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# European Competition

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## Economics and Law

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Edited by Frans J.L. Somers

Karin E. Davis-Ost  
Joost A. Frencken  
Ernst-Jan Heuten  
Egin E. Lengton

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First published 2011





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# Preface

This book deals with competition and competition policy in the European Union. It is a wide-ranging subject that requires microeconomic analysis, analysis of the strategic behaviour of companies and study of the relevant rules and regulations in this field.

## **Multidisciplinary approach**

Therefore, this book takes a multidisciplinary approach. It analyzes competition from a business, a social and a legal perspective. In order to increase profitability and sustainability, companies generally try to minimize competition as much as they can. This can conflict with the public interest, as can be revealed by applying microeconomic analysis. That is where the legal perspective comes in: it sets the rules of the game, taking both business and public interests into account. The book presents a detailed overview of the latest developments in this field. It focuses on the European Union, but in the last chapter some comparisons with competition regimes in other parts of the world are made.

## **Relation to *European Business Environment***

The book is the second in a series, published by Noordhoff Uitgevers/Routledge, about European integration. The first volume, *European Business Environment*, has as a central theme the analysis of the European single market and its impact on doing business in Europe. This book focuses on specific aspects of this business environment, namely competition and competition policy. The books can be considered as complementary.

## **Relevant courses**

*European Competition* is an essential textbook for students on undergraduate and graduate degree programmes in European integration, European business, European law and other courses of which competition and competition policy forms an important part. It can also be used as a (supporting) text for courses in microeconomics, since it discusses the market behaviour of firms within a specific legal context, giving the microeconomic analysis a less abstract and more realistic dimension.

### **Acknowledgements**

This publication is the result of intensive teamwork by a number of authors. Although each author has written one or more specific chapters, they have also extensively commented on each other's contributions, resulting in detailed discussions on the draft texts. This approach guarantees an integrated and coherent final text, without overlaps or inconsistencies.

I would also like to thank a number of staff members of the Netherlands Competition Authority (NMa), colleagues of author Ernst-Jan Heuten. They critically reviewed the earlier concepts of the following parts of the book: chapter 2, chapter 4, and section 5.3.

The views expressed in this book, however, are those of the authors and do not necessarily reflect those of the NMa or any other organisation, and the contents do not constitute any obligation to the NMa.

As for the first book in this series, special thanks go to Otto Venema at Noordhoff Uitgevers for this endurance, inspiration and support during this second project. Many thanks are also due again to Marijke Quarre, our editor at Noordhoff Uitgevers, for her invaluable support.

Frans Somers  
Glimmen, March 2011

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# Introduction and study guide

One of the most important objectives of European integration is the creation of a free and single market, in which all obstacles to international trade are removed. The internal market is supposed to stimulate international trade and competition and have positive effects on economic growth. A free market, however, does not guarantee more competition in the long run. In the absence of rules, companies may obtain a dominant position, enabling them to monopolise markets and undermine competition. They might also collaborate with other companies with the intention of eliminating competition, setting higher prices and making huge profits, to the detriment of consumers.

That is the reason why the predecessor of the European Union (the European Economic Community, EEC), from its very beginning, instituted laws to prevent behaviour that could spoil the working of the envisaged 'common market'. The Treaty of Rome of 1958, which established the EEC, contained a number of provisions aimed at preventing anti-competitive behaviour by companies involved in international trade. The behaviour of member states that could affect international trade was also subject to provisions in the treaty.

This book discusses and analyzes cooperation, competition and competition policy in the EU. Both evolved over time. Some comparisons with competition policies in other countries are also made.

### **Three perspectives**

The analysis is made from three perspectives: a microeconomic (social) perspective, a corporate strategy (business) perspective and the perspective of competition law (legal perspective). These three perspectives will be applied throughout the book and consequently used to examine all kinds of economic activities affecting competition. Examples of such activities are cooperation, the formation of cartels, mergers and acquisitions, and the behaviour of companies having or pursuing dominant positions.

Generally, topics are first discussed from a *microeconomic* point of view. Microeconomics is a useful tool for analyzing the functioning of markets, in particular in terms of efficiency, the allocation of resources and welfare effects. Markets with limited competition generally lead to the suboptimal allocation of factors of production and negative welfare effects, in particular for consumers. Total output and employment will be lower and incentives for innovation and improvement are weak. Microeconomic analysis, therefore, can also be used to assess a market from the point of view of the public interest. The latter is a starting point for law-making, which should aim at setting rules that protect the best interests of society and to make sure that markets work efficiently.

*Corporate strategy* looks at competition from a different angle. One of the most important objectives for companies is to make profits. A method of achieving this is to gain market power: the ability to set prices above (marginal) costs. The less competition, the easier that will be. That is why companies try to reduce competition, by creating special or unique products, establishing a dominant position, taking over or merging with competitors, increasing their scale of production, raising barriers to entry and also (sometimes) by collaborating with other companies or national governments.

From the point of view of the public interest, this is not necessarily a bad thing. First of all, if companies do not make profits, they will not survive. Secondly, (substantial) profits can be used for research and development, investments and innovation. Big companies might be able to produce at lower costs because of economies of scale. Collaboration might also be required for setting industry standards or in cases where the costs of R&D are too high to be borne by one company.

Competition policy – and the resulting competition law – is supposed to take both the public interest (including consumer interests) and corporate interests into account. Sometimes these interests coincide. The main objective of competition policy in the EU is, nevertheless, to guarantee that the internal market remains open and that competition is not restricted. EU competition law, however, deals with restrictions of competition only *in so far as they may affect trade between member states*. Competition issues having an impact only on trade within a member state are subject to national competition laws. All EU countries have such laws.

#### **Industry analysis: Porter's Five Forces model**

Throughout the book, Porter's Five Forces model is used as a starting point for the analysis of markets and to provide an insight in the competitive forces in these markets. According to Porter, the degree of competition in a market is determined by the following five forces: (1) the threat of substitutes; (2) the threat of new entrants; (3) the bargaining power of suppliers; (4) the bargaining power of buyers; (5) the rivalry among existing firms in the market. There are various ways of reducing competition according to this model. Mergers and takeovers ('horizontal integration') and collaboration (in the form of cartels) will – in principle – reduce rivalry in the market itself. Cooperation agreements with suppliers or buyers ('vertical agreements'), or mergers or takeovers of buyers or suppliers ('vertical integration') will normally also decrease competition. From a corporate perspective these actions might be good

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strategies – in particular if competition is too fierce or if a company, for example, has limited access to sources of raw materials or components or to distribution channels. They might also, however, restrict competition excessively and be forbidden by competition law.

### **Structure of the book**

The book is divided into seven chapters. In the first (introductory) chapter the key aspects of competition and competition law in the EU are explained. It discusses the microeconomic analysis of competition, market structures and measures of the intensity of competition, followed by a section about the strategic behaviour of companies intended to decrease competition and a general overview of EU competition law.

Chapter 2 focuses on markets monopolised, or at least dominated, by one company. Topics in this chapter are the concept of dominant positions, the use and abuse of dominant positions and the potential welfare effects of the latter, and the liberalisation and privatisation of former state monopolies such as public utilities and postal services.

Chapter 3 discusses horizontal and vertical relationships in the supply chain in oligopoly markets. In the first two sections, company strategies are examined, using Porter's Five Forces model and game theory as analytical tools. In the last section of this chapter (3.3), which is written from a public perspective, the potential welfare effects of horizontal and vertical relationships are examined, including methods of calculating damages and imposing fines.

Chapter 4 deals with competition law as it applies to horizontal and vertical cooperation. The principle in the EU is that horizontal cartels are forbidden, unless specific and stringent conditions have been met, but there are a large number of exemptions. Competition law enforcement and the system of fines, including leniency provisions, are discussed as well.

Chapter 5 examines concentrations of companies: mergers, acquisitions and certain forms of joint venture. In a way, concentrations can be considered as an extreme form of cooperation and are therefore subject to competition law as well. Concentrations (both horizontal and vertical) are first analyzed from a corporate perspective and then from a legal angle, with reference to the EC Merger Regulation and related documents and guidelines.

Chapter 6 discusses another potential source of distortion of international competition within the EU: state aid. The EU has strict regulations concerning state aid, giving power to the European Commission to declare specific forms of state aid incompatible with the internal market. The general principles and rationale of these regulations, as

well as exemptions to them, are examined in this chapter along with types of state aid that are assumed to be compatible with, or even supportive of, EU policy goals and are therefore allowed.

The book concludes with a comparative overview of the various competition regimes in the world. Section 7.1 presents a brief explanation of the competition laws of the United States, China, Australia, New Zealand and some countries in Latin America. The rules and regulations in the EU and the United States, which are the most advanced, are compared in more detail in section 7.2. Member states have their own competition laws. The relationship between EU law and national competition law is discussed in section 7.3.

Finally, cooperation between national competition authorities worldwide is discussed in section 7.4.

#### **Study guide and teaching approach**

All the chapters in this book have a uniform structure. Every chapter opens with a case study, which is used throughout the chapter to illustrate the theory under discussion. The analysis is also amply supported by graphs and tables.

Every chapter ends with a short summary (Conclusions) and a number of questions; some chapters conclude with short examples (including questions). A list of abbreviations, a glossary and a web guide are provided at the end of this book.

#### **Website**

This book is supported by a website ([www.europeancompetition.noordhoff.nl](http://www.europeancompetition.noordhoff.nl)). The website makes available additional information, such as recent articles, additional examples and questions, and answers to the questions in this book. For lecturers, a secure, password protected site, containing supplementary teaching materials is provided as well.





## 1

# Competition and competition policy

- 1.1 Pricing strategy and competition
- 1.2 Analysing the market arena
- 1.3 Corporate strategy and market power
- 1.4 Competition
- 1.5 EU competition policy

This chapter will deal with the most important aspects of competition, competition law and competition law enforcement within Europe. This will be done, first of all, by means of a case study in which KLM and the airline market are introduced. Next, section 1.1 looks at the scope KLM has for adjusting its prices and how this ties in with the type of market in which it operates. Section 1.2 distances itself a little more from the case and explores the markets in which companies operate from various perspectives. Section 1.3 explores the relationship between corporate strategy and market power and the possibilities companies have to increase their market power. Next it is investigated in section 1.4 to what extent economic theories may help us in analysing market relations, particularly when there is full competition. Another aspect that is dealt with in this section is the way in which the European Union tries to increase internal competition by means of its internal market policy. Finally, section 1.5 provides a brief description of the way in which the EU uses its competition policy to respond to companies' attempts to restrict competition among themselves and, possibly, abuse positions of power they have gained. Usually restriction of competition results in disadvantages for consumers and the economy as such, but this need not always be the case. In later chapters the above-mentioned subjects will be dealt with in greater detail.

# Case study: KLM and the airline industry

The Royal Dutch Airline KLM, founded in 1919, has been operating within the holding company AIR FRANCE KLM since 2004. In the fiscal year 2008–2009 the company realised a turnover of more than €8 billion, employed a little over 36,000 people and carried 23.5 million passengers. Together with Air France it is the biggest airline in the world in terms of turnover.

The markets in which KLM operates are characterised by a number of features:

- There is a continuing process of liberalisation. The airline industry in the EU has been highly deregulated as a result of the creation of the internal market. In the past, governments had a significant influence over decisions on tariffs, granting, landing rights, etc., which resulted in only limited competition. Since the 1990s, however, the market has opened up. The so-called 'open skies agreements' between the EU and the USA also contributed to this openness. At first agreements were made between the USA and individual EU countries, later on also between the USA and the EU as a whole.
- The lower entry barriers that were the result of this liberalisation have contributed to the rise of low-cost carriers such as Ryanair and easyJet.

- There is a strong move towards concentration. Many smaller companies (Belgian Sabena, for instance) have not been able to survive and other companies have merged and/or have concluded cooperation agreements. The merger of Air France and KLM is a case in point.
- Fuel prices have an important influence: the price increases of crude oil to a level of more than \$150 a barrel (mid 2008) led to rocketing costs. In the third quarter of 2008, for example, Air France KLM reported an increase in fuel costs of €498 million to €1.6 billion (with a turnover of €5.9 billion in the same quarter). Its reported loss over the fiscal year 2009–2010 was largely attributed to increased fuel costs.

These developments mean that KLM is active in an environment with a lot of market turbulence. However, this does not mean that the degree of competition is the same on all routes. There are a number of routes on which competition is fierce, such as Amsterdam-London, and routes on which KLM faces hardly any competition, such as the Amsterdam-Paramaribo route.



## 1.1 Pricing strategy and competition

This section deals with the scope KLM has to make price adjustments. A distinction is made between the scope in a competitive market (the Amsterdam-London route) and the scope in a more monopolistic market (the Amsterdam-Paramaribo route).

### Amsterdam-London, a competitive market

What is KLM's scope for setting the price in this market?

What KLM must take in to account is that travellers have numerous options. If they insist on travelling from Amsterdam to London Heathrow (London's main airport), KLM and British Airways offer the cheapest options, prices being approximately €170 (2010). However, for travellers who are in a position to make use of alternative airports in London, easyJet offers flights at approximately €85. And for travellers able to depart from Eindhoven airport instead of Amsterdam, Ryanair offers flights at €59.

This may lead to the following considerations for KLM:

- Competition on short-haul routes is fierce. At the moment, KLM still attracts passengers who do not opt for one of the cost-cutters on the basis of the service offered by KLM and because of its reputation.
- Competition is not restricted to the Amsterdam-London route. Passengers will have fewer problems than in the past diverting to smaller airports, also because checking in and out at such airports takes less time.
- Competition is not restricted to other airline companies. Especially in the tourist market, the Channel Tunnel route (Calais-Folkestone) is a serious alternative for train travellers and motorists. To a somewhat lesser extent this also holds good for the crossing by ferry.
- The recession (from 2009) puts pressure on passenger numbers.
- Fuel prices are constantly going up and down. The question is to what extent the competition will include these changes in its pricing policy.
- Besides a decision about the prices to be charged, KLM should also reach a decision about the capacity (number of aircraft) to be employed on routes like these.

The conclusion following these considerations can only be that any price adjustments by KLM should be implemented with the greatest caution.

### Amsterdam-Paramaribo, a 'monopolistic' market

The situation for KLM on the Amsterdam-Paramaribo route is of an entirely different order than for the route sketched above. Paramaribo is the capital of Surinam (South America), a former colony of the Netherlands. The route is used fairly often for family visits by Dutch people of Surinamese extraction.

In the summer season the price of a return ticket is around €1,200.

The following considerations might be made:

- It was laid down in an agreement between the Dutch and Surinam governments in 1990 (valid until 2006) that KLM and Surinam Airways were to be the only airlines allowed to offer flights on this

direct route. In practice KLM operated the flights in a joint venture with Surinam Airways (SLM). In 2006 this cooperation ended and it was agreed that other airlines would also be allowed to offer flights. Until now, though, KLM and SLM are still the only airlines to offer direct flights.

- Besides the direct routes there are indirect alternatives. However, possibilities are limited and considerably more expensive. A round trip with Delta Airlines, for instance (via Toronto and Port of Spain in Trinidad and Tobago), costs nearly €3,000 (May 2010).
- For years now KLM has been under pressure from groups such as the Surinamese-Dutch association SHIVA and the Travellers' Association (Vereniging van Reizigers (VVR)), who accuse KLM of applying excessively high tariffs. In the past these groups pointed out that a round trip Amsterdam-Jakarta (Indonesia) was much cheaper while the distance is almost twice as great. (In 2010, however, this was much less the case: a round trip Amsterdam-Jakarta cost approximately €1,150). The Travellers' Association also complained of the poor availability of flights, especially during the holiday season. As early as 1998 SHIVA lodged complaints about this with the Netherlands Competition Authority (NMa), but these complaints were rejected in 2001. In its ruling in 2001 the Authority concluded that KLM and SLM occupied a monopoly position on the non-stop route Amsterdam-Paramaribo by dint of their cooperation, but it did not find that this was a violation of the legal prohibition on an economic position of power by KLM/SLM. In 2003 the Travellers' Association lodged another complaint, which was in the first instance rejected by the Competition Authority in 2004 and again in 2006. However, an appeal by the Travellers' Association in August 2010 resulted in this case being considered once more by the Competition Authority.
- The majority of the flights on the Amsterdam-Paramaribo route are taken for family visits. Although the alternatives are limited, there certainly is a degree of price sensitivity: if tariffs are too high, people will decide to cancel their planned visit.
- Also for flights like these, there is the consideration that a recession will lead to less air traffic.
- Finally, KLM will have to decide if they are going to adjust the number of flights on this route, in other words deploy more or fewer aircraft.

### Conclusion

KLM has more scope to change prices on a route on which there is little competition, for whatever reason, than on a route where competition is fierce (Amsterdam-London, for instance). This conclusion is open to generalisation: in a market with restricted competition a company has more freedom to set prices than in a market with fierce competition. As will be demonstrated later in this book, this does not mean that a company has an open field in the case of restricted competition. Obviously, it will have to include the (price) behaviour of consumers in its considerations. Nevertheless, it is attractive for a company to restrict competition as much as possible. In section 1.3 it will be discussed what kind of methods a company may employ in this.

## 1.2 Analysing the market arena

In this section we will take a somewhat more detached look at the market situation, following the initial analysis of KLM's scope to adjust prices. The approach will be of a more general nature and it will be investigated how economic theories may help to get a better insight into companies that find themselves in such a situation. In the first place, in 1.2.1, an analysis will be made of a number of factors that influence a company's power in a market. Next, in 1.2.2, the influence of the market type on a company's power is discussed. In 1.2.3. the value chain concept developed by the American economist Porter is dealt with, and 1.2.4 discusses the analytical model of the Five Forces, also developed by Porter.

### 1.2.1 Market power

It is clear that the market situation for KLM is rather different in the two markets described: in one market (Amsterdam-London) there is intense competition and in the other (Amsterdam-Paramaribo) KLM practically has a monopoly. There is a difference in KLM's power in the two markets.

#### Price elasticity of demand

In economic theory, market power is defined as the extent to which a company is able to set its price above marginal costs. Marginal costs are the costs of producing an extra product unit. This market power is related to the price elasticity of the required quantity enjoyed by the company.

#### CASE STUDY 1.1 ELASTICITY

Elasticity is a measure of the sensitivity of a variable to a change in another variable. The price elasticity of demand shows to what degree the demand for a commodity is sensitive to price changes:

$$Pe X = \frac{\% \text{ change in the quantity demanded for good X}}{\% \text{ change in the price of good X}}$$

Usually the price elasticity of demand is negative: a price increase will result in diminished demand.

If  $Pe$  is between 0 and  $-1$ , the demand price is inelastic: a price change results in a relatively smaller change in demand.

If  $Pe$  is  $-1$  or smaller ( $-2$  or  $-3$ , for example), the demand price is elastic: a price change will result in a relatively bigger change in demand.

Price elasticity is often defined in absolute terms: the minus sign is left out.

Price elasticity is only one of the forms of elasticity. Any link between two variables may be expressed in terms of elasticity, such as the income elasticity of demand or the interest elasticity of investments.

In the case of *elastic demand* a company's scope to increase prices is limited: consumers have various alternatives at their disposal. In the first place consumers may go to direct competitors (other airlines), but

they also have the opportunity to use less direct alternatives (train, boat) and they may even decide to postpone the journey or cancel it. In the case of *inelastic demand* alternatives are less readily available. In our example of KLM's Amsterdam-Paramaribo route, alternatives are limited: there are no direct competitors. Consumers *may* decide to travel on an indirect route (via New York, for example) or go by boat; however, this is hardly a realistic alternative on account of the extra time involved. Here, too, though, at worst consumers may cancel the journey.

The connection sketched above is known in economic theory as the

$$\text{Lerner index} = \frac{\text{Price} - \text{Marginal Costs}}{\text{Price}} = \frac{-1}{\text{Price elasticity demand}}$$

This Lerner index indicates that the market power of a company equals its ability to set the price above the marginal costs. This depends on the price elasticity of demand in the way that it is inversely proportional to the price elasticity of demand.

### Degree of concentration

The more companies are present in a market, the more individual companies are limited in scope to change their prices. A measure that is often used is the concentration ratio (C-ratio). This measures the combined market share of the largest (five, for example) companies in a specific market (in which  $M\%_1$  is the market share of company 1, etc.).

So:  $C_5\text{-ratio} = M\%_1 + M\%_2 + M\%_3 + M\%_4 + M\%_5$

Research in Great Britain in 2004 showed the following results for the  $C_5$ -ratios in a number of industries:

- Sugar 99%
- Tobacco 99%
- Furniture 5%
- Dairy products 31%

The disadvantage of this measure is that it tells us nothing about the relative market shares of the companies: if all five companies have a market share of 20% each, the  $C_5$ -ratio is 100%. However, this is also the case if company 1 has a market share of 60% and the other four have a market share of 10% each.

The Herfindahl-Hirschman index (HHI) does not have this disadvantage. This index provides the total of the squares of the market shares of all companies operating in a market:

So:

$$\text{HHI} = M\%_1^2 + M\%_2^2 + \dots + M\%_n^2.$$

This is a maximum of 10,000 (one company with 100% market share).

The more concentrated the market is, the higher the value.

Example:

Five companies with 20% market share each results in an HHI of 2,000.

If one company has a market share of 60% and the other four have 10% each, the HHI is 4,000.

In the United States and in the EU the HHI is also used to determine, among other things, whether a merger could result in too high a concentration and, as a consequence, restriction of competition in a market. Not only the value of the HHI is taken into consideration here, but also the change (the delta) which would occur in it after a merger. In the EU the HHI is also used, incidentally, to determine which mergers need not be investigated any further because the HHI remains below a certain value. In such cases the term 'safe harbour' is used. Chapter 5 will deal with the uses of the HHI in greater detail. It will be clear that in our KLM example both the C-ratio and the HHI for the Amsterdam-Paramaribo market is higher than for the Amsterdam-London market.

### Relevant market

A complicating factor in determining the degree of concentration of a market in which a company operates is the fact that markets are by no means unambiguous:

Is the market in which KLM operates on the Amsterdam-London route:

- The market Amsterdam Schiphol airport-London Heathrow airport?
- The market all Dutch airports-all London area airports?
- The cost-cutting market?
- The market for all airlines on this route (so inclusive of business class, for instance)?
- The market for all forms of transport between the two cities (so inclusive of train and ferry)?

A comparable question may be asked in respect of, for example, Coca-Cola. Is it active in the market for branded cola (with Pepsi as its only competitor), or all cola (including private labels), or soft drinks, or beverages?

Before something can be said about the market share of a company and the degree of concentration in this market, it will first have to be established what the *relevant market* is:

In principle the notion of a relevant market is a legal notion: it is one of the elements in determining if there is such a thing as market power.

However, the definition of relevant market is an economic one. In 1997 the European Commission concluded that there are two ways of defining the term:

1 The relevant product market.

This comprises all products and/or services that are considered to be interchangeable by consumers. If cola and orange juice are interchangeable for consumers, the market for cola is, therefore, not a relevant market: a price increase by cola producers would result in consumers switching to orange juice. If consumers did not switch (if they kept on drinking cola) the cola market *would* be regarded as a relevant market. As well as this substitution of demand, substitution of supply plays a part in determining the pressure of competition: What matters here is the question whether, as a result of a slight price increase, for instance, suppliers who are not yet operating in the market in question could easily and quickly launch the good in question on this market (if they possess the necessary know-how and expertise). If this is the case, these suppliers are considered to be part of the relevant market

## 2 The relevant geographical market.

In this case it is considered what companies from what areas compete with each other. If the fact that the only hairdresser in village A increases his prices causes his customers to switch to the hairdresser in the nearby town of B, village A cannot be regarded as a relevant market. Only if customers do not have any alternative in another (larger) area can a market be considered a relevant market. In the various forms of supervision on competition, the determination of the relevant geographical market plays an important part. In 2000 the UK Competition Commission, for example, investigated the takeover of a Norwegian salmon breeder (Norsk Hydro Seafood) by Nutreco, which had a major stake in Scottish salmon breeding. Partly based on the conclusion that the takeover concerned the same geographical market, it was not allowed to take place.

An important role in defining the relevant market is played by the SSNIP (Small but Significant, Non-transitory Increase in Price) test. Here the question is whether a small (5%–10%) increase in the price of a product in a specific area would result in such a fall in demand for the product that it would no longer be profitable. This could be the case if consumers could easily switch to substitutes (other products or another area). If consumers switch easily when there is a price increase, there are obvious substitutes, so the product does not constitute a relevant market; the substitutes should be included in the market. If consumers do not switch, there are, obviously, no substitutes, so the product in itself constitutes a relevant market.

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### EXAMPLE 1.1 SSNIP TEST

The turnover of product A by company X amounts to 500 units. The unit price is €10. The cost price per product is €8, so the profit margin is 20%. In this case there is a turnover of €5,000 euros and a profit of €1,000. Now company X increases the price of its product by 5%. What are the consequences?

Possibility 1: There are few alternatives for consumers (the price elasticity, for example, is  $-0.6$ , so the demand is inelastic), which causes the turnover to decrease by only 3% to 485 units. The turnover now amounts to  $485 \times €10.50 = €5,092.50$ . The costs are  $485 \times €8 = €3,880$ , causing the profit to increase to €1,212.

Possibility 2: There are several alternatives for consumers and relatively high price elasticity ( $-5$ , for example), causing turnover to drop by 25% to 375 units. The turnover now amounts to  $375 \times €10.50 = €3,937.50$ . The costs are  $375 \times €8 = €3,000$ , causing the profit to drop to €937.50.

In possibility 1 the SSNIP test is passed: there is a relevant market for product A, since a price increase results in only a relatively small drop in turnover, which makes this price increase profitable.

This is not the case in possibility 2. There is no relevant market here for product A, for consumers can switch to alternatives. In this case the market must be defined in wider terms (more products and/or a larger area), with the result that the market share of company X will be smaller, and so its 'official' market power will also be smaller.

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The SSNIP test should be applied with some caution, however. A well known reservation is known in economic literature as the *cellophane fallacy*, named after a case in which the Du Pont company argued that cellophane should not be regarded as a separate (relevant) market but was part of a wider market for flexible maintenance products (including, for example, aluminium foil). Du Pont cellophane had a high price elasticity, which, according to Du Pont, indicated that cellophane should not be regarded as a relevant market and that, consequently, Du Pont had only little market power. The judge found for Du Pont in this case.

It has since been argued that the judge had failed to notice that Du Pont, being a monopolist, *had already increased* the price. Every monopolist will, of course, set the price at such a high level that further price increases will have an adverse effect. In this case the SSNIP test would have led to a wrong conclusion.

In the NMa's ruling in the case of Shiva/KLM in 2001, in which the question came up whether KLM had abused its monopoly position on the Amsterdam-Paramaribo route, the issue of the relevant market is dealt with extensively. One of the questions here was whether or not the indirect route Amsterdam-Paris-Cayenne-Paramaribo could be regarded as a substitute. The NMa came to the conclusion that this indirect route did not cause any competitive pressure and could not be regarded as a substitute for the direct Amsterdam-Paramaribo route. Consequently it concluded that the Amsterdam-Paramaribo route *was* a relevant market.

### 1.2.2 Market structures

Another, fairly well known, way to determine the position of a company (including that of KLM) is to identify and analyse the types of market in which it is active. On the basis of a number of variables, including the number of suppliers and the nature of the product, four types of market can usually be identified.

**TABLE 1.1** Market structures

Type of market	Number of suppliers	Entry barriers	Nature of the product	Example
Perfect competition	Many	None	Homogeneous	Some agricultural markets (carrots, potatoes)
Monopolistic competition	Many	None	Differentiated	Restaurants, retail trade
Oligopoly	Few	Present	Homogeneous or differentiated	Petrol companies, car makers, producers of rubber
Monopoly	One	Present	Unique	Dutch railways, some medicine manufacturers

The presence or absence of entry barriers is connected with the question of how accessible a market is to newcomers. Access may be restricted by several factors, such as the necessary patents and the required capital. We shall deal with this matter further later in this chapter and in chapter 2.

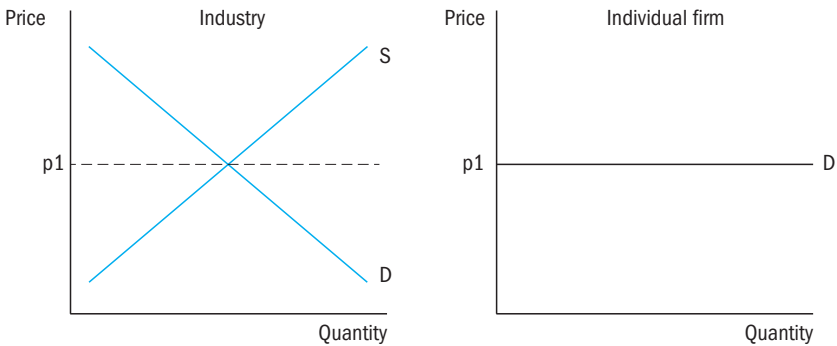
In practice the two extreme forms – perfect competition on the one hand and the monopoly on the other – hardly ever occur. In spite of this, they are still useful for the analysis of existing markets. Despite the fact that the Amsterdam-London market is certainly not a market with perfect competition, and although KLM may not have a 100% monopoly on the Amsterdam-Paramaribo route, a theoretical analysis provides valuable information if we want to understand the two situations in which KLM operates.

We will now take a closer look at these two extreme forms (the monopoly will be dealt with in greater detail in chapter 2) and will subsequently consider what the relevance is for KLM in both markets.

### Perfect competition

The market type perfect competition may best be illustrated by the following figure:

FIGURE 1.1 Price-making in the case of perfect competition



The left-hand graph shows that, in the case of perfect competition, the price of a product is determined at the level of the industry, that is to say the total demand and the total supply in the market determine the price. The right-hand graph shows that this price is a given for an individual firm. An individual firm does not have the power to influence the price: if it were to ask a higher price than the applicable market price, demand would cease to exist immediately (remember that the traded goods are homogeneous, so there is no reason for a consumer to select a supplier who charges a higher price). In fact, the demand for his product is entirely elastic: the slightest price increase will result in a complete cessation of demand for his product. The only thing he can adjust is the quantity produced. Economists assume that he will expand the quantity to such an extent that the extra costs of his last produced



unit (the marginal costs) equal the price of his product (see table types of costs). This means that he makes a profit on the earlier produced units, as a result of which the total profit is maximised.

In fact, our example of the KLM route Amsterdam-London fairly closely resembles this extreme theoretical situation in the sense that the power KLM has to increase prices is rather limited. Demand will not drop immediately but it will decrease relatively much: the demand, therefore, is elastic. Compare this conclusion with the earlier conclusion in relation to the Lerner index (p. 18).

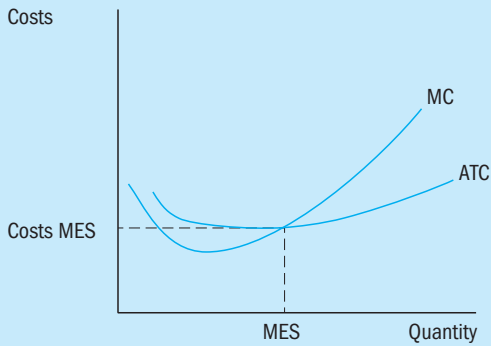
Of course, KLM *may* decide to deploy more aircraft on the route.

#### CASE STUDY 1.2 TYPES OF COSTS

In micro economic theory the following types of costs are defined:

- The *variable costs* of a company are the costs which change when output changes. Examples are costs of raw materials and labour costs. Variable costs may increase in direct proportion to the production volume, or they may increase less quickly at first and more quickly later.
- *Fixed costs* are costs which do not change in the period that is being considered. Even if the company did not produce anything, these costs would still be incurred. Consider, for example, buildings, machinery, etc. It must be remembered that these costs may increase in the long term, if the company decides on new investments, for example. Labour costs may also be a fixed cost for a company, if it is bound to contracts, for example, and/or legal regulations that make it impossible to dismiss workers at any given moment.
- *Marginal costs* are the extra costs that result from a production increase by 1 unit. The extra costs may remain on a par with the increase in production (that is to say that the variable costs increase in direct proportion to the production – see above), or they may first go down and increase later. The latter phenomenon will occur when production capacity is approached.
- If the marginal costs of the extra production are higher than the extra revenue (*marginal revenue*) it is, obviously, no longer useful for the company to increase production: The total profit would fall as a result.
- *Average costs* are the costs (total, fixed or variable) per product unit. As production expands, the average costs will go down. This is caused by the fact that the company can spread its fixed costs over more and more product units. The company benefits from *economies of scale*, meaning that average costs go down if output is going up. At a given moment average costs may go up again when production increases further. This will happen if the marginal costs are higher than the average costs. (Compare this with marks for a test and your average for that subject. Every new (marginal) test mark that is lower than the average will drag this average down, but a mark that is higher will make the average rise).

FIGURE 1.2 Average Total Costs and Marginal Costs



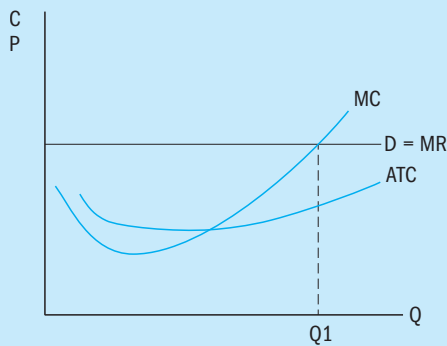
In the figure above, the economies of scale are represented by the Average Total Costs curve. In the descending part of the curve there is a decrease in average costs as production increases. In the ascending part of the curve – beyond the point where production can be effected at the lowest possible costs – it is shown that the average costs per product unit increase as production increases. The point in the curve where costs are lowest is known as the Minimum efficient scale (MES).

Above a certain level, therefore, there may occur diseconomies of scale, whereby the average costs of production increase again because, for instance, it is more difficult to co-ordinate a larger company. In this case it will be necessary to restructure and reorganise the various production departments, for example. In addition, diseconomies of scale may occur because machines or computers need more maintenance in the case of high intensity of use than in the case of lower intensity of use.

Economists assume that a company that aims for maximum profit will set a level of supply such that marginal revenues equal marginal costs. This is known as the  $MR = MC$  formula. It can be explained as follows:

In the case of perfect competition the price of the sold good is equal to the marginal revenue. Every extra unit sold results in a fixed extra revenue, which equals the price of the good. (In chapter 2 we shall see that this does not apply in the case of a monopoly, for instance.) As long as this marginal revenue (i.e. the price) is higher than the costs that the company has incurred for the last unit (the marginal costs), it is to its advantage to extend production. It will continue to do this until the marginal costs become higher than the marginal revenue, at which point the company would start to lose money and the total profit would drop. The conclusion is that the optimum in quantity produced (from the perspective of profit maximisation) is the quantity for which the marginal revenue equals the marginal costs, so:  $MR = MC$ . Figure 1.3 below shows this situation. The quantity produced by the company will be  $Q_1$ .

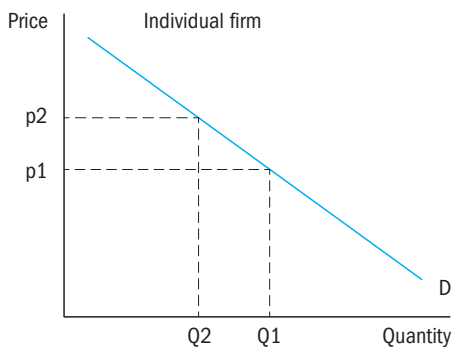
FIGURE 1.3 Maximum profit in perfect competition



### Monopoly

In the case of a monopoly situation the supplier is in a position to determine the price himself; he is a price-setter. He does not need to fear that consumers will switch to a competitor, nor that a high price will attract new participants (competitors), for we assume that there are entry barriers. Yet the supplier's freedom to set the price is not unlimited. Too high a price may make consumers decide to relinquish their demand, which may lead to a drop in turnover and a decrease in profit (we shall deal with this in greater detail in chapter 2).

FIGURE 1.4 The demand curve of a monopolist



KLM is, depending on the definition of the relevant market (see page 19), the monopolist on the Amsterdam-Paramaribo route. Yet its scope to increase its price is not unrestricted (from  $p_1$  to  $p_2$ ). In the short term this might make travellers decide to postpone their planned family visit for a year. They might also try to find cheaper, indirect, connections. Besides, tariffs which are too high could lead to an increase in complaints from travellers. In the long term this might lead to a situation in which governments allow more suppliers on this route. In this case this

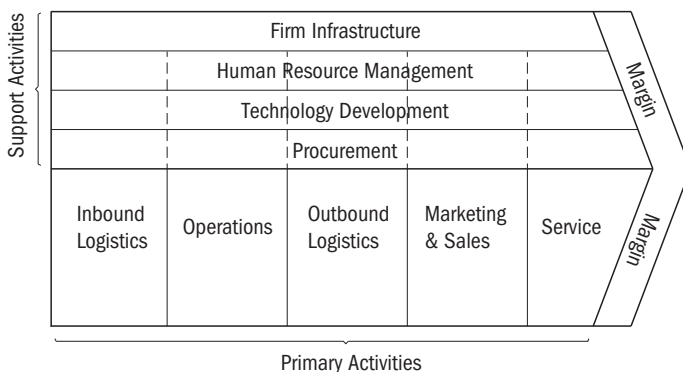
means that the entry barriers that exist in the short term are not guaranteed in the long term.

The above comparison between a monopolistic market and a market with perfect competition shows that differences in the structure of markets (many suppliers or only one supplier, a limited number of substitutes or none at all, few or many entry barriers) lead to differences in market forces when there is a given behaviour (assuming that companies aim for profit maximisation): in the case of perfect competition prices will be relatively lower (compared with costs) than in the case of a monopoly, which causes the quantities produced and sold to be greater.

### 1.2.3 Value chain, value system and supply chain

A third way of looking at competition and competitive power in particular was introduced by the American economist Michael Porter in *Competitive Advantage: Creating and Sustaining Superior Performance*, published in 1985. According to Porter, in order to analyse a company's competitive power we should not look at the company in its entirety; we should split it up into a number of activities. Together, these activities form the *value chain* of a company, the chain of activities which a company performs to create value, from purchases to sales to customers. In this way a company may analyse for each activity how things stand, for instance in relation to competitors, and how the company might develop and distinguish itself in relation to competitors. The company may choose from two strategies: it might try to reduce costs as much as possible and aim for cost leadership, or it might aim at differentiation, that is to say try to distinguish itself from competitors through its products or services. In section 1.3 these strategic options will be dealt with in greater detail.

FIGURE 1.5 Porter's Generic Value Chain concept



Source: The Generic Value Chain  
 Kilde: Porter: *Competitive Advantage*, 1998

Porter identifies nine activities and divides these into two types of main activity:

- 1 Primary activities. These are activities that contribute directly to the creation of the product (or service), including the sale to customers and the service that is part of this. These activities are inbound logistics (purchasing, incoming stocks), operations (the actual manufacturing), outbound logistics (outgoing stocks and distribution), marketing and sales, and service (supporting dealers, customer service).
- 2 Supporting activities. These support the primary activities and each other. They concern the firm's infrastructure (planning, administration, information systems, quality management, etc.), human resource management, technology development (research, product development) and procurement (the process of purchasing and the selection of suppliers).

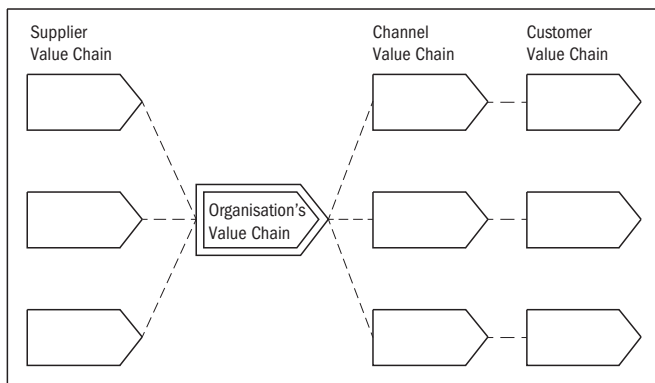
The margin is the difference between the total value these activities generate (the total revenue) and the costs of all these activities.

Next, the manner in which these activities are carried out determines whether the company works more cost effectively than its competitors and whether it contributes to meeting customer demand by distinguishing itself compared with other suppliers. In other words, the value chain analysis offers a company a means of arriving at a strengths and weaknesses analysis.

In the airline industry a clear difference can be distinguished between operators like KLM and operators like Ryanair. Ryanair is focused on reducing costs as much as possible (by lowering the level of service: for instance, no longer offering free coffee), whereas KLM puts more emphasis on service.

According to Porter, it is not only its value chain that determines the competitive power of a company but also the *value system* that the company is part of: this is the wider network of suppliers (upstream activities) and distributors (downstream activities) in which the company participates. The figure below provides an explanation:

FIGURE 1.6 Porter's Value System concept



The value system makes it clear that, here too, a company faces a number of choices:

- First of all the company has to make a carefully considered choice among various suppliers and distributors. The decision may depend on whether low costs are an important factor or rather the quality of either suppliers or distributors (or a combination of these, of course). This choice may influence the company's competitive power just as much as the company's value chain itself. A computer manufacturer, for instance, can choose from various processor suppliers according to low price or high performance or brand awareness ('Intel inside') criteria.
- Another factor is whether the company should engage in a number of the supplier's activities (backward integration) or (partly) take care of distribution itself (forward integration). A company may decide in favour of vertical integration, for instance in order to have greater control over the entire production process. A car manufacturer could decide to take over a tyre manufacturer. This might be considered if there are constant problems with delivery, if the tyres are too expensive and/or if contract negotiations are always difficult. If buyers of the services of airline companies could take over these airline companies (or found other airline companies themselves), this increases their bargaining power and undermines the position of the airlines. In the case of individual passengers this is not very likely; it is a possibility in the case of tour operators, for example. This would be a case of *backward integration*.

*Forward integration* would take place if a supplier of an airline company started its own airline: for instance, if aircraft producer Boeing started an airline. The more realistic this option is, the stronger the supplier's bargaining power: for the buyer lives in fear that the supplier could also provide the service himself, as a result of which he (the buyer) does not feel able to make too stringent demands.

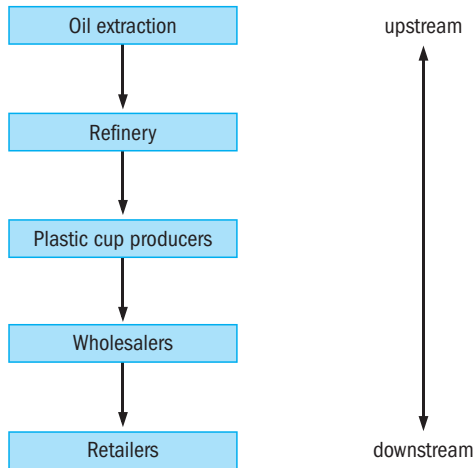
Forward and backward integration and their underlying reasons are discussed in great detail in chapter 5, which deals with mergers and acquisitions. Both types of integration could lead to a considerable restriction of competition and, as a result, are not always allowed. This question will also be dealt with in chapter 5.

On the other hand, a company may opt for *outsourcing*: hiving off activities that were originally performed by the company itself. A car manufacturer may, for instance, decide not to produce the engines for its cars any longer but to buy them from another manufacturer or to produce engines in collaboration with other car manufacturers. Ford, for instance, buys a number of its diesel engines from the PSA concern, which, in turn, buys a number of petrol engines from BMW.

An even more general notion than the value system, which relates to a producer's downstream and upstream relationships, is the notion of the *supply chain*.

This represents the whole of the successive links in the production of a product, from raw material to end user:

FIGURE 1.7 Supply chain

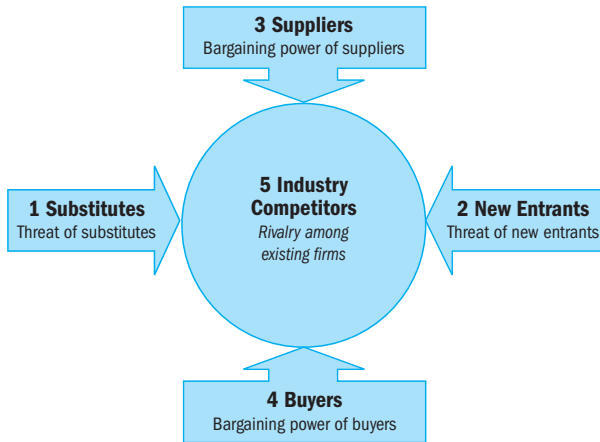


From top to bottom the figure shows the production and marketing chain of plastic cups, from the extraction of oil to the retailing of these cups. Each row forms a separate link in the chain. This is, by the way, a much simplified example. In practice there may be one or more intermediate links between the links shown here. Separate companies may, for instance, take care of the oil transport; the retailers may not sell only plastic cups (it is more likely that they sell a whole range of household products); and the wholesalers may also trade in camping equipment besides plastic cups. When analysing production and marketing chains, economic literature uses terminology in which the relative positions of the successive phases in the chain are shown. A phase closer to the end user, for instance, is called a downstream activity or market, by analogy with the direction of the current in rivers. A phase closer to the origin of the production process is an upstream activity or market. Here, again, it is obvious that taking up an upstream activity yourself represents backward integration and taking up a downstream activity, forward integration.

#### 1.2.4 Porter's Five Forces model

Porter's value chain model provides particular insight into the strengths and weaknesses of a company (internal analysis). The Five Forces model (also made familiar by Porter) analyses the attractiveness and the profit-making potential of a sector (rather than an individual company). It is not only competition among companies themselves that is analysed, but also four other forces that influence the degree of competition in a sector (external analysis). The result of the analysis may provide an insight into the opportunities and threats facing a company (although, of course, other types of analysis are possible as well). In line with the supply chain scheme shown in figure 1.7, suppliers are placed above the industry competitors (upstream relationships) and buyers below (downstream relationships).

FIGURE 1.8 Porter's Five Forces model



As its name indicates, the model identifies five forces that together determine the competitive intensity in an industry:

### 1 Threat of substitutes

Do consumers have alternatives? At the (airline) industry level this means: can consumers use alternative methods of transport (boat, train, car). For the airline industry this is particularly relevant on short-haul routes.

### 2 Threat of new entrants

Easy access to a market will increase competition. Access can be restricted by the existence of barriers to entry. These barriers can be of various types and can consist (among others) of the following:

- a Specific technical know-how, which is difficult to acquire.
- b Economies of scale and high capital requirements. High fixed costs will necessitate high levels of output to bring average costs down.
- c Cost factors independent of scale (e.g. high production efficiency of existing firms due to acquired expertise).
- d Restricted access to distribution channels.
- e Government regulations preventing new companies from entering the market.
- f Patents giving exclusive rights to produce to one firm.
- g High switching costs for buyers.
- h Network externalities, meaning that the product will be used in an existing network.

In the case of KLM, the initial entry barrier to the Amsterdam-Paramaribo route was an agreement between the Surinamese and Dutch governments, stipulating that only KLM (in a joint venture with SLM) was allowed to operate direct flights between these two cities.

In other markets – within the EU, for instance – this type of barrier is gradually being abolished. The emergence of cost-cutters (Ryanair, easyJet) in the 1990s shows that new entrants have much greater



opportunities in Europe, even on routes where, traditionally, national airlines such as KLM used to have exclusive rights.

### 3 Bargaining power of suppliers

If suppliers have a lot of power (there are only a few suppliers and/or there are no alternative suppliers, so buyers find it difficult to switch), terms of delivery may be disadvantageous to the buyer. This is the case, for instance, when an airport has a relatively strong position and, as a result, is able to demand high access fees from airline companies. Another factor may be that there is a relatively small number of aircraft producers, causing the prices of aircraft to be relatively high.

### 4 Bargaining power of buyers

Are buyers price sensitive or not? In other words, is the demand price-elastic? Are there many buyers or are there a few big, and therefore powerful, buyers. It is well known that in Japan, for example, many small businesses supply each large company. In this way a car maker may have numerous small suppliers of parts. Often this big company is the only customer such a small supplier has, so that the latter is entirely at the mercy of his customer. A different example is the situation in which the direct customer of a producer is not the consumer but a supermarket chain. For airlines, the power of buyers is limited as they deal with a large number of individually functioning passengers.

### 5 Rivalry among existing firms

This depends, among other things, on the degree of concentration in the industry: Are there many small businesses or is there one dominant firm? Does the industry as a whole show growth or is there a saturated market, as a result of which an individual firm can grow only at the expense of another one?

Although the Five Forces analysis relates primarily to an entire sector/industry, it may be argued that the five points mentioned also play an important part in the presence or absence of market power in individual companies.

## 1.3 Corporate strategy and market power

In this section we will analyse market power from a business point of view. In a market economy, making profits is generally considered as the most important goal of a company. Market power can make a substantial contribution to this goal.

In section 1.3.1 we will discuss how companies can acquire market power by means of competitive strategies, such as focusing on low costs or by pursuing a differentiation strategy. Both strategies might give a company a competitive advantage over other firms.

In section 1.3.2 other strategies for gaining market power will be analysed. These strategies are aimed at decreasing competition in an industry, by means of increasing barriers to entry, by reducing the power of suppliers or buyers and through cooperation.

In section 1.3.3 it will be argued that too much market power and lack of competition can have disadvantages – even from a business point of view.

### 1.3.1 Competitive strategies to increase market power

Businesses can pursue different objectives. Most cited is the maximisation of profits. Other possible goals are satisfying customers' needs, growth, continuity and employment. In a market economy, however, a company cannot survive, let alone grow, if it is not profitable. Therefore, profitability is generally considered as the most important goal, enabling firms to realise other important objectives as well.

Profitability depends on the ability of a company to distinguish itself from the competition in terms of the price and/or quality of its products, services, marketing, logistics, control over distribution channels and other factors.

All these factors might give a company advantages over its competitors in the marketplace. One of main objectives of corporate strategy is to develop such competitive advantages, in particular advantages that can be sustained over time (*sustainable competitive advantage*). Let us assume that an airline, for instance, is able – thanks to government regulations – to block competitors and maintain a monopolistic position on a specific route. If that were the case and assuming that the government regulations will not change, it would definitely have a sustainable competitive advantage, enabling it to earn substantial profits. In this case, the advantage is based on market power, which was defined in section 1.2.1 as the extent to which a firm can set the price of a product or service above its marginal costs (page 17). Market power is sometimes also defined as the power held by a firm over price, and the power to subdue competitors (Econterms; P.Meyer). The market power of an airline on a specific international route can be derived from an agreement between two national authorities. Sustainable competitive advantage can be realised in various ways; but in most cases it involves obtaining at least some degree of market power.

Michael Porter has identified a number of generic competitive strategic options, open to any business pursuing sustainable competitive advantage. Every company must choose which (mutually exclusive) strategic route it wants to follow. Such a choice will comprise decisions on the following issues:

1 *Type of competitive advantage:*

- *Cost strategy:* Should the company focus on cost leadership? Will it be able to make its product or offer its services cheaper than most or all of its competitors?
- *Differentiation strategy:* Or should the company try to distinguish itself from the competition by giving some uniqueness to its products or services, mostly in terms of perceived quality or additional services?

2 *Competitive scope:*

- Will it be wise to focus on the market as a whole (*broad target*)?
- Or would it make more sense to serve a specific niche of the market, which requires segmentation of the overall market (*narrow target*)?

The alternatives are shown in figure 1.9, in a scheme which is generally referred to as Porter's Generic Competitive Strategies. The types of competitive advantage are indicated on the horizontal axis and the competitive scope on the vertical axis.

FIGURE 1.9 Porter's Generic Competitive Strategies

		Competitive Advantage	
		Lower Cost	Differentiation
Competitive Scope	Broad Target	1 <i>Cost Leadership</i>	2 <i>Differentiation</i>
	Narrow Target	3 <i>Cost Focus</i>	4 <i>Differentiation Focus</i>

Source: M. Porter, *Competitive Advantage*, The Free Press, New York

The figure shows that combining the various options of cost levels, degree of differentiation and competitive scope will lead to four basic strategies:

- 1 *Cost leadership*. This strategy can be pursued by companies that have superior production technologies and/or operate on a large scale, making them more efficient than others. Another source of competitive advantage in this field could stem from access to cheap resources (labour, energy, raw materials or components). Companies can also target price-sensitive segments of the market by offering only basic or standard products. Their perceived value might be low compared with the more sophisticated products in the market, but this is compensated by their very low prices (*'no frills' strategy*). Typical examples of companies adopting this strategy are the budget airliner, such as Ryanair and easyJet, or supermarket chains such as Aldi or Lidl.

Pursuing cost leadership is a risky strategy, however. Ultimately, there can be only one or at most a very few cost leaders. Furthermore, the strategy is not sustainable if the production methods can easily be imitated by competitors. If, on top of that, the product is completely homogeneous (see section 1.3), this market will lead to a situation of *perfect competition*, in which companies have no market power at all and eventually no profits will be made.

- 2 *Differentiation*. In this case, firms seek to provide products or services different from those of their competitors, in particular in terms of quality. This can relate to design, features, customisation, service, warranty, brand image or other 'added value' components. Through these, firms can give uniqueness to their products, creating more or less their own markets. The more they succeed in this, the more distinct their products will be. Since they have more market power in this situation, they can also charge higher prices than their competitors or even premium prices. Firms are in fact operating in a market with *monopolistic competition* in this case. But although their products have some degree of uniqueness in the market, they can nevertheless be substituted by similar products. Examples are sports shoes, where there are premium brands such as Nike or Asics and much cheaper, mostly local, brands.

- 3 *Cost focus.* If the market is big, companies seeking cost leadership can acquire more market power by focusing on particular segments or niches of the market, in terms of geographical areas, specific income or age groups, buyer groups with a specific lifestyle, etc. The market might be smaller, but prices and profits can be higher.
- 4 *Differentiation focus.* Differentiated products with added value will be offered to buyers in a specific (niche) market only, thus creating a strong position with a considerable degree of market power for the company. This might justify premium prices, although there might be a trade-off with numbers sold. Profitability as a whole might increase.

The eventual choice of a competitive strategy depends on a number of factors; some are related to the market (external factors) and some to the company's resources (internal factors). Every successful company should possess a number of competences, consisting of skills, knowledge and technologies, enabling them to provide particular value to buyers. If these competences are distinctive to the company, enabling them to deliver competitive advantage in the marketplace, they are called *core competences*. If these core competences are difficult to imitate, they will probably deliver sustainable competitive advantage.

Typical examples of core competences are the technological know-how of computer firm Apple and the design and marketing skills of the Italian fashion company Benetton.

Both companies have managed to create their own markets by means of offering highly differentiated and distinctive products, leading to considerable market power and the ability to set their own prices.

Cost leadership strategies normally require a high degree of efficiency. This can be achieved by means of superior technology or logistics, access to cheap resources or production locations or a combination of these factors. It might lead to sustainable competitive advantage and higher profitability, even if there are many suppliers and the product is more or less homogeneous, as in a market with perfect competition. The company might just sell at the standard market price, but since it produces at lower costs, it can still make substantial profits.

### 1.3.2 Other strategies to increase market power

As well as Porter's generic competitive strategies, there are other ways for companies to realise sustainable competitive advantage. Most of them are related to strategies aimed at limiting competition by means of cooperation, mergers and takeovers. These issues form the main subject of study in this book. It is generally assumed that reduced competition will lead to more market power and higher profitability for companies.

A good tool for analysing the overall competitive environment of an industry is Porter's Five Forces model, introduced in section 1.2.4 (figure 1.8). Maybe even more important from a corporate strategy point of view is that this model can also be used to develop strategic options to improve the competitive situation and hence the competitive advantage of a company. This can be done by trying to influence the five forces identified in the model with the intention of reducing competition, as follows.

- 1 *Substitutes*. The threat of substitutes is not easy to reduce or avoid. Strategies could be to keep a product or service attractive in quality and price, to integrate a service with other services, or to keep a product or service updated. For instance, short-haul flights will be competitive with train travel if check-in time at the airport is short and the airport has good connections to cities (e.g. it has a railway station, like London Stansted or Amsterdam's Schiphol Airport).
- 2 *Threat of new entrants*. As was discussed in section 1.2.4, companies can be prevented from entering the market by erecting new or increasing existing barriers to entry, such as those listed in 1.2.4. Companies can also follow a strategy of product differentiation, as has been discussed in section 1.3.1. In industries characterised by economies of scale, established firms can reduce their prices below the cost level of a potential new entrant (limit pricing). Once the threat has been averted, prices can be increased to higher levels. This strategy and other corporate strategies for maintaining or increasing the entry barriers mentioned above will be discussed in detail in chapter 2 (section 2.1).
- 3 *Bargaining power of suppliers*. High supplier bargaining power will undermine the competitive position of a company, which might be confronted with high purchase prices or other unfavourable purchasing conditions. This could lead to a squeeze on profit margins, in particular if the purchased goods or services constitute a substantial part of the value of the product and if the costs of components cannot be transferred to the customers of the company. This situation could be dealt with by a merger or takeover of an important supplier or by setting up a unit to produce the required components or services. Both cases are a form of *backward integration*; it will lead to a different configuration of the firm's *value chain* and *value system* (see section 1.2.3). This subject will be dealt with in chapter 5 of this book.  
Another possible approach is to set up a strategic alliance or other form of cooperation with one or more important suppliers. (A strategic alliance is defined as a formal agreement between two or more organisations, aimed at achieving a set of agreed goals while the organisations remain independent.) These strategies are examples of *vertical cooperation*, which will be discussed in detail in chapter 3.  
In the EU and many other countries, however, there are legal restrictions on the extent to which companies are allowed to cooperate in this way. This is the subject of chapter 4.
- 4 *Bargaining power of buyers*. High buyer bargaining power will normally have a detrimental effect on the market power and hence profitability of a company. There are various ways for companies to counteract such a situation:
  - Obtain (more) control over distribution channels, by setting up own outlets or by taking over or merging with wholesalers. This is a form of *forward integration*, which will be discussed in detail in chapter 5 as well. Examples are oil companies setting up their own petrol stations and mobile phone operators establishing their own

points of sale in city centres. Like backward integration, this will alter the firm's value chain and its relation to its value system too (see section 1.2.3).

- Stronger differentiation of the product, e.g. by better branding, making the buyers more dependent on it.
- Raising switching costs for buyers (see section 2.1.2).

As with backward integration, there are also legal restrictions on some forms of forward integration (see chapter 4).

5 *Rivalry among industry competitors.* Competition within an industry depends on (among other factors) the number of competitors and their relative size. This can be measured by means of concentration ratios, as was explained in section 1.2.1. The higher a concentration ratio, the more market power a company has and the more scope to set its own prices; this holds in particular for dominant firms in a concentrated market. An industry with a number of competitors of about equal size is generally characterised by vigorous competition, even if the number of competitors is relatively low.

Corporate strategies to diminish competitive rivalry in an industry include the following:

- Merge with or take over one or more competitors, in order to get more competitive clout, a stronger negotiating position and more market power vis-à-vis both suppliers and buyers (see chapter 5).
- Set up strategic alliances and other forms of cooperation with other firms in the industry. Such a cooperation could have the following aims:
  - the development of new products
  - setting market standards for specific products
  - increasing buying power by joint purchasing
  - increasing market penetration, in particular in new and foreign markets
  - reducing costs
  - setting prices
  - market sharing or segmenting.

Some of the above strategies, such as joint price-setting and market sharing, are not allowed in the EU or most other countries, since they are assumed to distort competition and harm the public interest.

Prohibition can, however, tempt companies to (tacit) collusion (e.g. price cartels), which is a legal offence.

The legal aspects of mergers and acquisitions are discussed in chapter 5 (5.3) and the regulations on horizontal cooperation in chapter 4.

### 1.3.3 Market power and competitiveness

What will be the effect of market power in the long run? Will it guarantee sustainable competitive advantage? The answer to this question depends on the source of the market power.

The most risky source is government regulation. If governments have created a protective environment for a domestic industry or have been favouring a 'national champion', there is a fair chance that the companies concerned will lack the incentive to be efficient, innovative and customer-orientated. The chance that they will be able to compete in international markets will be diminished. They will therefore be highly

vulnerable from the moment that the market is liberalised and they are fully exposed to the (international) competition. A typical example is European agriculture; without protection, substantial parts of it cannot survive.

Relying on patents is risky as well, as other companies can develop imitations that differ sufficiently from the original to be allowed onto the market.

Even if market power is based on more solid and (in principle) more sustainable sources, such as a dominant position in a market, there can be serious pitfalls:

- A high degree of market power might prevent a company from being alert to developments in the market and make it neglect the continuous improvement and upgrading of its products and services. The company will be less inclined to maintain, let alone improve, efficiency.
- If the prices of the company's products are relatively high, enabling it to make substantial profits, this might motivate other companies to enter or expand into this market as well.

Competitive advantages can be temporary. New and strong competitors with deep pockets can show up. Revolutionary technologies, leading to product or process innovation can occur. The most dangerous attitude for a successful company is to sit back and watch and rely on its achievements. Corporate strategy is about preparing for the future, by continuously scanning the competitive environment and anticipating developments. A successful company today could be loss-making or even forced to shut down tomorrow if it is not focused on permanent adaptation to market and technological developments. A weak competitive environment does not stimulate such a mind-set. Many successful companies are generated in a highly competitive environment, sometimes in specific geographical areas. Typical examples are the ICT firms in Silicon Valley in the US (e.g. Apple, Adobe, Sun Microsystems and Google) and the fashion companies in Milan (e.g. Versace and Armani) and Florence (e.g. Gucci). To conclude: a competitive environment is in many cases beneficial not only for the economy as a whole but also for individual companies, at least in the long run.

## 1.4 Competition

In the preceding sections the competitive position of companies was looked at and related to a specific market situation, often using KLM as an example. In this section we go into the consequences for society of the existence of a specific market type. We will focus especially on the market type of perfect competition, and investigate how these consequences are discussed in economic theory. We will also go into the resulting European Union policy. The advantages and disadvantages of a monopoly situation will be dealt with in chapter 2.

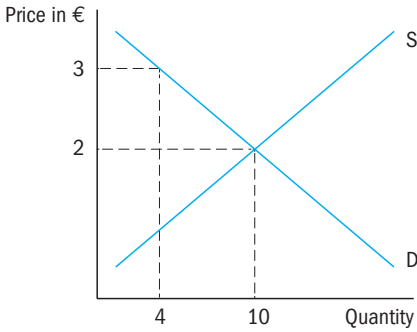
### 1.4.1 Competition and economic theory

#### Consumer versus producer surplus

In the perfect competition market, prices are determined by supply and demand. Where supply and demand are in balance, an equilibrium

price will be the result. This is lower than the price a large number of consumers are prepared to pay. The figure below attempts to clarify this:

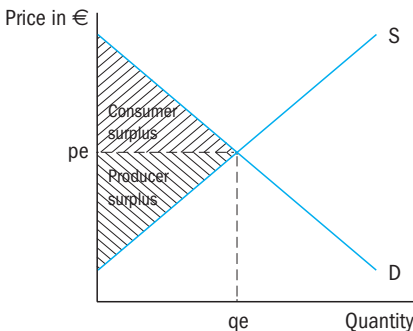
FIGURE 1.10 The consumers surplus



The above figure shows that the market price for a specific product (a glass of beer on a terrace, for example) is €2. The demand curve, which shows how much consumers would be prepared to buy at a specific price, shows that there are consumers who would be prepared to pay €3 for their first glass, for example on a sunny terrace after a day's hard work. This corresponds with the empirical rule that the larger the number of units at your disposal, the smaller the extra benefit that each extra unit provides (marginal benefit), so the less you are prepared to pay for it. The difference between what consumers are prepared to pay for a product and what they actually have to pay (the market price) is called the *consumer surplus*. In this example it is €1 for the first glass of beer.

Looking at it from the producer's point of view, the supply curve shows that a number of producers are prepared to put a product on the market at a lower price than the market price. All the same, these producers also receive €2 for their product. The difference is the *producer surplus*. In combination this results in the following situation:

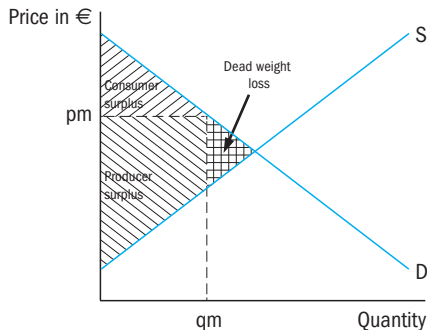
FIGURE 1.11 Consumer surplus and producer surplus





Economists consider the sum of the producer and the consumer surpluses a norm for the welfare effects of the production and consumption of the commodity in question. If the price of the commodity were to be set at a different level,  $p_m$  – by a monopolist, for example, who can set the price, or by a government for whatever reason – the welfare effect becomes smaller because the quantity sold,  $q_m$ , is smaller. The lacking surplus is called *deadweight loss* in economics. In graphic terms, this looks as follows:

FIGURE 1.12 Dead weight loss



It should be noted that in this case consumers ‘pay the bill’: the total surplus diminishes, but the producer surplus increases at the expense of the consumer surplus.

The fact that production drops and is less well attuned to consumer demand is known as a loss of allocative efficiency. Allocative efficiency is linked to the question whether the things the consumer needs are actually being produced.

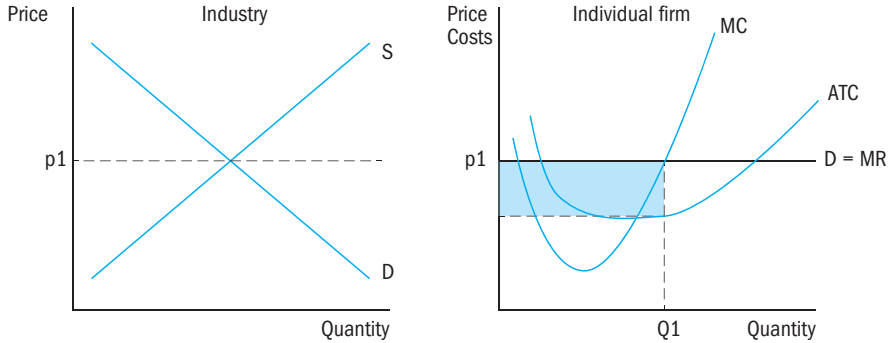
In conclusion, it may be argued that the market type of perfect competition results in the maximisation of the consumer surplus and producer surplus.

### Supernormal profits

Another great advantage of perfect competition is that higher-than-average profits in an industry will not be maintained for long. Eventually prices will drop to the level at which costs are merely covered. It is self-evident that this is the most desirable situation from the consumer’s point of view. Figure 1.13 will clarify this situation.

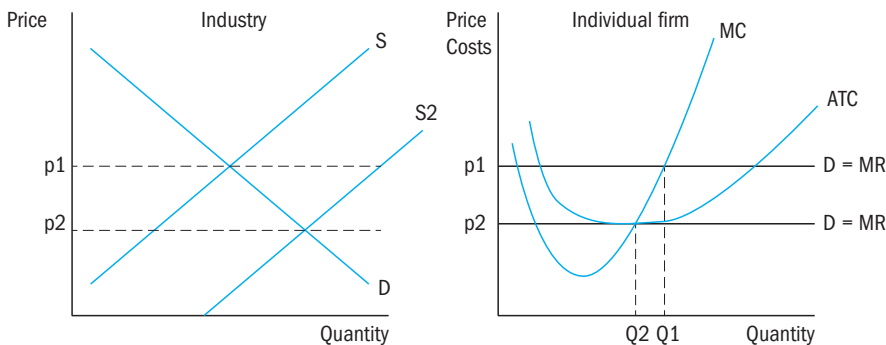
In Figure 1.13 the price  $p_1$  is set on the basis of supply and demand. This price (in the case of perfect competition) is a given for individual firms, which are ‘price followers’. The only thing they can do is adjust the quantity they produce in such a way that profits are at their maximum. These profits are at their maximum if the costs of the last produced unit (marginal costs) are equal to its yield (marginal yield, in this case equal to the price). This is the case when the quantity is  $q_1$ . If the marginal costs for the units produced before  $q_1$  were lower than the marginal yield, the profits are increasing.

FIGURE 1.13 Perfect competition, supernormal profits



In the above situation the price is higher than the average cost price and the total profit is shown by the shaded area. If we assume that 'normal' remuneration is part of the firm's costs (and therefore of the average total costs (ATC)), this shaded area may be regarded as a *supernormal profit*. It is crucial to realise that supernormal profits encourage others to enter the market, which is more attractive than average. Consider now that this type of market has no entry barriers. As a result of the fact that new companies see their chance and enter the market, the supply in this market will increase, causing the supply curve to move to the right. This will have the consequence that prices in this market will go down and that supernormal profits will diminish. This entry process will continue until the supernormal profits have vanished and 'normal' rewards have been established. This is shown in the following figure:

FIGURE 1.14 Perfect competition, no supernormal profits



The price is  $p_2$ , and a company will produce  $q_2$  under these circumstances and make neither a profit nor a loss.

It should be noted that supernormal profits *can* be maintained in a monopoly situation. Entry into a monopolistic market is restricted, so a high price does not lead to more entrants and, as a consequence, to more supply in the market. This will be discussed further in chapter 2.

### Static and dynamic efficiency of markets

In the first part of this section it was mentioned that in the case of a monopoly, compared with perfect competition, a smaller quantity of goods at a higher price is put on the market. The fact that this leads to a lower consumer surplus is called a loss in *allocative efficiency*. Allocative efficiency is linked to the question whether goods are produced that consumers need. According to economic theory, perfect competition results in higher allocative efficiency.

But there is a second efficiency advantage in perfect competition. A company that is inefficient cannot survive in this market. Moreover, a company can generate extra profit only if it manages to lower its costs. This can be achieved only by producing efficiently. In other words, the market type of perfect competition provides an incentive to achieve efficiency. This is called *productive* (or *technical*) *efficiency*. Goods are produced at costs that are as low as possible. Together, allocative efficiency and technical efficiency are called *static efficiency*.

Knowing this, we can now return to our KLM example. If KLM had a monopoly on the Amsterdam-Paramaribo route, it could decide to operate fewer aircraft and demand a higher price than would be the case if there were more competition. As a result, a loss in allocative efficiency occurs. In this case this means that some potential passengers, who might have been willing to pay the lower price, are not served. Moreover, there may be a loss in technical efficiency: due to a lack of competition KLM is not forced to handle its production factors more efficiently.

As a final efficiency advantage of (perfect) competition, *dynamic efficiency* is often mentioned. Although in theory perfect competition is characterised by homogeneous goods (leaving no room for innovation) and complete transparency (competitors have access to each other's know-how), it may be argued that many economists suppose that there is a positive relationship between competition and innovation. Competition is supposed to force companies to keep innovating. For, if they do not do so, they will be unable to match the cost reductions of competitors or will lag behind when competitors introduce new products that are more attractive to consumers. Reasoning in the opposite direction, innovation could help a company that is working in a competitive market to gain market share or even create its own monopoly.

Both allocative efficiency and dynamic efficiency may be linked to Porter's competitive strategies, discussed in section 1.3. A company may opt for cost leadership (which often necessitates innovation in production processes), which could result in lower prices for consumers, or it may choose to distinguish itself from competitors by means of new and innovative products.

The link between competition and efficiency, however, is not unambiguous and undisputed. In chapter 2, for instance, we will see that economies of scale may occur in monopolistic situations, leading to lower production costs (technical efficiency). In the case of a monopoly situation a company might also use its higher profits for research and development. Microsoft is an example of this. Collaborative agreements

between companies might also benefit consumers. In chapter 3 we will see that this is recognised by the EU: while some forms of collaboration (secret price agreements, for instance) are prohibited, in other cases collaboration between companies is actually allowed.

### 1.4.2 The EU Single Market and competition

Having assessed the prosperity benefits of the perfect competition market type, we will focus on the European Union's policy to promote internal competition in Europe. In this section we discuss the EU's internal market policy, which tries to forge the separate national markets into one whole. In the next section we discuss how the EU tries to prevent parties from concluding cooperation agreements that excessively limit competition as well as the abuse of monopoly positions.

'Nothing is better for competitiveness than competition itself.' Since the foundation of the European Coal and Steel Community (ECSC) in 1951, the foundation of the European Economic Community in 1957 to what later (1992) grew into the European Union, the aspiration has always been to arrive at further economic integration ('ever increasing Union', Treaty of Rome, 1957).

An important step towards this goal was taken in the mid 1980s. This step was born out of necessity: Europe found itself in a deep recession and was in danger of being unable to hold its own against competition from Japan and the United States.

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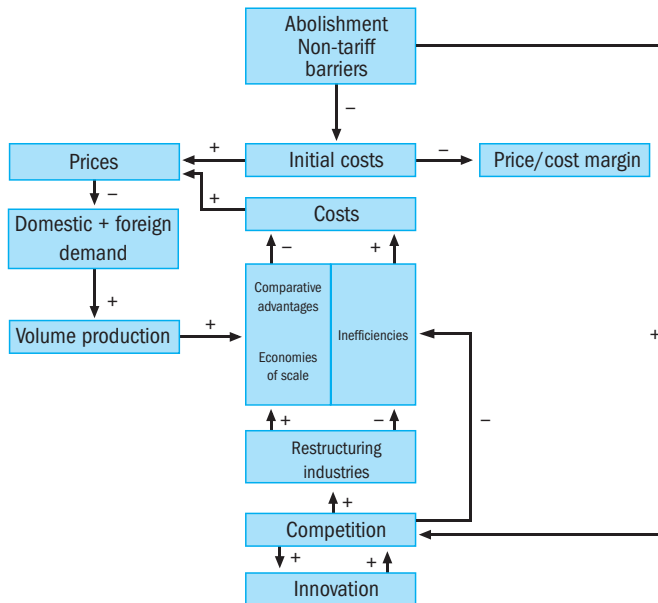
#### PAUL KRUGMAN: COUNTRIES DO NOT COMPETE

As the famous economist (and 2008 Nobel Prize winner) Paul Krugman has argued repeatedly, we should be cautious in referring to 'competition' between countries: countries do not compete; it is not as if a growth in the market share of one country would be at the expense of that of another country, rather the opposite: the growth of Germany, for example, contributes to the growth of the Dutch economy. Nevertheless it may be maintained that companies in countries do compete with each other and that governments can influence their competitiveness.

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In order to improve competitiveness, the need was felt to revitalise European integration, which was faltering at that time. In its *White Paper for the Completion of the Internal Market* the European Commission put forward proposals for further integration, in particular aimed at removing the remaining restrictions on non-tariff trade between countries. Almost simultaneously the European Commission published a report, presided over by the Italian economist Cecchini, which calculated the economic benefits of this integration. The figure below is based on Cecchini's conclusions:

FIGURE 1.15 Cecchini-report: Effects of removing non-tariff barriers



The core issue here is ‘competition’ within the EU as a bloc. Internal competition must be encouraged by removing the remaining trade restrictions, Europe must become one market instead of a collection of individual markets. Eventually this should result in comparative benefits, economies of scale and greater efficiency. Weak, inefficient companies will not survive this increased competition and stronger companies will replace them. This will result in lower production costs and lower prices, which will eventually lead to an increase in domestic and foreign demand and, consequently, an increase in production (GDP). It is also worth mentioning the link Cecchini makes between competition and innovation, which he considers a positive one. Economists refer to the ability to introduce new products and production techniques or the improvement of these as *dynamic efficiency*.

In fact, the entire policy relating to the internal market is focused on achieving the process described above. The liberalisation of the airline industry is only one example of this. Before 1987 national airlines were protected, which, in most cases, meant that a flight between two countries was possible only by flying with one of the two national carriers. Conversely, it was impossible for airlines to fly on a route which did not begin or terminate at a ‘domestic’ airport. It was impossible for British Airways, for example, to fly on the Paris-Rome route. Since 1987, the European aviation programme has been aimed at creating one big European airline market. The framework for this was formed by three regulations (Nos 2407/92, 2408/92 and 2409/92, the third package for the airline industry), which resulted in a single market for the airline industry coming into being on 1 January 1993. A consequence of this has been that every airline can, in principle, fly

on any route in Europe (a British airline on the Amsterdam-Paris route, for example). Tariffs were also liberalised and it became possible for every airline that met specific financial and safety regulations to obtain a licence in any country. Finally, member states were forbidden to give their domestic carriers any preferential treatment.

As a result, the number of internal flights in Europe trebled between 1980 and 2000, the number of intra-European routes with more than two airlines increased by 385%, and the price of airline tickets fell spectacularly.

The next step in the European policy is the liberalisation of air transport between the EU and the US – so-called open skies agreements.

## 1.5 EU competition policy

This section first discusses the why of competition policy. Next, the most important cornerstones of competition will be dealt with, after which a number of institutional aspects will be highlighted. This section, by the way, is only an introduction to the EU's competition policy. Later chapters will deal more extensively with certain aspects of it.

### 1.5.1 Rationale

As was stated in the previous section, one of the core values within the EU is the belief that unrestricted competition will result in greater prosperity. In this context, internal market policy is always aimed at opening up the fragmented European market and achieving greater economic integration. This should result in further specialisation at European level, the further exploitation of comparative advantages and the creation of economies of scale. Furthermore, intensity of competition should increase in this integrated market, which would, in time, result in more room for the more efficient companies (to the detriment of companies who struggle at this level) as well as lower costs and lower prices. Increased competition should also stimulate companies to achieve continuous innovation, on the one hand to keep costs down, on the other hand to keep one step ahead of competitors by means of product innovation.

So, if internal market policy is aimed at opening up the European market, competition policy must make sure that the market stays open. Adam Smith, the founding father of the science of economics, famously stated in his best known work, *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776): 'People of the same trade seldom meet together, even for merriment or diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices'. If there is general agreement that at the macro level competition is profitable in the long run, at the micro level, says Smith, individual entrepreneurs will, given the chance, try to restrict competition as much as possible or abuse a position of power. From the perspective of company strategy this is not an incorrect conclusion, as discussed in section 1.3, although it should be noted that not all competition-restricting activities are necessarily contrary to the public interest. Nevertheless, in Adam Smith's words: 'The interest of the dealers, however, in any particular branch of trade or manufactures is always in

some respects different from, and even opposite to, that of the public. *To widen the market and to narrow the competition is always the interest of the dealers.*'

There is a paradox, however, in this statement, which can only be remedied by governments. In order for the market to be kept open, it must be controlled and regulated. This is the purpose of EU competition policy.

### 1.5.2 Main elements of EU competition policy

EU competition policy has four cornerstones:

1 Article 101 of the Treaty on the Functioning of the European Union (TFEU) prohibits restrictive practices. It prohibits agreements 'which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market'. This involves on the one hand horizontal restrictions (e.g. on cartel agreements on prices between two or more brewers) and on the other hand vertical restrictions (e.g. on price-fixing agreements between brewers and supermarkets). In chapters 3 and 4 of this book this topic will be dealt with in greater detail: in chapter 3 using a case of illegal price agreements in the (synthetic) rubber industry and in chapter 4 with reference to illegal price agreements between manufacturers of bathroom equipment.

2 Article 102 of the TFEU prohibits the abuse of dominant positions: 'Any abuse by one or more undertakings of a dominant position within the internal market or a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States'. It should be stressed that this does not involve the prohibition of the dominant position itself (which may be the result of the fact that a company achieves better results than its competitors); it is abuse which is prohibited. The best known example here is the fines of €497 million and later a further €1.3 billion that the European Commission imposed on Microsoft for abuse of its position of power. The Microsoft case, EU policy concerning the abuse of positions of power, and the background to this policy are elaborated on in chapter 2 of this book.

3 EC Merger regulation 139/2004 states that Community law must 'include provisions governing those concentrations which may significantly impede effective competition in the common market or in a substantial part of it'. The regulation aims to prevent mergers resulting in such concentrations as a result of the emergence and strengthening of an economic position of power. This seems to contravene article 102, in which dominant positions per se are not prohibited, but this is not so. In fact, the EU uses this article to prevent companies manoeuvring themselves into positions in which abuse could result. In chapter 5 this will be discussed in more detail by means of the merger between T-Mobile UK and Orange UK.

4 The fourth cornerstone relates to state aid: for instance, the possibility for member states to support companies in trouble. During the economic crisis of 2008 and 2009 this occurred especially in the banking sector and in the automotive industry. In principle state aid in the EU is not allowed, but there are exceptions. These are laid down in articles 107, 108 and 109 of the TFEU: 'any aid granted by a Member State or through State resources in any form whatsoever which distorts or

threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market'. Article 107 prohibits state aid because of the disruptive effect on competitive relationships. If France supports its automotive industry while Germany does not, this will create a so-called unlevel playing field; in other words, it will result in unfair competition. This aspect of EU competition policy will be dealt with extensively in chapter 6, taking as an example the state aid that Charleroi Airport received from the Belgian state.

In connection with the first three cornerstones it should be noted that the control is aimed at companies and the economic activities they develop.

Competition policy does not, however, apply only at European level; all countries have their own competition policy and their own competition authority. The UK, for instance, has the Office of Fair Trading, France has the *Autorité de la Concurrence* and the Netherlands has the Netherlands Competition Authority (NMa). These national authorities are united in the European Competition Network (ECN). In principle, EU competition policy, especially articles 101 and 102 of the TFEU, applies only *if trade between member states is at issue*. Purely national problems are, therefore, a matter of national competition legislation. However, national legislations have moved more and more towards EU legislation in the course of time. In addition, as in all legislation, European law takes precedence over national law. In the following chapters the division of applicability between national competition law and European competition law will be dealt with further.

### **Ex post policy and ex ante policy**

The EU's competition policy and the national competition authorities do not restrict themselves to the four 'traditional' cornerstones of competition policy outlined above. Often a further distinction is made between so-called *ex post* policy and *ex ante* policy.

*Ex post* policy is meant to test the behaviour of companies and governments after the event. Most of the traditional cornerstones, such as the cartel legislation (art. 101), the prevention of abuse of monopoly positions (art. 102) and the regulations concerning state subsidy (art. 107), may be classed here. Usually at the initiative of the European Commission or of citizens or companies who feel injured by others, the practices of companies are tested after the event and, if necessary, steps are taken to punish the companies concerned and/or put an end to the relevant practices. In this context it should be mentioned that it is not only the (sometimes hefty) fines that act as a deterrent. In many cases warning letters, requests for information and informal discussions are sufficient to urge companies to be cautious. An additional advantage of these methods is that the legal costs (consider the interminable appeal procedures) and the time spent by civil servants are limited.

In applying *ex ante* policy supervisors look ahead and try to create conditions for the best possible free market. In the first place this may be done by *monitoring*. Monitoring will take place if the authorities suspect that the free market might be jeopardised in a specific sector.



Often separate supervisory organisations are set up in these cases (e.g. in the field of telecommunications, such as Ofcom in the UK, the BNA in Germany, ARCEP in France and OPTA in the Netherlands). These supervisory bodies try to identify and analyse irregularities in the free market in order to be able to map possible weaknesses that threaten competition; if deemed necessary, they can take preventative action. Another form of ex ante policy is *sector-specific regulation*. This is often linked to monitoring but goes one step further. It often implies imposing price obligations, access obligations and supply obligations on suppliers with a monopoly position. The sectors involved are often those in which state monopolies used to operate in the past, in most cases where there is a 'natural monopoly'. A natural monopoly occurs when production costs are lowest if there is only one supplier; it is highly inefficient, for instance, to have two railway systems co-exist in the same area. In chapter 2 both natural monopolies (2.1.1) and sector-specific regulation (2.5) will be dealt with in more detail. Summarising, it may be said that ex post competition policy usually concerns maintaining competition, whereas in the case of ex ante policy it is often a matter of creating competition.

### 1.5.3 Laws and other documents

This section introduces the various types of law and other documents published by the EU in relation to competition policy. It also explains the enforcement procedures in cases where rules are breached.

#### Types of law

There are three types of European Union law: primary law, secondary law and supplementary law.

Articles from the Treaty on the Functioning of the European Union, including those mentioned in 1.5.2, are characterised as *primary European law*.

*Secondary European law* is defined by article 288 of the Treaty, which states that to exercise the Union's competences, the institutions shall adopt regulations, directives, decisions, recommendations and opinions.

- Regulation – a legislative act that is immediately enforceable as law in all EU countries. The merger regulation mentioned earlier is an example of this.
- Directive – a legislative act that requires all EU countries to achieve a particular result but does not dictate how the result should be achieved. An example is directive 2008/06/EC, which is known as the third postal directive and is meant to open up the market for postal services in the EU.
- Decision – a binding ruling that can be addressed to an EU country, individual or company. This may concern a fine (e.g. the fine imposed on Microsoft for abusing its dominant position, according to the Commission) or an injunction (e.g. imposed on a country to prevent it applying a specific support measure).

*Supplementary law* is elements of law not provided for by the Treaties. This category includes Court of Justice case law, international law and general principles of law.

### Other documents published by EU institutions

Various other documents published by EU institutions are relevant for future legislation or the interpretation or implementation of actual law. They include:

- Communication – a proposal for legislation issued by the European Commission.
- Green Paper – a discussion document intended to stimulate debate and launch a consultation process.
- White Paper – an authoritative report addressing a specific challenge and how to solve it. Often follows a Green Paper.
- Guidelines / Recommendations / Opinions / Resolutions – non-binding declarations, also called ‘soft law’.

A guideline is a Community document with explicit legal basis referred to in the legislative framework as intended to fulfil a legal obligation laid down in the Community legislation. Guidelines are ‘soft law’. They are not legally binding and the definitive legal requirements are those outlined in the relevant Community legislative framework, such as regulation, directive or decisions, as well as in appropriate national rules. The guidelines explain how specific Treaty articles and directives should be interpreted and how they guide possible action by the Commission.

- Commission notice – The purpose of a notice is to provide guidance as to how the Commission should apply a particular concept. Concerning competition law, the Commission has for instance issued the Commission Notice on the definition of relevant markets for the purposes of Community competition law.
- Statement of objections – a formal letter in which the Commission informs one or more parties of objections raised against them.

### Institutions

In the context of competition law and competition policy the following institutions are important in the EU:

#### 1 The European Commission

The European Commission is the executive body and is part of the so-called institutional triangle of the EU. It introduces policy and legislative proposals, which then have to be approved by the Council and the Parliament, the other parts of the institutional triangle. Next, after the decision-making process, it is responsible for the execution and monitoring of the decision-making process: are European regulations applied and complied with by the member states?

#### 2 The European Court of Justice (ECJ) and the General Court (GC, formerly Court of First Instance).

These are entrusted with the enforcement of EU law. Incidentally, this does not mean that all legal cases connected with the EU end up in these Courts. Citizens and companies, for instance, who are of the opinion that they are the victims of an incorrect interpretation or execution of European rules, must appeal to their national courts. These will then apply the European law. ECJ and the GC jurisdiction primarily covers specific types of dispute. The most important are disputes between European institutions and the member states and between private persons or companies and the institutions. Companies that have been fined by the Commission, for instance, may appeal to the GC. ECJ jurisdiction (not that of the GC) also consists of so-called preliminary

rulings. These concern national courts asking for advice in connection with the execution of European law.

The GC was founded (originally under the name of Court of First Instance) after the ECJ in order to relieve the ECJ.

### *Enforcement*

In article 105 of the TFEU it is stated that the European Commission is to supervise enforcement of the rules: 'the Commission shall ensure the application of the principles laid down in Articles 101 and 102. On application by a Member State or on its own initiative, and in cooperation with the competent authorities in the Member States, which shall give it their assistance, the Commission shall investigate cases of suspected infringement of these principles.'

Basically, the enforcement procedure works as follows:

- First of all the Commission, acting on its own initiative or after a complaint by, for instance, a company, will gather further information. This may be done by requesting information from companies, which may be provided voluntarily or obtained by means of so-called verifications, whereby civil servants of the Commission make investigations. Searching a company's premises may be part of this.
- If the Commission reaches the conclusion that one or more companies have acted contrary to the rules, it will send these companies a 'Statement of objections', in which it explains on what grounds this conclusion has been reached. Companies can defend themselves against this during a hearing, either in writing or orally.
- After this the Commission takes a decision, which, in the case of violation of EU rules, may take the form of a prohibition order instructing the company or companies to end this violation. The Commission may also impose a fine on companies to a maximum of 10% of their turnover in the last fiscal year. Intel, for instance, was fined more than €1 billion, being 4% of its annual turnover, because customers were promised large discounts if they did not do business with competitor AMD and shops that sold only PCs with Intel processors were granted discounts.
- After this a company may appeal against the Commission's decision before the General Court of the European Court.

As mentioned, besides acting on its own initiative the Commission may also act after a complaint has been lodged. Air France, for instance, lodged a complaint with the Commission because the company was of the opinion that Ryanair was receiving subsidies in the form of discounts on landing rights and airport taxes at regional French airports. Companies (and citizens) may also go to national courts to lodge a complaint. Ryanair in its turn (perhaps as a reaction to Air France's complaint) lodged a complaint against the French government in March 2010 for granting (according to Ryanair) illegal state support to Air France.

Finally, it should be mentioned that companies may also bring a civil action if they experience adverse consequences of cartel arrangements or abuse of positions of power by, for example, competitors or suppliers. Injured parties may also file a claim for damages with the court if companies have been found guilty by the European Commission. Volvo, for instance, filed a claim against the Pilkington Group, which was one

of several producers of car windscreens (also including Asahi, Saint Gobain and Soliver) that had been found guilty of cartel arrangements by the European Commission in 2008 and fined a total of €1.38 billion. In chapter 4 (section 4.3) this matter will be dealt with in greater detail.

### Conclusions

In the policy of the European Union, 'competition' is a keyword. In this introductory chapter we have explored a number of aspects of competition. First of all we have seen that certain decisions taken by a company may be strongly influenced by the degree of competition it experiences in a market or, in other words, the degree of market power it has. In the four market structures that are traditionally distinguished in economic science we opposed the two extreme forms, perfect competition and monopoly. Although a monopoly position need not have adverse consequences only, it may be argued from the point of view of society that markets with more competition have a number of clear advantages. Important among these is a downward pressure on prices because on the one hand competition enforces efficient production (in order to survive the competitive battle) and on the other hand it does not create opportunities to maintain excessively high prices. We have also seen that, generally, a positive connection is assumed between the intensity of competition in a market and the degree of innovation in that market. At the level of industry and companies we used Porter's models to analyse competition. At company level the concept of the value chain creates a framework within which companies may analyse where they can distinguish themselves in their activities from their competitors. To this end companies may subsequently choose between a low-cost strategy or a differentiation strategy. At industry level the Five Forces model shows what factors influence the intensity of competition in an industry. Especially during the 1980s the EU (then still the EC) used its internal market policy to take important steps towards an increased level of competition in European markets by abolishing existing (national) barriers in these markets. A logical consequence of this was that the EU's competition policy was also given more weight. The internal market policy *opens up* markets; the competition policy *keeps* them open.

# Questions

- 1.1** In section 1.2.1 a company's market power is related to the price elasticity of the demand for the products supplied by this company
- Explain this relationship.
  - To what extent can this be linked to the definition of the relevant market as it is brought up for discussion in 1.2.1?

- 1.2** Given two markets and the following market shares of the five major companies in these markets:

Company	Market share for product X	Market share for product Y
A	25	60
B	20	10
C	20	10
D	15	10
E	10	5

- Calculate the C% ratio and the HHI index for both markets.
  - What conclusion may be inferred from these results concerning the suitability of the two measures for determining the degree of concentration in a market?
- 1.3** The turnover of product X of a company is 5,000. The price is €25. The fixed costs amount to €100,000 and the variable costs are €4 per product. The company is considering a price increase of €2.50. The price elasticity of demand is -2. Use the SSNIP test to determine whether there is a relevant market for product X and provide an explanation for this.
- 1.4** Apply Porter's generic competitive strategies to a car manufacturer, e.g. Saab.  
Which strategy would you recommend to Saab?
- 1.5** Apply Porter's Five Forces model to arrive at a determination of the intensity of competition in the automotive industry (for passenger cars), by estimating for each of these forces to what extent it influences the intensity of competition.

- 1.6** Economists see the total of the producer and consumer surpluses as a measure of the effect that the production and consumption of a good have on prosperity.
- a** What differences are there between the consumer surplus and the producer surplus in a situation of perfect competition and a monopoly situation?
  - b** What is the name given to the difference between the total surplus in the case of perfect competition and the total surplus in a monopoly situation?
- 1.7** Explain why in a situation of perfect competition supernormal profits will automatically disappear in the long run. Why is this not the case in other market types?
- 1.8** The link between competition and innovation is not entirely undisputed. Explain why competition could result in more innovation and why (a large degree of) competition could be to the detriment of innovation.
- 1.9** Explain the links that are made in the Cecchini report (figure 1.15) between 'competition' and 'costs'.
- 1.10** 'Nothing is better for competitiveness than competition itself'. Provide an explanation of this opinion using figure 1.15.
- 1.11** What relationship is there between the EU's internal market policy and its competition policy?
- 1.12** While article 102 of the TFEU does not prohibit having a dominant position, this article is nevertheless the benchmark in EC merger regulations. Explain why.