt).

Registration in Ledger Accounts - A Summarizing Example

The USA Furniture company conducted three sales transactions for round tables with Central Furniture, as follows:

1. On April 10, 2007, 10 round tables were sold for $2,000.
   The sale was accompanied by Invoice No. 219.
2. On May 10, 2007, 20 round tables were sold for $4,000.
   The sale was accompanied by Invoice No. 230.
3. On June 10, 2007, five round tables were sold for $1,000.
   The sale was accompanied by Invoice No. 238.

The following are the particulars of the rows that will be registered in the two ledger accounts accompanying the transaction: **Sales of Tables** and **Central Furniture**.

Sales of Tables Ledger Account (Sales)

Particulars				Sums		
Date	**Particulars of Transaction**	**Reference**	**Contra Account**	**Debit**	**Credit**	**Balance**
April 10, 2007	10 round tables	219	**Central Furniture**		2,000	2,000
May 10, 2007	20 round tables	230	**Central Furniture**		4,000	6,000
June 10, 2007	5 round tables	238	**Central Furniture**		1,000	7,000

Central Furniture Ledger Account (Customer)

Particulars				Sums		
Date	**Particulars of Transaction**	**Reference**	**Contra Account**	**Debit**	**Credit**	**Balance**
April 10, 2007	10 round tables	219	**Sales of Tables**	2,000		2,000 D
May 10, 2007	20 round tables	230	**Sales of Tables**	4,000		6,000 D
June 10, 2007	5 round tables	238	**Sales of Tables**	1,000		7,000 D

The Bookkeeping Journal - A Launching Pad for Registration in Ledger Accounts

Before any transaction is registered in the two ledger accounts that accompany it, they are first registered in a table of rows, called a **journal**.

Every row in the journal is designated for registering the data from some transaction.

After being registered in the journal, the data are automatically transferred to the two corresponding ledger accounts.

Registration in the journal is in chronological order, according to the date on which the transaction documents were received.

Example

The following events occurred in May 2008 at the **USA Chairs** company:

1. On May 1, the company bought 100 kg of wood for $2,000 from the **Africa Wood** supplier. The number of the invoice received was 9270.
2. On May 2, the company received an invoice from the **Electric Corporation** for $800 in respect of electricity consumption in March-April 2008. The invoice number was 23811.
3. On May 5, the company sold 20 chairs to the **Coffee and Pastry** customer for $1,000. The number of the invoice issued was 122.
4. On May 9, the company paid **Lisa James** $2,000 in wages through check no. 555222.

Registration of these events in the journal is as follows:

Serial No.	Date	Debit Account (Receiving Ledger Account)	Credit Account (Giving Ledger Account)	Reference No.	Particulars of the Transaction	Sum
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	May 1	**Purchase of raw materials**	**Africa Wood (supplier)**	9270	100 kg wood	$2,000
2	May 2	**Electricity expenditures**	**Electric Corporation (supplier)**	23811	Electricity consumption 3-4/08	$800
3	May 5	**Coffee and Pastry (customer)**	**Sales**	122	Sale of 20 chairs	$1,000
4	May 9	**Lisa James**	**Current account**	555222	Salary for Lisa James	$2,000

Every row in the journal is automatically transferred to the two ledger accounts listed in Columns (3) and (4) above, as presented on the following page.

For the sake of simplicity, assume that the balance of each of the ledger accounts in the following examples, before the additions, is 0.

1. **The First Row in the Journal:**

Raw Materials Purchase Ledger Account

Particulars				Debit	Credit	Balance
Date	Reference	Contra Account	Particulars of Transaction			
May 1	9270	Africa Wood (supplier)	100 kg of wood	$2,000		$2,000 D

Africa Wood Ledger Account (Supplier)

Particulars				Debit	Credit	Balance
Date	Reference	Contra Account	Particulars of Transaction			
May 1	9270	Purchases of Raw Materials	100 kg of wood		$2,000	$2,000

2. **The Second Row in the Journal**

Electricity Expenditures Ledger Account

Particulars				Debit	Credit	Balance
Date	Reference	Contra Account	Particulars of Transaction			
May 2	23811	**Electricc Corporation** (supplier)	Electricity consumption Mar.-Apr./08	$800		$800 D

Electricc Corporation Ledger Account (Supplier)

Particulars				Debit	Credit	Balance
Date	Reference	Contra Account	Particulars of Transaction			
May 2	23811	Electricity Expenditures	Electricity consumption Mar.-Apr./08		$800	$800

3. **The Third Row in the Journal**

Coffee and Pastry Ledger Account (Customer)

Particulars				Debit	Credit	Balance
Date	Reference	Contra Account	Particulars of Transaction			
May 5	122	Sales	Sale of 20 chairs	$1,000		$1,000 D

Sales Ledger Account

Particulars				Debit	Credit	Balance
Date	Reference	Contra Account	Particulars of Transaction			
May 5	122	Coffee and Pastry (customer)	Sale of 20 chairs		$1,000	$1,000

4. **The Fourth Row in the Journal**

Lisa James (Employee) Ledger Account

Particulars				Debit	Credit	Balance
Date	Reference	Contra Account	Particulars of Transaction			
May 9	555222	Current Account	Salary	$2,000		$2,000 D

Current Account Ledger Account

Particulars				Debit	Credit	Balance
Date	Reference	Contra Account	Particulars of Transaction			
May 9	555222	Lisa James	Salary		$2,000	$2,000

Sorting Ledger Accounts into Groups

Ledger accounts are usually sorted into five main groups:

1. Expenses.
2. Sales.
3. Property (assets).
4. Debit (liabilities).
5. Capital-this group is discussed later in the chapter

Most readers will fully understand the meaning of property ledger accounts and debit ledger accounts only at the end of the chapter.

Characteristics of Ledger Accounts by Groups

Before continuing, let it be noted that for reasons of convenience, the ledger accounts in the following examples include the figures in Columns 2, 3, and 4, but only a summary of Column 1 (particulars).

Expense Ledger Accounts

Expense ledger accounts usually represent only "receiving" (of raw materials or services), as can be seen in the ledger accounts for **electricity expense** and **wood purchases**.

Electricity Expenditures Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Electricity consumption Jan.-Feb./00	Electric Corporate	1,000		1,000 D
Electricity consumption Mar.-Apr./00	Electric Corporate	1,500		2,500 D
Electricity consumption May-Jun./00	Electric Corporate	2,000		4,500 D

Wood Purchases Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of 50 kg wood	Africa Wood	2,500		2,500 D
Purchase of 60 kg wood	HaBench Wood	3,000		5,500 D
Purchase of 100 kg wood	Africa Wood	5,500		11,000 D

A separate ledger account is kept for each type of expense.

Sales Ledger Accounts

Sales ledger accounts usually represent only the provision (of products and/or services), as can be seen in the ledger accounts for the **sale of tables** and **chairs**.

Table Sales Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Sale of 10 tables	Café Lisa		2,000	2,000
Sale of 20 tables	Bill & Sons		4,000	6,000

Chairs Sales Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Sale of 20 chairs	Café Lisa		5,000	5,000
Sale of 10 chairs	George		3,000	8,000
Sale of 8 chairs	Café Lisa		2,000	10,000

Asset Ledger Accounts

This group is divided into two sub-groups:

1. **Fixed assets**
2. **Current assets (**also called **short-term assets).**

Fixed assets include mostly equipment, machinery, and buildings - assets used by the firm for many years.

Ledger accounts for fixed assets represent mostly receipts, such as the **gluing machinery** ledger account and the **computers** ledger account.

Gluing Machinery Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of gluing machinery	Lisa Machinery	5,000		5,000 D

Computers Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of a computer	Victory Computers	3,000		3,000 D

Current Assets:

Current assets consist mostly of four groups of assets. What all four types of current assets have in common is that they will not remain in the same group for long. This will be explained more thoroughly later.

The four groups of current assets are described in the following pages.

1. Accounts Receivable: This refers to customers who have purchased products, but have not yet paid their full debt. The balance of their debt to the company is an asset to the company. A separate ledger account is kept for each customer. The balance in the ledger account constitutes evidence of the customer's debt (like a customer who buys from a grocery store on credit, and has a ledger that lists all of his purchases and the total debt that he has accumulated). When the customer pays his debt, the asset called Accounts Receivable is eliminated and the company acquires a new asset in its place: **Cash**.
2. **Cash:** Cash is usually deposited in a current account in the banks. The ledger accounts in which the registration is handled are named **Current Account in Bank A** and/or **Current Account in Bank B**, etc.
3. **Inventory:** This refers to materials and/or goods in the possession of the company, which it intends to either use to make products or for sale in the near future. The concept of inventory and what it includes will be explained later in more depth.
4. **Deposits of Securities (or Securities for short):** The ledger accounts in which this registration is handled are called **Securities Deposit in Bank A** and/or **Securities Deposit in Bank B**, etc.

Both cash and cash deposits are usually used in the future for various cash payments and do not remain in their current group (cash or deposits).

Current Assets ledger accounts usually represent both receipt and giving, as in the following example of the ledger accounts of **Central Furniture (a customer)** and **Current Account in Citigroup**.

Central Furniture (a Customer) Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Sale of 20 chairs	Sales	7,000		7,000 D
Sale of 5 chairs	Sales	2,000		9,000 D
Payment for 20 chairs	Cash		7,000	2,000 D

Current Account in Citigroup Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Payment to wood supplier	Africa Wood		10,000	10,000
Payment to wood supplier	Bench Wood		2,000	12,000
Payment from customer	Central Furniture	7,000		5,000

Debt Ledger Accounts

This group is divided into two sub-groups:

1. **Long-term debt.**
2. **Short-term debt.**

Long-term debt:

Long-term debt includes mainly loans that the firm will pay back over periods of more than one year. Every ledger account in this group constitutes evidence of the balance of a specific loan that the company received. If the company received five long-term loans, it will usually have five different ledger accounts.

Short-term debt:

Short-term debt includes mainly two groups of liabilities:

- **Short-term loans** - loans that the firm will pay back (within one year).
- **Accounts Payable** - this refers to suppliers who sold products to the company, and have not yet received full payment for them. A separate ledger account is kept for each supplier. The balance of the ledger account constitutes evidence of the company's debt to the supplier.

Loan ledger accounts usually represent both receipt (of the principal of the loan) and giving (of payments on the loan).

Suppliers' ledger accounts usually represent both receipt (of raw materials or services - in short, goods) and giving (payment to a supplier).

Loans from Citigroup Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Loan A	Cash		7,000	7,000
Loan B	Cash		2,000	9,000
Payment on account of Loan A	Cash	1,500		7,500

Africa Wood (Supplier) Ledger Accoount

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of 10 kg wood	Purchase of wood		10,000	10,000
Payment for 10 kg wood	Cash	10,000		0

Salary Ledger Account

A salary ledger account is one of a company's expenditure ledger accounts. The contra account for a salary ledger account is usually a ledger account in the name of the employees to whom the salary is paid.

A separate ledger account is kept for each employee. Every employee is like a supplier of work services, similar to suppliers of goods.

For example, if one employee named Greg James works at a bakery, and earns a monthly salary of $4,000, registration takes place in the following two ledger accounts at the end of the month:

1. **Salaries of production employees** - The ledger account is debited for $4,000 - the company received work services.
2. **Greg James** - The ledger account is credited for $4,000 - employee Greg James gave work services.

Registration is as follows:

Salary Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
January 2008 salary	Greg James	4,000		4,000 D

Greg James (Employee) Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
January 2008 salary	Salary		4,000	4,000

When Greg James is paid his salary on the ninth of the month (the money is transferred from the bakery's bank account to Greg James's bank account), the payment transaction will be registered in the following two ledger accounts:

1. **Greg James** - receives money.
2. **Current Account** - shows money paid.

Greg James (Employee) Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
January 2008 salary	Salary		4,000	4,000
Payment for January 2008	Current Accounts	4,000		0

Current Account Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
				12,000 D
January 2008 salary	Greg James		4,000	8,000 D

Accounting Treatment of Inventory

Inventory registration accounts follows the production process from the delivery of raw materials through their transformation into finished products that are ready for sale.

Types of Inventory in a Firm:

Inventory is usually sorted into three groups:

1. **Inventory of raw materials** - materials from which the company prepares (manufactures) the products that it sells.
2. **Inventory of products being processed** - products that are still in the manufacturing process.
3. **Inventory of finished products -** products ready for sale that are waiting for a customer.

The following discussion refers only to inventory groups 1 and 3. Inventory of products being processed is usually negligible, and is usually included in the inventory of finished products. Most firms physically count their inventory once a year, usually at the end of the year. Large firms usually continuously monitor and register inventory movements.

Inventory of Raw Materials

Background:

For reasons of simplicity, reference will be made to a bakery named the **Victor Bakery**, whose only raw material is flour. The bakery prepares its financial statements at the end of the year. The bookkeeper registers all purchases of flour in the **Flour Purchase** ledger account, which is an expense ledger account. At the end of the year, when the financial statements are prepared, the bakery has no flour left. The sum of its flour purchases during the year (as listed in the Flour Purchase ledger account) is presented as expense in the **Profit and Loss Statement** as part of an item entitled **"Raw materials expenses"**. If, however, the bakery has 100 kg of flour left at the end of the year (as physically counted), this balance of flour is an asset, not an expense, even though it has already been registered in the Flour Purchase ledger account (as an expense ledger account). Theoretically, the bakery can sell the balance of this flour, or return it to the supplier, and receive its value in cash.

If the balance of flour is returned to the supplier, the registration in the ledger accounts would be as follows (assuming that the value of the flour remains $100):

Flour Purchase Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of 200 kg flour	Flour Supplier	200		200 D
Purchase of 300 kg flour	Flour Supplier	300		500 D
Purchase of 100 kg flour	Flour Supplier	100		600 D
Return of 100 kg flour	Flour Supplier		100	500 D

Flour Supplier Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of 200 kg flour	Flour Purchase		200	200
Purchase of 300 kg flour	Flour Purchase		300	500
Purchase of 100 kg flour	Cash		100	600
Return of 100 kg flour		100		500

The value of 100 kg of flour ($100) is deducted (credited) from the Flour Purchase Ledger Account. A debit of this sum is registered in the Flour Supplier Ledger Account (returning the flour to the supplier generates a debt to the bakery on the part of the supplier, as if the supplier were a customer who had been sold 100 kg of flour on credit).

Registration of Inventory in the Raw Materials Inventory Ledger Account

In practice, the flour is obviously not returned to the supplier, nor is it sold. What happens is that the flour is transferred to a "virtual warehouse", represented by a ledger account named **Raw Materials Inventory** (in certain cases, the inventory is really in the raw materials warehouse). Registration in the ledger accounts is as follows:

Flour Purchase Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of 200 kg flour	Flour Supplier	200		200 D
Purchase of 300 kg flour	Flour Supplier	300		500 D
Purchase of 100 kg flour	Flour Supplier	100		600 D
Transfer to raw materials warehouse	Raw Materials Inventory		100	500 D

Raw Materials Inventory Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Transfer to raw materials warehouse	Flour Purchase	100		100 D

The expenditure registered for the purchase of flour inventory is subtracted from the Flour Purchase Ledger Account (the balance of purchases declines by $100), while the flour inventory, which is represented as if it were located in the (virtual) warehouse, constitutes part of the firm's purchases.

An Explanation from a Different Perspective (Figurative):

Assume that the company is like a family, and every ledger account in it is a family member. The children do business with each other. In the above example, 100 kg of flour move from child A (the Flour Purchase Ledger Account) to child B (the Raw Materials Inventory Ledger Account). The flour moves from one person to another, but it remains in the family, and is part of its assets. At the end of the year, the balance remaining in the **Flour Purchase Ledger Account** is transferred to the **Profit and Loss Statement**, and the ledger account is left with a balance of 0. The ledger account is "empty" at the beginning of a new year, and registration of flour purchases for the next year begins.

Return Transfer from the Raw Materials Inventory Ledger Account to the Flour Purchase Ledger Account

Immediately following preparation of the financial statements, the flour inventory is returned from the virtual warehouse. Receiving is registered in the Flour Purchase Ledger Account, and giving is registered in the Raw Materials Inventory Ledger Account. The virtual warehouse is left with no inventory.

The remaining flour inventory from the preceding year is now registered as expenditure for the New Year in the **Flour Purchase** Ledger Account.

Flour Purchase Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Transfer from raw materials warehouse	Raw Materials Inventory	100		100 D

Raw Materials Inventory Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	**Contra Account**			
				100 D
Transfer to Flour Purchase	Flour Purchase		100	0

Although the term "transfer" is used for flour instead of buying and selling, the monetary value of the flour is registered in the ledger accounts as if a transaction at full price had taken place with an external party, as is the case in bookkeeping for any internal transaction in a company. Everything is registered in monetary value as if a transaction had taken place between two parties sharing a business relationship.

Inventory of finished products

Background:

Expenses for manufacturing products

A number of expense elements play a role in the manufacturing of finished products. The main ones are as follows:

Raw materials - the expense is registered in the **Raw Materials Purchase** Ledger Accounts. A separate ledger account is kept for each type of raw material. The bakery in the example uses only flour. Other (real) bakeries also use yeast and salt, resulting in three ledger accounts:

(1) Flour purchases; (2) Yeast purchases; (3) Salt purchases.

Work of production employees - the expense is registered in the Salaries - Production Ledger Account.

1. **Wear and Tear** - wear and tear is the deterioration of equipment, machinery, and buildings as a result of frequent usage. The substance and calculation of wear and tear, also called **"Depreciation"**, will be discussed more thoroughly later.
2. **Miscellaneous manufacturing expenses -** in addition to the three elements listed above, which are the most significant, there are other expenses, such as electricity, shipping, user fees for forklifts, etc. These are grouped together under the heading of **Miscellaneous Manufacturing expenses.**

Cost of Sales

This item, which includes all four of the above-mentioned expenditure items, is called **cost of sales**, or **direct expenditures**. The term **direct expenditures** is used to indicate that these expenditures are in direct proportion to the volume of sales. The greater sales are, the higher the **direct expenditures**. For example each additional loaf of bread produced by the Victor Bakery increases flour expenditures by $2.

In practice, the expenditure registered during the year in each of these expenditure ledger accounts (Raw Materials, Salaries, Wear and Tear, and Miscellaneous Manufacturing Expenditures) is transferred at the end of the year to a general ledger account, called **Cost of Sales** as follows:

Flour Purchase Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Flour purchase	Lisa Flour	1,000		1,000 D
Flour purchase	Tov Flour	1,500		2,500 D
Transfer to Cost of Sales Ledger Account	Cost of Sales		2,500	0

Salaries Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Salaries Jan./01	Employees	3,000		3,000 D
Salaries Feb./01	Employees	5,000		8,000 D
Transfer to Cost of Sales Ledger Account	Cost of Sales		8,000	0

Wear and Tear (Depreciation) Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Machinery Depreciation	Oven	1,000		1,000
Transfer to Cost of Sales Ledger Account	Cost of Sales		1,000	0

Miscellaneous Manufacturing Expenditures Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
				300 D
Transfer to finished products inventory	Finished Products Inventory		300	0

Cost of Sales Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Transfer from Flour Purchase Ledger Account	Flour Purchase	2,500		2,500 D
Transfer from Salaries	Salaries	8,000		10,500 D
Transfer from Depreciation	Depreciation	1,000		11,500 D
Transfer from Miscellaneous Manufacturing Expenditures Ledger Account	Miscellaneous Manufacturing Expenditures	1,500		13,000 D

The Value of Cost of Sales Items Per Product Unit

A company usually calculates for its own internal needs the value of the elements of its cost of sales for each production unit that it manufactures.

For example, a bakery calculates the value of the elements of its cost of sales per loaf of bread that it makes, i.e the value of the flour element in each loaf of bread and the value of the salaries, equipment wear and tear, and miscellaneous expense elements required to make one loaf of bread.

In this example, assume that the bakery sells a loaf of bread for $5, and that the value of the elements of cost of sales is $3 per loaf.

This figure will be used in the following explanations.

Registration of Inventory of Products in Bookkeeping

Were the bakery left at the end of the year with no bread inventory, all the expense included under cost of sales would appear as expense in the Profit and Loss Statement prepared by the company at the end of the year.

As an example, however, assume that the bakery has 100 loaves of bread remaining at the end of the year. In this case, all the elements used to prepare the bread (flour, salaries, etc.), which have already been registered as expense and transferred to the Cost of Sales Ledger Account, are not part of the expenditure for bread that has already been sold. In order to prevent this "misuse", the bread inventory is "transferred" to a "virtual warehouse", called an **"Inventory of Finished Products"**.

The transfer involves a sum equal to the **direct expense** (cost of sales) incurred in producing the quantity of bread transferred to the warehouse.

The registration takes place in two bookkeeping ledger accounts, as follows:

It is assumed that the cost of sales subtracted for 100 loaves of bread transferred is $300.

Cost of Sales Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
				300 D
Transfer to finished products inventory	Finished Products Inventory		300	0

Cost of Sales Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	**Contra Account**			
				300 D
Transfer to Cost of Sales	Cost of Sales		300	0

The remaining balance in the **Cost of Sales** ledger account is transferred to the Profit and Loss Statement and the ledger account is left with a 0 balance.

Return transfer from the Products Inventory ledger account to the Cost of Sales ledger account

At the beginning of the year (immediately after the annual financial statements are prepared), the bread is transferred from the "virtual warehouse" to the Cost of Sales Ledger Account.

The following transactions are registered on the **Cost of Sales** Ledger Account and the **Products Inventory** Ledger Account:

Finished Products Inventory Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	**Contra Account**			
Transfer from Cost of Sales	Cost of Sales	300		300 D

Finished Products Inventory Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	**Contra Account**			
Transfer from Finished Products Inventory	Finished Products Inventory	300		300 D

The registration in the **Cost of Sales** Ledger Account remains until the end of the year, when the end-of-year balance in each of the expenditure elements (flour, salaries, wear and tear, and miscellaneous expenditures) is again added to it.

If no bread inventory is left at the end of the next year, then the entire sum registered in the Cost of Sales Ledger Account will be transferred to the Profit and Loss Statement. If inventory of bread remains, the transaction described above between the Cost of Sales and Product Inventory Ledger Accounts is repeated.

Financial Investment in a Company by its Owners

When the owners of a company wish to invest money in it, they do not simply take money out of their wallets and deposit it in the company treasury with no documentation. The owners of a company can invest money in the company by only two methods:

1. By purchasing equity shares that the company issues and assigns to them.
2. By lending money to the company.

Method 1: Buying Shares Issued by the Company

This transaction is documented through two bookkeeping ledger accounts:

1. **A Current Account** Ledger Account that represents the receipt of money (the ledger account is debited).
2. **A Share Capital** (a synonym for ownership) Ledger Account that represents the payment of money (the ledger account is credited).

The owners receive shares in exchange for the money that they invest in the company. First and foremost, a share is evidence of the money that the owners invested in the company. At the same time, each share bestows ownership of some part of the company (depending on the proportion that the share represents of all shares issued by the company). The owners cannot take back money that they have invested as part of an issue of shares.

Method 2: Lending to the Company

This transaction is documented through two bookkeeping ledger accounts:

1. **A Current Account** Ledger Account that represents the receipt of money (the ledger account is debited).
2. **A Debt** Ledger Account that represents the payment of money (the ledger account is credited).

Every loan is accompanied by an agreement setting the terms of the loan, particularly the interest rate and repayment terms.

Preparation of the Financial Statements

Accounting documentation and registration constitute a basis for the preparation of the financial statements, which will be discussed below.

The principal activity accompanying the preparation of the financial statements focuses on the allocation (sorting into groups) of individual pieces of information with similar characteristics (a primary group). Primary groups with common features will later be combined into larger groups, i.e., secondary groups. If justified, secondary groups resembling each other can be combined into tertiary and fourth level groups.

The individual data are actually the balances in the bookkeeping ledger accounts.

From now on, the word **"concentration"** will be used to describe the process of **"grouping"**.

Concentration of Individual Data in Primary Groups

Examples:

Concentration of "Accounts Receivable" - A ledger account is opened for each customer. The balances in all of these customers' ledger accounts are concentrated in a new ledger account, called **Accounts Receivable**. A single row is registered in this ledger account, containing the total balance for all customers, as of the date on which the financial statements were prepared.

1. **Concentration of "Accounts Payable"** - A ledger account is opened for each supplier. The balances of all these suppliers' ledger accounts are concentrated in a new ledger account, called **"Accounts Payable"**.
2. **Concentration of "Raw Material Purchases"** - The total balance of purchases of all raw material purchases is concentrated in a new ledger account, called **Raw Material Purchases**, or more succinctly, **"Raw Materials"**. In a furniture factory, for example, the balances of the following ledger accounts will be transferred to the Raw Materials Ledger Account: Wood Purchases, Glue Purchases, Nails Purchases, etc.
3. **Concentration of Miscellaneous Manufacturing Expenditure** - The balances of all Miscellaneous Expenditures, such as **Electricity Expenditures, Water Expenditures, Auto Repairs, Cleaning Expenditures, Machinery Leasing Expenditure**s, etc. are concentrated in this ledger account.
4. **Concentration of "Sales"** - The balances of sales from the sales ledger accounts for each of the company products are concentrated in a new ledger account, called **Sales**. For example, if the company sells three types of products - **chairs**, **tables**, and **closets**, each of which has a separate ledger account - the balances appearing in each of these three ledger accounts will be transferred to the Sales Ledger Account.

Concentration into "Secondary Groups"

Example:

Four groups of primary ledger accounts are concentrated in the Cost of Sales Ledger Account:

- Raw Materials (see the above list in Example 3 for primary concentration groups).
- Salaries (of production employees).
- Depreciation (of machinery, equipment, and buildings).
- Miscellaneous Manufacturing Expenditures (see the above list in Example 4 for primary concentration groups).

The balance of each primary group is transferred to the **Cost of Sales** Ledger Account.

Summation of the Concentration Transaction

The concentration transaction includes many small items, and gradually concentrates them into larger groups. For example, if the company buys wood, this transaction is first registered in the **Wood Purchases** Ledger Account. In the second stage, everything accumulated in the **Wood Purchase**s Ledger Account (together with what has accumulated in similar ledger accounts, such as the Nails Purchases Ledger Account) is transferred to the **Raw Materials Purchases** primary concentration group.

In the third stage, everything that has accumulated in the **Raw Materials Purchases Ledger Account** is transferred (together with whatever has accumulated in other corresponding ledger accounts, such as the **Salaries** Ledger Account) to the **Cost of Sales** secondary concentration group.

It is important to note that although the concentration transaction appears long and boring, today it is done automatically by computer (through suitable bookkeeping software), and requires no special effort by the bookkeeper.

"Transfer" and "Absorbing" Ledger Accounts

A ledger account whose balance is transferred is called a **"Transfer Ledger Account"**.

A ledger account to which the balances are transferred is called an **"Absorbing Ledger Account"**.

The Accounting Registration that Accompanies a Concentration Transaction

When the balance of the **Transfer Ledger Account** is in debit, it is transferred to the debit column in the **Absorbing Ledger Account**.

When the balance of the Transfer Ledger Account is in credit, it is transferred to the credit column in the **Absorbing Ledger Account**.

At the same time, the ledger account that transfers a debit balance is credited by the same amount, and the ledger account that transfers a credit balance is debited by the same amount, leaving a 0 balance in the Transfer Ledger Account.

Examples:

1. Transferring balances from the Wood, Glue and Nails Ledger Accounts to the Raw Materials ledger account.

Wood Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of 10 kg wood	Home Wood	300		300 D
Purchase of 20 kg wood	Lisa Wood	200		500 D
Purchase of 30 kg wood	Rose Wood	500		1,000 D
Transfer of balance	Raw Materials		1,000	0

Raw Materials Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Transfer of balance	Wood	1,000		1,000 D
Transfer of balance	Glue	400		1,400 D
Transfer of balance	Nails	100		1,500 D

Glue Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of 5 kg glue	Real Glue	300		300 D
Purchase of 1 kg glue	Real Glue	100		400 D
Transfer of balance	Raw Materials		400	0

Nails Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of 1,000 nails	Home Center	100		100 D
Transfer of balance	Raw Materials		100	0

2. Transferring balance from the Chair (Sales), Tables (Sales) and Closets (Sales) Ledger Accounts to the Sales Ledger Account.

Chairs (Sales) Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Sales of 5 chairs	Coffee and Pastry		200	200
Sale of 10 chairs	Lisa Furniture		400	600
Transfer of balance	Sales	600		0

Tables (Sales) Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Sale of 1 table	Lisa		400	400
Sale of 2 tables	Coffee and Pastry		600	1,000
Transfer of balance	Sales	1,000		0

Sales Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Transfer of balance	Chairs		600	600
Transfer of balance	Tables		1,000	1,600
Transfer of balance	Closets		3,000	4,600

Closets (Sales) Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Sale of 5 closets	Decor Furniture		1,500	1,500
Sale of 4 closets	Home Furniture		1,200	2,700
Sale of 1 closet	Decor Furniture		300	3,000
Transfer of balance	Sales	3,000		0

Registration in Ledger Accounts

We will review two ledger accounts: **Wood** and **Raw Materials**:

Wood Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	**Contra Account**			
Purchase of 10 kg wood	Wood World	300		300 D
Purchase of 20 kg wood	Lisa Wood	200		500 D
Purchase of 30 kg wood	Rose Wood	500		1,000 D
Transfer of balance	Raw Materials		1,000	0

Raw Materials Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	**Contra Account**			
Transfer of balance	Wood	1,000		1,000 D

The **Wood** Ledger Account has a $1,000 debit balance, meaning that the ledger account recorded the acquisition of merchandise, and ostensibly should return it (or an equivalent value in cash).

The transaction involves the balance amounts equivalent to the value of the merchandise from the **Wood** Ledger Account to the **Raw Materials Ledger Account**, while these amounts ostensibly must eventually either be returned as merchandise or paid for.

In short, the **Wood** Ledger Account gives merchandise and is credited, while the **Raw Materials** Ledger Account ostensibly receives merchandise, and is debited.

It is sufficient to remember that the debit balance goes into the debit column.

We will review two ledger accounts - **Table Sales** and **Sales**:

Tables (Sales) Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	**Contra Account**			
Sale of 1 table	Lisa		400	400
Sale of 2 tables	Coffee and Pastry		600	1,000
Transfer of balance	Sales	1,000		0

Sales Ledger Account

Particulars		Debit	Credit	Balance
Particulars of Transaction	**Contra Account**			
Transfer of balance	Tables		1,000	1,000

The **Tables (Sales)** Ledger Account has a $1,000 credit balance, meaning that the ledger account gave merchandise, and ostensibly must receive it (or its value in money).

The transaction includes transferring the balance amounts to receiving the value of the merchandise from the **Sales Ledger Account**, which ostensibly must eventually receive either the merchandise or its monetary value. In short, the **Table (Sales)** Ledger Account receives the value of the merchandise, and is debited, while the **Sales** Ledger Account gives the value of the merchandise, and is credited.

It is sufficient to remember that the credit balance goes to the credit column.

Reconciliations

It is important to keep in mind that bookkeeping activity is accompanied by physical checks, including bank reconciliations, inventory stocktaking, and examinations of samples of other items. These checks, which are performed periodically, are called **reconciliations**.

For example, if there should be $1,000 in the bank according to the bookkeeping records, the balance is checked to verify that the $1,000 is really there. If bookkeeping registration shows that there is an inventory of $5,000, the warehouse is checked to make sure that the inventory is really worth $5,000, etc.

Chapter 2

The Financial Statements

Introduction

The documents and bookkeeping registrations constitute the basis of the financial statements that the company prepares periodically (yearly or quarterly).

The Period of the Statements

1. **The annual statements:** A company is legally obligated to prepare financial statements once a year. The year is usually definined as the calendar year, beginning on January 1 and ending on December 31. The annual statements must undergo examination and auditing by an accountant. Statements that have been audited by the accountant are called **audited financial statements**.
2. **Statements for other periods:** In addition to the annual statements, the New York Stock Exchange requires all listed companies to prepare quarterly financial statements (1 quarter equals 3 months), i.e. financial statements for the three months ending on March 31, June 30, September 30, and December 31. None of the statements are required to be audited, except for the December 31 statement. For reasons of management and control, many companies prepare unaudited monthly financial statements. Theoretically, companies could prepare financial statements every day or every week, but this does not occur in practice.

3. **The financial statements in the examples in this course:** The financial statements in the examples in this course usually relate to one year (calendar year) period, unless explicitly stated otherwise. Financial statements for other periods in this course are usually for one month.

Elements of the Financial Statements

The financial statements include three main elements:

1. **The balance sheet.**
2. **The profit and loss statement.**
3. **The cash flow statement.**

Each of the three statements is presented in two parts:

Part 1 - a summary statement, which usually fits on a single page.

Part 2 - supplementary particulars taking up a number of pages appear later in the financial statements.

The summary statements present the **main headings** in the financial statements. Each of the main headings includes a series of subheadings and sub-subheadings, which appear in the second part of the financial statements.

The Balance Sheet

The balance sheet presents a picture of the company's situation on the final day of the reporting period (usually December 31, the last day of the year). The balance sheet lists the company's property on one side, and its debts on the other. In accounting, property is called **"Assets"**, and debts are called **"Liabilities"**.

As can be seen in the following example, the balance sheet is in the form of a table with two columns: A left column and a right column. The left column lists all of the company's assets, while the right column lists all of its liabilities.

The following balance sheet relates to Chess Pizza Company, which operates a neighborhood pizza parlor.

Chess Pizza's Balance Sheet as of December 31,2003 ($)

Assets (Company Property)		Liabilities	
Current Assets		**Current Liabilities**	
Cash	3,500	Accounts Payable	4,000
Inventory	4,000	**Long-term Liabilities**	
Accounts Receivable	2,500	Bank loans	6,000
Fixed Assets			
Furniture	4,000	**Equity (explanation below)**	20,000
Machinery and equipment	6,000		
Building	10,000		
Total Assets	30,000	**Total Liabilities + Equity**	30,000

Chess Pizza Company Balance Sheet Example

Assets

The assets item lists the company's assets as of the balance sheet date.

Company has assets totaling $30,000.

Cash:

The amount of money that the company has in its treasury and/or its current account is $3,500.

Inventory:

As stated in the preceding chapter, inventory is composed of several categories:

- **Inventory of Raw Materials** – materials for making pizza, such as flour, tomatoes, and cheese.
- **Inventory in Production** – pizzas in the preparatory stages.
- **Inventory of Finished Products** – pizzas ready for sale.

Chess Pizza had inventory worth $4,000 as of the balance sheet date.

Accounts Receivable:

This item is abbreviated as **AR**. The sum is the amount of money that customers still owe to the company for purchases of pizza. Chess Pizza has regular customers who pay two months after receiving pizzas. As of the balance sheet date, customers owed the company a total of $2,500 for pizzas that they purchased.

Furniture: This item includes tables, chairs, a wooden counter, etc. The total value of the company's furniture was $4,000 as of the balance sheet date.

Machinery and Equipment: This item includes ovens, pizza-cutting machines, kitchen utensils, a cash register, a computer, etc. worth a total of $6,000 as of the balance sheet date.

Building: The company owns the building in which the pizza parlor is located. The building is worth $10,000.

The Value of Assets in the Balance Sheet

When a company buys an asset (for example, land, a building, or machinery), it lists that asset in the balance sheet at its purchase price.

Over the years, the market value of the asset may increase or decrease, but this will not be reflected in the balance sheet.

The building owned by Chess Pizza is currently worth $100,000 (as estimated by an assessor), but it is listed on the balance sheet at its purchase price of only $10,000. The value of assets in the balance sheet should therefore be used with caution, because it does not always reflect their real value.

In many cases, the value of fixed assets in the balance sheet differs from their market value.

Liabilities

The liabilities item lists the company's debts as of the balance sheet date.

Accounts Payable:

This section is abbreviated as **AP**. It lists the sums that the company still owes to its suppliers for the merchandise that it purchased. In the business world, companies do not pay immediately for the merchandise that they buy; they pay at a later date (after one or two months, or even longer).

Chess Pizza still owed its suppliers $4,000 as of the balance sheet date.

Bank loans: This item lists the outstanding balance of the loans that the company owes to banks ($6,000).

Equity

When a company's total assets are greater than its liabilities (which is usually the case), the difference between them is called **"equity"**, and is listed in the right column of the balance sheet, under the liabilities items.

Listing the equity in the right column makes the total of the right column in the balance sheet equal the total in the left column. That is why this statement is called a balance sheet: the totals of the two columns "balance" (i.e. are equal).

Chess Pizza's Balance Sheet as of December 31,2003 ($)

Assets (Company Property)		Liabilities	
Current Assets		**Current Liabilities**	
Cash	3,500	Accounts Payable	4,000
Inventory	4,000	Long-term Liabilities	
Accounts Receivable	2,500	Bank loans	6,000
Fixed Assets			
Furniture	4,000	**Equity (explanation below)**	20,000
Machinery and equipment	6,000		
Building	10,000		
Total Assets	30,000	**Total Liabilities + Equity**	30,000

In the previous example, the assets total $30,000, and the liabilities (to suppliers and banks) total $10,000. The equity is equal to the difference between them - $20,000.

In order to avoid confusion in this explanation, the heading of the right column in the balance sheet was listed as **"Liabilities"**, but its full name should actually be **"Liabilities + Equity"**.

The Meaning of Equity

Were the company to decide to liquidate, and to sell off all of its assets at the value listed in the left column of the balance sheet, while also paying all of its debts to suppliers and banks, according to the sums listed in the right column, it would be left with the amount of its equity in cash. This cash belongs to the company owners, who would retain it. Equity is therefore like a company debt to its shareholders that can be collected only under special circumstances, such as when a company is liquidated. The equity item has two subsections:

1. **Share capital** - money invested in the company by the owners is called share capital. The term is derived from the fact that the company issues (gives out) its shares in exchange for the money.
2. **Retained earnings** - profits accumulated by the company that the owners have not yet withdrawn. When the owners withdraw any sum for their private use, that sum is reduced from the retained earnings. The transaction in which the owners withdraw money from the company's profits is called **distribution of a dividend**.

Founding a New Company - Listing in the Balance Sheet

Assume that Lisa wishes to open a neighborhood pizza parlor, and she founds a new company for the purpose, called **Chess Pizza**.

On December 31, 2007, she invests $25,000 of her own money, while at the same time arranging for the new company to obtain a $4,000 bank loan. The company has $29,000 = $25,000 + $4,000. She then buys:

1. A building for $10,000.
2. Equipment for $6,000.
3. Furniture for $4,000.

Lisa deposits the remaining $9,000 in cash in the company bank account. In exchange for the $25,000 that she invested in the company, the company issues shares worth $25,000 to Lisa.

Lisa acts in effect as a clerk in the company. All her actions are undertaken for the company.

As of December 31, 2007, the company's balance sheet is as follows:

Chess Pizza's Balance Sheet as of December 31, 2007 ($)

Assets		Liabilities + Equity	
Current Assets		**Liabilities**	
Cash	9,000	Bank loans	4,000
Fixed Assets			
Building	10,000	**Equity**	
Equipment	6,000	Share capital	25,000
Furniture	4,000		
Total	**29,000**	**Total**	**29,000**

Lisa plans to open the pizza parlor to the public at the beginning of February 2008. In January, she completes her preparations, in the course of which the company takes another bank loan of $5,000, and uses it to buy raw materials for making pizza.

At the end of January, the company prepared another balance sheet reflecting the transactions conducted in January 2008. The balance sheet will indicate as follows:

Chess Pizza's Balance Sheet as of January 31, 2008 ($)

Assets		Liabilities + Equity	
Current Assets		**Liabilities**	
Cash	9,000	Bank loans	9,000
Inventory	5,000		
Fixed Assets		**Equity**	
Building	10,000	Share capital	25,000
Equipment	6,000		
Furniture	4,000		
Total	**34,000**	**Total**	**34,000**

A new item totaling $5,000, called "**Inventory**", has been added to the assets column, while the **Bank loans** item in the liabilities column has grown by $5,000. There are no changes in the other balance sheet items.

Current Assets and Fixed Assets

A company's assets are usually divided into two main groups (each of which has subgroups):

Current Assets - This group includes both cash and other assets scheduled to become cash as part of the company's regular activity. These assets consist mostly of cash, inventory (which will be sold for cash), and Accounts Receivable (customers who will pay their debt in cash at the proper time).

Fixed Assets - These assets are not expected to become cash in the course of the company's regular business activities, for example, machinery, computers, office furniture, and land owned by the company.

Current Liabilities and Long-Term Liabilities

The company's liabilities are usually divided into two main groups.

1. **Current Liabilities (Also Called Short-Term Liabilities)** - these are liabilities that the company must pay within a year, including:
   - **Accounts Payable** - usually, when a company receives merchandise from a supplier, it undertakes to pay for it within 1-2 months. Until this debt has actually been paid, it appears in the balance sheet under short-term liabilities.
   - **Bank loans** that the company must repay within a year are also listed under current liabilities.
2. **Long-Term Liabilities** - these are liabilities that the company must repay, but not during the next year, for example a 10-year bank loan.

In the following example, it can be seen how a balance sheet looks when the assets in it have been divided into two main types - Fixed assets and current assets; while liabilities have been divided into two main types - Current liabilities and long-term liabilities.

Chess Pizza Balance Sheet as of December 31, 2008 ($)

Assets		Liabilities + Equity	
Current Assets		**Current Liabilities**	
Cash	3.500	Accounts Payable	4,000
Inventory	4,000	Total current liabilities	4,000
Accounts Receivable	2,500		
Total current assets	10,000	**Long-term liabilities**	
		Bank loans	6,000
Fixed assets		Total long-term liabilities	6,000
Equipment	6,000		
Furniture	4,000	**Equity**	
Building	10,000	Share capital	15,000
Total fixed assets	20,000	Retained earnings (as of December 31, 2008)	5,000
		Total equity	20,000
Total assets	30,000	**Total**	30,000

Profit and Loss Statement

The profit and loss statement, also referred to as Income statement presents all of the company's sales and expense during a given period (either a year or a quarter).

The profit and loss statement is presented in two parts:

- The first part is a summary, usually on a single page. Every item on it is a main item, with a series of sub-items listed in the second part.
- The second part, which usually takes up several pages, lists the series of sub-items and their contribution to the main item.

The summary statement is presented in a single column, and includes the company's total sales.

All the other rows involve expense.

Every expenditure row is a main item for expense that share a given characteristic. Almost every expenditure row is followed by a subtotal row that lists the difference between total sales and the sum of all the expense above it. The bottom row of the statement is the net profit.

The Chess Pizza Company- Summary Profit and Loss Statement for 2008 (sums in $)

Revenve	30,000
Cost of Revenue	15,000
Gross profit	15,000
Selling Expenses	2,500
General and Administrative (G&A) Expenses	3,500
Operating profit	9,000
Interest Expenses	500
Profit before tax	8,500
Income tax expenses	3,000
Net profit	5,500

Explanation of the Items of the Statement

Sales: This line sums all the company's sales for all its products during the period. The sum also includes sales for which the proceeds have not yet been received.

Cost of Sales: In the financial world, the word "cost" is used in place of the word "expense". This item is also referred to as "Cost of Goods Sold" (COGS).

Cost of Sales is an item that includes 4 main expenditure items with a very close connection to the products being sold: **"Raw Materials", "Salaries of Production Workers (direct labor)", Wear and Tear" ("Depreciation")** and "**Overhead costs**".

Cost of Sales is also called **Direct expense,** for the simple reason that it is very closely related to sales. If making a pizza requires 100 grams of flour ($1), 10 minutes of labor ($3), and 10 minutes in the oven ($0.50), then the cost of the "pizza elements" is $4.50 per pizza, and making 1,000 pizzas requires 1,000 pizza elements, costing 1000 x $4.50.

In the first (summary) part of the profit and loss statement, all pizza elements are included under the **"Cost of Sales"** main item.

The second part of the profit and loss statement lists the components of **Cost of Sales**.

The cost of Sales in the Examples:

In the small companies presented in the following examples, the cost of sales item will include only two elements: Raw Materials and Salaries. The other two elements (Overhead costs and Depreciation) will be ignored.

- **Overhead costs** are ignored for reasons of simplicity.
- **Depreciation** will be ignored until the meaning of the term is fully explained.

Selling Expenses:

The main sub-items in this item are **Salaries of sales people, Advertising, Promotion etc.**

General and Administrative (G&A) Expenses:

The main sub-items in this section are **Executives' Salaries, Building Maintenance expense** (municipal property taxes, rent, etc.), **Legal fees**, etc.

These two items **(selling expenses and G&A expenses**) are also called **Fixed expense**, because they are less elastic, and mostly remain the same size (at least in the short term), regardless of whether sales are high or low.

Interest expense:

The main sub-items in this group of expense are **Interest on Loans, Banking Charges, etc.**

Income tax expense:

A company pays income tax on the sum listed in the row above this expenditure row (pre-tax profit before tax).

Subtotal Rows:

The names of all subtotal rows include the word **"Profit" (Gross Profit, Operating Profit, Pre-Tax Profit befor tax, and Net profit)**.

The distinction between different types of profit is important in analyzing the company's operating expense, as will be explained below.

When total expense are greater than sales, the company has a net loss.

In certain rare cases, the operating profit line or the gross profit line show a loss. In these cases, the row is called an operating loss and a gross loss, respectively.

Listing in the Balance Sheet and the Profit and Loss Statement - Combined Examples

The following examples will continue to follow the activity of Chess Pizza from month to month, and how this activity is reflected in the balance sheet and the profit and loss statement.

The balance sheet of Chess Pizza as of the end of January 2008 is as follows:

Chess Pizza's Balance Sheet as of January 31, 2008 ($)

Assets		Liabilities + Equity	
Current Assets		**Short-term Liabilities**	
Cash	9,000		
Inventory	5,000	Bank loans	9,000
Fixed Assets		**Equity**	
Building	10,000		
Equipment	6,000	Share capital	25,000
Furniture	4,000		
Total	34,000	**Total**	34,000

Activity during February:

In February, the company spent $4,000 on raw materials, all of which it used to make pizza (the company decided not to use its existing inventory, but to keep it for an emergency). The company also paid $5,000 in salaries. The company sold pizzas for $11,000. All the transactions were in cash.

These transactions will be listed as follows in the profit and loss statement:

The Chess Pizza Company's Profit and Loss Statement - February 2008 ($)

Sales	11,000	
Cost of sales	9,000	(Raw materials + salaries)
Net profit	2,000	

(It is assumed that the company pays no taxes).

The balance sheet items that change as a result of the company's activity in February are circled as follows:

In the assets column:

The cash item will increase by $2,000.

Explanation: $11,000 in sales, minus $9,000 in expenditures.

In the liabilities column:

Since the company earned $2,000 from the sale of pizzas, a retained earnings item with $2,000 will be added to the **equity** item (in the right column). The retained earnings item was not included in the balance sheet for the preceding month, because its total was 0.

Chess Pizza's Balance Sheet as of February 28, 2008 ($)

Assets		Liabilities + Equity	
Current Assets			
Cash	11,000	**Short-term liabilities**	
Inventory	5,000	Bank loans	9,000
Fixed Assets		**Equity**	
Building	10,000	Share capital	25,000
Equipment	6,000	Retained earnings	2,000
Furniture	4,000		
Total	**36,000**	**Total**	**36,000**

Activity during March

Sales: $15,000. Payment terms - cash.

Expenditures:

1. Purchase of raw materials - $6,000. Payment terms: April 2008.
2. Payment of salaries - $4,000. Payment terms: cash.
3. Newspaper advertising - $1,000. Payment terms: cash.

These transactions will be listed as follows in the profit and loss statement:

The Chess Pizza Company's Summary Profit and Loss Statement - March 2008 ($)

Sales	15,000	
Cost of sales	10,000	(Raw materials $ 6,000 + salaries $4,000)
Gross profit	**5,000**	
Selling expenses	1,000	
Net profit	**4,000**	

The balance sheet item that change as a result of the companys activity in march are as follows:

In the assets column:

The **cash** item will increase by $10,000. Explanation: $15,000 in sales, minus $5,000 in expenditures (salaries + newspaper advertising).

In the liabilities column:

The **accounts payable** item will increase by $6,000. Explanation: Purchases of raw materials, for which the company will pay in the future. Since the company earned a $4,000 profit, this sum will be added to the **retained earnings** item.

The company balance sheet as of March 31, 2008 will be as follows (changes from the preceding month are circled):

Chess Pizza's Balance Sheet as of March 31, 2008 ($)

Assets		**Liabilities + Equity**	
Current Assets		**Short-term liabilities**	
Cash	21,000	Accounts payable	6,000
Inventory	5,000	Bank loans	9,000
Fixed Assets		**Equity**	
Building	10,000	Share capital	25,000
Equipment	6,000	Retained earnings	6,000
Furniture	4,000		
Total	46,000	**Total**	46,000

Withdrawal of Money by the Owners

The shareholders can withdraw money from the company in two different ways:

1. **As a loan** - the party taking the loan must repay it.
2. **As a dividend** - the word "dividend" is derived from the Latin word "dividendum", which means distribution. A dividend is a given sum of money that the shareholders take for themselves from the company's retained earnings (they are not required to take it). The owners do not have to return a dividend that they have taken. When there are no profits, the owners cannot take a dividend. The shareholders are also entitled to receive a dividend from profits accumulated in previous years. The amount of the dividend that a company distributes does not necessarily reflect its profits at that time.

Example: In 2008, a new company named **Lisa's Bakery** earned a $10,000 profit. The owners could have taken a dividend of up to $10,000, but they decided to take only $6,000, leaving the company with $4,000 in retained earnings. The company earned only $10 in 2009, but the owners are entitled to take a dividend of $4,010 ($4,000 from 2008 and $10 from 2009).

The Connection between the Balance Sheet and the Profit and Loss Statement

In order to calculate a company's annual profit, for example its profit in 2009, the profit and loss statement is not necessary. It can be calculated from the sums appearing in the equity items in two consecutive balance sheets for December 31, 2008 and December 31,2009, as can be seen in the following example, which concerns the USA Chairs company:

USA Chairs' Balance Sheet as of December 31, 2008 ($)

Assets		Liabilities + Equity	
Fixed assets	50,000	Current liabilities	60,000
Current assets	50,000	Equity	40,000
Total	**100,000**	**Total**	**100,000**

USA Chairs' Balance Sheet as of December 31, 2009 ($)

Assets		Liabilities + Equity	
Fixed assets	60,000	Current liabilities	70,000
Current assets	70,000	Equity	60,000
Total	**130,000**	**Total**	**130,000**

The calculation is simple:

The net profit in 2009 equals the difference between the equity items for the two years, since the source of the increase in equity from one year to the next is the profit earned by the company during the year.

This assumes that the shareholders neither injected money into the company, nor withdrew a dividend from it (a dividend is a withdrawal from profits).

The profit in 2009 was therefore $20,000 ($60,000 minus $40,000).

Had the company earned no profit during the year, its equity would have remained at $40,000 on December 31, 2009. Had it made a $10,000 loss, its equity would have decreased by $10,000.

If the owners invested money in the company during 2009 (or, in business terms, if the company issued share capital) totaling $10,000, for example, it could be concluded that the increase in its equity originated from two sources:

1. An increase of $10,000 due to the owners' injection of money into the company.
2. An unknown (at this stage) amount of profit that accumulated during the year.

The sum of these two sources gives the total increase in equity - $20,000. The accumulated profit during the year is therefore $10,000 ($20,000 minus $10,000).

If it is known that the owners withdrew a $5,000 dividend, it can be deduced that this transaction decreased the company's equity by $5,000. Since total equity grew by $20,000 during the year, the company's accumulated profit during the year was $25,000.

Wear and Tear of Investment Assets (Depreciation)

By their nature, investment assets (machinery and equipment, buildings, etc.) are subject to wear over the years.

This decrease in the value of assets is called **"Wear and Tear"** or **"Depreciation"**. In other words, depreciation represents the cost of using assets during the period.

Assume that the company bought a new car for $70,000, and sold it for $50,000 two years later. In this case, the company suffered $20,000 in depreciation.

Obviously, there is no exact formula or method for calculating the annual amount of wear and tear. Nevertheless, over the years, accountants have devised rules (with a number of variations) for calculating the annual wear and tear in terms of assets.

The most popular method is called the straight-line method. It is based on two assumptions:

1. Each type of asset has a given constant life span. **Examples:**
   - 10 years for machinery and equipment.
   - 8 years for office furniture.
   - 3 years for computers.
2. Wear on assets is gradual, amounting to the same sum each year.

Example: A new machine is purchased for $100,000 at the beginning of the year, and it is expected to wear out completely after 10 years. Wear and tear on the machine is assumed to be $10,000 each year (10% of the purchase price):

Year 1	$10,000 in wear and tear
Year 2	$10,000 in wear and tear
Year 3	$10,000 in wear and tear
Year 4	$10,000 in wear and tear
Year 5	$10,000 in wear and tear
Year 6	$10,000 in wear and tear
Year 7	$10,000 in wear and tear
Year 8	$10,000 in wear and tear
Year 9	$10,000 in wear and tear
Year 10	$10,000 in wear and tear
Total	**$100,000 in wear and tear**

It is assumed that 10% of the machine's capacity deteriorates each year, and that in the second year, the machine contributes only 90% of its production as compared to when it was new, and 50% after 5 years, etc., so that at the end of 9 years, its production capability totals only 10% of its original production capability.

In practice, the machine may work 15 years, or 5 years. Its production may not decrease by 10% every year - it may decrease by more, or by less. This, however, makes no difference, for two main reasons:

1. The calculation is according to the average. There are many machines of various types that the company bought. Some will provide a pleasant surprise, while others will prove a disappointment. According to prior experience, however, the assumption is that the average wear for the machine will be similar to the description above.

2. There is no simpler solution.

Wear and tear is not necessarily physical deterioration that causes a machine to break down completely. It can be technological wear, due to the entry into the market of more effective machinery or computers with greater production capacity and speed. Companies still using the old equipment will tend to lag behind.

"Virtual" Depreciation

When a company buys a fixed asset (machinery, equipment, etc.), the money paid for it is not considered expense. It is considered an investment because the cost of the purchase is designed for use over a number of years.

The company therefore lists the amount of wear and tear each year as expense, as if it had bought the asset through equal annual installment payments spread across the life of the asset, which equals the annual wear and tear. This "virtual" expense does not reflect actual cash expense.

It is listed in the profit and loss statement under the **"depreciation expense"** item. Accountants usually call this item **provision for depreciation** instead of **depreciation expense**, because the word **provision** reflects a situation in which no cash is actually spent.

The logic behind this method of listing is highlighted in the following example.

Assume that **Napoli Pizza Company** makes a stable $10,000 profit each year. At the beginning of 2008, the company bought a new oven with a 10-year life span for $15,000 in cash. If the company lists the purchase of the oven as expense in 2008, it will represent a $5,000 loss in that year, and it might be assumed that the company's situation had greatly worsened in 2008.

Fortunately, the accounting system "helps" the company by enabling it to distribute the cost of the buying the oven over the entire period that the company is expected to benefit from it (10 years, for example). The company will therefore list a $1,500 provision for depreciation each year and finish listing the full provision for the oven after 10 years.

Registration in the ledger account for the purchase of the oven and the provision for its depreciation will

The balance sheets will indicate as follows:

Beginning of Year 1 (Purchase of the Machine)

Machine Ledger Account (Asset Ledger Account)

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of Machine	Cash	15,000		15,000 D

Cash Ledger Account (Asset Ledger Account)

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of Machine	Machine		15,000	15,000

End of Year 1

Machine Ledger Account (Asset Ledger Account)

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of Machine	Machine	15,000		15,000 D
Provision for depreciation	Depreciation		1,500	13,500 D

Depreciation Ledger Account (Expenditure Ledger Account)

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Provision for depreciation	Machine	1,500		1,500 D

End of Year 2

Machine Ledger Account (Asset Ledger Account)

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Purchase of Machine	Machine	15,000		15,000 D
Provision for depreciation	Depreciation		1,500	13,500 D
Provision for depreciation	Depreciation		1,500	12,000 D

Depreciation Ledger Account (Expenditure Ledger Account)

Particulars		Debit	Credit	Balance
Particulars of Transaction	Contra Account			
Provision for depreciation	Machine	1,500		1,500 D
Provision for depreciation	Machine	1,500		3,000 D

*The cash item was $35,000 before the purchase of the machine, and decreased by $15,000 to $20,000 following the purchase of the machine.

Beginning of Year 1 (purchase of the machine)

Napoli Pizza's Balance Sheet as of January 1, 2008 ($)

Assets		Liabilities + Equity	
Current assets		**Current liabilities**	
Cash*	20,000	Bank loans	10,000
Inventory	25,000	**Equity**	
Fixed assets		Share capital	20,000
Machine	15,000	Retained earnings	30,000
Total	**60,000**	**Total**	**60,000**

The balance sheets will indicate as follows:

End of Year 1

Napoli Pizza's Balance Sheet as of December 31, 2008 ($)

Assets		Liabilities + Equity	
Current assets		**Current liabilities**	
Cash	30,000	Bank loans	10,000
Inventory	25,000	Equity	
Fixed assets		Share capital	20,000
Machine	13,500	Retained earnings	38,500
Total	**68,500**	**Total**	**68,500**

Explanation:

On the assets side

The value of the **machine** decreased by $1,500 (from $15,000 to $13,500), compared with the preceding year, as a result of provision for depreciation.

Cash grew by $10,000 as a result of the annual profit.

On the Liabilities Side:

The retained earnings item grew by $8,500 (from $30,000 to $38,500), compared with the end of the preceding year, as a result of a $10,000 profit, minus $1,500 in depreciation expenses reported in 2008.

(It was assumed that there were no changes in the other items during the year).

End of Year 2

Napoli Pizza's Balance Sheet as of December 31, 2009 ($)

Assets		Liabilities + Equity	
Current assets		**Current liabilities**	
Cash	40,000	Bank loans	10,000
Inventory	25,000	**Equity**	
Fixed assets		Share capital	20,000
Machine	12,000	Retained earnings	47,000
Total	**77,000**	**Total**	**77,000**

The process of listing the purchase of the oven in the financial statements is as follows:

When the company bought the oven, it listed it as an asset on the left side of the balance sheet, at the purchase price of ($15,000). After 1 year (and in each of the following years), the company lists a tenth of the value of the oven's value ($1,500) as "depreciation expense" in the profit and loss statement, while lowering the value of the oven in the balance sheet by the same amount, leaving it at $13,500 (90% of its initial value) at the end of the first year, at $12,000 (80% of its initial value) after two years, and at 0 (worthless) after 10 years.

The Cash Flow Statement

The cash flow statement reports movements of cash by the company. If the company has $100 in cash at the beginning of the year (date A) and $500 in cash at the end of the year (date B), the cash flow statement will explain what caused the $400 increase.

The purpose of the cash flow statement is to explain what caused the difference between the amount of cash the company had at the beginning of the period (date A) and the amount of cash it had at the end of the period (date B). The difference could also be 0.

Date A:	**$ 100**
Date B:	$ 500
Difference:	*$ 400*

The term **"cash flow"** reflects a movement of cash: Receiving cash on the one hand (cash that flowed into the company) and the payment of cash on the other hand (cash that flowed out of the company).

The company usually keeps most of its cash in the bank in a current account or short-term deposit, and a small amount in the company treasury. When discussing cash activity in a company, it is important to distinguish between two important concepts:

Movements of cash - means both the entry and exit of cash.

Net movement of cash - presents the difference between the total cash that entered and the total cash that exited.

A background example

Before discussing the cash flow statement, consider the following example of a small company named USA Chairs in 2007. The example will present two scenarios:

1. All the business transactions are conducted in cash.
2. Some transactions are on credit.

USA Chairs' Balance Sheet as of December 31,2006 ($)

Assets		Liabilities + Equity	
Cash	50	Bank loans	60
Machine	50	Equity	40
Total	**100**	**Total**	**100**

Scenario 1 - all activity is in cash

Sales:

Sales totaled $80,000. Payment terms: Cash.

Expenses:

Expenses totaled $60,000 according to the following list:

Purchases of raw materials (wood, glue, etc.) - $40,000

Salaries of production workers - $10,000

Fixed expenses (including management, marketing, advertising, financing and general expenses) — $10,000

All expenses were paid in cash.

The company's profit and loss statement for 2007 is as follows:

USA Chairs' 2007 Profit and Loss Statement ($)

Sales	**80**
Cost of sales (raw materials + salaries)	(50)
Gross profit	**30**
Fixed expenses	(10)
Net profit	**20**

The balance sheet for the end of 2007 is as follows:

USA Chairs' Balance Sheet as of December 31, 2007 ($)

Assets		**Liabilities + Equity**	
Cash	* 70	Bank loans	60
Machine	50	Equity	40
		Retained earnings	20
Total	**120**	**Total**	**120**

*** 50**	+	**(80**	-	**60)**	=	**70**
Opening balance		Entry		Exit		

The company's cash flow statement for 2007 is as follows:

USA Chairs' 2007 Cash Flow Statement ($)

Cash at beginning of the year		50
Money flows from (used in) operating activities		20
Cash receipts from customers	80	
Cash paid to suppliers and employers	60	
New cash balance (end of the year)		**70**

Scenario 2 - giving and receiving credit:

Sales:

Sales totaled $80,000.

Payment terms: $60,000 is due in June 2007 (during the year) and the balance ($20,000) is due in June 2008 (next year).

Expenses:

Expenses totaled $60,000, according to the following list:

3. Raw materials - $40,000 - to be paid in June 2008 (next year).
4. Salaries - $10,000 - paid in cash.
5. Fixed expenses - $10,000 - paid in cash.

The company's profit and loss statement for 2007 is exactly the same as in Scenario 1:

USA Chairs' 2007 Profit and Loss Statement ($)

Sales	80
Cost of sales (raw materials + salaries)	(50)
Gross profit	(30)
Fixed expenses	(10)
Net profit	**20**

(Assuming that the company is exempt from taxes).

The company's balance sheet for the end of 2007 is as follows:

USA Chairs' Balance Sheet as of December 31, 2007 ($)

Assets		Liabilities + Equity	
Cash	* 90	Account Payable	40
Account Receivable	20	Bank loans	60
Machine	50	Equity	40
		Retained earnings	20
Total	**160**	**Total**	**160**

*** 50**	**+**	**[60**	**-**	**(10**	**+**	**10)]**	**=**	**90**
Opening balance		Receipts from customers		Fixed Expenditures		Salaries		

The company's cash flow statement for 2007 is as follows:

USA Chairs' 2007 Cash Flow Statement ($)

Cash at beginning of the year		50
Money flows from (used in) operating activities		40
Cash receipts from customers	60	
Cash paid to suppliers and employes	20	
New cash balance (end of the year)		**90**

The Company's Profit and Cash Flow

The company's profit is not affected by whether or not customers paid their full debt to the company. Similarly, the profit is not affected by whether or not the company paid its full debt to its suppliers. This can be seen in the previous lesson.

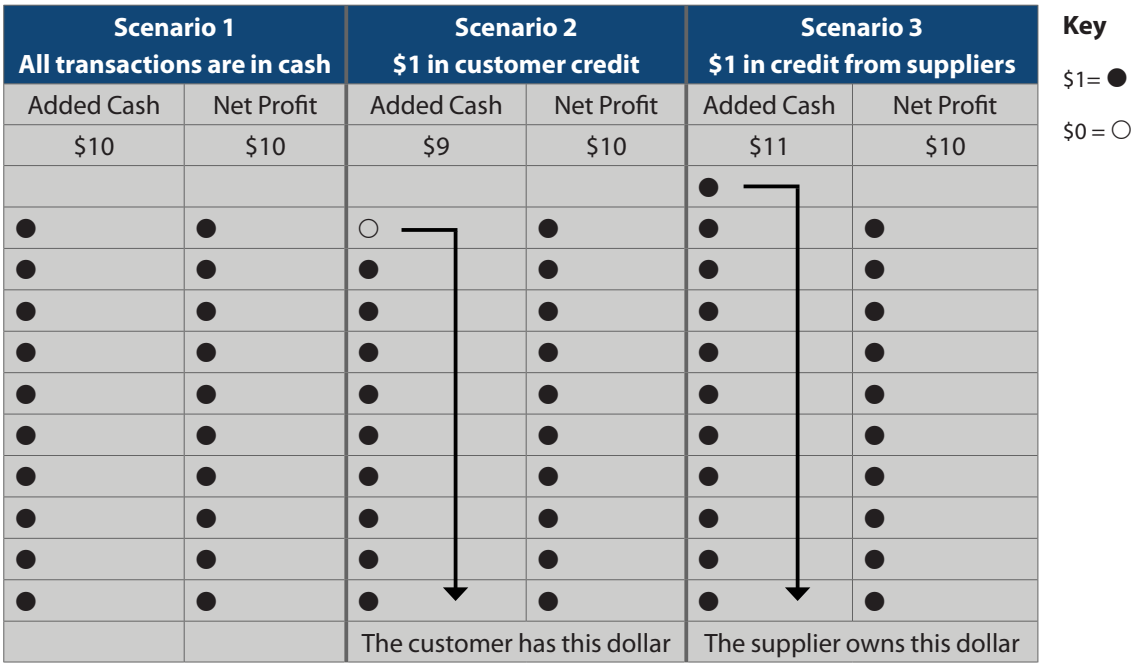
The Effect of Accounts Receivable and accounts Payable on Cash Flow

Every dollar in the "AR" item in the balance sheet is a dollar of sales that has not yet been collected. It increases the net profit in the profit and loss statement by $1 beyond the cash accumulated by the company during the period.

For example, if the net profit during the period was $10, and the "AR" item grew by $1, then the cash accumulated by the company during the period was $9 ($1 less than its net profit). The customer who is due to pay the $1 to the company shortly possesses the missing dollar (see Scenario 2 in the following illustration).

On the other hand, every $1 in the "AR" item in the balance sheet represents $1 in expenses that the company has not yet paid, and increases the company's cash by $1, in relation to the net profit.

Example: If the net profit for the period was $10, and the "AR" item grew by $1, then the cash accumulated by the company during the period totaled $11 ($1 more than its net profit). The extra Dollar belongs to the supplier whom the company is due to pay shortly (see Scenario 3 in the following illustration).



The complete structure of the cash flow statement

The cash flow statement concerns three spheres of activity:

1. Operating activity.
2. Investment activity.
3. Financing activity.

Movements of cash take place in each of these spheres during the period. Movements of cash in each sphere are independent of activity in the other spheres.

Movements of cash and the net movement of cash (entry of cash minus exit of cash) are listed separately in each sphere. The sum of the net movements of cash in each of the three spheres of activity reflects the difference between the company's cash at the beginning of the period and its cash at the end of the period.

1. **Financing activity :**
   Financing cash flows include the movement of cash associated with issuing and buying-back shares in the company, paying dividends to shareholders and borrowing or repaying loans. Assume that **USA Chairs** received a $10,000 bank loan, and repaid $2,000. The company's cash from financing activity grew by $8,000 during the period ($10,000 entering minus $2,000 exiting).

2. **Investment activity:**
   Investing cash flows are payments resulting from the use or sale of long-term assets. Movements of cash in this section include:

   - Payments for the purchase of property, plant and equipment (PP&E).
   - The disposal (sale) of assets.
   - Payments related to mergers and acquisitions.
   - Dividends received from equity investments.

3. **Operating activity:**
   These cash movements come from the firm's operations. Operating cash flows include cash sales, payments from customers for credit sales, payments to suppliers, and paid employee wages. Accounting standards such as IAS 7 and US GAAP allow some flexible categorization for some cash flows, particularly for financial institutions. Cash interest paid, cash paid for dividends, retiring debt or equity instruments, and collecting cash from dividend income or interest income are sometimes classified as operating cash flows and sometimes not.

In the case of USA Chairs, assume that its current activity was as follows:

- **Sales** - sales totaled $80,000, all of which was in cash.
- **Expenses** - purchases of raw materials + payment of salaries totaled $60,000, all of which was in cash. Net cash flow from current activity therefore grew by $20,000 ($80,000 entered and $60,000 left)

The complete cash flow statement of USA Chairs :

USA Chairs' Cash Flow Statement for 2007 ($)

Cash flow from operating activity	$ 20,000 (increase)
Cash flow from investment activity	- $ 8,000 (decrease)
Cash flow from financing activity	$ 8,000 (increase)
Total increase in cash flow	**$ 20,000**

A shorter method of calculating cash flow from current activity will now be explained.

The current activity section of the cash flow statement is also commonly referred to as the operating cash flow.

A shortcut for calculating cash flow from current activity

This calculation method assumes that all the company's sales and expenses during the period are in cash, except for transactions for which the full proceeds were not paid, which must be traced and analyzed.

Had all sales and expenses during the period been in cash, then the net profit (or net loss) listed in the profit and loss statement would also have reflected the change in cash (assuming that there was no depreciation). Had the company earned a $1,000 profit, then its cash on hand would have grown by $1,000.

When a company sells on credit, the unpaid balance is listed in the customers ledger account and in the "AR" item in the balance sheet (on the assets side). When the company has expenses for which it has not yet paid, the unpaid balance is listed in the suppliers ledger account and in the "AP" item in the balance sheet (on the liabilities side).

These two items, "AP" and "AR", can therefore be used to calculate what sums have not yet been paid in cash. The "AR" item indicates the amount of sales that have not yet been paid in cash.

The "AP" item indicates the amount of expenses that have not yet been paid in cash. The change in the company's cash during the period can be deduced from these two items. This will be explained in more detail .

An important comment

It is important to remember that individual customers and suppliers are unimportant in cash flow; what is important is the total picture, i.e. the balances of the "AR" and "AP" items.

Assume that USA Chairs was founded on December 31, 2007, and the founder invested $40,000 of his own money. He bought a machine for $30,000, and deposited the remaining $10,000 in the company's bank account. He received share capital from the company in return for his investment.

The balance sheet of USA Chairs Ltd. on the day that the company was founded is as follows:

USA Chairs' Balance Sheet as of December 31, 2007 ($)

Assets		Liabilities + Equity	
Cash	10,000		
Machine	30,000	Equity	40,000
Total	**40,000**	**Total**	**40,000**

Activity during the 1st year:

Activity during the 1st year (2008) was as follows:

Sales: $10,000. Payment terms: Cash.

Expenses: $8,000. Payment terms: $5,000 in 2008, $3,000 in 2009.

The USA Chairs' Profit in 2008 was as follows ($):

Sales	10,000
Expenditures	(8,000)
Net profit	**2,000**

The cash flow statement by the long method is as follows:

Cash Flow from Current Activity ($)

Incoming cash	10,000
Outgoing cash	(5,000)
Net cash flow from current activity	**5,000**

The company has no cash flow in the other spheres (financing activity and investment activity). Cash flow by the **short method** ($) is as follows:

Cash Flow from Operating Activity ($)

Net profit	2,000	
Increase in suppliers item	+3,000	(expenditures not paid in cash)
Net cash flow from current activity	**5,000**	

The company's balance sheet as of the end of the year is as follows:

USA Chairs' Balance Sheet as of December 31, 2008 ($)

Assets		Liabilities + Equity	
Cash	15,000	AP	3,000
Machine	30,000	Equity	40,000
		Retained earnings	2,000
Total	**45,000**	**Total**	**45,000**

Activity in the 2nd year:

Activity in the 2nd year (2009) is as follows:

Sales - $20,000 Payment terms: $15,000 in cash, $5,000 in June 2010 (the following year).

expenses - in $12,000 Payment terms: $4,000 in cash, $8,000 June 2010 (the following year).

Net profit in 2009 is as follows (figures in $):

Sales	20,000
Expenditures	(12,000)
Net profit	**8,000**

The cash flow by the long method is as follows (figures in $):

Incoming cash	15,000
Outgoing cash	(4,000)
Net cash flow from current activity	**11,000**

The cash flow by the short method is as follows (figures in $):

Net profit	8,000	
Increase in AP item	+8,000	(unpaid expenditures)
Increase in AR item	-5,000	(uncollected revenue)
Net cash flow from current activity	**11,000**	

The Effect of Depreciation on Cash Flow

As explained above, provision for depreciation in a given period reflects the value of the wear on fixed assets resulting from their use during that period. Depreciation expenses are treated as expenditure in the **profit and loss statement**, although no cash actually leaves the company in the case of depreciation.

In other words, in the profit and loss statement, **depreciation expenses** are an element of **cost of sales,** and decrease the company's profit, although no cash is actually paid for them. Cash actually left the company when the asset was purchased.

Example:

Company A conducts all its transactions in cash, and has no depreciation expenses. It earned a $10 profit in 2007, and therefore added $10 to its cash. Company B also conducts all of its transactions in cash, but it has $1 in annual depreciation expenses.

The company also earned a $10 profit in 2008, excluding depreciation. Following provision for depreciation, however, its net profit fell to $9.

Company A No provision for depreciation		Company B $1 provision for depreciation	
Added Cash	**Net Profit**	**Added Cash**	**Net Profit**
$10	$10	$10	$9
●	●	●	○
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
		This dollar was a provision for depreciation	

Key

$1= ●

$0 = ○

To summarize, every dollar that the company lists as a **provision for depreciation** in the profit and loss statement decreases the net profit by $1, without a corresponding decrease in cash. This will be demonstrated through a simple example, in which the activity of **USA Toys Company** in 2008 is analyzed.

Example:

USA Toys' Balance Sheet as of December 31, 2006 ($)

Assets		Liabilities + Equity	
Current Assets		**Liabilities**	
Cash	50,000	Bank loans	60,000
Fixed Assets			
Machine	90,000	Equity	80,000
Total	**140,000**	**Total**	**140,000**

The balance sheet of USA Toys at the beginning of 2007 is as follows:

Activity in 2007:

Sales:

$80,000. Payment terms: Cash.

Expenses:

Raw materials - $30,000. Payment terms: Cash.

Salaries - $10,000. Payment terms: Cash.

Miscellaneous expenses - $10,000. Payment terms: Cash.

Depreciation:

$10,000 (10% of the $100,000 purchase price of the machine). The company's profit and loss statement for 2007 is as follows:

USA Toys' Profit and Los Statement for 2007 ($)

Revenues	80,000
Raw materials	(30,000)
Salaries	(10,000)
Overhead expenditures	(10,000)
Depreciation expenditures	(10,000)
Total cost of sales	(60,000)
Net profit	(20,000)

The company's balance sheet as of the end of 2007 is as follows:

USA Toys' Balance Sheet as of December 31, 2007 ($)

Assets		Liabilities + Equity	
Current Assets		**Liabilities**	
Cash	(1) 80,000	Bank loans	60,000
Fixed Assets		Equity	80,000
Machine	(2) 80,000	Retained earnings	20,000
Total	**160,000**	**Total**	**160,000**

(1) 50,000 (Cash – opening balance) + (80,000 Cash entering) - 50,000) (Cash exiting) = 80,000

(2) 90,000 (Machine- opening balance) - 10,000 (Annual depreciation) = 80,000

The company's cash flow includes $80,000 in entering cash (sales) and $50,000 in exiting cash (cost of sales, net of depreciation).

The company's cash from current activities therefore grew by $30,000. This cash flow can be shown as follows:

USA Toys' Cash Flow Statement for 2007 ($)

Cash flow from operating activity:		30,000
Net profit	20,000	
Plus depreciation expenditures	10,000	
Cash flow from investment activity		0
Cash flow from financing activity		0
Total increase in cash flow in 2007		**30,000**
Balance of cash at the beginning of the period (January 1, 2007)		50,000
Balance of cash at the end of the period (December 31, 2007)		80,000

Statement of Changes in Equity

Another sub-report included in a company's financial statements is the **statement of changes in equity** (it usually appears after the profit and loss statement). This statement, as indicated by its name, lists the causes of changes in the company's equity during a given period. The statement includes three main elements:

1. Equity at the beginning of the period.
2. Changes in equity during the period.
3. Equity at the end of the period.

As stated above, equity is an item in the right column of the balance sheet. It represents the company's "liability" to its owners, stemming from the money that they invested in it (share capital) and its accumulated profits that were not distributed to its owners. Changes in equity can therefore occur as a result of:

1. Injections of money into the company by the owners.
2. Withdrawal of money from the company by the owners (dividends).
3. Accumulated profits orperiod.

As stated above, equity is an item in the right column of the balance sheet. It represents the company's "liability" to its owners, stemming from the money that they invested in it (share capital) and its accumulated profits that were not distributed to its owners. Changes in equity can therefore occur as a result of:

1. Injections of money into the company by the owners.
2. Withdrawal of money from the company by the owners (dividends).
3. Accumulated profits or losses.

The way a statement of changes in equity is written is illustrated through the following example:

USA Ice Cream's Balance Sheet as of December 31, 2006 (Sums in thousands of $)

Assets		**Liabilities + Equity**	
Current Assets		**Liabilities**	
Cash	50	Bank loans	60
		Equity	
Fixed Assets		Share capital	30
Machine	50	Retained earnings (accumulated)	10
Total	**100**	**Total**	**100**

Assume that the following transactions took place in the company in 2007:

1. Activity yielded a $10,000 net profit.
2. The company distributed a $5,000 dividend to the owners.
3. The company issued additional shares to the owners for $10,000.

In this case, the company's statement of changes in equity is as follows:

USA Ice Cream's Statement of Changes in Equity for 2007 (Sums in thousands of $)

	Total Equity	Consisting of:	
		Share Capital	Retained Earnings (accumulated)
Balance of equity as of December 31, 2006	40	30	10
Net profit in 2007	10	---	10
Distribution of dividend in 2007	-5	---	-5
Issue of shares in 2007	10	10	---
Balance of equity as of December 31, 2007	55	40	15

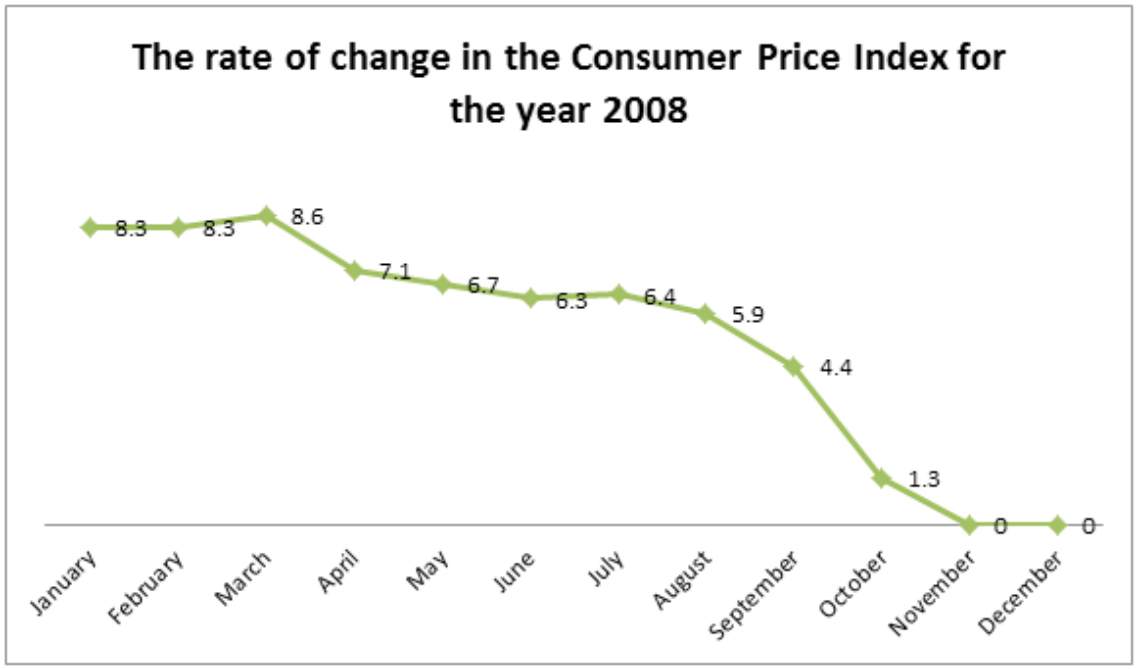
Financial Statements Adjusted for Inflation

Inflation is a term for a continuous process of rising prices over a period of years. The inflation rate is the rate at which the general level of prices in the economy rises. It is also a synonym for the increase in the monthly Consumer Price Index published by the USA Central Bureau of Statistics.

Financial statements adjusted for inflation

Financial statements adjusted for inflation reflect the company's monetary activity, assuming that all of that activity took place at the level of prices in the month of the financial statements (if the financial statements are for December 31, 2007, the values in them are "adjusted" to the price level of December 2007).

In order to explain and demonstrate how the financial statements are adjusted for inflation, it will be assumed that the financial statements are the annual statements for December 31, 2008.The true inflation rate between each of the months in 2008 and the month of the financial statements (December 2008) will be used for this purpose. These inflation rates are as follows:



In order to ensure that everything is clear, the meaning of the numbers in the first row of the table will be explained.

During the period from January 2008 until December 2008, the general price level rose by 8.3%, i.e. every $100 in January 2008 was "equal in value" to $108.30 (100 x 1.083) in December 2008.

How the Items in the Financial Statements are Adjusted for Inflation

Profit and loss statement:

The annual profit and loss statement adjusted for inflation is a statement in which the sales item and the various expenditures items (cost of sales, management and general expenditures) undergo adjustment of monetary values that reflect the level of prices in December.

The items for each month increase (or decrease) according to the changes in the price index from the month in which they were created until December of that year. This will be illustrated in the sales item of the USA Furniture Company on the next page.

USA Furniture's sales in 2008 were as follows:

1. January 2008 – $10,000
2. May 2008 – $50,000
3. December 2008 – $30,000

Total: $90,000

The sales items adjusted to the price index in December 2008 are as follows:

1. January 2008 – $10,830 ($10,000 + 8.3%)
2. May 2008 – $53,350 ($50,000 + 6.7%)
3. December 2008 – $30,000 ($30,000 + 0%)

Total: $94,180

It can be seen in this example that USA Furniture's sales in 2008 totaled $90,000 - the monetary proceeds that the company actually received (or is due to receive).

In the profit and loss statement adjusted for inflation, however, the sales item is $94,180 - the monetary value that reflects the company's sales, had all those sales taken place in the last month of the year.

Balance sheet

In the balance sheet adjusted for inflation, only some of the balance sheet items are adjusted through December. Some of the items retain their original values.

Fixed assets:

The sums in this item are adjusted for inflation, i.e. fixed assets increase (or decrease) in value according to changes in the price index from the month in which the assets were purchased until the month of the balance sheet date. Assume that **USA Furniture** bought a machine for $5,000 in August 2008. This machine will be listed under the fixed assets item at a value of $5,295 in the balance sheet for December 31, 2008 (5,000 + 5.9% = 5,295).

Fixed assets purchased by the company in previous years must also be adjusted to the price level of December 2008. For example, if the company bought equipment for $25,000 in 1995, and the price index rose by 20% from that time until December 2008, then this equipment will be listed at $30,000 (25,000 + 20%) in the balance sheet for December 31, 2008.

Inventory:

Sums in this item are adjusted for inflation, i.e. inventory increases (or decreases) according to changes in the price index from the month in which the inventory was purchased until the month of the balance sheet date.

Accounts Receivable

The sums in this item are **not** adjusted for inflation and they retain their original values. The reason is that the sums in the **"AR"** item reflect what the company's customers owe to it. They will pay the company exactly those sums, even if the payment occurs two or three months later.

For example, if **USA Furniture** sells products for $20,000 in October 2008, the customer's debt to the company at the end of 2008 is still $20,000. There is no need to "adjust" this value to accommodate the rate of inflation subsequent to the sale (At any time, it is sufficient for the customer to pay the company $20,000 in order to eliminate this debt).

Accounts Payable

The sums in this item are **not** adjusted for inflation and they retain their original values. The reason is that the sums in the **"AP"** item reflect what the company owes to its suppliers. The company will pay its suppliers exactly those amounts, even if the payment occurs two or more months after the debt was created.

For example, if **USA Furniture** buys products for $10,000 in April 2008, its debt to the supplier at the end of 2008 will still be $10,000. There is no need to "adjust" this value to the rate of inflation after the debt was created (at any time, it is sufficient for the company to pay the supplier $10,000 in order to eliminate its debt).

Loans

The sums in this item are not adjusted for inflation and they retain their original values. The reason for this is that the sums in the "loans" item reflect what the company owes to a bank or other party.

The company will pay the lender exactly that sum, even if the payment occurs two or more months after the debt was created (linkage and interest are listed in a separate item).

Comparison with financial statements from previous years

When a company presents its financial statements for a given date, it lists next to each item the monetary value of that item for that date, and also what its monetary value was in a previous period (or several previous periods.)

For example, USA Furniture's financial statements (balance sheet and profit and loss statement) for 2007 will include the monetary values of the preceding year, as follows:

USA Furniture's Balance Sheet as of December 31, 2007
(Sums in thousands of $)

Assets			Liabilities + Equity		
	December 31, 2007	December 31, 2006		December 31, 2007	December 31, 2006
Current Assets			**Current Liabilities**		
Cash	10	12	AP	15	10
Inventory	5	8	**Long-term Liabilities**		
Fixed Assets			Loans	15	20
Machine	20	20			
			Equity	5	10
Total	**35**	**40**	**Total**	**35**	**40**

USA Furniture's Profit and Loss Statement for 2007 (Sums in thousands of $)

	Year 2007	Year 2006
Revenues	110	100
Cost of sales	60	70
Gross profit	50	30
Selling expenses	10	10
Operating profit	40	20
General and administrative expense	10	10
Net profit	**30**	**10**

In financial statements adjusted for inflation, the values of the preceding year are also adjusted to the date of the last balance sheet. **For example,** if the balance sheet date is December 31, 2007, all the relevant values (for both 2006 and 2007) are adjusted to the price index for December 2007.

Chapter 3

Analysis of Financical Statements

Introduction

The financial statements are usually analyzed through measures called "financial ratios".

What a Financial Ratio is

A financial ratio is a number that is obtained by dividing one figure by another. These figures are called **"ratio data":**

$$\text{Financial ratio} = \frac{\text{Figure A}}{\text{Figure B}}$$

Every financial ratio has a name, and focuses on a given segment of a company. A financial ratio presents a snapshot of a company. The name of the ratio hints at the segment on which it focuses.

An array of financial ratios is useful for obtaining a more comprehensive picture of a company's performance and financial soundness (strength). The financial ratios reviewed below are those that are more popular among economists and accountants.

Sorting the Financial Ratios

Financial ratios can be divided into categories according to a number of cross-sections. Here they will be sorted into three groups, according to the source of the ratio data, as follows:

1. **Balance sheet ratios** - This group consists of ratios calculated from two samples of **ratio data** taken from the balance sheet.
2. **Profit and loss statement ratios** - This group consists of ratios calculated from two samples of **ratio data** taken from the profit and loss statement.
3. **Combined ratios** - This group consists of ratios calculated from two samples of **ratio data**, one of which is from the balance sheet, and the other from the profit and loss statement.

Calculation of the Financial Ratios and the Shortened Terms

If, for example, the financial ratio called the **"current ratio"** is calculated to be 2, then it can be stated that the result of the current ratio is 2. It is more usual, however, to simply state, "the current ratio is 2", without the word "result".

Interpretation of the Result of Financial Ratios

As noted below, results that are considered good, or even excellent, for a company in one sector (the steel industry, for example) may be considered poor for a company in another sector (an insurance company, for example) and vice versa.

A company's performance and dependability can therefore be characterized as either good or bad according to its financial ratios, but only after a thorough review of the sector to which the company belongs and the accepted interpretation of the results of financial ratios in that sector.

Examples from the financial statements of **USA Furniture** will be used to explain the financial ratios.

Balance Sheet Ratios

USA Furniture's Balance Sheet as of December 31, 2007 (Sums in $)

Assets		Liabilities + Equity	
Current Assets		**Current Liabilities**	
Cash	5,000	AP	8,000
Inventory (furniture)	2,000	**Total Current Liabilities**	**8,000**
AR	3,000	**Long-term Liabilities**	
Total Current Assets	**10,000**		
Fixed assets		Bank loans	7,000
		Total Long-term Liabilities	7,000
Equipment	6,000	**Total Liabilities:**	**15,000**
Furniture	4,000	**Equity**	
Building	10,000	Share capital	10,000
Total Fixed Assets	**20,000**	Retained earnings	5,000
		Total Equity	**15,000**
Total	**30,000**	**Total**	**30,000**

Current Ratio

Ratio Data

$$\text{Current ratio} = \frac{\text{Total current Assets}}{\text{Total current Liabilities}} \qquad \text{For USA Furniture}: \frac{\$10{,}000}{\$8{,}000} = 1.25$$

The purpose of the ratio:

The purpose of the ratio is to evaluate a company's ability to pay its liabilities in the near future (up to one year).

Significance of the ratio:

- When **total current assets** are greater than **total current liabilities**, the **current ratio** is greater than 1.
- When **total current assets** are less than **total current liabilities,** the **current ratio** is less than 1.
- When **total current assets** are equal to **total current liabilities,** the **current ratio** equals 1.

In order to thoroughly grasp the significance of the **current ratio,** assume that all three items included as current assets (cash, inventory, and accounts receivable) of USA Furniture will be turned into cash within six months (the inventory will become furniture and be sold and all accounts receivable will repay their full debts to the company). At the same time, the company must pay all its current liabilities within six months (payment to suppliers).

If the current ratio is greater than 1, the company will be able to pay off all of its current liabilities (payment of $8,000 to suppliers) from its current assets ($10,000).

If the current ratio is exactly 1, the slightest mishap in turning current assets into cash is liable to create difficulty in paying the company's current liabilities. When the current ratio is 2, the company's managers can enjoy peace of mind.

In short, the more the current ratio exceeds 1, the more current assets exceed current liabilities and the greater the company's ability to pay off its current liabilities (debts coming due in 1 year or less).

A surplus of current assets in excess of current liabilities is also called *positive working capital*. The further a company's current ratio is below 1, the more its current liabilities exceed its current assets, making the company less able to pay its debts in the near future.

Interpretation of the results:

The current ratios of industrial companies are usually expected to be between 1 and 2. A current ratio slightly below 1 is still no reason for a company to declare "bankruptcy". If the ratio is significantly lower than 1 (0.5 or lower), however, it should serve as a warning about the company's ability to make payments in the near future. When the current ratio is very high (3 or greater), it means that the company is easily able to repay its debts in the near future. On the other hand, it may also indicate a lack of efficiency in the company and that it holds too many current assets (particularly if the **cash assets** or numbers of **inventory** items are substantial) , which should instead be invested in more profitable instruments.

Quick Ratio

Ratio Data:

$$\text{Quick Ratio} = \frac{\text{Total current assets net of inventory}}{\text{Total current Liabilities}}$$

$$\text{For USA Furniture: } \frac{\$10{,}000 - \$2{,}000}{\$8{,}000} = 1$$

Purpose of the ratio

The quick ratio is similar to the **current ratio**. It is designed to evaluate a company's ability to pay its current liabilities under a particularly restrictive assumption that its inventory cannot be turned into cash during the current year for purposes of paying debts coming due.

Significance of the ratio

When the quick ratio is equal to 1, as in the case of **USA Furniture**, this indicates that the company is able to pay off all of its current liabilities using assets that it can immediately turn into cash (in this case, cash in the bank and credit to customers), without having to sell its inventory.

Interpretation of the results

The quick ratios of industrial companies are usually expected to be around or slightly lower than 1. If the ratio is significantly lower than 1 (0.4 or lower), it should serve as a warning about the company's ability to make payments in the near future.

As with the current ratio, when the quick ratio is too high (2 or greater), this indicates that the company has too many liquid assets and perhaps should divert some of them to more profitable instruments.

Equity-Balance Sheet Total Ratio

Ratio data:

$$\text{Equity - Balance Sheet Total Ratio} = \frac{\text{Equity}}{\text{Balance sheet total}} \times 100$$

$$\text{For USA Furniture: } \frac{\$15{,}000}{\$30{,}000} \times 100 = 50\%$$

Purpose of the ratio

This ratio is designed to evaluate the company's debt burden. This ratio is usually calculated in percentages, which is why the results are multiplied by 100.

Significance of the ratio

This ratio measures the degree to which a company relies on its internal resources (equity) and the degree to which it relies on external sources (liabilities) in order to finance its activities.

For example, if the ratio is 30%, this means that 30% of the company's assets are financed through equity. The company's remaining assets (70%) are financed through liabilities. There are no other possibilities.

In accounting, when a company relies too much on external sources to finance its activity, it is usually said to have too great a degree of "financial leverage".

Interpretation of the results

In industrial sectors, the ratio of equity to balance sheet total should usually be around 50%. When the ratio is lower than 20%, it should serve as a warning because such a ratio means that the company is relying primarily on external loans.

In the banking and insurance sectors, on the other hand, a ratio of 20% is considered very high. The usual ratio in these sectors is 8-15%.

Profit and Loss Statement Ratios

USA Furniture's Profit and Loss Statement for 2007 (in $)

Sales	100,000
Cost of sales	(80,000)
Gross profit	20,000
SG&A Expenses	(5,000)
Operating profit	15,000
Interest expense	(2,000)
Profit before tax	13,000
Income tax	(3,000)
Net profit	10,000

The following three popular rations are called **"profit ratios" :**

		For USA Furniture:
Gross profit to sales ratio	$\frac{\text{Gross Profit}}{\text{Sales}}$	$\frac{\$20,000}{\$100,000} = 0.2$
Operating profit to sales ratio	$\frac{\text{Operating Profit}}{\text{Sales}}$	$\frac{\$15,000}{\$100,000} = 0.15$
Net profit to sales ratio	$\frac{\text{Net Profit}}{\text{Sales}}$	$\frac{\$10,000}{\$100,000} = 0.1$

Purpose of the ratios:

The profit ratios are designed to evaluate the company's capability to generate profit on its sales.

Significance of the ratios:

These ratios indicate every USD of sales generated for USA Furniture:

- $ 0.20 in **gross profit**.
- $ 0.15 in **operating profit.**
- $ 0.10 in **net profit.**

Interpretation of the result:

Profit ratios vary between different sectors. In general, however, it can be stated that when these ratios are higher, the company derives more profit from its sales.

The usual profit ratios in industrial sectors are as follows:

1. **Gross profit ratio** - 20% to 40%.
2. **Operating profit ratio** - 5% to 10%.
3. **Net profit ratio** - 2% to 5%.

It is important to note that when a company experiences losses instead of profit (net loss, operating loss, or even a gross loss), its profit ratios are negative, i.e. it loses money.

The worst situation is when the gross profit-sales ratio is negative. Such a ratio means that total sales are lower than the direct expenditures involved in production, even before indirect expenditures are taken into account. In most cases, a negative gross profit-sales ratio should serve as a warning about the company's performance.

Net Profit Per Share

Ratio data:

Ratio Data:	For USA Furniture (1,000 shares were issued):
Net Profit Per Share Ratio = $\frac{\text{Net Profit}}{\text{Total shares issued by the company}}$	For USA Furniture (1,000 shares were issued): $\frac{\$10,000}{\$1,000} = \$10$

Purpose of the ratio:

This ratio evaluates the profit generated for each share held by the owners. In some financial statements (particularly stock exchange-listed companies), the **net profit per share** ratio appears in the bottom line of the "Summary profit and loss statement". There is no need to calculate the ratio.

Significance of the ratio:

The **net profit per share** ratio helps investors decide about buying and selling a share.

Example:

Two companies in the same sector (Company A and Company B) each earned $10,000 in net profit during the year. Company A has issued 1,000 shares and Company B has issued 5,000 shares.

Company A's net profit per share is $10 ($10,000 divided by 1,000 shares).

Company B's net profit per share is $2 ($10,000 divided by 5,000 shares).

If both company's shares were listed on the stock exchange for $200, investors would be far more likely to buy Company A's shares. No one would buy Company B's shares, since they could obtain a higher profit from Company A's shares at the same price.

Price-earnings ratio

The **price-earnings ratio** is obtained by dividing the following two figures:

	In the Above Example (Company A)
$\text{Price - earning Ratio} = \frac{\text{Share price}}{\text{Net profit per share}}$	In the Above Example (Company A): $\frac{\$200}{\$10} = 20$

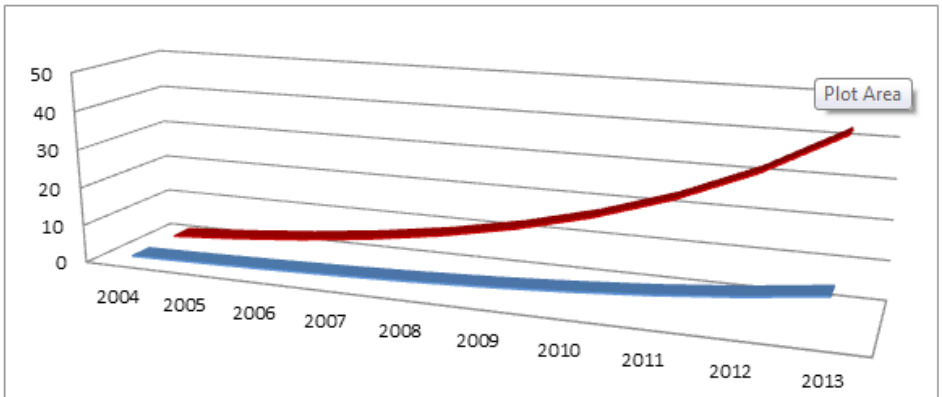
The **price-earnings ratio** (or, in short, the multiple) calculates how many years are theoretically needed to earn back an investment in a share (the price paid for the share), assuming that the annual profit does not change in the future. The assumption that the net profit will not change in the future is unrealistic for quite a few companies.

For example, companies like Microsoft and Intel are growing at stunning rates every year and it is unreasonable to assume that their profits will suddenly stop growing.

For companies in which it is reasonable to assume that future profits will remain constant or will vary only slightly in either direction, it has been found that the **price-earnings ratio** ranges between 6 and 12, i.e. the investor will earn a return on his investment in the share within 6-12 years.

On the other hand, it has been found that the price-earnings ratios of rapidly growing companies can reach 20, 30, and even 100. The reason that investors are willing to pay for the share at such high multiples is highlighted in the next example, which involves a growing company whose annual profit is expected to grow by 30% per year.

The profit figures for the company are displayed in the following table:



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Annual Profit Per Share	1	1.3	1.69	2.2	2.85	3.71	4.83	6.27	8.16	10.6
Cumulative Profit Per Share	1	2.3	3.99	6.19	9.04	12.75	17.58	23.85	32.01	42.61

Share price - $42.
The multiple – 42 ($42/$1).

The previous graph shows that if the profit grows by 30% per year, an investor who purchases the share in 2004 for $42 will accumulate $42.61 in profit over 10 years, meaning that he will earn back his investment within 10 years.

When an investor bought the share, the price-earnings ratio was 42, but the profit did not remain constant. It therefore did not take the investor 42 years to earn back his investment.

If the company stops growing in 2013, meaning that its profit remains constant during subsequent years and the price-earnings ratio for similar companies is 10, the share price in 2013 should be $106.0

($10.60 x 10). In other words, the share price ($106.0) divided by the annual profit ($10.6) gives the multiple (10).

The **price-earnings ratio** can also be calculated using the following method:

$$\text{Price - earnings Ratio} = \frac{\text{Market value of the company *}}{\text{Total net profit}}$$

The market value of a company is obtained by multiplying its share price by the total number of shares issued.

Combined Financial Ratios

Return on Assets

Purpose of the ratio: The return on assets (ROA) calculates the profit (in percentages) generated by the company on its total assets. In other words, the ROA shows the return that the assets of the company generate over a period.

ROA is calculated from two elements:

$$\text{Return on Assets} = \frac{\text{Net profit}}{\text{Total assets}} \times 100 \qquad \text{For USA Furniture: } \frac{\$10{,}000}{\$30{,}000} \times 100 = 33\%$$

The total value of company assets at the beginning of the period, presented on the prior balance sheet. The increase in equity, measured by either the change in equity on the balance sheet or net income on the income statement.

ROA is calculated as follows:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets at the Beginning of the Period}}$$

or

$$\text{ROA} = \frac{\text{Change in Owner's Equity Over a Period}}{\text{Total Assets at the Beginning of the Period}}$$

Interpretation of the results: The ROA ratio reflects a company's efficiency and represents the amount of profit generated from all of its assets.

Return on Equity

Purpose of the ratio: The return on equity (ROE) calculates the profit (in percentages) generated by the company on the shareholders' investment.

$$\text{Return on Equity} = \frac{\text{Net profit}}{\text{Equity}} \times 100 \qquad \text{For USA Furniture: } \frac{\$10{,}000}{\$15{,}000} \times 100 = 67\%$$

ROE is calculated from two elements:

1. Equity at the beginning of the period presented on the prior balance sheet.
2. The increase in equity, either measured by the change in equity on the balance sheet or net income on the income statement.

ROE is calculated as follows:

$$\text{ROE} = \frac{\text{Net Income}}{\text{Owner's Equity at the Beginning of the Period}}$$

or

$$\text{ROE} = \frac{\text{Change in Owner's Equity Over a Period}}{\text{Owner's Equity at the Beginning of the Period}}$$

Interpretation of the results: ROE reflects an increase in the owner's investment in the company over a period. ROE was 67% in the case of USA Furniture, for example. This is a very high result. In practice, significantly lower results can be expected. Shareholders are usually dissatisfied with a ROE of less than 10%.

Days Receivable (DSO)

$$\text{Credit Days to Customers} = \frac{\text{Customers}}{\text{Average daily sales}}$$

$$\frac{\text{total sales in \$}}{\text{365 (days)}} \qquad \frac{\$100,000}{\text{365 (days)}}$$

For USA Furniture:

$$\frac{\$3,000}{\$274} = 10.9 \text{ days}$$

Purpose of the ratio: The "Days Receivable" or "Days Sales Outstanding" ratio calculates the average length of time that the company's customers take to pay for goods. In other words, this ratio shows the length of time during which a company provides credit on each sale.

Days Receivable is calculated as follows:

$$\text{Days Payable} = 365 \times \frac{\text{(Average Accounts Payable)}}{\text{(COGS in a Period)}}$$

Note that "accounts receivable" is also sometimes called "customers" or "debtors" on the balance sheet.

The result for USA Furniture is 11 days (rounded off). This means that a customer takes 11 days to pay the company.

Interpretation of the results: The interpretation of the results indicates that USA Furniture grants an average of 11 days of credit on every sale of furniture to its customers. This is based on the unrealistic assumption (which will be discussed below) that USA Furniture sells $274 of furniture, its average daily sales in 2007, each day. (See ratio data).

Significance of the calculation of the ratio: The result (11 days) shows that USA Furniture grants 11 credit days on each sale of furniture. Therefore, 11 sales days are accumulated from December 20, 2007, until December 31, 2007, (the balance sheet date) for which the company has not yet collected any money. Sales total $3,000 during these 11 days ($274 per day, multiplied by 11 days).

An explanation from another perspective: In order to reach the cumulative sum of $3,000 in its accounts receivable (also called "customers") item, USA Furniture must grant credit for sales worth 11 days of sales (keep in mind that it is assumed that $274 of furniture is sold each day). How does USA Furniture arrive at a situation in which it grants credit for 11 sales days? It grants 11 credit days for every sale. In this situation, the company does not yet collect money for sales made during the last 11 days of the year (from December 20, 2007, until December 31, 2007).

On January 1, 2008 (the new year), the company will collect the proceeds for sales that it made on December 20, 2007, while granting additional credit for sales made on the first day of 2008. If average daily sales remain at the same level in 2008 as in the preceding year, then the credit granted by the company for its sales on January 1, 2008, will be $274, the same figure collected for sales on December 20, 2007. The accounts receivable item will therefore remain constant at $3,000 for the entire year.

Remember: If, for example, the company grants four credit days on each sale, then a sum equal to four days of sales will accumulate in the accounts receivable item. If the company grants 100 credit days on each sale, then a sum equal to 100 days of sales will accumulate in the accounts receivable account on the balance sheet. These calculations assume that the company's sales remain constant each day during the year.

The assumption concerning constant daily sales: The assumption that the daily sales of USA Furniture (or any other company) will remain constant at the level of its average daily sales is unrealistic. In practice, it is obvious that the volume of sales varies from day to day. Nevertheless, if the year is divided into periods consisting of the number of days obtained by calculating the ratio (11 days for USA Furniture) and the fluctuations of total sales during the periods is not too extreme, then the results of the ratio will reflect the average number of credit days that the company grants its customers. The reason for adding the word average to this sentence will be explained later.

Situations in which the results of the ratio do not properly reflect the actual situation: If it turns out, for example, that USA Furniture's sales are crowded into two seasons every year - Halloween (10% of sales) and December (90% of sales) - then the result obtained of 11 days can be misleading. In this situation, USA Furniture sold furniture for $90,000 in December, making its average daily sales for this month $3,000, instead of $274.

At a daily sales volume of $3,000, providing a mere two days of credit would put the accounts receivable item on the balance sheet date at $6,000, which is more than the $3,000 accounts receivable item listed in the balance sheet. Furthermore, at a daily sales volume of $3,000, granting 11 credit days would cause the accounts receivable item to soar to $33,000 ($3,000 x 11 days) on the balance sheet date, far in excess of the $3,000 listed for the accounts receivable item in the balance sheet.

In this situation, the calculation of the ratio should be based on the following data:

$$\frac{\$3,000 \text{ (the customer item)}}{\$3,000 \text{ (average daily sales in December)}} = 1 \text{ day}$$

Average credit period: The word "average" should be stressed, for the reason that the company does not grant the same credit period to all of its customers. USA Furniture may grant large customers 60 credit days, while small customers receive only five credit days or no credit whatsoever.

Days Payable (DPO)

$\text{Credit Days from Suppliers} = \frac{\text{Suppliers}}{\text{average cost of sales per day}}$	For USA furniture: $\frac{\$8,000}{\$219} = 36.5$ days
$\frac{\$3,000 \text{ (the customer item)}}{\$3,000 \text{ (average daily sales in December)}} = 1 \text{ day}$	$\text{Credit Days from Suppliers} = \frac{\text{Suppliers}}{\text{averagee cost of sales per day}}$

Purpose of the ratio: Days payable, also called Days Payable Outstanding (DPO), is a measure of the average time it takes for the company to pay its suppliers. In other words, this is the average length of time during which the company receives credit from its suppliers.

Days payable is calculated as follows:

$$\text{Inventory Days} = 365 \times (\frac{\text{Average Inventory}}{\text{(COGS in a Period)}})$$

Interpretation of the result: The calculation is based on the (unrealistic) assumption that USA Furniture's daily cost of good sold remains constant at $219 (total cost of sales in 2007, divided by 365 days). An interpretation of the results indicates that USA Furniture receives an average of 37 credit days for each purchase that it makes.

In other words, the result of 37 days indicates that USA Furniture receives an average of 37 credit days on each purchase, and accumulates 37 credit days during which it pays nothing for its purchases. The company's purchases during these 37 days therefore total $8,000 ($219 cost of sales per day, multiplied by 37 days). In the business world, 37 credit days is considered very low. Companies usually grant their customers 30 to 120 credit days. Any ratio result fewer than 120 days is therefore considered reasonable. For most companies, if the ratio is significantly higher than 120 days (for example, 200 days or more), the result should serve as a warning about the company's ability to pay its suppliers.

The meaning of the average: In practice, the company does not receive the same credit period from each supplier. Certain suppliers may grant the company 100 credit days, while other suppliers grant it only 1.

The result of the days payable ratio therefore reflects the average number of credit days that the company receives from its supplier.

Interpretation of the ratio

The result of the "DPO" ratio for USA Furniture is 37 days. In the business world, companies usually receive 30-120 credit days from suppliers. Any result of the ratio that is not greater than 120 days is therefore considered reasonable.

A Comparison between "Days Payable" and "Days Recievable"

Usually, the stronger a company is, the more it manages:

- To increase the number of days payable that it receives from suppliers.
- To decrease the number of days recievable that it grants to its customers.

For this reason, the more a company's days payable from suppliers ratio exceeds the result of its days recievable for customers, the sounder the company is.

On the other hand, when the result of a company's days recievable is significantly higher than its days payable, it could indicate that the company has liquidity problems.

Days Sales of Inventory (DSI)

$\text{DSI} = \frac{\text{Total inventory of finished products}}{\text{Average cost of sales per day}}$	For USA Furniture: $\frac{\$2,000}{\$219} = 9.1$ days
$\frac{\text{cost of sales in \$}}{365 \text{ (days)}}$	$\frac{\$80,000}{365 \text{ (days)}}$

Purpose of the ratio:

This ratio calculates the number of workdays necessary to accumulate a company's existing inventory of finished products, assuming that the company's average daily production remains equal to the value of the daily cost of sales.

Days Sales of Inventory is calculated as follows:

Inventory Days = 365 x (Average Inventory) / (COGS in a Period)

This ratio calculates the number of workdays necessary to accumulate a company's existing inventory of finished products, assuming that the company's average daily production remains equal to the value of the daily cost of sales.

Significance of the result

USA Furniture's daily cost of sales is $219. The number of USA Furniture's inventory days is nine (rounded off). This figure means that USA Furniture's inventory of finished products is equal in value to the value of its output over nine days.

Interpretation of the result

A company that sells its full output every day has no inventory whatsoever of finished products. On the other hand, a company that sells none of its output during the entire year accumulates the output of 300 workdays (365 days, excluding weekends, holidays and personal days off) in its inventory.

Remember: Daily output is equal to the average daily cost of sales. In general, it can be stated that the lower this ratio, the more efficient the company. When the inventory days ratio is greater than 150 days, it should serve as a warning that the company is working to accumulate inventory and that there is little demand for the goods that it produces.

Chapter 4

Glossary

Inflation

A term for the processing of continuously rising prices over a period of years is inflation. The **inflation rate** is the rate at which the general level of prices in the economy rises. It is also a synonym for the rate of increase in the **Consumer Price Index** (in USA - published monthly by the USA Central Bureau of Statistics).

Legal Entity

A legal entity is a business, company, partnership, organization or any other form of association capable of operating as an independent body for the purpose of managing its business, assuming liabilities, representing interests in court, signing contracts and so forth.

Reference

A reference is a number accompanying the accounting registration of a given business transaction. For example, when a purchase transaction is made, the number of the invoice received will be listed as a reference for the transaction.

Credit

The option of paying at a future date for goods or services obtained now is called credit.

Credit from Suppliers
An option to pay a company's suppliers at a given future date for goods or services obtained now.

Credit from suppliers is usually for 30-120 days.

Notes
Information constituting an integral part of the financial statements, which explains and lists particulars of the various items appearing in the summary financial statements are called notes.

Wear and Tear
The decline in the value of a fixed asset as a result of use, or as a result of its becoming outdated is considered wear and tear. In accounting, this decrease in value can be listed as a fixed expenditure over the lifespan of the asset. Wear and tear is also called depreciation.

Capital Raising
A transaction made by a company in which it increases its financial means by allowing investors or the general public to buy its shares.

Statement
There are various types of statements in the accounting system. Each type concerns some aspect of the company, and is commonly prepared in a standard format. The types of statements will be listed below.

Financial Statements
Periodic reports (usually quarterly or annually) presenting the financial situation and performance of a company. The financial statements usually include the following elements: balance sheet, profit and loss statement, cash flow statement, statement of changes in equity, and the notes for each of these.

Adjusted Financial Statements
Financial statements that have been adjusted for inflation, meaning that all of the sums appearing in the statements have been adjusted to the price level of a given month in order to neutralize the effect of inflation on the financial sums appearing in the statements.

Statement of Changes in Equity
One of the statements included in the financial statements. The statement of changes in equity describes the changes in a company's equity during a given period and what caused them.

Cash Flow Statement
One of the statements included in the financial statements. The cash flow statement describes the movement of cash into and out of a company during a given period. It divides this movement into three spheres of activity: current activity, investment activity, and financing activity.

Profit and Loss Statement

One of the statements included in the financial statements. The profit and loss statement lists the revenues, expenditures, and profit of a company during a given period. The bottom line of the statement, called the net profit (or loss), is the difference between total revenues and total expenditures.

Dividend

A sum of money distributed to the shareholders of a company from its accumulated profits. A company is entitled to distribute dividends from the profits accumulated during its years of activity, but is not obligated to do so.

Equity

Equity is all sums of money coming from a company's internal sources, not from external sources. Equity reflects a company's liabilities to its owners, and is composed of share capital (money invested in the company by its owners) and profits accumulated by the company that have not been distributed to its owners.

Share Capital

Share capital is all sums of money that a company's owners have invested into it in exchange for shares. Share capital is an element of a company's equity.

Direct Expenditures

Direct expenditures are costs that are closely connected to a company's production process (or to its main sphere of activity). Direct expenditures vary (increase or decrease) according to the rise and fall in the volume of the company's output. They include purchases of raw materials, salaries of production personnel, wear and tear on production machinery, and so forth.

Indirect Expenditures

Indirect expenditures are costs that are not directly linked to a company's production process (or to its main sphere of activity). Indirect expenditures do not vary in direct proportion to a change in the company's volume of production. They include executive salaries, administrative salaries (e.g. salaries of secretaries, bookkeepers, and human resources managers), marketing and advertising expenditures, etc. Sales, management and general expenditures appearing in the profit and loss statement are classed as indirect expenditures, and appear in the statement after the gross profit line (see Chapter 2 for details).

Revenue

Money or commitments to pay that the company receives as a result of its business activity, e.g. the sale of goods or services and interest on investments.

Bookkeeping

Bookkeeping is a work process that includes sorting, registering, and documenting all business transactions taking place in a company. This process is conducted according to generally accepted rules, and constitutes a basis for the information appearing in the company's financial statements.

Double-entry Bookkeeping

Under this method, every transaction is registered in two ledger accounts: one on the credit side (positive) and one on the debit side (negative). The total balance of all the ledger accounts is always 0. For example, a company that buys wood for $1,000 in cash will credit the cash ledger account for $1,000 and debit the wood purchases ledger account for the same sum.

Double-entry bookkeeping is a commonly accepted method of registering a company's business transactions.

Share Issue

A process in which a company grants shares in exchange for money (or the equivalent of money) that the owners invest in the company. As a result of a share issue, the owners receive a relative share in the ownership of the company, and rights to its assets and profits.

Loss

When a company has an excess of expenditures over revenues, the difference between them reflects a loss (in contrast to profit, which reflects a surplus of revenues over expenditures).

Liability

A sum of money that a company must pay in the future to its suppliers, employees, the banks, or any other party is called liability. Liabilities constitute a resource for the company's business activity and purchases of assets. The company's liabilities are listed in the balance sheet.

Current Liability

A liability that a company must pay within a period of no more than one year is called current liability. The main current liabilities are Suppliers and Short-term Loans.

Long-term Liability

A liability that a company must pay after a period of over 1 year, for example a bank loan with a repayment period of 5 years is called long-term liability.

Account Payable

Parties to whom the company owes money for goods or services supplied to it (e.g., suppliers, subcontractors and employees). The **accounts payable** item is often included in a company's balance sheet as one of its liabilities.

Company

A legal entity founded for the purpose of earning a profit. A company constitutes a business entity separate from its owners.

Distribution of Profits

A process in which a company pays its shareholders money from its accumulated profits is the distribution of profits. The distributed payments are called **a dividend**.

Invoice

A business document drawn up by a given seller or service provider, who gives it to the buyer. The invoice lists particulars of the transaction conducted, such as the transaction date, name of the buyer or receiver of the service, type of merchandise or service sold, payment terms, sum for payment, transaction (reference) number and so forth.

Journal

A sheet in which all business transactions taking place in a company are first registered. Registration in a journal is conducted on a regular daily basis, usually by the company bookkeeper. Every transaction registered in the journal is called **a journal entry**.

Financial Ratios

Measures obtained by dividing one value by another, where the two values are taken from a company's financial statements. The purpose of financial ratios is to analyze the company's financial situation and performance during a given period. Financial ratios include the current ratio, quick ratio, return on assets ratio, etc. These and other ratios are listed in Chapter 3 of this book.

Production

Production is a process of making some product (e.g., furniture, clothing, and electrical appliances), usually in order to sell it and receive monetary proceeds for it.

Customers

Customers are parties (companies or individuals who buy goods or services from a company.

The **customers'** item in the balance sheet (under current assets) reflects the unpaid financial liabilities owed by customers to the company for goods or services received.

Balance Sheet

One of the statements included in the financial statements. The balance sheet describes the financial situation of a company at a given point in time by listing and summing the balance of three main items: assets, liabilities, and equity.

Share
A share is an ownership certificate for part of the company. The holder of a share in a given company owns part of that company, and is entitled to benefit from its profits.

Assets
Assets are everything of economic value that the company owns. A company's assets constitute a source for carrying out its financial activity. They are listed in the balance sheet.

Fixed Assets
Assets that are **not** expected to become cash in the course of a company's regular business activity, meaning that they are permanent. Examples include buildings, land, machinery and computers.

Current Assets
Cash and assets expected to become cash in the course of a company's regular business activity over a period of up to 1 year. Examples include inventory and debts owed by customers.

Intangible Assets
Assets with no real physical substance, but which have economic value for the company. Examples include commercial trademarks, patents, goodwill and brand name.

Suppliers
Suppliers are parties from whom a company buys goods or services.

The **suppliers** item in the balance sheet (under current liabilities) reflects the company's unpaid debt to its suppliers for the goods or services it received.

Cost
The total monetary expenditures needed to obtain specific goods or services. For example, the **production cost** of a chair includes expenditure for raw materials used in making it (e.g., wood, nails and glue.) and the salaries paid to the carpenter who makes it.

Depreciation
See Wear and Tear.

Publication of Financial Statements
Presentation of a company's financial statements to the general public, so that anyone interested can read them. In the U.S., companies listed on the DJX are required to publish quarterly financial statements. Private companies not listed on the DJX are not required to do so; their financial statements can remain confidential.

Bankruptcy

Bankruptcy is a situation in which a person is unable to pay his debts. When a court declares that a person is bankrupt, his assets are transferred to a receiver, who is responsible for distributing them to the parties to whom money is owed. When a **compan**y is unable to repay its debts, it enters a legal state called liquidation, not bankruptcy.

Receipt

A receipt is a business document given by a company to a buyer when he pays for goods or services. The receipt includes particulars of the transaction and the sum paid. It constitutes confirmation that payment for the transaction has been received from the buyer.

The main difference between a **receipt** and an **invoice** is that a receipt is given to the buyer only after he actually pays, while an invoice can be given to the buyer before payment is received. An invoice does not constitute confirmation that the money has actually been paid.

Quarter

A quarter is a 3-month period (quarter of a year). Companies listed on the DJX are required to prepare and publish quarterly financial statements (4 times a year).

Profit

When a company has a surplus of revenues over expenditures, the difference between them constitutes a profit (a loss constitutes an excess of expenditures over revenues). Various types of profit (gross profit, operating profit, pre-tax profit) appear in a company's profit and loss statement. Each of these types reflects the difference between total revenues and some of the company's expenditures. The difference between total revenues and all the company's expenditures is its net profit, which appears in the bottom line of the profit and loss statement.

Cash Flow

Cash flow is a movement (receiving and spending) of cash into or out of the company. When the total cash that the company received is greater than the total cash that it spent, the company is said to have a **positive cash flow**. When the total cash that the company spent is greater than the total cash that it received, the company is said to have a **negative cash flow**.

A company's cash flow for a given period is listed in the **cash flow statement**.