The Basics of Financial Management

Noordhoff

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6th edition

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Preface to the sixth edition

The Basics of Financial Management offers a complete introduction to the field and can be used for first-year students in higher economic education programs, but also as a basic course in non-economic programs.
Part 1 of the book is an introduction to business economics, which familiarizes students with company dynamics and key financial-economic concepts. Parts 2, 3, and 4 cover the fields of finance, management accounting, and financial accounting.

To increase user friendliness, we have streamlined the language in this sixth edition and we have divided the material into smaller units in parts 1 and 2. Naturally, the material has been updated and new topics have been added, such as *corporate social responsibility* and *true pricing*.
In capital budgeting a distinction is made between *autonomous* and *induced investments*, and the average cost of capital is explained in more detail. To emphasize that free cash flow is central to capital budgeting, the method of *average accounting rate of return*, which is based on profit, has been dropped. *Leasing* is covered in more detail in the chapter about debts. The discussion of working capital management now includes a separate section on the significance of *logistical principles for inventory management* and *factoring* for credit management.
The *hidden* and *secret reserves* have been dropped in the equity chapter. Instead, the *value gap* between intrinsic value and market capitalization is addressed. With regard to debts, relevant topics are now discussed in order of decreasing importance for the financing of companies.

In the corresponding exercises book, the exercises are arranged per section and divided into three types: knowledge questions (that test whether the student has mastered the theoretical concepts), exercises (that are numerical in nature) and insight questions (the subject of which transcends the problem of the paragraph). The explanations of the exercises are included in the answers and solutions book.

Additional practice materials are included on the website www.studiemeister.noordhoff.nl

In recent years, many generations of students have acquired their elementary business knowledge with the help of this book's content and didactics. With this new edition, we hope the current generation of students will do just the same.

Any comments or suggestions will be, as always, very welcome.

The authors

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Series overview

The Basics of Financial Management
The Basics of Financial Management – Exercises
The Basics of Financial Management – Answers and Solutions

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Introduction

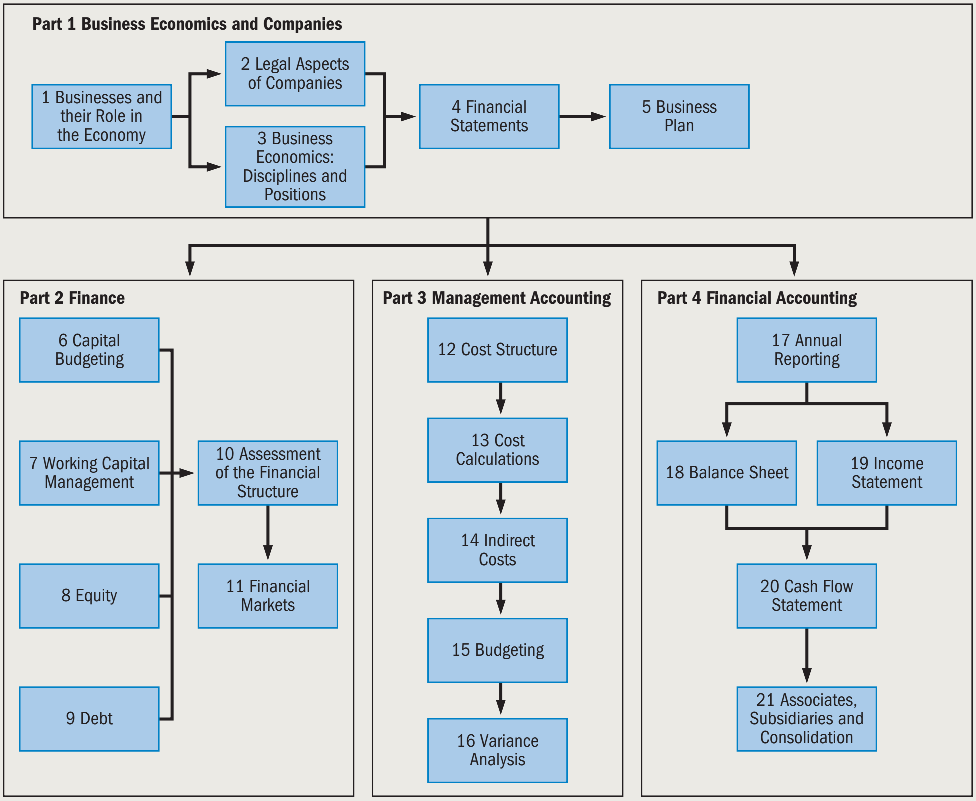
The Basics of Financial Management can be used to give (future) professionals with a non-specific financial function insight into business economics, at such a level that they can function as a fully-fledged discussion partner of financial specialists. In addition, this book is intended for students in financial-economic studies as a basic training in preparation for further in-depth studies.

To increase the user-friendliness of the book, we will provide some explanations about its structure and possible use.

The book consists of four parts: *1 Business Economics and Companies*, *2 Finance*, *3 Management Accounting* and *4 Financial Accounting*. The first part provides insight into some basic concepts of business economics. It is recommended to start with this part. Armed with this knowledge, students can then study the next three parts independently.
To support students who just want to study one specific topic, because they follow a course based on problem-based learning or project-based learning for example, the diagram on the next page shows the interrelationships between the chapters in the book.

At the start of each chapter, this diagram is repeated, again explicitly showing the direct relationship to the other chapters. This allows the student to quickly see if prior knowledge of other chapters is needed before studying a particular topic.
The book also includes an extensive table of contents and an index to help students find topics quickly.

In presenting the material, we assumed that the student is able to master the theory independently.
For the purpose of self-study, many examples are used. Throughout the book, tests will allow students to check whether they understood the material that was discussed. The answers to these tests are included at the end of the book, so that students can immediately check if their answers are correct. To illustrate the practical relevance of the theory, we have included explanatory texts with photos, newspaper clippings and fragments of annual reports.
Important concepts are emphasized by including them in the margins.
Each chapter ends with a glossary and multiple-choice questions.
The answers to the multiple-choice questions are included at the end of the book.



The theory can be further tested with the help of the separate *Exercises* book. For a number of exercises, extra practice material with Excel variants is available on the website. The exercises are categorized according to their degree of difficulty.
The exercises are all elaborated in the *Answers and Solutions* book.

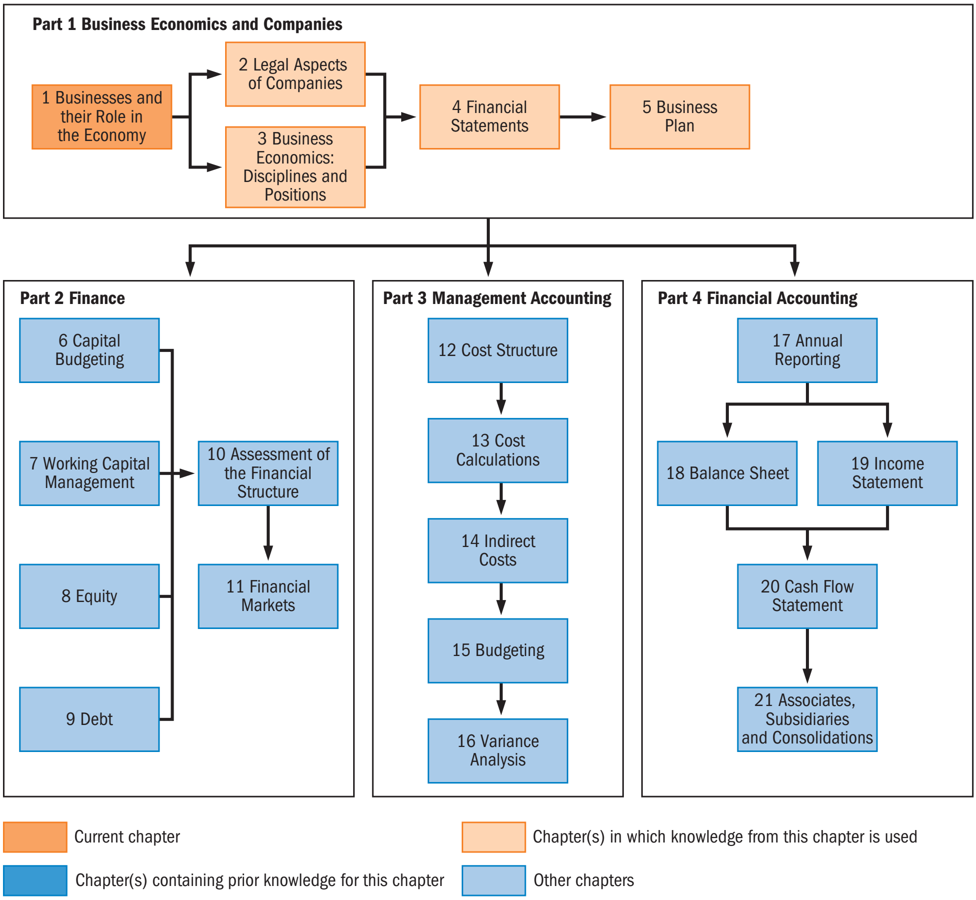
Flexible learning routes
Several main learning routes can be distinguished for studying the entire subject matter of this book. The first route follows the structure of the book, starting with the *Finance* section, followed by the *Management Accounting* section and finally the *Financial Accounting* section. The authors prefer this order, which is in line with the successive challenges that a starting entrepreneur faces.

In the second main route, the *Management Accounting* section is studied first, followed by the *Finance* and *Financial Accounting* sections.
This sequence is more in line with the traditional approach to the field, which starts with cost accounting issues.

It is also possible to immediately start with the *Financial Accounting* section after the introductory part. This is an unusual route for the entire study of the subject matter. However, the structure of the method allows for this.

PART 1
Business Economics and Companies

1


Part 1 Business Economics and Companies
1 Businesses and their Role in the Economy
2 Legal Aspects of Companies
3 Business Economics: Disciplines and Positions
4 Financial Statements
5 Business Plan
Part 2 Finance
6 Capital Budgeting
7 Working Capital Management
8 Equity
9 Debt
10 Assessment of the Financial Structure
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Part 3 Management Accounting
12 Cost Structure
13 Cost Calculations
14 Indirect Costs
15 Budgeting
16 Variance Analysis
Part 4 Financial Accounting
17 Annual Reporting
18 Balance Sheet
19 Income Statement
20 Cash Flow Statement
21 Associates, Subsidiaries and Consolidations
Current chapter
Chapter(s) in which knowledge from this chapter is used
Chapter(s) containing prior knowledge for this chapter
Other chapters

1
Businesses and their Role in the Economy

Required prior knowledge
None.

Learning objectives
Gain insight into:
- the subfields of economics (1.1)
- the subject of business economics (1.1)
- the characteristics of companies (1.2)
- the significance of efficiency and effectiveness for a company's pursuit of profit (1.2)
- the significance of corporate social responsibility and true pricing (1.3)
- the characteristics of non-profit organizations (1.4)
- the classification of businesses into three main sectors (1.5)
- the characteristics of businesses in each of the main sectors (1.5)
- the different forms of cooperation in and between supply chains (1.6)
- the characteristics of merger/takeover, joint venture, franchising and cartel (1.7)

Chapter 2 focuses on different forms of companies and businesses, especially the difference between companies with or without a legal entity. We pay special attention to tax aspects.

Chapter 3 divides business economics into three main areas: *finance*, *management accounting* and *financial accounting*. The relationship with other disciplines is also discussed, as well as the most relevant positions for business economists.
Chapter 4 zooms in on the most important financial statements of a company. The difference between *profit* and *cash flow* is also discussed in this chapter.
Chapter 5 is about drawing up a business plan, in which financial statements play a crucial role.

1.1 Economics and Business Economics

People have many needs: housing, food, a car or bicycle, leisure activities such as a weekend break, et cetera. All these products and services have to be 'manufactured'. The use of a car requires a car manufacturer; a weekend break may call for a hotel. Prior to the emergence of large-scale bartering, every consumer was also a manufacturer: they baked their own bread and built their own housing. In developed economies, this is no longer the case.

Businesses

Businesses produce goods and services and sell these to consumers. Consumers obtain purchasing power from the income generated by working for these businesses.

Economics

Economics deals with issues relating to the pursuit of human prosperity: how can one optimize the provision of products and services, that is spending the least amount of resources?

General economics

General economics

General economics studies the production, distribution, and consumption of goods and services. This concerns the relationship between consumers and businesses and the mutual interactions between businesses. A division can be made into micro and macroeconomics.

Macroeconomics

Macroeconomics studies economic problems that affect society as a whole, such as inflation and unemployment.

Microeconomics

Microeconomics studies the behavior of individual producers and consumers and the markets in which they operate. The part of microeconomics that deals with issues within businesses is called business economics.

Business economics

Business economics

Business economics focuses on economic behavior in businesses. In this context, 'production' should be interpreted broadly: it not only concerns the production of physical goods, but also trade and services. For example, not only the car manufacturer, but also the car dealership and the car workshop are production organizations in economic terms.

EXAMPLE 1.1

A tour operator wants to estimate the demand for holiday travel. This requires knowledge of the expected purchasing power development of potential customers. This is a macroeconomic issue.
The tour operator wonders what the consequences will be for sales revenue if it lowers prices by 5%: will the competitors go along with the price reduction or not? This depends on the market form in which the business operates. This is the field of microeconomics.

From now on, the tour operator is considering the lease of aircraft instead of booking seats with airline companies. The comparison of the costs of both alternatives belongs to the field of business economics.

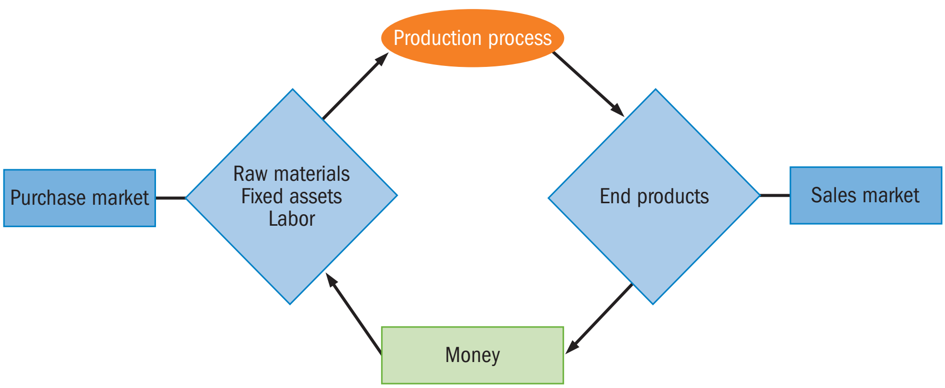
The economic system assigns an important role to production in companies. Companies are production organizations focused on earning income for their owners 'on the market': they are production organizations in pursuit of profit.

TEST QUESTION 1.1
Explain why every business is a company, but not every company is a business.

1.2 Characteristics of Companies

A company is a production organization
In a production organization, resources are combined and then transformed into products in a production process. A production organization operates between two markets: the purchase market, where resources are obtained; and the sales market, where manufactured goods or services are sold. Resources may comprise raw materials on the one hand, and machines, buildings and similar things on the other. The latter category is called fixed assets because these assets – unlike raw materials – remain in service of the company for a long time. Labor, supplied by a company's employees, is of course also a resource.
Figure 1.1 shows the schematic production process.

FIGURE 1.1 Production process



In a car factory, cars are assembled from raw materials and semi-finished products that are largely purchased from subcontractors. The production process is highly automated through the use of robots. Part of the work is still done by people. The sale of the cars provides the means to buy the necessary raw materials, semi-finished products and fixed assets and also to pay the staff's salaries.

Capital

The raw materials and fixed assets are referred to as the organization's *capital*. The production organization is therefore a cooperation between the production factors labor and capital. This cooperation may have a formal character, in which the rights and obligations of the participants involved in the organization are laid down in writing. The competencies of shareholders, management and employees are written down in the articles of association and in task descriptions.
A production organization can also consist of two students that set up a courier service together, the only agreement being that one alternately sits by the telephone and the other is riding the scooter.

TEST QUESTION 1.2
The owners and employees are the direct participants in a company. Broadly speaking, there are more participants who have an interest in the company's success. Can you name some other participants?

A company seeks to make a profit
A company participates in the economic process for the benefit of its owners. It strives for 'value creation'. The proceeds of the sale of the produced goods and services need to exceed the prices paid for the inputs in the production process (labor, raw material, fixed assets) at the purchase market. The realized surplus, the *profit* (sales revenue – costs), is granted to the owners of the company.

The pursuit of profit distinguishes companies from businesses in general. Every business produces goods and/or services. The following section describes businesses without a profit target.

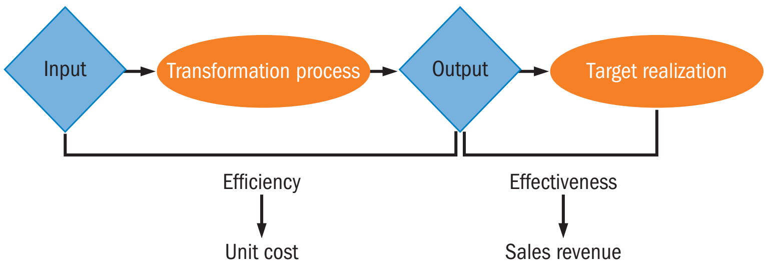
The profit volume depends on the efficiency and effectiveness of the production process. *Efficiency* relates to the cost of the production process: achieving a goal using minimum resources. *Effectiveness* is the degree to which the production process is successful in producing the desired result: meeting customer requirements. A production process is efficient if a given quantity is produced at minimum costs. It is effective if the end product is appreciated by customers, and customers are willing to pay for it.

Efficiency
Effectiveness

EXAMPLE 1.2
Coca-Cola aims to produce its products with the minimum use of labor and capital. Based on specified quality standards, it will try to keep the unit cost as low as possible. The unit cost is therefore a measure of efficiency.
The end product has to be of such quality that it can gain and maintain a market share in the soft drinks market. The taste of the cola, the price/quality ratio and the positioning through advertising has to contribute to this. The extent to which Coca-Cola succeeds in generating sales revenue indicates its effectiveness.

Figure 1.2 shows the role of efficiency and effectiveness in the production process.

FIGURE 1.2 Efficiency and effectiveness in the production process



Characteristic of a company is that *profit* is a measure for efficiency as well as effectiveness. After all, profit is the difference between *sales revenue* (measure of effectiveness) and *costs* (measure of efficiency).

Profit
Sales revenue
Costs

TEST QUESTION 1.3
A company that has set up an extremely efficient production process is not automatically successful. How is that possible?

Realizing profit is a company's priority. The manner in which this profit is acquired is of secondary importance. If a shipping company establishes that the shipping business no longer has profitable prospects, the company will generally have no problem with switching to a different activity. Although some employees will regret the loss of a rich piece of shipping history, financial considerations will prevail.

Philips started as a light-bulb factory in 1891. It added all kinds of other products: household appliances such as shavers, electric toothbrushes, coffee machines and consumer electronics such as TVs and music systems. Today, Philips is fully dedicated to the development and production of healthcare technologies. The light bulb factory was sold off. Other products still offered under the Philips brand are in fact produced by other companies.

In short, profit is the goal, the activities are a means to an end. However, the following should also be kept in mind:

Continuity

- Realizing profit ‘at all cost’ is usually out of the question. The *continuity* of the company is also an important concern. Profit is necessary to guarantee the survival of the company. Only a profitable company will have the required financial resources to survive independently. Concerning a company’s continuity, a long-term perspective towards profit targets is necessary. Making ‘a fast buck’ by offering inferior products as top quality is a counter-productive strategy in the long run.
- It may sometimes seem that optimizing sales revenue instead of optimizing profit is a major company’s target. Corporate managers often appear to feel that bigger is better. Sometimes they decide to take over another company without the decision being based on any well-founded expectations regarding contributions to overall profits.

Performance indicators

- Although profit is an important indicator of success for a company, other *performance indicators* exist, including non-financial indicators such as customer satisfaction, product quality, employee satisfaction. This prevents a single focus on financial aspects of business operations.

1.3 Corporate Social Responsibility and True Pricing

When companies themselves describe their goals, the pursuit of profit usually is not mentioned explicitly. Instead, issues such as caring for the environment, job satisfaction of the employees, and so on are presented. This is the result of the increasing attention to corporate social responsibility. *Corporate social responsibility* (CSR) means taking responsibility for the impact of the business operation on people, the environment and society. CSR is a type of business self-regulation with the aim of social accountability and making a positive impact on society. A company can embrace CSR by being environmentally friendly and eco-conscious; promoting equality, diversity, and inclusion in the workplace; treating employees with respect; giving back to the community; and ensuring business decisions are ethical.

Corporate social responsibility

Sustainable development goals

By formulating *sustainable development goals* (SDG), the United Nations (UN) has further elaborated on the goals of CSR. The SDGs consist of seventeen sustainability goals, each of which is linked to more concrete sub-goals.

Sustainable development goals

Although CSR was originally adopted by companies on a voluntary basis, nowadays there are mandatory regulations at a national and international level. However, many companies choose to go beyond the legal requirements and embed the idea of ‘doing the right thing’ in their mission statement and their business model. The SDGs offer a good starting point for formulating their missions. Goals such as ‘Good Health and Well-Being’ or ‘Gender Equality’ obviously apply to most companies. Specific goals such as ‘Life Below Water’ or ‘Affordable and Clean Energy’ are relevant for specialized companies in the field of water technology or energy supply.

FIGURE 1.3 Sustainable development goals

Source: gleader.org

1

Life-cycle assessment

Materials form the building blocks needed to produce larger components, to further assemble them and to form them into concrete end products. In traditional business economics, the materials incorporated into the products are part of the cost of the product and are lost. The *circular economy* is based on reuse. From 'from cradle-to-grave' to 'cradle-to-cradle'. Circular economy is a model of production and consumption, where existing materials and products are shared, rented, reused, restored, refurbished and recycled for as long as possible to create more value. In this way, the life cycle of products is expanded.

Circular economy

In practice, this means that waste is kept to a minimum. When a product reaches the end of its economic life, the materials are kept within the economy as much as possible thanks to recycling. These can be used productively over and over again, creating more value. Looking at the entire system of design, financing, production and consumption of products and services and how we deal with them after use, is called *life-cycle assessment* (LCA). In addition to economic aspects, the consequences for the environment and society are also explicitly taken into account.

Life-cycle assessment

EXAMPLE 1.3

ProRail is responsible for the construction, maintenance and operation of the Dutch rail network. Within ProRail, life-cycle assessment is used by multidisciplinary teams as input in the development and implementation of projects. As a result, ProRail can demonstrate that, for example, the interests of passengers are explicitly involved in investment decisions and sometimes prevail over purely economic considerations.

True cost accounting

Company decisions are mainly based on (business) economic considerations. Does a decision generate more money than it costs? The calculation of the costs is based on the payments made by the company for the purchase and use of its own assets. These are *internal costs*. In the context of corporate social responsibility, there is an increasing focus on 'costs' that are the result of the company's actions, but that are not (yet) borne by the company itself. This concerns, for example, damage to the environment in the form of air and soil pollution and social damage in the form of exploitation and child labor. These *external costs* are borne by society.

Internal costs

External costs

External costs in the form of damage to the environment and social damage are not included in the company's calculation of unit cost. One explanation for this is that the internal costs within a company are precisely known and external costs are not. A company does not have the means to determine the extent of the external costs and cannot express them in monetary terms. That makes it difficult to include them in the administration. The government has started to take steps to 'internalize' the external costs by charging them to the company, for example through targeted taxation or the sale of emission rights.

In the European Union, companies have to buy emission rights to offset their full CO_2 emissions. Companies competing in an international market can get free emission rights. The main reason for this is to prevent them from moving their production to a country outside the EU, where they do not have to buy emission rights for their CO_2 emissions. The amount of free rights a company receives depends on how cleanly it produces.
After the introduction of emission rights, a marketplace for emission rights has been created. Companies can trade in the rights they have purchased. If they expect to emit more, they can buy additional rights from other companies. Companies that are more sustainable can earn money by selling the rights they do not need.

A new approach to the problem of external costs and new calculation methods is needed. *True Cost Accounting* (TCA) is a way to identify the actual cost of a specific product or service. TCA not only looks at the usual financial figures of a company, but also calculates the impact on the entire natural and social environment in which the company operates. These effects are expressed in monetary terms, so that the amounts can be included in the true cost calculation.

True Cost Accounting

EXAMPLE 1.4
The ‘True Cost – From Costs to Benefits in Food and Farming’ initiative was established in 2019. It consists of a broad international network of companies, non-governmental organizations (NGOs), accounting firms and scientists. The members of the initiative have drawn up a technical manual for calculating the real cost of food and agricultural products.

1

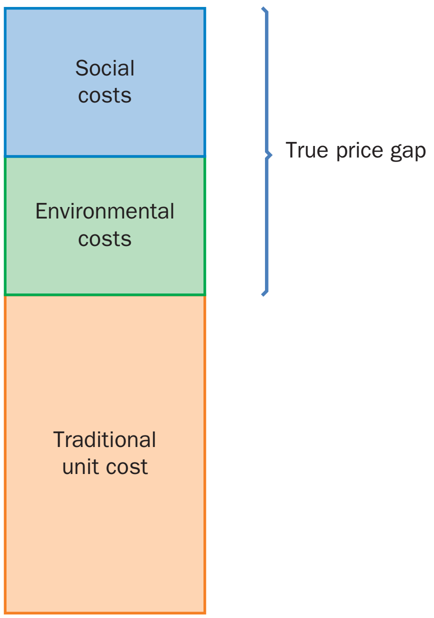
True pricing

True cost accounting is usually limited to a theoretical framework, because calculating external costs is difficult in practice. The Dutch social enterprise True Price, founded in 2012, has further developed the concept into a method that can be used in practice. True Price uses methods to measure the impact on the environment, people and society and has compiled a database of standards to express that impact in monetary terms.
The calculation of the 'true' cost is based on universal human rights and related rights such as workers' rights and environmental law. If there is a violation of these rights, it is quantified and then expressed in monetary terms. The repair and compensation costs are mapped out, so that there is a clear price tag on the negative impact. Subsequently environmental costs are marked by a green price tag and social costs by a red tag. The sum of the external costs (environmental costs + social costs) is the *true price gap*, the difference between the costs calculated in the traditional way and the true price per product.

True price gap

Passing on the 'true' price in the selling price of products can lead to a substantial price increase. Moreover, the external costs of a product are still not accurately determined, so there is some subjectivity in it. However, the usefulness of true pricing is not only in calculating, but above all in making hidden costs transparent and using this information to reduce these costs, by taking measures to repair the damage caused and prevent it in the future. True pricing can also be used to increase consumer awareness and thus influence buying behavior.

FIGURE 1.4 External product costs visualised



The organic store 'De Aanzet' in Amsterdam calculates the true price for a number of products. The difference with the 'normal' prices consists of hidden costs. The true price also includes costs that you normally do not find on the price tag, such as compensation for damage to the environment or underpayment within the production chain. The use of true price gives the customer the opportunity to consciously choose responsible products.

Source: trueprice.org

Companies may have several reasons for applying the true price method. Some companies can demonstrate that they are actually doing better than others in terms of sustainability. There are also companies that see this method as an opportunity to develop products with which they make a profit, but at the same time they can have a positive impact on society and the environment. The consumer can gain insight into the background of products by calculating the real prices. Because the negative aspects of the production process become more transparent, sustainable products will have a better chance of competing fairly with other products.

EXAMPLE 1.5
In 2013, True Price calculated an average amount of external costs per kilogram of cocoa of €14.17, most of which was social costs. Tony's Chocolonely had been striving for some time to use the true price. In this context, they pay a higher than average price for cocoa beans and invest in the production methods and working conditions of cocoa growers. In 2013, they had their first True Price scan done. It became clear that their true price gap per kilogram of chocolate was €7.93. By 2017, that had dropped to €4.52.

1.4 Characteristics of Non-Profit Organizations

Companies focus on making profit and are part of the profit sector. This book pays particular attention to that sector, although many issues are also relevant for the non-profit sector. With non-profit organizations a distinction can be made between public and private non-profit organizations.

Public sector

- The *public sector* comprises the state, provinces, municipalities and regional water authorities. The government mainly provides *public goods and services* for the general public, such as roads, protection against the sea and general safety. These facilities cannot be provided by private companies due to failure of the *market mechanism*. Consumers cannot purchase a small piece of sea defense to protect themselves against the tide. Hence, the *budget mechanism* is applied to produce public goods and services. The government imposes compulsory contributions (tax) and provides a budget to finance the production of public goods.
  There are also general facilities that have been offered by the government in the past to influence their availability to a larger public but could be provided by companies. In recent years, the government has supported a trend towards *privatizing* these activities: where applicable, the activities are separated from the government and must prove themselves to be viable as part of a market. Examples are public transport, telecommunications, mail delivery and the supply of energy.
- *Private non-profit businesses* comprise a wide variety of organizations from amateur sports clubs to charitable organizations such as the Red Cross. The latter is also known as a fund-raising institution as it attempts to raise funds to achieve a worthy social objective.

Market mechanism

Budget mechanism

Privatizing

Differences with companies

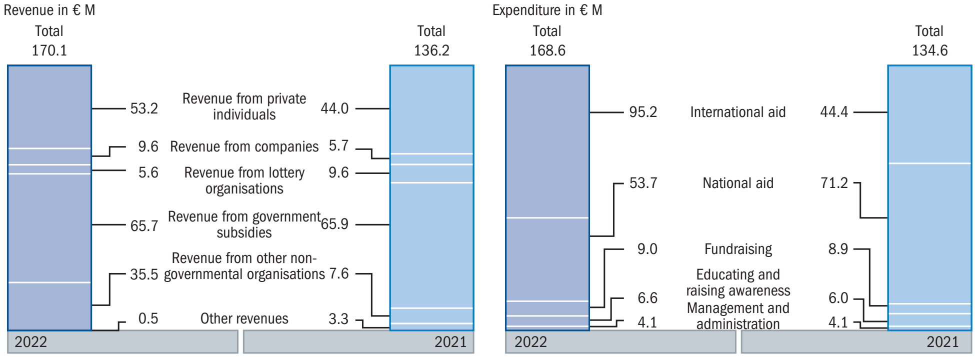
Organizations in the non-profit sector differ from companies in the following aspects:

- The goal set by non-profit organizations is to provide certain socially important facilities. The activities they perform are directly linked to that goal. Médecins Sans Frontières/Doctors without Borders organizes medical care in developing countries because that is its reason for existence. Changing their activities based on financial reasons is not a consideration. Donors would strongly object if the organization would suddenly switch to other activities. Shareholders of a profit organization such as Unilever would not lose any sleep over the fact that the production of laundry detergents were to be replaced by other activities with higher profit prospects.
- Non-profit organizations cannot exist by conducting business transactions and are – in contrast to companies – not economically independent. They depend on ‘gifts’, such as contributions, donations, subsidies, inheritances, et cetera. To some extent, a non-profit organization can operate on the market by selling T-shirts with a logo for example.

1

- The assessment of the effectiveness of non-profit organizations is much more difficult than that of a company. As established earlier, the profit indicates the extent to which production has been done both effectively and efficiently. Obviously, profit cannot be used as a key indicator in the non-profit sector. A foundation that focuses on victim aid is effective if it succeeds in solving the problems of its clients as much as possible. This type of aid or relief cannot be expressed in money. The effectiveness has to be measured in a different way, by emphasizing non-financial performance indicators, such as customer waiting times and customer satisfaction with the service. Measuring efficiency can also be done at non-profit organizations by calculating their costs. For example, a foundation for victim aid could calculate the cost of one-hour consultations.

FIGURE 1.5 Income and Expenditure Netherlands Red Cross 2021/2022



Source: rodekruis.nl/en/

TEST QUESTION 1.4

Can you conclude from the figures presented in figure 1.5 whether the Netherlands Red Cross has done well in 2021/2022?

1.5 Business Activities

Sectors

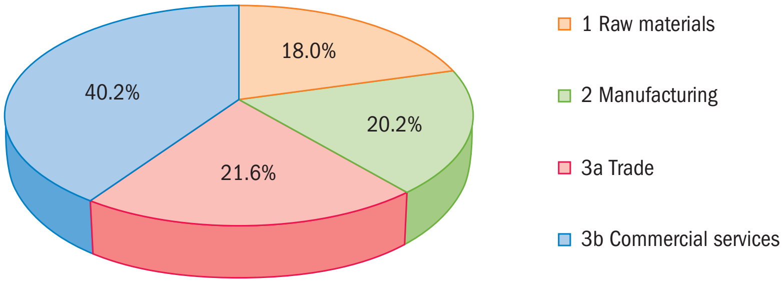
In section 1.2, we defined a company as a profit-oriented production organization. The company aims to make a profit by purchasing resources and transforming them into goods or services that are sold at a price higher than the prices paid on the purchase market.
A rough classification of companies can be made according to the nature of the transformation process as follows:

- primary sector: raw materials: agriculture and forestry, fishing and mining
- secondary sector: manufacturing
- tertiary sector: trade and commercial services

Figures 1.6a and 1.6b provide an overview of the percentage of importance of the sectors in the European Union and the Netherlands.

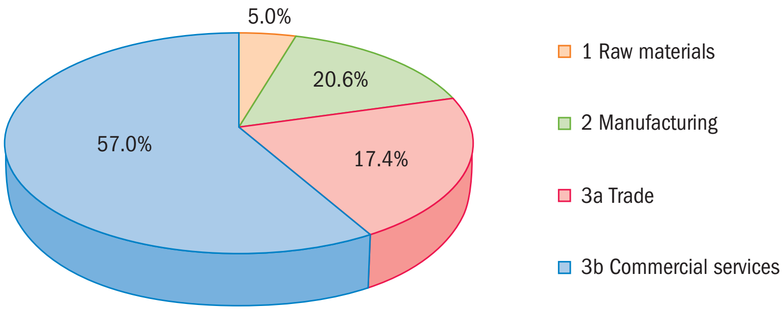
1

FIGURE 1.6a Percentage of companies per sector in Europe (2020)



Source: Eurostat

FIGURE 1.6b Percentage of companies per sector in the Netherlands (2022)



Source: CBS

Raw materials

Companies in this sector typically use 'nature's bounty'. With a relatively small quantity of resources, a large quantity of end product is achieved. To a farmer, the cost of seed is merely a small percentage of the crop revenues. Mining companies involved in the extraction of mineable minerals, such as gold or copper, and commodities such as gas or oil, do not use up raw materials as they are in the business of producing them. Obviously, fixed assets are still very important: farmland for a farmer, a concession for a mine or the oilfield for an extraction company. A lot of equipment may also be required.

Manufacturing

Manufacturing companies create a physical, tangible product that did not yet exist. Construction companies belong to this sector.

Job production

There is a distinction between mass and job production. In *job production*, production is customized. Each product is tailored to customer requirements and products are made to order: a sale is agreed upon before production starts. Job production causes no build-up of inventory of finished but unsold products. An example of job production is a shipyard where recreational yachts are built to customer specifications.

Mass production

In *mass production*, a single type of product is produced in large quantities. Specific customer requirements are not taken into account. There is usually a build-up of inventory. A sugar refinery is an example of mass production.

Table 1.1 summarizes the differences between job and mass production.

TABLE 1.1 Differences between job and mass production

Job production	Mass production
Customized product	Standard product
Intended for one particular customer	Intended for the 'market'
Made to order	Made for build-up of inventory

Between the two extremes (mass and job production), there are intermediate production processes that generate a series of identical (semi-finished) products *(batch production)*.
In a *batch-job production process,* every customer gets a particular individual product, but the components are produced in larger quantities at lower costs. If the shipyard previously mentioned produces various types of hulls, masts, cabins and other items in batches, and customers can choose from the available components to create their own dream boat, it is considered batch-job production.
In a *batch-mass production process*, a variety of models of the standard product are produced, and every so often the machines are adjusted to produce a different variant. If a sugar refinery not only produces granular sugar but occasionally switches to sugar cubes, this is considered batch-mass production.

The importance of the three resources (raw materials, fixed assets and labor) in a manufacturing company varies, depending on the company type. For an oil refinery, raw materials and fixed assets are a major part of the costs, whereas labor costs are a prevailing factor for a traditional carpentry firm. As automation progresses, the significance of fixed assets for total costs increases.

Trade
Trading companies do not produce new products. There is no transformation process in the technical sense. Trading companies derive their existence from the fact that there is an imbalance between production and consumption. This imbalance can be related to:
1 the scale of production and consumption
2 the composition of production and consumption
3 the moment of production and consumption
4 the location of production and consumption

Example 1.6 describes a situation in which each of these four forms of inequality occur.

EXAMPLE 1.6
For a Japanese manufacturer of computers, it would be problematic to sell computers directly to European consumers. Trading companies are the solution to this problem. A chain of computer stores can import many computers from Japan (1), add other items to the product range (2), build up an inventory to allow customers to buy a computer at any given time (3), and offer its goods closer to where its consumers live (4).

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Retail trade

Wholesale trade

1

The transformation process in a trading company relates to transformation in scale, product range, time and place. For trading companies, a distinction can be made between wholesale and retail trade. *Retail trade* is the final link in the chain, supplying directly to the end user: the consumer. *Wholesale trade* purchases from the manufacturer and redistributes the purchased goods among retail trade outlets. Wholesale trade is characterized by 'business-to-business': both suppliers and customers are companies. The wholesale trade's strength has to be in delivering the right products at the right time to the store. This requires important investments in logistics systems.
Trading costs consist mainly of purchased merchandise. Fixed assets such as buildings, cars and so on are also required. The cost of human labor can also be significant, especially in retail trade.
Due to the emergence of online trade, there are major shifts in the trade industry as a whole. Retail trade, in particular, is under pressure due to wholesale traders and manufacturers who offer their products directly to customers via webshops.

Services

Service companies provide a service to their customers without manufacturing a new product or redistributing an existing one. Think of:

- financial services (banks, insurance companies)
- hospitality industry
- transport
- IT services (software developers, IT consultants)
- facility services (security, catering, cleaning)

Typical for the service industry is that no – or hardly any – raw materials are purchased from suppliers. Fixed assets can be very important for service companies. Take the example of a hotel located in the center of a major city, or a shipping company with a fleet of container ships.
Labor costs are nearly always very important since service rendering is a 'people business'. Consider IT specialists working for a software company, or security guards at a security firm.

TEST QUESTION 1.5

The following cost structures belong to three internationally operating companies:

	1	2	3
Raw materials	69%	72%	0%
Labor costs	21%	15%	47%
Other costs	10%	13%	53%
Total cost	100%	100%	100%

These three companies are:

- Ahold Delhaize, a supermarket chain
- ING, a bank
- Unilever, a manufacturer of nutrition and healthcare products

Which number relates to which company?

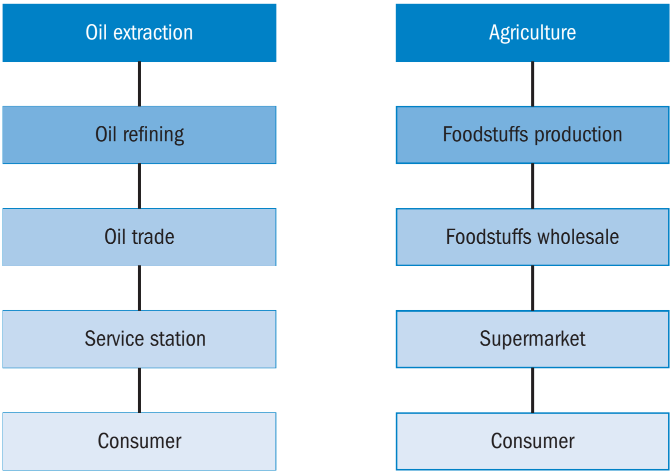
1.6 Supply Chain and Industry

A company rarely takes care of the entire process from the extraction of raw materials to the sale of a finished product to the customer. Usually, a succession of companies supply one another with raw materials or semi-finished products to carry out the next processing step in the creation of the end product. This is called a supply chain.

Supply chain

A *supply chain* is the total chain of companies involved in the production of a product or service. It concerns all stages of the combined process that a product follows on its way from producer to consumer. Figure 1.7 shows two supply chains.

FIGURE 1.7 Supply chains



Industry

The companies that make up a link in a chain form an *industry*. For example, all supermarkets form an industry.

Vertical integration

Horizontal integration

It is not uncommon for a company to be responsible for several successive links in a chain. This is called *vertical integration*.
Companies can also be active in a similar link in different supply chains. Such an expansion of the product range is a form of *horizontal integration*. Some companies have become so big that they operate in different links of different supply chains. In the past, many large companies were established that operated in various links of different supply chains. The justification was that this was a good way of spreading the risk. Nowadays, these *conglomerates* are no longer popular, because it has become apparent that it is very difficult for central management to control a mix of different business units. Hence, a trend that can be characterized as 'back to the core business' has been observed in recent years. Companies are starting to concentrate on their core activities and are selling off business units that do not fit in.

Conglomerates

1

EXAMPLE 1.7
Traditionally, an oil wholesaler purchases oil products from an oil refinery and delivers these products to filling stations and the oil processing industry. If an oil wholesaler starts operating its own service stations, there is vertical integration. If the oil wholesaler starts selling other products in the service stations, such as snacks and drinks, there is horizontal integration. If the wholesaler is also going to produce the snacks himself, there is conglomeration.

1.7 Types of Cooperation between Companies

In the previous section, we talked about companies that are active in different links of one or more supply chains. Companies can also cooperate to varying degrees with other companies. In doing so, they give up their independence partly or entirely. What was formerly a competitor has now become a colleague. We will discuss four forms of cooperation: mergers and takeovers, joint venture, franchising and cartel.

Mergers and takeovers

If a company wishes to grow, one option would be to start new activities. However, it is often easier to take over an entire company rather than to realize growth on your own. A *takeover* is normally achieved by one company buying the shares of another company. A *merger* is a situation in which two equal parties join together.

Takeover
Merger

Although a takeover is a quick way to grow, the expected positive effects are often overestimated. It is estimated that 65% to 85% of takeovers fail in the sense that the merged company adds little value compared to the original separate companies. Reasons for this are for instance, cultural differences between the companies or insufficient realization of cost savings through increased efficiency.

Joint venture

Joint venture

A *joint venture* is a cooperation between two companies in which they set up a new business together. The participating companies jointly own the joint venture and share both profits and losses. The participating companies continue to exist independently.
The cooperation can cover a wide range of activities. The companies may, for example, engage in joint research and development, take care of production, launch a new product or enter a new market.

Advantages of cooperating in a joint venture rather than operating separately may be:
- achieving economies of scale quickly with the associated efficiency benefits
- making use of each other's knowledge and technology
- use each other's sales and distribution systems
- opening up foreign markets when cooperating with a foreign partner if a country's government prohibits direct imports or imposes very high import duties

Well-known joint ventures in the coffee industry are Senseo (Douwe Egberts and Philips), Dolce Gusto (Nescafé and Krups) and Nespresso (Nestlé and Krups/Magimix), and VodafoneZiggo (Vodafone and Ziggo) in the media world.

Franchising

A very common form of cooperation in both the manufacturing and service sectors is franchising. *Franchising* is a form of close cooperation between legally independent entrepreneurs, the franchisor and the franchisee, offering products and services to customers under a common name and uniform appearance. **Franchising**
In franchising, an independent entrepreneur joins a chain and uses certain facilities, such as purchasing, marketing and shop design. For the franchiser, it is important that the entrepreneur is familiar with the local market. The franchisee runs the company as if he were an independent entrepreneur, but he positions himself as part of a large chain. The franchisor supports and monitors the entrepreneur. The franchisee pays a fee to the franchisor.
Depending on the franchisee's degree of freedom, a distinction is made between soft and hard franchise. In soft franchise, the rules are not very strict and the franchisees are fairly free to run their own business. Of course, they have to adhere to a number of rules, but aspects such as advertising, marketing, purchasing and inventory are generally not fixed. The franchisee is therefore free to fill in these aspects himself.
With hard franchising, the rules are quite strict and aspects such as corporate identity, inventory, purchasing and advertising are centrally prescribed. With hard franchising, it is hardly possible for an outsider to recognize the franchisee as an independent entrepreneur. Well-known examples are McDonald's, UPS and Hertz.

Cartel

A cartel is formed by independent producers making agreements to restrict free competition. The opportunity to draw up such agreements depends on the market structure in which the companies operate. **Cartel**
In a *perfect competition* market, many companies offer a standardized product to many customers. This results in fierce competition. The other extreme is a *monopoly*, in which there is only one supplier and therefore no competition. Cartels do not exist under either perfect competition or monopolies. **Perfect competition** **Monopoly**
An *oligopoly* is a market with relatively few suppliers. Road construction is a good example. **Oligopoly**

TEST QUESTION 1.6
Name two other examples of industries that operate in an oligopoly market.

In an oligopoly, companies can easily be tempted to make price agreements with one another. They could even divide the market between them. In such a situation a cartel exists. Due to the potentially damaging effects for consumers, the European Union has made it a top priority to fight cartels. Cartel agreements are illegal under EU Cartel Regulations, and the European Commission heavily fines companies found participating in a cartel. Because cartel agreements are illegal, they are drawn up in secret, which makes it difficult to prove their existence. The Leniency Regime encourages companies to provide inside information on cartel agreements to the European Commission. The first participant in a cartel agreement to inform the European Commission is then exempt from any fine. In the Netherlands, the

Authority for Consumers and Markets (ACM) plays an important role in fighting cartel agreements and imposes heavy fines on companies that enter into (price) agreements.
The issues concerning markets and competitive relations are part of general economics but obviously also have important consequences for business economics.

On 8 July 2021, the European Commission imposed a €875 million cartel fine on car manufacturers for restricting competition in emission cleaning for new diesel passenger cars. It was the Commission's first cartel decision ever to be based solely on a restriction of technical development (as opposed to 'classic' cartel behavior such as price fixing, market sharing, customer allocation or bid-rigging). It is also the most recent example of the Commission using its antitrust enforcement powers against business practices that risk jeopardizing the EU's Green Deal and sustainability goals.

Glossary

Batch production	Production of series of identical (semi-finished) products.
Budget mechanism	Determination of the production of (public) goods through a budget (set by the government).
Business	Organization that manufactures goods and/or services and sells them to consumers at a specified price.
Business economics	Part of economics that deals with the economic actions within companies.
Capital	The production factor that consists of the raw materials and fixed assets of the enterprise.
Cartel	Agreement between companies whereby arrangements are made to restrict competition.
Circular economy	Model of production and consumption, where existing materials and products are shared, rented, reused, repaired, refurbished and recycled for as long as possible to create more value.
Company	Profit-seeking production organization.
Conglomerate	Company operating in different links of different supply chains.
Continuity	An organization's commitment to long-term survival.
Costs	The value of the resources used for sales.
Economics	Science concerned with man's pursuit of prosperity, i.e., the optimal provision of goods and services.
Effectiveness	The purposefulness of the production process; producing goods or services that are valued by the customer.
Efficiency	The efficiency of the production process; producing a given quantity with the least possible cost.
External costs	Costs that are the result of the company's actions, but that are not borne by the company itself.

Franchising	Formula in which an independent entrepreneur, on payment of a fee, joins a chain in order to use certain facilities of this chain.
Horizontal integration	Performing activities in the same link of different supply chains.
Industry	The joint enterprises in a link of the supply chain.
Internal costs	Costs that are made within a company.
Job production	Method of production where each product is tailored to the specific needs of the customer.
Joint venture	Partnership between two companies, in which they set up a new business together.
Manufacturing	Manufacturing companies create new physical, tangible products.
Market mechanism	The free play of supply and demand by which prices for goods and services are established.
Mass production	Mode of production in which a type of product is made in large quantities.
Merger	Agreement that unites two or more previously separate companies into one entity.
Monopoly	Market form with only one provider.
Non-profit organization	An organization that does not seek profit but has a mostly social objective.
Oligopoly	Market form with a relatively small number of providers.
Organization	Collaborative arrangement of people and resources, in which the achievement of a particular goal is the primary objective.
Perfect competition	Market form with many providers of and demanders for a standardized product.
Production	The creation of goods and services that can serve to meet human needs.
Profit	The difference between sales revenue and costs.
Public sector	Consists of national, state/provincial and local governments and provides primarily public goods and services.
Sales revenue	Income derived from the sale of products or services.
Services	Service companies provide services (non-tangible products) to customers.

Supply chain	Series of companies that follow one another in the processing of a product.
Takeover	Merge of companies where one company buys out the shares of another.
Trade	Trading companies deliver existing physical products to customers.
True pricing	Passing on the external costs that are due to the compensation of the impact on the environment and society in the unit cost of a product or service.
Vertical integration	A company operates in successive links of a supply chain.

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Multiple-choice questions

Section 1.1

1.1 Which of the following statements is correct?
- **a** Business economics is part of general economics.
- **b** Business economics is part of macroeconomics.
- **c** Business economics is part of microeconomics.
- **d** None of the above statements is correct.

1.2 Which of the following statements is *incorrect*?
- **a** Business economics focuses on economic behavior in a production organization.
- **b** A University of Applied Sciences is a business.
- **c** A company is a special form of a business.
- **d** A business is focused on making a profit.

1.3 Which of the following statements is correct?
- **a** Macroeconomics and microeconomics together form general economics.
- **b** Macroeconomics and business economics together form economics.
- **c** Microeconomics and business economics together form economics.
- **d** None of the above statements is correct.

Section 1.2

1.4 Which of the following statements is *incorrect*?
- **a** Every business is a company.
- **b** A business is a cooperation between the production factors labor and capital.
- **c** Shareholders are among the company's participants.
- **d** In the production process of a business, raw materials, fixed assets and labor are transformed into finished products.

1.5 Which of the following organizations is *not* a company?
- **a** A clothing store.
- **b** A university medical center.
- **c** A shipping company.
- **d** A tax consultancy.

1.6 Which of the following activities is *not* in the field of efficiency?
- **a** Concentrating purchases to a limited number of suppliers to achieve larger discounts.
- **b** Modifying a product to shorten production process time.
- **c** Sending invoices faster.
- **d** Modifying a product to tailor it to customers' requirements.

Section 1.3

1.7 What is an important goal of corporate social responsibility?
- **a** Maximizing profit.
- **b** Conservation of natural resources.
- **c** Improving the quality of products.
- **d** Increasing market share.

1.8 Why is true pricing important?
- **a** It ensures higher profits for companies.
- **b** It gives consumers more freedom of choice.
- **c** It makes the actual cost of a product transparent.
- **d** It reduces the demand for sustainable products.

1.9 What are external costs?
- **a** Costs directly related to the production of a product.
- **b** Costs paid only by the consumer.
- **c** Costs paid by society, such as environmental damage and health problems.
- **d** Costs paid by the government.

Section 1.4

1.10 Which of the following statements is correct?
- **a** Switching to other activities is a more sensitive topic for companies than for non-profit organizations.
- **b** Non-profit organizations are economically independent because they receive ‘gifts without obligations’.
- **c** Offering discounts to regular customers fits the pursuit of profit.
- **d** Companies act according to budget mechanism rather than market mechanism.

1.11 Which of the following statements is *incorrect*?
- **a** Assessment of effectiveness is more difficult in companies than in non-profit organizations.
- **b** Non-profit enterprises also strive to work as efficiently as possible.
- **c** Public goods and services are produced by the government because the market mechanism fails for those goods and services.
- **d** A negative financial result does not necessarily imply that a non-profit organization performs poorly.

1.12 Which of the following statements is correct?
- **a** Profit is the measure of a non-profit organization’s efficiency.
- **b** Profit is the measure of a non-profit organization’s effectiveness.
- **c** The pursuit of profit is not an objective of a non-profit organization.
- **d** Non-profit organizations do not receive revenue from clients.

Section 1.5

1.13 Which of the following statements is *incorrect*?
- **a** A service company hardly ever purchases raw materials.
- **b** Mass production focuses on production to build-up inventory, not made to order.
- **c** One of the transformation functions of trading is time.
- **d** For service companies, personnel costs are usually an insignificant part of the total costs.

1.14 A car is produced with two different engine types. What type of production is this?
- **a** Job production.
- **b** Batch-job production.
- **c** Batch-mass production.
- **d** Mass production.

1.15 Which of the following statements is correct?
Statement 1: Wholesale is a 'business-to-business' market.
Statement 2: Wholesalers trading in seasonal products play an important role in bridging the time gap between production and consumption.
- **a** Both statements are correct.
- **b** Statement 1 is correct, statement 2 is wrong.
- **c** Statement 1 is wrong, statement 2 is correct.
- **d** Both statements are wrong.

Section 1.6

1.16 What does a supply chain comprise?
- **a** A number of companies performing the same production process.
- **b** A number of companies following one after another in the production process from raw material to end product.
- **c** All companies operating in a particular sector, for instance manufacturing.
- **d** Competing companies that produce the same product.

1.17 A wholesaler takes over a retailer. What is this called?
- **a** Conglomerate.
- **b** Vertical integration.
- **c** Horizontal integration.
- **d** Merger.

1.18 A service station will also function as a postal parcel pick-up point. By what term is this referred to?
- **a** Conglomerate.
- **b** Vertical integration.
- **c** Horizontal integration.
- **d** Merger.

Section 1.7

1.19 For what purpose do companies form a cartel?
- **a** To set up a new company and share the risks.
- **b** To buy out competitors through takeover.
- **c** To be stronger in their mutual negotiations with the unions.
- **d** To limit mutual competition.

1.20 In which market(s) can cartels occur?
- **a** Monopoly.
- **b** Oligopoly.
- **c** Perfect competition.
- **d** All named markets.

1.21 What is characteristic of a joint venture?
- **a** Two companies set up new company together.
- **b** An independent entrepreneur joins a chain.
- **c** Two manufacturers make price agreements.
- **d** Formation of a monopoly by two companies.