Chapter 1: Competition Policy: History, Objectives and the Law*

Competition Policy: Theory and Practice
Cambridge University Press, 2003

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30 January 2002

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*I am grateful to Elena Argentesi, Chiara Fumagalli, Mel Marquis, Lars Persson, Alexandre de Streel, and three anonymous referees for very helpful comments.

1 Introduction

To define "competition policy" (or "antitrust policy" as it is more often called in the US) is not an easy task. A possible definition might be as follows: "the set of policies and laws which ensure that competition in the marketplace is not restricted in a way that is detrimental to society". This definition admits the possibility that some restrictions might not necessarily be detrimental. For instance, some agreements between a manufaturer and a retailer which limit competition by other retailers might under some certain circumstances improve economic welfare. However, this definition is not precise, as it does not clarify from which point of view the beneficial or detrimental potential of a restriction should be assessed. This brings us to another definition, that most economists will probably favour: "the set of policies and laws which ensure that competition in the marketplace is not restricted in such a way as to reduce economic welfare". This definition clearly states that economic welfare, a standard concept for economists (see next subsection for a definition of welfare) is the objective competition policies should pursue. In this book I will assess the anti-competitive potential of business practices, and the desirability of competition laws, according to this definition.

1.1 Welfare as the objective of competition policy

Economic *welfare* is the standard concept used in economics to measure how well an industry performs. It is a measure which aggregates the welfare (or surplus) of different groups in the economy.[1] In each given industry, welfare is given by *total surplus*, that is the sum of consumer surplus and producer surplus.[2] The surplus of a given individual consumer is given by the difference between the consumer's valuation for the good considered (or her willingness to pay for it) and the price which effectively she has to pay for it. *Consumer surplus* (or consumer welfare) is the aggregate measure of the surplus of all consumers. The surplus of an individual producer is the profit it makes by selling the good in question. *Producer surplus* is therefore the sum of all profits made by producers in the industry.

[1] See also chapter 2 for a more detailed discussion of the relationship between the concept of welfare and competition policy issues.

[2] More complete measures of welfare might also take into account externalities, taxes paid, subsidies received, government revenues and so on. Some of these items might cancel out. It is also possible to construct measures of welfare which assign different weights to consumer and producer surplus.

From the above definitions it should be clear that, other things being equal, an increase of the price at which goods are sold reduces consumer surplus and increases producer surplus. It turns out, however, that in general as the price increases, the increase in profits made by the firms does not compensate for the reduction in the consumer surplus (see next chapter for a graphical representation). Hence, welfare is the lowest when the market price equals the monopoly price (the highest possible price level).

It is important to notice that this concept of welfare completely overlooks the issue of income distribution among consumers and producers. This is not because economists think this is an irrelevant issue, but rather because it is a different issue. The welfare measure is a summarising measure of how efficient a given industry is as a whole and does not address the question of how equal or unequal incomes is distributed in the industry, which can be dealt with by other measures. Note also that the rationale for not considering distributional issues is that in principle it is possible to operate redistribution schemes such that consumers and producers are *both* either better off or worse off.[3] Imagine for instance a situation where, as a result of a change in the economy, welfare increases as the net effect of an increase in consumer surplus and a decrease in producer surplus. In theory, it is possible to redistribute gains from consumers to producers in such a way that both groups are at least as well off as they were before the changes took place.[4]

Finally, the concept of welfare should not only be interpreted in a static sense but also in its dynamic component. In other words, future welfare matters as well as current welfare. The two things do not necessarily coincide, as we shall discuss in chapter 2. Imagine the hypothetical case where firms in the industry have already their fixed costs and that a competition authority were systematically able to impose price equal to marginal cost. This being the lowest possible price, it would maximise welfare in a static sense. However, one would not have the firms in the industry make any

[3]The difference between consumers and producers as two completely different groups of citizens should not be overstated either. In most countries, consumers are also owners of the firms either directly (as shareholders) or through pension and investment funds.

[4]See Tirole (1988, pages 7-12) for a discussion of the measures of consumer surplus and welfare. In particular, it should be emphasised that in a partial equilibrium framework (that is, when a sector is considered in isolation from the rest of the economy) such measures are valid as long as one is considering a market in which consumers are spending just a small fraction of their total incomes. Otherwise, income effects should be taken into account and the consumer surplus measure cannot be relied upon in computing approximations of welfare.

investment in such a situation, as they would anticipate that at price equal to marginal cost they would not make any profit and hence they would not be able to recover any fixed cost associated with an investment. As a result, in such a hypothetical situation future welfare will be reduced, as new products would not be introduced, innovations would not be made, quality levels of goods and services would not be improved. Further discussions of this point will be found in section 3.1.1 below and in chapter 2.

1.2 Plan of the chapter

Since I do not want to enter a long discussion of all the possible definitions of competition policy and of all its possible objectives in an abstract way, this chapter aims at introducing the reader to competition issues by using a historical approach. By (briefly) describing the main features that competition policies have exhibited in the past in the US and in Europe (section 2), I shall illustrate some of the forms that such policies can take. The historical review also shows that a number of public policy considerations and objectives other than welfare have been (and still are) used in actual competition policies (section 3), but I will argue that this is not desirable. If a government wanted to achieve objectives other than welfare, it should resort to policy instruments that distort competition as little as possible. Section 4 describes the main features of competition law in the European Union (EU), to provide the reader with further insight of what competition policy is about. The choice of the EU is due to the fact that most of the cases discussed in this book have been dealt with by EU institutions. At the end of the chapter, the reader should have a better idea of what competition policy is about, but might still wonder about the differences between competition policy and regulation, or competition policy and industrial policy. Section 5 tries to clarify these issues.

2 Brief history of competition policy

This section briefly reviews the main historical events in the development of competition (or anti-trust) laws in the US and in the European Union. The purpose here is not to have a complete description of the history of competition laws, but rather to provide some background to understand the circumstances in which competition laws were created and enforced, as well as the objectives which they purported to attain. We shall see in particular that competition policies have embraced many objectives other

than economic welfare. As stressed in section 3, such objectives might range from the protection of small businesses or particular categories of people to the enhancement of consumer welfare; from the desire to promote market integration between different countries to the goal of reducing inequality through income distribution; from pure protectionism of domestic firms to the dismantling of national champions of other countries.

2.1 Anti-trust laws in the United States

The origins of modern competition policy can be traced back to the end of the 19th Century, mainly as a reaction to the formation of trusts[5] in the United States.[6] In the second half of that century, the United States experienced a number of events which resulted in the transformation of manufacturing industries. Perhaps the most important events were the dramatic improvement in transportation and communication. The railways extended rapidly throughout the US territory, as did the telegraph lines and the telephone services. This entailed the formation of a large single market, which in turn gave a powerful incentive to firms to exploit economies of scale and scope.[7] Along with other technological innovations in several fields (e.g. metallurgy, chemicals, energy), the formation of more advanced capital markets and new managerial methods, this created the possibility

[5] According to West's Law & Commerce Dictionary (1985), "The 'trust' was originally a device by which several corporations engaged in the same general line of business might combine for their mutual advantage, in the direction of eliminating destructive competition, controlling the output of their commodity, and regulating and maintaining its price, but at the same time preserving their separate individual existence, and without any consolidation or merger. This device was the erection of a central committee or board, composed, perhaps, of the presidents or general managers of the different corporations, and the transfer to them of a majority of the stock in each of the corporations, to be held in 'trust' for the sevral stockholders so assigning their holdings. These stockholders received in return 'trust certificates' showing that they were entitled to receive the dividends on their assigned stock, though the voting power of it had passed to the trustees. This last feature enabled the trustees or committee to elect all the directors of all the corporations, and through them the officers, and thereby to exercise an absolutely controlling influence over the policy and operations of each constituent company, to the end and with the purposes above mentioned."

[6] For a richer description of antitrust laws in the US, see among others Comanor (1990), Scherer (1980) and Scherer (1994).

[7] There are economies of scale when unit costs of production fall with the total quantity produced; economies of scope when unit costs fall because two or more goods are produced jointly.

for the expansion of the size of the firms.[8] Legal innovations such as the "liberalization of state incorporation laws also contributed [to the creation of larger firms], permitting the acquisition of other firms' stock (e.g. in mergers) and the delegation of stockholders' decision-making power to full time managers".[9] It is not by chance that the US experienced an impressive merger wave in the 1880s and 1890s.

The last part of the 19th Century was characterised by low and unstable prices. This was due in part to macroeconomic factors which gave rise to many recurrent and persistent economic crises (1873-78 and 1883-86) and created instability in several sectors. But most of the price instability was of course due to the very same factor which allowed for the creation of larger market opportunities. Indeed, the fall in transportation and communication costs led not only to a large single market for many industries, but also to a rise in competition, since firms now had to compete with more distant rivals, located both in the other American states and abroad (shipping rates fell in this period as well).

Further, the large investments made by firms so as to enjoy scale and scope economies caused lower costs and lower prices. In the words of Chandler (1990, p.71), "Increasing output and overcapacity intensified competition and drove down prices. Indeed, the resulting decline of prices in manufactured goods characterized the economies of the United States and the nations of Western Europe from the mid-1870s to the end of the century."

Also, firms had to made large investments to reorganise their production and distribution activities, to buy new machines or to enter new markets (think for instance of the huge investment railways had to make). In the attempt to operate at full capacity so as to cover the large fixed costs, firms were tempted to decrease prices, giving rise to price wars.

Firms often tried to respond to price wars and market instability by way of price agreements which enabled them to maintain high prices and margins.[10] The organisation of cartels and trusts (railroads and oil companies are the best known examples of these) had exactly this purpose. But the advantages of price stability for the members of cartels and trusts did not come without detriment to other groups in the economy. Final consumers

[8] See Chandler (1990), in particular chapter 3, for a rich and fascinating account of the changes taking place in the US economy in the second half of the 19th Century.

[9] Scherer, 1980, p.492.

[10] Notice however that price wars might be just one of the phases in the life of a cartel. See Green and Porter (1983) and Porter (1983). We defer discussion of this issue to the chapter on collusion.

were hurt by higher prices, and so were producers, such as farmers and small industrial firms, which used products in cartelised sectors as an input. Both groups suffered from the low sales prices brought about by the aforementioned crises (the latter also by a less efficient scale of production), and found themselves squeezed in between low sale prices and high input prices (above all, railways and energy). Furthermore, small firms complained of unfair business practices adopted by their large rivals, which allegedly wanted to drive them out of business.

Farmers and small businesses had enough political force and public sympathy to lead to the creation of anti-trust laws in many US states.[11] However, such laws could do very little against agreements which involved more than one state. But soon there was enough consensus for a federal law and in 1890 the *Sherman Act*[12] was adopted. This is probably the best known example of anti-trust law in the world, although it is not the earliest: Canada adopted a similar law in 1889, but enforcement of that law was to be much weaker.

The Sherman Act mainly consists of two sections. Section 1 prohibits contracts, combinations and conspiracies which restrain trade, and prescribes imprisonment and fines for violators. Section 2 prohibits monopolisation, attempts to monopolise and conspiracies to monopolise "any part of the trade or commerce among the several states, or with foreign Nations", and this section carries its own criminal penalties.[13]

Note that the Sherman Act covers price fixing and market sharing agreements between independent firms, as well as monopolisation practices by individual companies, but not mergers. Therefore, firms wishing to coordi-

[11] Note that "[s]mall businessmen included not only manufacturers whose small operations gave them a cost disadvantage, but also wholesalers, manufacturers' agents, and other middlemen who were being driven out of business as the volume-producing manufacturers moved forward and the mass retailers moved backwards into wholesaling." (Chandler, 1990, pp. 78-79. See also p.72.) Consumers' interests are often too fragmented and unorganised to have an impact on government policies. See also the next section 3 for a discussion.

[12] *15 U.S.C. §1 et seq.*.

[13] Note that neither EC law nor the competition laws of any EU member state apart from Germany have the ability of imposing criminal penalties for anti-trust cases. Nevertheless, the deterrent effect of imprisonment in US law should not be overstated, especially because jail sentences have been given only rarely and for short terms. More important appears to be the possibility of recovering *treble damages*, introduced in 1914 and which has given rise to important transfers of money from offenders to victims of unlawful commercial conduct (the latter can ask a compensation equal to three times the damage they have received).

nate prices had the option of merging into a single firm and, by so doing, they put themselves beyond the reach of the Sherman Act. The Clayton Act of 1914[14] was therefore introduced to extend anti-trust legislation to cover mergers capable of reducing competition (the Clayton Act was later amended by the Celler-Kefauver Act of 1950, which made actions against mergers more effective), as well as other practices, such as price discrimination which lessens competition (later amended by the Robinson-Patman Act in 1936) and interlocking directorates among competing firms, which were both outside the application of the Sherman Act.[15]

During its first decade of life, enforcement of the Sherman Act was not very strict. It was not until 1897 that a Supreme Court decision on a railway trust which fixed the prices of 18 railroads ("U.S. v. Trans-Missouri Freight Association") clearly established the idea that price agreements were *per se* illegal.[16] Indeed, the Court refused to uphold lower court decisions which had justified the rates charged as reasonable and which had justified the price-fixing as a way to prevent "unhealthy competition" (Scherer, 1980, p.498). It stated that, with the Sherman Act, the Congress intended to outlaw all price agreements, and that it was not up to judges to decide which agreements are reasonable and which ones are not. In other words, courts were not asked to balance the negative effects of price restraints with their possible benefits (if they existed), which would imply the adoption of a *rule of reason* approach; rather, they merely needed to find the existence of such an agreement for the firms to be found guilty.[17]

[14] 15 U.S.C. §12 *et seq.*.

[15] "After 1897 began the largest and certainly the most significant merger movement in American history. It came partly because of continuing antitrust legislation and activities by the states, partly because of the increasing difficulty of enforcing contractual agreements by trade associations during the depression of the mid- 1890s, and partly because the return of prosperity and the buoyant stock market that accompanied it facilitated the exchange of shares and encouraged bankers and other financers to promote mergers. The merger boom reached its climax between 1899 and 1902, after the Supreme Court had indicated by its rulings in the Trans-Missouri Freight Rate Association case (1897), the Joint Traffic Association case (1989), and the Addyson Pipe and Steel case (1899) that cartels carried on through trade associations were vulnerable under the Sherman Act." (Chandler, 1990, p. 75, footnote omitted) The fact that after the Sherman Act there was a sharp increase in the number of mergers in the US has also been documented and analysed by Bittlingmayer (1985).

[16] When a business practice is *per se* illegal, it means that no argument can be made to justify it: it is prohibited without exceptions. A *rule of reason* approach, instead, would allow for exceptions: a firm might then try and convince a court that the business practice it adopted does not harm welfare in its particular instance.

[17] Compare with Art. 81(3) of the Treaty of Rome. See also below.

The tough stance against cartels was then confirmed by the judgments against two of the most important trusts, namely the Standard Oil Company (which was split into 34 separate companies in 1911) and American Tobacco. This "per se prohibition" of price agreements is a very strong principle which is still valid, and which has known very few exceptions.[18]

One of these rare exceptions was recognised in another Supreme Court decision (Appalachian Coals v. U.S., 1933). To understand why the Supreme Court abandoned a well established principle and overturned the decision of a lower court, one has to set the decision in the perspective of the period. The Great Depression was having important consequences on many industries, and one such industry which suffered the hardship of the crisis was the coal mining industry. Facing a severe reduction in demand, and intent on avoiding further losses, 137 producers located in the Appalachian Mountain region formed a company which was to find the best prices and to allocate outputs among members. The Court found that this agreement was not unlawful since it was to be considered as a reasonable response to protect the market from destructive practices.[19]

This is probably one of the best examples of how competition laws and their enforcement are to be understood in the political, economic, and historic context in which they are made. In 1940, when the economic conditions were very different from the conditions prevailing in the early Thirties, the Supreme Court (which in the meantime had changed some of its judges) was to reestablish the principle of the *per se* prohibition of price agreements by declaring unlawful a gasoline cartel also created at the time of the Great Depression to counter the price decreases caused by the dumping of gasoline into the market by refiners panic-stricken by the crisis.

More generally, the scope and enforcement of anti-trust laws have changed considerably in the US during the century. Apart from the more lenient approach in the period of the Great Depression, there was a major change during the years of the Reagan administration (1981-88), when major anti-trust investigations opened by the previous administration were closed and

[18]However, exceptions to anti-trust rules in the US have been formally granted to many sectors such as insurance, agriculture, fisheries, professional baseball, labor organizations. There also exist a "state action" doctrine which represents another exception. In particular, horizontal agreements (such as price-fixing) which would otherwise be deemed anti-competitive are allowed insofar as they are promoted by a state regulation. For a discussion see Inman and Rubinfeld (1997).

[19]The anti-competitive effect was also considered to be less strong since there existed many other producers in the industry not taking part in the agreement.

the welfare criterion became central. The emphasis given to market forces has brought more "hands-off" policies, in the conviction that the market should be left free to operate to select the best firms.[20]

It has also been suggested that the change in the US anti-trust policies corresponds to a shift of weight in the welfare function from consumer surplus to producer surplus.[21] This shift meant that it was more difficult to win a case against a firm, especially in cases involving vertical restraints and monopolisation. As a consequence, the number of private anti-trust cases filed in US District Courts declined steadily in the 1980s. At the 1977 peak there were 1611 such cases, whereas in 1989 there were only 638.[22]

2.2 Competition law in the European Union

In this section I will briefly review the main historical development of competition laws in the European Union, where there are two different levels of jurisdiction: national and supra-national. The latter is more interesting, as most European countries have not had proper competition laws until very recently, and such national laws are to a large extent reproducing the same features as the laws introduced by the Treaty of Rome and its successive modifications. Therefore, I will devote attention mainly to EU competition policies. However, I find the history of German competition laws interesting under several respects, and for this reason I will have a cursory look at it.

2.2.1 Competition laws in Germany

We have seen that the economic changes in the second half of the 19th Century in the US created incentives for the formation of cartels and trusts which were soon to be outlawed by the Sherman Act. In Germany, however, the prevailing view was that cartels were an instrument to control the instability created by cut-throat competition and price warfare.[23] Hence,

[20] This change has been supported by the assertion of certain economic theories such as the one which hinges upon the idea of "contestable markets" (see the next chapter for a discussion), according to which market size does not necessarily imply lower efficiency.

[21] See also Comanor, 1990, pp.47-48.

[22] See Viscusi et al., 1995.

[23] Many of the comments referring here to current German competition law might also apply to other Central European countries such as Austria, Chech Republic, Switzerland, Hungary and Holland. In all of these countries, competition law was inspired by the principle of economic freedom rather than the maximisation of economic welfare. This also explains the favourable treatment to cartels accorded in the past by most of the countries mentioned. I thank Damien Neven for pointing this out to me.

German law not only permitted price agreements, but also made them enforceable in courts. Anti-cartel action was taken only in certain extreme cases, for instance where the cartel could lead to a complete monopoly or to extreme exploitation of consumers.[24] As a result, cartels proliferated in the years around the turn of the century. By 1905 there were 385 cartels involving 12000 firms, and the number increased steadily. By 1923 there were 1500 cartels in Germany.[25]

It is only in 1923 that a Cartel Law was introduced, mainly as a reaction to hyperinflation, as it was feared that price agreements might contribute to the escalation of prices. But even then, the law did not prohibit cartels; it merely required registration with a new agency in charge of ensuring that cartels would not abuse their market power. Apparently, not many abuses were pursued and the new law did not have much impact on cartels, whose number continued to rise. New economic conditions soon obviated the desire to limit the power of cartels, and prompted a move in the opposite direction. Indeed, in 1930, under the effect of the Great Depression and the bankruptcy of many firms, participation in cartels was made compulsory for firms operating in vulnerable sectors. Compulsory participation in cartels was made even more comprehensive and extensive under the Nazi regime, in particular with the aim of controlling the national industry and strengthening the sectors involved in the war apparatus, on the theory that it would be stronger if firms were tightly coordinated.

The idea that allowing firms to cooperate closely or to merge their operations would make them stronger and create some sort of "national champion" which would outperform foreign rivals is a widespread one. After World War II, the Allies wanted to impose anti-trust laws upon both Germany and Japan, not so much to promote economic progress as to break up excessive concentration of economic power, which represented a possible future threat. Accordingly, cartels, syndicates and trusts were forbidden by occupation authorities.[26] But the de-concentration programme of the Allies was soon put to an end, since the US and British governments now perceived the threat of the Soviet Union and decided that Germany represented a useful force which could help to counter-balance the strength of the Soviet Union. A similar development also occurred in Japan.[27]

[24] See Scherer, 1994, p 24.

[25] See Kühn, 1997, p.116.

[26] The breaking-up of the German chemical firm IG Farben into BASF, Bayer and Hoechst dates from this period.

[27] See Scherer, 1994, pp.28-32.

Germany passed a very strict competition law in 1957, after a long debate, and since that time the Federal Cartel Office (Bundeskartellamt) has rigorously enforced the rules against price-fixing agreements. Also, Germany has had a procedure for merger control since 1973, and this procedure has been enforced relatively strictly, leading not only to the prohibition of mergers (101 as of 1994) but also to the modification of a number of merger proposals and the abandonment of many others. It has been noted, however, that the main rationale behind competition policy in Germany does not appear to be the pursuit of economic efficiency criteria, but rather the protection of economic freedom. So, mergers are scrutinised because they could lead to the formation of dominant agents which could then limit the economic freedom of competitors. The abuse of a dominant position and vertical restraints are seen in the same perspective. This explains the strict opposition to practices such as retail price maintenance, which is considered *per se* illegal by German competition law, since it infringes upon the liberty of an independent firm to set its own price.[28]

2.2.2 Competition law in the United Kingdom

Worth writing a few paragraphs?

2.2.3 Competition laws in the European Communities

The starting point of supra-national competition law in Europe was the series of pro-competitive measures adopted by France, Germany, Italy and the Benelux countries in the 1951 Treaty of Paris, which creates the European Coal and Steel Community (ECSC). This Treaty prohibites trade barriers as well as discriminatory and other restrictive practices capable of distorting competition among the six countries which were later to become the founding members of the European Economic Community.

There are probably two main reasons behind the introduction of competition policy measures in the Treaty of Paris. The first one is again related to the desire of diminishing the danger of German power by making available to the other European countries such (at the time) essential inputs as coal and steel. The prohibition of discriminatory practices might also be seen as a way to guarantee equal access to these basic resources. The second reason is that the principle of free competition was beginning to be appreciated as

[28] See Kühn, 1997 for a discussion of Court decisions which privilege the economic freedom of agents to the detriment of economic efficiency.

the only viable way to attain an efficient functioning of the market, also in view of the success of the US economy which had continuously relied upon anti-trust rules.[29] Free competition was thus preferred to a centralised organisation of markets, even though the High Authority (the body in charge) was authorised to intervene in case serious market inbalances arose.

Some of the key points of current competition law in Europe can be traced back, at least in their basic elements, to the articles dealing with competition issues in the Treaty of Paris. Article 65 of that Treaty prohibits agreements and concerted practices between firms or associations of firms which tend directly or indirectly to prevent, restrict or distort normal competition within the Common Market, and this provision is clearly the model upon which Article 81[30] of the Treaty of Rome is based. Article 66(7) deals with the abuse of a dominant position by firms which use such a position to pursue objectives which are contrary to the Treaty, and is therefore the close correspondent of Article 82[31] of the Treaty of Rome.

Article 66 also deals with mergers and concentrations between firms in the coal and steel industry. Consent to such mergers could be given only by the High Authority, which granted approval only where the concentration did not give to the new entity the power to control prices, restrict production and distribution, distort trade among Member States, or create an artificially privileged position in the markets. Attention to prospective mergers in the industry can be understood by the fear of concentration of economic power in the hands of a few firms, a fear which had already justified the process of de-cartelisation in Germany. It is noteworthy, though, that the treatment of mergers is not mentioned in the Treaty of Rome. Mergers were not made the explicit object of European competition policy until the adoption of the Regulation 4064 of 1989, after a debate which lasted for years and which illustrates basic differences in the approach to competition and industrial policy among the different countries. In particular, Germany and the UK wanted mergers to be judged only on the basis of competition issues, whereas France wanted them to be judged by also taking into consideration criteria of industrial policy and social issues. Eventually, the former approach prevailed.[32]

[29] See Goyder, 1992, p.19.

[30] Previously Article 85. The Treaty of Amsterdam, which entered into force on 1 May 1999, has renumbered the articles of the Treaty of Rome establishing the European Community.

[31] Previously Article 86.

[32] See Goyder, 1998, chapter 18(1).

The Treaty of the European Community deals with competition issues in articles 81 to 89.[33] However, the logic of free competition is enunciated by article 3(f), which calls for "[t]he institution of a system ensuring that competition in the Common Market is not distorted". Furthermore, one of the major reasons behind the adoption of competition rules under the Paris Treaty was to avoid discrimination on national grounds. Article 7 confirms that this is also one of the basic principles in the Treaty of Rome, and it has applications well beyond the rules on competition alone.[34] Therefore one of the main objectives in European competition policy is the elimination in the economic system of any discrimination based on national grounds.[35] This explains in particular the strong position taken by the EC Commission - and upheld on several occasions by the European Court of Justice - with respect to price discrimination across countries. Indeed, the Commission has without exception condemned firms which have tried to segment markets across national borders, and practices such as forbidding parallel imports[36] have basically a status of *per se* prohibition within the EU.

It is difficult to see exactly what the objectives of competition policy were for those who drafted the Treaty of Rome. It is probably safe to say that competition was not an end in itself, but was intended as a way to promote economic progress and the welfare of European citizens, the latter being one of the objectives of the EC as stated by Art.2. [37] [38]

[33]These are the new numbers as modified by the Treaty of Amsterdam. The articles dealing with competition in the Treaty of Rome were originally numbered 85 to 94.

[34]See Goyder, 1993, p. 26.

[35]This is also clearly stated in the XXV Competition Policy Report (1995), para. 2.

[36]Firms' attempt to charge different prices in different European countries would fail if consumers and retailers made parallel imports, that is, if they engaged in arbitraging by buying cheap in one country and selling at a higher price in another. Firms might try to artificially segment markets and prohibit parallel imports by making use of various contractual clauses or other practices. See the chapter on price discrimination for a discussion.

[37]That competition policy is a way to achieve the optimal allocation of resources, promote technical progress and adapt to a changing environment is stated clearly in the XXV Competition Policy Report (1995), para 1. The Commission also emphasises that competition helps European firms by pushing them to be more competitive and efficient. More generally, it is Art. 3 of the Treaty of Rome which refers to competition as a way to achieve the objectives stated in Art. 2.

[38]It is more difficult to say whether the EC attaches a higher value to consumers than to producers. The formulation of Art. 81, which allows any agreement, decision or concerted practice "which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit" might indicate that consumer welfare is among the ultimate objectives

Today, the main objectives of competition policy as enforced by the European Commission are most probably economic efficiency and European market integration. The recent *XXIXth Report on Competition Policy-1999* recites:

> "The first objective of competition policy is the maintenance of competitive markets. Competition policy serves as an instrument to encourage industrial efficiency, the optimal allocation of resources, technical progress and the flexibility to adjust to a changing environment. In order for the Community to be competitive on worldwide markets, it needs a competitive home market. Thus, the Comminity's competition policy has always taken a very strong line against price-fixing, market sharing cartels, abuses of dominant positions, and anticompetitive mergers. It has also prohibited unjustified state-granted monopoly rights and state aid measures which do not ensure the long-term viability of firms but distort competition by keeping them artificially in business. The second is the single market objective. An internal market is an essential condition for the developmentg of an efficient and competitive industry. [...] The Commission has used its competition policy as an active tool to prevent [erecting private barriers to trade], prohibiting, and fining heavily the parties to, two main types of agreement: distribution and licensing agreements that prevent parallel trade between Member States, and agreements between competitors to keep out of one another's 'territories'." (European Commission, 2000, p.6)

Social reasons are also taken into account in European competition policy. Indeed, the Commission has granted exemptions from competition rules for so-called "crisis cartels"- namely, agreements where firms engage in reciprocal reductions in capacity and output - provided such reductions in overcapacity are permanent, favour specialisation and are implemented in such a way that they minimise the social costs of the unemployment which results from the cutback of production.[39] Here it is clear that social and political considerations influence the way in which competition policy is implemented: competition can be sacrificed when the social costs of it might

of competition law. However, it would be hard to find evidence that proves a bias toward consumer surplus in the implementation of EC competition law.

[39] See Goyder, 1993, p. 162 and following pages.

be too high, since many firms might exit an industry under conditions of over-capacity, which would result in considerable job losses. Even if in the long-run a restructuring of the industry would be beneficial, in the short-run there might exist considerable costs that a government might want to avoid for political and social reasons.

The possible consideration of reasons other than efficiency was confirmed in a recent judgment concerning the Nestlè-Perrier case, in which the Court of First Instance ruled that, although the Merger Regulation is concerned primarily with questions of competition, this does not preclude the European Commission from taking into account the social effects of a concentration if they affect the level or conditions of employment[40].

Another element which affects competition policy in Europe is the importance accorded by the Commission to small and medium sized firms. These firms often receive favourable treatment. For instance, the Commission looks favourably upon State Aid given to small and medium-sized enterprises (SMEs[41]) in the form of subsidised loans, R&D support, financial guarantees and other assistance.[42] Further, the European Court of Justice has taken the view that article 81(1) - that deals with agreements among firms, see section 4 below - is not applicable where the impact of an agreement between firms on intra-community trade or on competition is not appreciable (the so-called *de minimis* doctrine). The European Commission has since set two quantitative criteria specifying when such agreements are deemed of minor importance: (1) a market share criterion; (2) a firm's size criterion.[43]

(1) Two different *aggregate* market share thresholds have been set by the European Commission. A 5% threshold for horizontal agreements (i.e., agreements among firms "operating at the same level of production or of marketing"); a 10% threshold for vertical agreements (i.e., agreements among firms "operating at different economic levels"). However, a "black list" exists: if horizontal agreements involve price-fixing, restraints on outputs, market-sharings, or sharing of sources of supply; and if vertical agreements involve resale price maintenance or territorial protection, then article 81(1)

[40] XXV Competition Policy Report, 1995, p.60

[41] The Commission defines a SME as an enterprise which has a turnover up to ECU 40 million, a balance sheet of ECU 27 million, and a maximum number of employees of 250. See Commission recommendation of 3 April 1996 published in OJ L 107, 30.4.1996, p.4.

[42] OJ No L 107, 30.4.1996, p.4. See also Competition Policy Newsletter, vol.2,No.1, Spring 1996, pp.34-5; and the XXV Competition Policy Report (1995), para. 201.

[43] The most recent Notice on *de minimis* was published in OJ C 372 on 9.12.1997.

can still be applied.

(2) Even if the above market share thresholds are exceeded, the Commission will not apply article 81(1) to agreements among SMEs (as defined above, see OJ L 107, 30.4.1996, p.4), since they are rarely capable of affecting trade and competition within the Common Market, and would not in any case be of sufficient Community interest to justify its intervention. Only exceptions are agreements which might significantly impede competition in a substantial part of the relevant market, or which restrict competition by the cumulative effect of parallel networks of similar agreements between several producers or dealers.[44]

The favourable treatment accorded to small and medium firms finds its rationale in the "de minimis" rule, namely that little harm can be done by firms which are of limited size. Accordingly, it is not efficient for the Commission to use resources on agreements which are likely to have little impact on competition and welfare.[45] This has also inspired the recent Commission's reform on vertical restraints: before the reform, much of the Commission's workload was represented by vertical agreements unlikely to be harmful. The reform is a welcome first step towards focusing on cases that deserve scrutiny (see also section 4.1 below).

Nevertheless, these are probably not the only reasons for the relatively lenient treatment of small-medium sized firms by the Commission. Indeed, the Commission has looked with favourable eyes at small and medium size firms since the big fall in employment caused in the 70s by the crisis of large firms operating in heavy industries. Hence, it has accorded a special role to small and medium firms since "such firms are an essential and major component of a healthy, competitive environment, in view of their contribution to the competitive structure of the market, their flexibility and their role in technical evolution".[46]

[44] See OJ C 372 on 9.12.1997.

[45] See also Neven, Papandropoulos and Seabright (1998).

[46] European Commision, *Fifteenth Report on Competition Policy, 1986*, p. 29, cited in George and Jacquemin, p.219. A similar statement can be found in the EC Competition Policy Newsletter, vol.2, no.1, Spring 1996, p.34: "Thus, the Commission continues to acknowledge the important contribution of SMEs in terms of job creation, innovation and economic development on the one hand and the difficulties SMEs have in raising capital and their insufficient access to information on the other hand." Similarly, on state aid policy, the *XXIX Report on Competition Policy-1999* states: "In general the Commission takes a favourable view of aid to small and medium-sized enterprises, given their structural handicaps as compared with large undertakings and their potential for innovation, job creation and growth."(European Commission, 2000, §245)

3 Other objectives of competition policy

The main purpose of the above short historical review of competition policy in the US, Germany and Europe has been to illustrate the fact that anti-trust and competition laws are often influenced by social and historical reasons, and often respond to quite different objectives. Here we summarise again some of those objectives, and we indicate how they are not necessarily compatible with the goal of increasing economic welfare. This is not to suggest that objectives other than welfare should not be pursued at all by public policies, but that it is a better idea to pursue them with other policy instruments and not by using competition laws. In what follows, I first briefly discuss a number of objectives which have been indicated in different circumstances and in different places, as the ones competition policy should pursue. I then deal with some public policy considerations which have at different times influenced the enforcement of competition policy.

3.1 Objectives, other than welfare

A number of objectives other than welfare have also inspired competition policies. I shall briefly mention some of them, and comment upon the possible contradictions between such objeectives and the goal of economic efficiency.

3.1.1 Protection of consumers

The protection of consumers from the abuses of firms has been a reason behind the adoption of competition laws in many countries, and we have seen that the welfare of European citizens has also some weight in the articles devoted to competition by the Treaty of Rome. In some national laws, consumer protection is one of the explicit tasks of anti-trust authorities, even when it has little to do with the normal functioning of the market (e.g. when it concerns fair advertising).

It is sometimes argued that giving a competition authority the objective to maximise consumer welfare, rather than total welfare, is not necessarily a bad thing. Consider the following argument (which takes a "political economy" perspective). Very often consumers are not willing (or able) to exert their aggregate power since the effect upon consumers of a given market situation is likely to be dispersed among many of them while it is much less dispersed for producers. Imagine, for instance, that a certain consumer good

is usually bought by 100,000 consumers per year, each of which buys only one unit, usually sold at a price of 100 euro. If the two firms producing this good were able to influence the government to enforce a regulation which increases the price by 10% (for instance, through protection from foreign competition, or through authorization of a collusive agreement), this would bring about huge collective losses for the group of consumers as a whole, but individual losses (10 euro) are probably not large enough for consumers to decide to stand up to defend their position. On the contrary, the two producers would have large individual gains from such a move, and so they would be ready to employ considerable resources to lobby the government into adopting the regulation. The competition authority might then have a role to play if it contributes to balancing the different lobbying powers of the two groups of economic agents in question. Therefore, the argument might go, although attaching a heavier weight to consumer surplus than to producer surplus is not *a priori* consistent with the objective of economic efficiency, the negative aspects of such a policy should not be overemphasised.[47]

Although the last argument might appear to make sense, it would not be wise for Competition Authorities to adopt a consumer welfare objective, for several reasons. First, consumer welfare does not correspond to total economic welfare, since it does not take into account the gains made by the firms. Large numbers of consumers own, partly or fully, shares of firms, directly or through pension and investment funds. Accordingly, dividends are distributed to a vast number of citizens who would be hurt if profits were reduced. In today's advanced economies, it is difficult to draw a clear distinction between consumers and owners, and lower firms' profits could have a strong negative effect on low-middle classes. If one wanted to pursue redistributive goals, it would be more efficient and less distortive to use fiscal policies than anti-trust laws. Second, if one took literally the objective of maximising consumer surplus, this would lead to pricing at or below marginal costs, with firms exiting the industry in the long-run or having to be subsidised to cover fixed costs, not a reasonable idea, since the market should then be replaced by across-the-board regulation. Third, and of great importance, forcing prices down to artificially low levels would have the effect

[47] Another possible motive for giving a Competition Authority the objective of maximising consumer surplus would be to make it more aggressive in tackling anti-competitive behaviour by firms, which in turn might lead to higher welfare. This is an argument which would be consistent with results obtained in the literature on "delegation". Because of strategic effects, a "principal" might maximise its objective function by giving orders to her agent to maximise a different objective function.

of depriving firms from the necessary incentives to innovate, invest, and introduce new products. Therefore, if one considers welfare over time (i.e., in dynamic terms, as it should be), by helping consumers today one would hurt consumers tomorrow. The aim of making profits is what pushes firms to improve products, introduce new ones, decrease prices to steal market shares to rivals. Intervening to reduce profits might increase consumer surplus in the short-run, but it would have a stronger negative effect on it in the long-run.[48]

3.1.2 Defence of small firms

The defence of small firms has often been one of the main reasons behind the adoption of competition laws. The most famous instance is given by antitrust laws introduced in the United States at the end of the 19th Century, which were initiated from the complaints of farmers and small firms against the large trusts, but this motivation probably lies behind the restrictions to discriminatory practices introduced by many pieces of legislation. The favourable treatment of small firms is not necessarily in contrast with the objective of economic welfare if it is limited to protecting such firms from the abuse of larger enterprises, or giving them a small advantage to balance the financial and economic power of larger rivals.

However, it should be clear that artificially helping small firms to survive when they are not operating at an efficient scale of production is clearly in contrast with economic welfare objectives. Indeed, this would encourage inefficient allocation of resources and would contribute to keep high prices in the economy.

The European Commission seems to have taken the view that small and medium firms are more dynamic, more likely to innovate and more likely to create employment than large firms. This would be an additional argument to promote small and medium firms. However, the empirical evidence is quite ambiguous. It would seem difficult to state that small firms make a larger contribution to growth and innovation than large firms.[49]

As a conclusion, it makes sense that the Competition authorities do not use their scarce resources to monitor agreements and mergers which

[48] Refer to the next chapter for a discussion of patents along the same lines. Granting temporary monopoly power to firms ensures they find it profitable to invest in research and development activities.

[49] Think, for instance, of the very old issue of whether large firms are more conducive to innovation than the small firms. The vast literature on the subject is far from conclusive.

involve small and medium sized firms,[50] but there is little rationale behind a systematic use of competition policy towards helping small and medium-sized firms.

Smaller firms are often hurt by the lack of proper infrastructure and imperfect markets (larger firms might be able to overcome problems owing to their size, financial means or internal market mechanisms). Such difficulties had better be dealt with by government interventions at the root of the problems, rather than instruments such as competition policy, whose purpose lies elsewhere. The risk is of creating additional distortions in the competition sphere, while giving only a very imperfect answer to the source of the problems.

3.1.3 Promoting market integration

As we have seen, *promotion of market integration* should certainly be regarded as one of the key objectives of European competition policy as stated by the Treaty of Rome, enforced by the Commission and endorsed by the Court of Justice. It should be emphasised here that this is a political objective which is not necessarily consistent with economic welfare. The policy toward price discrimination and vertical restraints in Europe has *de facto* been to forbid market segmentation across national borders whereas no such position is taken with respect to segmentation within national borders. There is no economic rationale for such a difference of treatment. Nor is there a strong economic reason to justify the adoption of such a strong view against price discrimination on economic grounds. Indeed, whether price discrimination is detrimental or not to economic welfare is a continuing source of debate.[51]

A priori, it is impossible to say whether price discrimination has a positive or negative impact over welfare, as the following example should show. Imagine that the same good is sold in two countries, say Germany and Portugal. Germans have on average a higher income and willingness to pay for the good than Portuguese. If price discrimination is allowed and it is feasible (arbitrage does not occur, or it occurs only to a limited extent), a monopolist would sell in Germany at a price p_h (where h stands for "high")

[50] The practice of granting exemptions to small firms is also useful in that it does not oblige them to spend resources in dealing with administrative matters. Think, for instance, of the forms that a firm has to fill in when getting involved in agreements which should be notified to the Commission.

[51] See Varian (1989) for a review of price discrimination.

and in Portugal at a lower price p_l. By making consumers pay according to their different willingness to pay, the firm is able to increase its profit.

Consider now what happens if the monopolist was obliged to set an identical price on the two markets (for instance, because competition laws do not allow for price discrimination). A possible option is to set an intermediate price p_m (such that $p_l < p_m < p_h$). Hence, Germans would be better off, while Portuguese would be worse off. To judge the overall welfare effect of market integration, three aspects should be accounted for: the consumer surplus of the two groups (Germans would gain, Portuguese would lose) and the profit earned by the monopolist (which is lower when price cannot be segmented). *A priori*, the welfare effect is therefore ambiguous.[52]

However, there is also another option available to the monopolist. This is to continue to charge the price p_h it was charging in Germany for both markets. It would lose completely the Portuguese market but it would keep the highest profit in the German market, so that this strategy might well be more profitable than selling at an intermediate price in both markets.

If the second strategy prevails, then the prohibition of price discrimination across countries achieves precisely the opposite effect than intended at first sight: differences in the market conditions between Germany and Portugal end up with being much more pronounced than before.[53]

The example above is just one of the arguments that one should consider when discussing price discrimination. This is a subject on which it is not easy to draw simple and practical policy implications (see chapter 7). However, what I hope this example achieves is to convince the reader that a *per se* rule which forbids firms from price discriminating across countries is not justified on economic welfare grounds, and in some circumstances might even be (paradoxically) against an objective of promotion of market integration.

3.1.4 Economic freedom

As we have seen, to guarantee economic freedom is probably the main rationale behind competition laws in Germany. The possible contradictions between such an objective and the objective of economic efficiency have been discussed in detail and with reference to specific cases by Kühn (1997). Probably the most obvious source of contrasts arises in vertical restraints, for instance in contracts and clauses imposed by a manufacturer upon the retailers of the good it produces. While territorial restraints, resale price

[52] See chapter 7, or Tirole (1988,p.137 and ff) for a simple formal analysis.

[53] Mention the Distillers case.

maintenances and other practices often find strong justification in economic efficiency terms (for instance, by stimulating the efforts of retailers, or by making sure that they would not set prices above those which are optimal for the manufacturer), it is straightforward that they limit the economic freedom of the retailers.[54]

3.1.5 Fighting inflation

Our brief historical excursus has also illustrated how macroeconomic events might affect the implementation of economic policy. Fighting inflation, for instance, has been indicated as one reason to introduce control over cartels in Germany. However, it seems doubtful that competition law might efficiently be used to attain such purposes. If firms are colluding, then breaking a cartel would give a one-time reduction of prices, rather than contributing to a permanent decrease of inflation. Further, in an environment where all prices are continuously increasing, it is likely that firms would react to a common shock on the prices of inputs by simultaneously and independently increasing prices, even in the absence of any collusion.[55] [56]

3.1.6 Fairness

Another objective which competition laws might incorporate is fairness. This can sometimes be seen in the laws against the abuse of a dominant position. Such laws rule out the possibility that a dominant firm might charge excessive prices to consumers (fairness with respect to consumers), or that it might use its market power in such a way as to impede entry in the market or to force competitors out of it (fairness in competition).

As for fairness towards consumers, price controls by authorities are unlikely to be a desirable policy, apart from exceptional cases. In general, a firm should be free to charge the prices it wants, and if it enjoys market power because of its merits (be they investments in R&D, advertising, or

[54] For the relationship between restrictions on commerce and restrictions on the freedom of contract, see Amato (1997).

[55] Nor would it be reasonable to limit price movements of the firms in a situation where all input prices increase.

[56] However, if price shocks were not perfectly anticipated by the firms, that is, if inflation was highly correlated with price uncertainty, it might be possible that colluding firms (which are able to monitor each other's behaviour and share information) immediately increase prices every time there exists a price increase of inputs, whereas firms which are not colluding are more hesitant to raise prices. I have never seen this argument analysed in formal terms.

whatever other business strategy) there is little reason to oblige it to give discounts to consumers who are willing to pay a high price for its goods or services.[57] If the market is one where entry is free, and the goods or services under discussion are valuable for consumers, chances are that sooner or later competition from new entrants will appear and prices will move downwards. There are two qualifications to this reasoning, however. The first is that the market in question might be one where entry is not free. If this is the case, for instance because there exists a legal monopoly, then price intervention would be justified. The second is that although entry is free on paper, in practice the market does not work well because the monopolist has set up practices which allow it to keep or reinforce its monopoly position. But in this case, antitrust authorities should intervene so as to restore market competition (which is the cause of the problem), rather than so as to change prices (whose high level is the effect of abusive practices).

The objective of fairness in market competition would in certain circumstances coincide with welfare criteria, but in other cases the two objectives are more likely to collide. Take for instance the politically-sensitive issue of small shopkeepers v. large supermarket chains. In many countries, concern is often voiced that the supermarket chains can exploit their bigger volumes so as to have bargaining power and buy products at much cheaper prices than small shops. This allows the former to sell at lower final prices than the latter. As a result, small shops have economic difficulties and could be forced to close down. Some people would argue that this is unfair, and that small shops should accordingly be protected. If on purely fairness grounds this claim is justified I do not know. Certainly, such a reasoning would not be supported by efficiency reasons. Whenever there exist economies of scale in a market, larger firms will have lower costs and will be more competitive. Small firms which fail to reach the minimum efficient scale of production will either have to content themselves with lower profits or exit the market. This process of rationalisation whereby only the most efficient firms will stay in the market is generally good, as it will bring market prices down to the benefit of consumers. Interfering in this process by limiting the ability of larger firms to charge lower prices would damage welfare.[58][59]

[57] See also chapter 2 on the need to let firms appropriate the fruits of their investments.

[58] If - for whatever reason - it was really felt that small shops have to survive, then rather than using competition policies it would be better to implement this objective through a redistributive policy, for instance by reducing taxes on the personal income of shopkeepers.

[59] An Italian law approved in 2001 forbids to sell books at a discount higher than 10% than the cover price. This is an example of a law which distorts competition in the mar-

Note, however, that fairness and efficiency are not always in contradiction. Consider a variation of the previous example, and suppose that in a given market a supermarket chain which already has a very high share of the market (say, 70%) systematically charges below costs with the aim of forcing all small rivals out of the market (they could not cover their costs at the prices charged by the supermarket). In this case, this practice (that is called *predatory*) is both unfair and welfare detrimental. Indeed, after small shopkeepers have been forced to exit the market, the supermarket chain will start to charge monopoly prices. Therefore, consumers pay low prices during the period in which the supermarket is acting in a predatory way, but they will have to pay much higher prices ever after.[60]

More generally, fairness and efficiency can coexist since competition policies should ensure that different firms have the same initial opportunities in the marketplace. In this sense, *ex ante* fairness is fully compatible with competition policy, which should guarantee a level playing field for all the firms, whereas *ex post* fairness is unfortunately not something which necessarily coincides with the way markets work. Firms which invest more, innovate more, or simply are luckier than others will be more successful and be able to reap higher profits: somebody may well feel that this is unfair. However, ex-ante fairness is more relevant: what matters is that all firms initially have a similar possibility to invest, innovate or try their luck, and competition authorities should guarantee that some more powerful firm has not deprived them of this possibility.

3.2 Other public policy factors affecting competition law and enforcement

There exist a number of public policy considerations which often affect competition laws and their enforcement. Indeed, the brief historical account above - by no means exhaustive - has showed that in many instances competion authorities and courts have chosen to adopt weaker stances on competition issues than economic welfare considerations alone would have suggested, due to social, political, or strategic reasons.

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ketplace to protect small and medium firms (bookshops in this case) from the competition of more efficient and larger firms (in this case, supermarkets and internet bookstores).

[60] Of course, it is not always easy to distinguish predatory behaviour from low prices due to higher efficiency. See chapter 7 on monopolisation for an analysis of how competition authorities should behave in such cases.

3.2.1 Social reasons

Competition rules have sometimes been relaxed to smooth social tensions. US laws were implemented in a more lenient way in the times of the Great Depression, with the view that some price agreement would help firms to avoid bankruptcy, thus easing social tensions caused by unemployment. If capital markets were imperfect, then a policy trying to reduce bankruptcies might be of help. However, allowing firms to collude to solve the problem is likely to be a remedy worse than the problem itself. This would introduce further distortions in the economy: it would be better to intervene directly with other measures in the banking and financial sphere.

For the same reason, "crisis cartels" are in some circumstances tolerated by the European Commission. Although pursuing such objectives might be understandable, it is not clear that the means adopted achieve their purpose. A more favourable treatment for certain firms in bad times might have adverse consequences upon other groups already hit by a recession, like consumers or even other firms using inputs or intermediate goods. As for allowing agreements between firms in a declining sector (often concentrated in a given geographical area), it might have medium- and long-run adverse consequences. Actually, this might allow less efficient firms to stay on to the detriment of more efficient firms which would have survived anyhow. A misallocation of resources might be the result of such a policy.[61]

3.2.2 Political reasons

Political reasons might also justify some competition policy positions. When the Allied Forces decided to break up industrial groups in Germany and Japan, one of the reasons might also have come from the danger of having economic concentration of power being used for political purposes. Indeed, the close connection between political and economic power during the Nazi regime played a role in justifying some dispersion of power. More generally, it might be feared that democracy could be put at risk when a few citizens and groups dominate a large share of resources. From a different point of view, calling for a less concentrated distribution of resources can be justified on fairness grounds. Indeed, to reduce inequality in income distribution has also been one of the reasons invoked by the advocates of anti-trust laws in

[61] It should be noted, however, that it is not always the case that market forces left alone would bring about the exit of less efficient firms before the more efficient ones. See e.g. Dierickx et al. (1991). The existence of "long purses" might also explain the permanence in the market of more inefficient firms.

the US, as a reaction to the excessive power accumulated by some large firms and trusts and to the epidemic of bankruptcies of small firms at the end of the 19th Century.

3.2.3 Environmental reasons

Environmental reasons might also be taken into account in the enforcement of European competition law, according to article 174 of the EC Treaty.[62] In a recent decision, for instance, the Commission has approved an agreement among producers and importers of washing machines[63] which together account for more than 95% of European sales. The agreement aims among other things at discontinuing production of imports of the least energy-efficient washing machines, which represent some 10-11% of current EC sales. The agreement removes one of the dimensions along which sellers compete, and as such it might negatively affect competition and increase prices (as a general rule, the most polluting machines are also the least expensive ones). However, the Commission considered that the agreement will benefit society in environmental terms,[64] allowing to reduce energy consumption, and that such an objective would have not been attained without the agreement. This is because consumers do not properly take into account all the externalities involved in their purchase and consumption decisions, and firms would not give up a tool of market competition unless bound by an agreement.[65]

Of course, whenever competition policy is used for other purposes than efficiency,[66] one has to wonder whether this is the optimal solution. In this particular case, the same (or more advanced) objectives might be attained

[62] See Manuel Martinez Lopez (2000), "Commission approves an agreement to improve eenergy efficiency of washing machines" in Competition Policy Newsletter, No.1, February, pages 13-14 [and footnote 18 for the ref.].

[63] Exemption from article 81 decision taken on 24 January 2000 and notified by the European Council of Domestic Appliance Manufacturers (CECED). See Manuel Martinez Lopez (2000), in Competition Policy Newsletter, No.1, February, pages 13-14.

[64] Private energy-saving benefits for consumers should be already properly taken into account by consumers when taking their purchase decisions. It is the environmental externality that the consumers might not take into account.

[65] One could possibly interpret this situation as one where firms play either a coordination game or a prisoner dilemma game. In the absence of the agreement, they would end up selling to a certain part of the market energy-inefficient machines at low prices, whereas the agreement allows them to sell more efficient machines at no less profit.

[66] See also Manuel Martinez Lopez (2000), "Horizontal agreements on energy efficiency of appliances: a comparison of CECED and CEMEP" in Competition Policy Newsletter, No.2, June, pages 24-25.

through a number of other public policies, such as for instance the imposition of taxes which discriminate against more environmental damaging machines or even the imposition of a minimum environmental standard adopted at a European-wide level. However, it might well be that such alternative instruments are politically difficult to attain, and that competition policy might help the environmental objectives. Of course, it is important in these cases to ensure that this use of competition policy does not introduce additional distortions. In this particular case, however, competition among producers did not seem deeply affected, as the agreement did not remove many other competitive instruments at the firms' disposal (prices, technical effectiveness, brand image, advertising, and adoption of energy-saving levels above the threshold imposed by the agreement are still available).

3.2.4 Strategic reasons: industrial and trade policies

Supporting *national champions*, or breaking up foreign champions, has also played a role in competition policies. Lax competition policies in some countries can sometimes be explained by the willingness of national governments to allow domestic firms to "become bigger" in the belief that this will help them be more successful *vis-à-vis* foreign rivals. This might for instance explain why France wanted to include social and industrial policy considerations in the 1989 EC Merger Regulation, and why it does not want the European Commission to decrease the turnover thresholds which define the criteria according to which the Merger Task Force, rather than national authorities, scrutinise mergers. The very same idea inspired the policy of de-cartelisation forced upon Germans after World War II. This means that strategic trade policy considerations might lurk behind competition laws or behind implementation methods.

An example of using competition laws to allow domestic firms to extract rents in foreign markets may be observed in the exception given by US law to export cartels.[67] The Webb-Pomerene Act (15 U.S.C. §62 (1918)) exempts export associations from the antitrust laws where their sole purpose is to engage in export trade and if their actions: (1) do not interfere with or restrain trade in the US; and (2) do not restrain the export trade of domestic competitors.[68] The Export Trading Company Act (15 U.S.C. §§ 4001 *et*

[67] I am grateful to Mel Marquis for the following discussion.

[68] The export association must file reports on its activities with the FTC. Based on US case law, the association is not permitted to join a foreign cartel, nor may it establish a foreign subsidiary. Finally, it may not join with non-members to restrict competition and

seq. (1982)) provides for the issuance of a "certification" of immunity by the Department of Commerce (with the agreement of the DOJ). The certification issues where the export activity: (1) does not result in a substantial reduction of competition in the US or with an export competitor; (2) does not unreasonably affect prices in the US; (3) does not amount to an unfair method of competition against rivals in the export market; and (4) does not engage in the sale or resale of goods in the domestic market.

More generally, competition policy instruments can also be used to achieve *protectionist* goals. A case in point is the use of *anti-dumping laws*: these are laws that in theory aim at avoiding that foreign firms sell below their costs (i.e., that they *dump* their goods) in the national market, to the detriment of national firms. The existence of such laws is justified on fair trade grounds (if dumping coincides with below cost pricing, it might be indicating predatory behaviour), but that often is used as a way to protect domestic firms from more efficient foreign firms. For instance, antidumping laws are often implemented in such a way that it is very easy to prove that there has been dumping by foreign firms, that are being penalised even when they are simply more efficient.[69]

Industrial policy and trade policy considerations have often been an obstacle to the enforcement of competition policy.[70] My view is that competition policy is the best possible industrial policy: it is unlikely that firms in a particular industry are able to grow healthily if sheltered from competition, subsidised, or exempted from anti-cartel laws.[71]

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price. If the association violates these prohibitions, the FTC refers the matter to the DOJ for prosecution.

[69] On the possibility that competition policy instruments are used as a protectionist device, see Motta and Onida (1997).

[70] See Gual (1995) on the conflicts among competition, trade and industrial policies in the European Union.

[71] See Motta and Onida (1997) on this issue. See also next chapter on the role of competition to promote productive efficiency.

4 The main features of European Competition Law

Articles 81 to 89 of the Treaty of Rome deal with competition issues,[72] but for our purpose the main articles are 81 and 82.[73]

4.1 Article 81: horizontal and vertical agreements

Article 81(1) prohibits "all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object of effect the prevention, restriction or distortion of competition within the common market, and in particular those which: (a) directly or indirectly fix purchase or selling prices or any other trading conditions; (b) limit or control production, markets, technical development , or investment; (c) share markets or sources of supply; (d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at competitive disadvantage; (e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts". Article 81(2) declares that "Any agreements or decisions prohibited pursuant to this Article shall be automatically void". Article 81(3) states that such prohibition does not apply to any agreement, decision or concerted practice "which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not: (a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives; (b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question."

Whereas a full discussion and interpretation of this article is not possible here, a few remarks are needed. First, it should be noted that article 81 deals with both horizontal and vertical agreements. This is a source of

[72] This section is intended just as a short introduction to European competition law, so as to make readers who are unfamiliar with it acquainted at least with its most crucial and essential features. For those interested in a better understanding of the legal aspects of European law, I suggest texts such as Goyder (1998) and Whish (1995).

[73] The other articles contain either procedural norms or deal with issues such as public enterprises, state aids and anti-dumping, whose detailed analysis goes beyond the scope of this work.

potential problems, as economics has showed that one should generally expect these agreements to have quite different competitive effects. Horizontal agreements, that is agreements among competitors, usually restrict competition and thus reduce welfare (see the chapter on collusion) and should therefore prohibited unless exceptional circumstances arise. Instead, vertical agreements, that is agreements between firms operating at different stages of the production processes (for instance, between a manufacturer and a retailer) are more often efficiency enhancing and tend to pose problems to competition only when they are undertaken by firms which enjoy considerable market power (see the chapter on vertical restraints). To treat agreements which have such a different nature and such different expected competitive effects with the same legal provision is therefore unlikely to be efficient.

Recently, the Commission perceived this problem and adopted an approach on vertical restraints which is more in line with economic thinking. Regulation 2790/1999[74] introduces a block exemption from article 81 on vertical restraints, subject to (i) a market share criterion and (ii) a "blacklist" of clauses which are not exempted. (i) The block exemption is limited to vertical agreements in which the market share of the supplier is below 30% (in case of agreements containing an exclusive supply obligation, it is the buyer's market share which may not exceed 30% in order for the block exemption to hold).[75] (ii) However, there are some types of restraints which are considered so harmful by the Commission that the block exemption does not apply to them even if the market share threshold of 30% is not attained.[76] These so-called "hardcore" practices mainly relate to resale price maintenance (clauses which fix, directly or indirectly, resale prices) and (some types of) territorial restrictions which might lead to market partitioning by territory or by customer,[77] and are more justified by the desire

[74] Adopted on 22 December 1999 and published in OJ L 336, 29.12.1999, this regulation replaces three expired block exemptions regulations, on exclusive distribution, exclusive purchasing and franchise agreements respectively. For a better understanding of this regulation, see also the Commission Notice "Guidelines on Vertical Restraints".

[75] See Guidelines on Vertical Restraints, §21.

[76] However, for small and medium-sized enterprises as well as firms which have a market share of less than 10%, the "de minimis" rule (discussed above in section 3) still applies.

[77] However, this does not mean that exclusive territory agreements are illegal: a supplier is allowed "to restrict *active* sales by its direct buyers to a territory or a customer group which has been allocated exclusively to another buyer or which the supplier has reserved to itself. " (See Guidelines, §50) The Commission and the European case law establishes

to promote identical prices and sales conditions in the EU than they are based on an economic rationale.

Second, it is important to note that horizontal agreements need not be written or formal agreements to be prohibited, as the reference in article 81 to 'concerted practices' makes clear. However, the term 'concerted practices' itself leaves space for interpretation and indeed has somehow been interpreted in different ways. However, I believe it is fair to say that pure market 'parallel behaviour' without any attempt from the firms involved to communicate with each other or establish practices which help sustain collusion would not be judged by the European Court of Justice as a concerted practice within the meaning of article 81 (see the chapter on collusion).

Third, for different reasons such sectors as coal, steel, agriculture, defence, (road, rail, inland waterways, air and maritime) transports, banks, insurance and financial services, have been granted exemptions from article 81(1). In other words, agreements between firms in such sectors are not subject to the same prohibition.

Fourth, article 81(3) clearly states that even agreements among competitors do not fall under a *per se* rule of prohibition. Some horizontal agreements have been covered by so-called "block exemptions". The European Commission has adopted over the years a number of regulations which specify the conditions under which firms involved in such agreements as specialisation, research and development, or technology transfer agreements are not subject to the prohibition of article 81(1). The block exemptions have been extremely useful in saving the Commission's time in dealing with agreements that the Commission thought would pose small problems with competition. Otherwise, firms could still apply for an individual exemption from article 81(1). In such cases, they would have to notify their agreement, which could be (implicitly or explicitly) cleared by the Commission if it thinks that the conditions indicated by article 81(3) are met by the proposed agreement.[78] Recently, the Commission has advanced in its *White Paper on the modernisation of competition policy* a proposal to change its way of dealing with article 81, and introduce a "directly applicable excep-

that a supplier is not allowed to restrict passive sales, i.e. sales to satisfy unsolicited requests from individual customers, but can prevent his buyers from actively approaching customers or distributors located in territories assigned to other buyers.

[78]The Commission does not have enough resources and personnel to review in depth each notification. More than 90% of cases are closed informally by so-called "comfort letters", which do not have a binding legal value. See XXIX Report on Competition Policy-1999, §25.

tion system". The proposal would introduce two main changes. First, the authorisation arrangement system and the notifications which are its corollary would be abolished. Second, the Commission would give up some of its "monopoly power" in dealing with article 81: national authorities and judges could also give exemptions. This new system, if approved, would in the intention of the Commission lead to a more efficient application of article 81, due to the possibility for the Commission to focus on the most important horizontal agreements rather than having to employ them to review hundreds of less important agreements. Nevertheless, due to the decentralisation of competition policy on horizontal agreements, the system might lead to heterogenous enforcement, with some national agencies and courts being laxer than others.

4.2 Article 82: abuse of a dominant position

Article 82 states: "Any abuse by one or more undertakings of a dominant position within the common market or in a substantial part of it shall be prohibited as incompatible with the common market in so far as it may affect trade between Member States. Such abuse may, in particular, consist in: (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions; (b) limiting production, markets or technical development to the prejudice of consumers; (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at competitive disadvantage; (d) making the conclusion of contracts subject to acceptance by other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts."

Like for article 81, the list of practices which might consist in abuses and which are listed in article 82 is not exhaustive and it is included just to give possible examples. In general, article 82 is related to such practices as predatory pricing, market foreclosure, tying and so on (see chapter on predatory practices). Note in particular that for an abuse of a dominant position to exist, *first* it must be established that a *dominant position* exists, *then* that this dominant firm has engaged into an *abusive behaviour*. We look at these two elements in turn.

Dominance In one of the first article 82 (then article 86) cases, *Hoffmann-la Roche*, the European Court of Justice gave the definition of market dominance which is still used nowadays:

> "The dominant position [...] relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it *the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers*. Such a position does not preclude some competition, which it does where there is a monopoly or quasi-monopoly but enables the undertaking which profits by it, if not to determine, at least to have an appreciable influence on the conditions under which that competition will develop, and in any case to act largely in disregard of it so long as such conduct does not operate to its detriment."[79]

It is difficult to translate into economic terms the precise meaning of the legal expression "the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers."[80] For sure, dominance relates to a situation where a firm enjoys a very high degree of market power, but the jurisprudence has made it clear that a firm with 40% of the relevant market - far from being a monopolist - might well be a dominant one.[81] In practical terms, the analysis of dominance by the Commission and the Courts coincides with the economic analysis of market power. A firm will be judged dominant when it has a high degree of market power, and the process of finding dominance involves the study of those factors that any economist would find relevant for the determination of market power (see chapter on market definition and market power).

Abuse of dominance As for the concept of abuse of a dominant position, *Hoffmann-la Roche* defined it as follows:

> "[a behaviour] which, through recourse to methods different from those which condition normal competition in products or

[79] Hoffman-la Roche (Vitamins), Case 85/76[1979], European Court Reports 461. Emphasis added.

[80] In modern industrial economics terms, one could perhaps say that behaving independently of competitors might be formalised as a situation where the (dominant) firm behaves similarly to a Stackelberg leader, that is, it maximises its profits taking into account the best replies of its competitors (which simply best respond).

[81] The threshold of 40% comes from one of the early cases of abuse of dominance, *United Brands*, and it is still considered as a relevant threshold for the purpose of the determination of dominance, although the market share possessed by a firm is neither a necessary nor a sufficient condition to prove its dominance.

> services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition."[82]

As said above, an abusive behaviour roughly corresponds to predatory practices, with the possible exception of price discrimination, which has little to do with predation but which occupies a special place in European competition law in view of the economic integration objective of the European Union.

One important point to emphasise is that European law does not punish the creation of a dominant position, but just its abuse. In other words, if a firm builds market power - however strong - through innovation, investment, marketing activities, this is perfectly legal (what makes sense from the point of view of economic efficiency. One does not want to punish firms just because they are better, more successful, or even luckier, than others, as this would reduce incentives for firms). It is only the abuse, not the creation, of a dominant position which is forbidden. What remains true, however, in the practice of European law, is that a dominant firm is not entitled to the same practices which are deemed as perfectly legal if engaged by non-dominant firms. Aggressive competitive practices might be allowed to competitors, but not to a dominant firm.

As we shall see in chapter 7, proving that a firm has engaged in predatory (abusive) practices is not an easy task, there often exists the danger of judging illegal practices which might turn out to be efficient instead. This is an area where it is difficult to adopt simple rules and where each case is often a special one. Not surprisingly, article 82 cases are much rarer than article 81 cases, and often controversial.

4.3 Mergers

Both horizontal and vertical mergers are regulated by the Council Merger Regulation 4064/89 and successive modifications. This regulation, that as seen above has been adopted after many discussions and much time after the Treaty of Rome, consists in an authorisation procedure with strict time deadlines. Each project of *concentration* (the law uses the term concentration which encompasses both mergers and takeovers and refers to all situations where the operation allows a firm to take *de facto* control of the operations of

[82] Hoffmann-la Roche, case 85/76 [1979], European Court Reports 461.

another firm) should be notified to the Merger Task Force (MTF), a special unit of the Competition Directorate of the European Commission, within seven days of the agreement or the announcement of the public bid. The MTF has then one month to carry out a first round of investigation. At the end of it, it might either decide to allow the merger or that such a merger "raises doubts as to its compatibility with the Common Market". In the latter case, the MTF has four additional months at its disposal to decide on the concentration proposal, during which it will engage in deeper investigation of the possible effects of the merger. In the end, there are mainly three possible outcomes to this process. The merger might be allowed, prohibited, or allowed subject to certain conditions (or *remedies*).

The fact that the Commission decides on mergers within strict time deadlines is a notable feature of the Regulation, and one which should be praised. Indeed, firms and the markets need to know as quickly as possible if a merger can be carried out or not. The uncertainty related to long regulatory processes is always very costly but it is especially so for mergers, when firms need to deeply restructure and reorganise their production, distribution, research and marketing activities, and it is crucial that this uncertainty lasts as short as possible. The preventive authorisation system also responds to efficiency criterion. It would simply be wasteful to carry out the merger first and then rule on whether it is lawful or rather firms should return to the original situation. Forced spin-offs would be extremely inefficient. It is precisely for this reason that the European legislators decided to introduce the Merger Regulation. In taking some decisions (*Continental Can* and *Philip Morris*) the European Court of Justice had ruled that article 81 and 82 might have been used *ex-post* to deal with merger operations. It is to avoid this danger that the Merger Regulation was introduced in 1989.[83]

The Merger Regulation does not deal with all merger proposals in the EU, of course. This would simply be beyond the Commission's resources. Rather, it provides a good example of the *subsidiarity principle* whereby decisions should be taken at a decentralised level (ie., by the national authorities) unless there are good reasons to take then at a centralised one (ie., by the supranational administration body which is the Commission). After the last review of the Regulation, it is established that the European Commission has jurisdiction on a merger if the following criteria are met: (a) the combined aggregate worldwide turnover of all the undertakings concerned is more than 2,500 million Euros; (b) in each of at least three member

[83] On the events preceding the Merger Regulation, see Goyder (1998), pages 379-385.

states, the combined aggregate turnover of all the undertakings concerned is more than 100 million Euros; (c) in each of at least three member states included for the purpose of point (b), the turnover of at least two of the undertakings concerned is more than 25 million each; and (d) the aggregate Community-wide turnover of each of at least two of the undertakings concerned is more than 100 million Euros, and unless each of the undertakings concerned achieves more than two-thirds of its aggregate Community-wide turnover within a single member state.

These criteria ensure that the mergers reviewed by the European Commission are mergers among large firms which have an important presence in several European countries.[84] Mergers between "small" firms, and mergers which mainly interest a single country will be dealt with by national authorities and not by the Commission. Note that this regulatory rule is to the advantage of the firms, in the sense that it spares them from the necessity of having to ask for an authorisation in each of the countries in which they operate, a process which might involve a considerable waste of time and legal expenses (this is known as the *one-stop shop* principle of regulation).

The substantive aspects of the merger regulation and merger practice will be discussed in the chapter on mergers. For the time being, however, note that: "A concentration which creates or strengthens a dominant position as a result of which effective competition would be significantly impeded in the Common Market or in a substantial part of it shall be declared incompatible with the Common Market."[85] In other words, only mergers which create or reinforce a dominant position will be prohibited. This is a crucial feature of the Merger Regulation, and to anticipate the discussion in the chapter on mergers, it is a feature at odds with economic principles, since there may well be mergers which do not create a dominant position but still decrease welfare (in markets with few firms, a merger might result in considerable price increases and diminished competition even if does not establish or reinforces a dominant position). Another feature of the Merger Regulation is that it does not seem to allow for efficiency gains considerations in the evaluation of merger proposals, whereas economics strongly suggests that efficiency savings should be at the centre of the analysis of mergers.

[84] Notice that firms involved are not necessarily European ones: the Commission has jurisdiction also on merger projects by firms which are all non-Europeans, as long as the criteria above are met, that is, as long as such firms sell a considerable part of their products or services in Europe.

[85] Merger Regulation 4064/89, article 2(3).

5 Conclusions

The main purpose of this chapter was to introduce the reader to competition policy issues, through a brief description of the history of competition laws in the US and in the EU, and of the main features of the EU laws. Further, the reader has been introduced to the concept of economic welfare, that will be used throughout the book as the objective that competition policies should pursue. There are of course other possible objectives of public policies, but I have argued that competition policy should not be used to achieve them, since this would create inefficient distortions in the marketplace.

Some readers might at this point still wonder about the relationship between competition policy and regulation (whose analysis lies beyond the scope of this book), another set of policies that affect the way markets function. This is an issue I will try to clarify next.

5.1 Competition policy and regulation

In general, one can think of competition policy as applying to sectors where there exist structural conditions that are compatible with a normal functioning of competition in the marketplace (whether the market functions well in practice or not is of course another matter). Instead, regulation is a more interventionist type of policy which applies to special markets, whose structure is such that one would not expect competitive forces to operate without problems. Regulation would usually concern industries where fixed costs are so high than one could not reasonably expect more than one firm to profitably operate (a so called *natural monopoly*): examples might be electricity (transmission phase), telecommunications (local loops), railways (the network). Other industries subject to regulation might be industries that are in a transitory phase, for instance because they used to be legal monopolies (usually public) and they are liberalised. Since it would be unlikely that entrants could compete on an equal footing with an established incumbent, a regulatory body usually supervises the industry to try and ensure a smooth transition towards a regular functioning of competition in the market. Examples of such industries are telecommunications, gas, electricity, water, railways in most European countries.

Distinctions between competition policy and regulation, and between competition authorities and industry regulators can be made along several criteria.[86]

[86] See for instance Rey (2000, p.44 and following), from whom the classification is bor-

1) *Procedures and control rights.* Whereas competition authorities generally limit themselves to checking the lawfulness of firms' activities, industry regulators have more extensive powers, as they can constrain firms' conduct in several ways, for instance by capping or fixing their prices, checking their investment decisions, restricting their product choices. They can also modify structure of the industry by establishing when new entry in the sector is allowed, and fixing the criteria that decide market entry. So, if for instance competition policy can intervene on the pricing choices of a firm only when there is the suspicion that the firm might be abusing of a dominant position, under a regulatory regime a firm might not be able to set a certain price if it did not have prior approval of the regulatory body.

2) *Timing of oversight.* Generally, competition authorities intervene ex-post (for instance, checking the legality of a certain business practice after it has already been taken) whereas regulators act ex-ante (for instance, authorising a certain business practice or not). Also, competition authorities have usually more time available for investigations, whereas regulators have to come up with rapid decisions, as the firms' normal business (such as pricing, investments, launch of new products) might need the preventive authorisation of the regulators. Regulators' involvement with a particular case is long-run and continuous, whereas competition authorities' interventions tend to be occasional.

3) *Information intensiveness.* Regulators usually have an industry-specific expertise whereas competition authorities have not. In part, this is also determined by the fact that the regulators' relationship with an industry is continuous and of a long-term nature. Only certain industries are subject to a regulatory regime, and typically each industry has a "watch-dog" that controls that particular industry in all its main respects.

Certainly, for each criterion there are probably exceptions and qualifications to be made that make the border between competition and regulation blurred,[87] but overall there are differences between these two types of policies. Such differences are mirrored also in the practical tools used by the

rowed (although other criteria are included in his paper).

[87] Merger control, for instance, is among the tasks performed by competition authorities, but shares several features with regulatory problems. In particular, the analysis is to be done ex-ante rather than ex-post, and the conditions that are requested to merger partners to clear a merger proposal might involve the redesigning of the structure of the market (structural remedies), or call for some restrictions on particular contracts or practices that merging firms will be allowed to follow after the merger (behavioural remedies), thereby making the competition authorities take actions similar to those a regulator usually takes.

respective authorities, and in the theoretical frameworks that one should adopt to address the respective two issues. For instance, regulatory bodies will have to face questions such as what is the "right" price a regulated monopoly should charge, or how to reward a monopolist while guaranteeing rivals access to a certain input, and more generally devise a system of incentives so as to guarantee that the regulated firm takes optimal investment and price decisions. These are quite different problems than those competition authorities have to face, and they also call for different theoretical tools. While competition policy issues can mostly be analysed with oligopoly theory (that is the main tool used in this book), regulation issues are more naturally addressed by so-called "principal-agent models" (the principal being the regulatory authority and the agent being the regulated firm, with the former having to devise a system of contracts and rewards that gives the latter the incentive to take the actions that would achieve the objectives desired by the principal).

This book will deal only with competition policy, not with regulation.[88]

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