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European Antitrust Policy 1957-2004: An Analysis of Commission Decisions*

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June 2008

Abstract

This paper provides a survey of European antitrust law enforcement since its foundation in the Treaty of Rome of 1957. We present a complete overview and statistical analysis of all 538 formal Commission decisions adopted up to 2004 under Articles 81, 82 and 86 of the European Community Treaty. We report a range of summary statistics concerning report route, investigation duration, length of the decision, decision type, imposed fines, number of parties, sector classification, and Commissioner and Director General responsible. The statistics are linked to changes in legislation and administrative implementation, thereby providing a historical overview that summarizes the Commission's work in the area of antitrust. Against 166 of 538 decisions one or more appeals were lodged. We estimate the determinants of probability that a finding of an infringement is appealed against with the Court of First Instance and/or the European Court of Justice.

Keywords: Antitrust, Appeal, Competition policy, European Commission

JEL Classification: L40, K21

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Abstract

This paper provides a survey of European antitrust law enforcement since its foundation in the Treaty of Rome of 1957. We present a complete overview and statistical analysis of all 538 formal Commission decisions adopted up to 2004 under Articles 81, 82 and 86 of the European Community Treaty. We report a range of summary statistics concerning report route, investigation duration, length of the decision, decision type, imposed fines, number of parties, sector classification, and Commissioner and Director General responsible. The statistics are linked to changes in legislation and administrative implementation, thereby providing a historical overview that summarizes the Commission's work in the area of antitrust. Against 166 of 538 decisions one or more appeals were lodged. We estimate the determinants of probability that a finding of an infringement is appealed against with the Court of First Instance and/or the European Court of Justice.

1. Introduction

European competition policy is a visible and much debated part of the activities of the European Commission. Its foundations were laid in the Treaty of Rome in 1957, which succeeded the 1951 Treaty of Paris that had established the European Coal and Steel Community (ECSC).¹ Article 3(1)(g) in the introductory part of the Treaty of Rome identifies as one of the general objectives of the European Community (EC) the achievement of “a system ensuring that competition in the internal market is not distorted”. The original Treaty text has been amended several times over the history of the EC, the latest in the Treaty of Nice in 2001. Articles 81 and 82 of the Treaty are to protect the competitive processes in the Community’s common market from anticompetitive conduct to the benefit of consumer welfare.² The European Commissioner for Competition guards over the rules established in European competition law, assisted by the Directorate-General for Competition (hereafter DG Comp) and in close cooperation with the national competition authorities of the Member States.

The DG Comp prepares decisions in three broad areas: antitrust, mergers and State aid. Each year, several hundreds of cases are being investigated. Over the period 2000-2004, the average number of new antitrust cases per year was 264. In addition, there was a yearly average of 284 new merger cases and 1075 new State aid cases.³ The Commission’s views and actions are daily news in international media and involve many firm representatives, competition lawyers and economic consultants. Recent examples of high-profile cases include the 2004 fine of 497 million euros given to Microsoft Corporation for abuse of dominance, the 2007 record-breaking fine of 992 million euros for five elevator producers for colluding to fix prices, the Commission’s decision to block the merger between General Electric and Honeywell – which had previously been approved by the US competition authorities – and the Commission’s demand for reimbursement of tens of millions of State aid to public broadcasters in Denmark and the Netherlands.

In this paper, we survey the European Commission’s years of active antitrust law enforcement up to 2004 in summary statistics. We provide an analysis of all formal Commission decisions in antitrust cases pursuant of Articles 81, 82 and 86, from the very

¹ The Treaty of Paris already had important competition policy provisions that provided a core for the Treaty of Rome, see Martin (2007).

² The current numeration of the articles was adopted by the Treaty of Amsterdam in 1997 and entered into force in 1999. Previously, Articles 81 and 82 were numbered 85 and 86 in the Treaty of Rome.

³ XXXV Annual Report on Competition, 2005.

first case, a vertical negative clearance in *Grosfillex & Fillistorf* in March 1964, up to and including the last decision of 2004, the *Choline Chloride* cartel in December 2004. The Article 86 cases involve Member State regulation and are often taken in conjunction with Article 82.

The survey is based upon an extensive data set in which we consistently collected publicly available information on the decisions of the DG Comp contained in their publication in the *Official Journal of the European Communities*. Our analyses include neither European merger or State aid decisions, which are several thousands each, nor decisions under the ECSC Treaty.⁴ In the following, we present statistics from the first formal decision, published in 1964, up to 2004. We chose 2004 as the last year of investigation for various reasons. First and foremost, this allowed us to get all information complete on each of the cases. Several later decisions are still unpublished, as confidentiality issues are being cleared. In addition, on 1 May 2004 Council Regulation 1/2003 came into force to replace Council Regulation 17 of 1962. This radically changed enforcement procedures. Finally, in November 2004 Competition Commissioner Mario Monti's period in office ended and he was succeeded by the sitting Commissioner Neelie Kroes.

We characterize forty years of European competition policy in summary statistics on 538 formal antitrust decisions in total. Information was collected for each of these European Commission antitrust cases on such variables as length of decisions, number of months between opening and closing of investigation, nature of the alleged offence, level of fines imposed, the Commissioner who signed the decision, and whether there was an appeal to the case. The summary statistics are interpreted and, where possible, linked to changes in legislation and administrative implementation. This provides a broad historical overview summarizing the Commission's work. In addition, on the basis of a total of 166 cases that have been appealed to with the Court of First Instance (CFI)/European Court of Justice (ECJ), we offer a statistical analysis of the probability that a finding of an infringement is appealed.

To our knowledge, we are the first to present a complete statistical summary of European antitrust cases. Federal antitrust enforcement in the United States, which has a history that is more than twice as long since the Sherman Act passed in 1890, has been a rich source of empirical analysis. Several studies consider the actions of the US Department of Justice's Antitrust Division and the Federal Trade Commission since the seminal survey by Posner

⁴ On merger control in the European Union, see Davies and Lyons (2007). On the economics of European State aid see Röller et al. (2005).

(1970). These include Gallo, Craycraft and Bush (1985), Gallo, Craycraft and Dutta (1986), Corwin (1992), Gallo, Dau-Schmidt, Craycraft and Parker (1994, 2000), Lin, Baldev, Sandfort and Slottje (2000), Ghosal and Gallo (2001), and various contributions in Ghosal and Stennek (2007). Kovacic and Shapiro (2000) and Baker (2003) provide global estimates of the effect of U.S. competition policy on consumer welfare.

A developing literature is concerned with the empirics of European competition law enforcement. It focuses in majority on European merger control, including Nillsen (1997), Duso, Neven and Röller (2006), Lyons (2006), Bergman, Jakobsson and Razo (2005), Duso, Gugler and Yurtoglu (2006) and Davies and Lyons (2007). Other papers consider particular aspects of enforcement. Schinkel (2007) and Veljanovski (2007) survey European cartel enforcement. Stephan (2005) critically considers the results of the 1996 leniency notice. Geradin and Henry (2005) and Bos and Schinkel (2007) analyze the Commission's fining guidelines for breach of Articles 81 and 82. Wils (2002, 2005) bundles contributions on European antitrust enforcement from a law and economics perspective. Gual and Mas (2005) explore a unique data set on the genesis of European Commission decisions to estimate the probability of adverse findings in Article 81 and 82 investigations in the period from 1999 to 2004, given relevant industry-level variables. Harding and Gibbs (2005) study the success rate of cartel appeal proceedings before the European appellate courts during the period from 1995 to 2004. Neven (2006) globally estimates the size of European competition policy effect, similar to Kovacic and Shapiro (2000) and Baker (2003).

There also are a few empirical studies of antitrust enforcement in individual European Union Member States. Shaw and Simpson (1986) establish a significant decrease in market shares by leading companies after a UK Monopolies and Mergers Commission (now the Competition Commission) investigation over a time period of 14 years. Davies, Nigel and Clarke (1999) determine the probability of an adverse finding against firms investigated between 1973 and 1995. They find different probabilities for different types of allegations. Lauk (2002) similarly investigates decisions of the German Bundeskartellamt on abusive practices and cartels taken between 1985 and 2000. Finally, there exist a number of scholarly legal publications that collect European Commission decisions or Court of Appeal sentences on competition and discuss selected landmark decisions in detail, including Jones and van der Wouden (2006), Faull and Nikpay (2007), Ritter and Braun (2005) and Vogelaar (2007).

Before presenting our statistical findings, we need to put an important caveat to the use of enforcement data and what can be learned from them. We analyse formal decisions produced by the European Commission. Hence, we do not present information on cases that the

Commission has investigated but were dropped due to lack of evidence uncovered. In addition, formal decisions may present a small and selective sample of the entire population of underlying European competition law infringements. The size of the latter population is hard to estimate. Therefore, we are also not able to investigate to what extent competition enforcement has deterred illegal acts. For these reasons, the reader should consider our analysis as an overview and much less as an appraisal or critique on the Commission's work. The remainder of this paper is organized as follows. The following section briefly reviews the European competition rules on antitrust. It establishes the legal and institutional framework in which the history of European antitrust enforcement unfolds. Whenever possible, trends and changes in the data in the remaining sections are related to these historical developments. In Section 3, the Commission decisions are summarized over time and broken down according to origin and type. In Section 4, the Commission's decisions are considered by main categories of economic conduct. Section 5 analyses formal decisions by sector. In Section 6, several statistics are presented on European antitrust enforcement, such as length and depth of investigation and measures of output per Commissioner. Section 7 analyses trends in remedies and sanctions. Section 8 presents a probability analysis of appeals proceedings and Section 9 concludes. A description of the data sources used to compile the set of European Commission decisions on antitrust on which we draw is given as an appendix.

2. The European Competition Rules on Antitrust

The European Competition rules are embodied in the Treaty Articles, Council and Commission Regulations, Commission notices and guidelines. The latter two serve as guidance and are not legally binding. Article 81(1) of the EC Treaty establishes the prohibition of agreements and concerted practices among undertakings affecting trade between Member States as well as restricting competition within the common market. It is possible to identify four main types of economic agreements or concerted practices to which Article 81 applies: horizontal conduct, vertical restraints, licensing and joint ventures.⁵ Prior to Regulation 1/2003, effective as of May 2004, companies were to notify any arrangement that potentially could be in breach of Article 81(1). Since our analysis spans up to 2004, we refer almost entirely to decisions that fell under the first Council regulation. Commission

⁵ Note that since 1998 full function joint ventures are decided under the Merger Regulation, i.e. Council Regulation 1310/97/EC of 30 June 1997 on the control of concentrations between undertakings.

investigations could translate into a negative clearance, an exemption as well as the finding of an infringement. In case of the latter, the Commission may impose remedies and sanctions.

A negative clearance follows when it has been determined that Article 81(1) does not apply to the case under consideration on the basis of the information available at the time: the agreement or practice is allowed. Exemptions are given when Article 81(1) would apply to a notified case, but circumstances specified in Article 81(3) apply as well. Exemptions are only valid for a limited period of time. Article 81(3) in particular facilitates the creation of joint ventures or shared patent agreements with the intent to foster innovation. Exemptions have also been granted in a number of other cases, in particular in the early years of enforcement, as well as more recently in special industries such as banking and telecommunications. In addition, some early regulations exempted certain sectors from application of the EU competition laws. Council Regulation 141 of 1962, for example, exempted the transport sector. Twice were industries in a structural crisis temporarily allowed to form a cartel, during the oil shock in the early 1980s and during the recession of the early 1990s.⁶

Article 82 prohibits taking anticompetitive advantage of a dominant position. All investigations of an abuse of dominance that were concluded with a formal decision under Article 82 were indeed infringements, with the exception of one case involving minority shareholder agreements before the introduction of the Merger Regulation in 1989.⁷ Article 82 abuses include discriminatory sales conditions and monopolization strategies through tying and bundling and predatory pricing. Article 82, in conjunction with Article 86, also applies to situations of dominance that are maintained or fostered by Member State regulation.

There were several changes made to the regulatory framework over the history of European competition policy. The Treaty of Rome, Article 211 (ex 207), empowers the Commission to apply its regulations, directives and decisions adopted under the Treaty's rules, to formulate recommendations and deliver opinions. Enforcement powers related to the competition rules were made effective in 1962 by Council Regulation 17, which was initially proposed by Commissioner Hans von der Groeben. This regulation gave the Commission the role of central enforcement authority with procedural autonomy and institutional neutrality. The first

⁶ p. 49, XXIII Report on Competition Policy, 1993. The four cases were *International Energy Agency* Commission decision 83/671/EEC [1983] OJ L 376/30, Case IV/30.525; *Synthetic Fibres* Commission decision 84/380/EEC [1984] OJ L 207/17, Case IV/30.810; *International Energy Agency* Commission decision 94/153/EEC [1994] OJ L 68/35, Case IV/30.525; *Stichting Baksteen* Commission decision 94/296/EEC [1994] OJ L 131/15, Case IV/34.456.

⁷ There was a negative clearance for *Metaleurop SA* Commission decision 90/363/EEC [1990] OJ L 179/41, Case IV/32.846.

European Commission decision on competition, in *Grosfillex & Fillistorf*, is dated 11 March 1964.

The Commission used block exemption regulations in relation to certain forms of economic conduct, as well as to small and medium size enterprises, partly to alleviate its work load by lifting the notification requirement.⁸ Two notices of December 1962 placed exclusive agency contracts made with commercial agents and patent licensing agreements outside the immediate scope of European competition law.⁹ In the first half of the 1980s, more than ten block exemption regulations were issued for specialization and R&D joint ventures, exclusive distribution and purchasing as well as patent and know-how licensing.¹⁰ Block exemptions often followed a short string of pilot decisions on a particular topic.

Increasingly, the Commission also used comfort letters to deal with notifications. A comfort letter is not a formal decision, but a notice to the companies that, while there may be further investigations with ramifications, these would be applied leniently.¹¹ In addition, the Commission adopted the '*de minimis doctrine*' for cases involving agreements of minor importance.¹² This was in part in response to a need for appreciability standards created by a number of court decisions.¹³ All of this helped to speed up the decision making process and clear the Commission's large backlog of more than 4000 notifications, which had accumulated in the 1960s and the 1970s. This number was strongly reduced even when the number of Member States was increasing.¹⁴

Several institutional changes in the last four decades have also had their impact on European competition policy. In 1989, the Court of First Instance (CFI) was established to deal as the first appellate court with appeals against Articles 81 and 82 Commission decisions. Its creation allowed the European Court of Justice (ECJ) to concentrate on appeal proceedings

⁸ p. 28, VII Report on Competition, 1977.

⁹ Commission Notice of 24 December 1962 on *Exclusive Agency Contracts made with Commercial Agents*; Commission Notice of 24 December 1962 concerning *Patent Licensing Agreements*. These notices later led to Council Regulation 19/65 on patent licensing and Commission Regulation 67/67 on exclusive distribution cases.

¹⁰ Commission Reg. 2349/84/EEC of 23 July 1984 on the application of Article 85(3) of the Treaty to certain categories of patent licensing agreements; Commission Reg. 417/85/EEC of 19 December 1984 on the application of Article 85(3) of the Treaty to categories of specialization agreements; Commission Reg. 418/85/EEC of 19 December 1984 on the application of Article 85(3) of the Treaty to categories of research and development agreements. Jorde and Teece (1990) stress the importance of such favorable treatment of cooperative R&D efforts.

¹¹ The existence of comfort letters is only required to be mentioned in the Official Journal when a comfort letter is sent in response to a notification or a complaint. The lack of full publication in public sources prevents us from including comfort letters in our analyses.

¹² Commission Notice on agreements of minor importance which do not appreciably restrict competition under Article 81(1) of the Treaty establishing the European Community (*de minimis*) (2001/C 368/07).

¹³ In particular in Case 5/69 *Völk V. Varvaecke* [1969] ECR 295.

¹⁴ p. 44, XIX Report on Competition, 1990.

involving Member States, and second instance appeals exclusively on point of law. The CFI would put greater control on the Commission's growing use of its powers in the area of competition. In the same year, the introduction of the Merger Regulation implied a reallocation of institutional resources to the newly established Merger task force dealing with required notifications and strict deadlines for Commission decisions.¹⁵

DG Comp – known as DG IV prior to 1999 - also expanded over time, increasingly adding sector-specific units. In 1998, the first anti-cartel unit was formed, initially with some twenty specialized officials. This unit deals with cartel formation throughout all sectors of the economy. The set of enforcement instruments of the DG Comp had already been extended in 1996 with the introduction of the leniency program. It aimed to encourage participants of cartels to inform the authorities of their involvement in until then unknown collusive arrangements, in exchange for a full or partial reduction in fines.¹⁶ After revisions in 2002 and again in 2006, a substantial number of leniency applications have been made to the Commission. Fine discounts have been given accordingly in the majority of cartel decisions. With the revised leniency program, the Commission installed a second anti-cartel unit. The Commission further has started to actively promote a practice of private litigation for compensation for antitrust harm suffered.¹⁷ On July the 1st of 2008, the Commission has also introduced a settlement procedure for cartel investigations.

Cooperation between the Commission and the national competition authorities (NCAs) of the Member States developed gradually. Until 2002, the Commission exercised predominance over the NCAs with some exceptions for countries with a well working antitrust authority like Germany, the UK and France. Since Regulation 1/2003, the Commission no longer is statutorily the sole executor of EC competition law. Since then the Commission deals as *primus inter pares* with only a small minority (although the most prominent) of European competition law investigations. Competition authorities dealing with many cases recently are those of France, Germany, Hungary and the Netherlands.¹⁸

Over the years, the complexity of economic contents arguments in competition cases has increased. Commission decisions on both mergers and antitrust cases were successfully

¹⁵ The current merger regulation is from 2004. See Council Reg. 139/04/EC of 20 January 2004 on the control of concentrations between undertakings Regulation.

¹⁶ Commission Notice on immunity from fines and reduction of fines in cartel cases (Leniency Notice) of 18 July 1996; Commission Notice on immunity from fines and reduction of fines in cartel cases of 19 February 2002; Commission Notice on Immunity from fines and reduction of fines in cartel cases (New Leniency Notice) of 8 December 2006.

¹⁷ White paper - Damages actions for breach of the EC antitrust rules COM(2008) 165, 2.4.2008.

¹⁸ European Competition Network (2007) See http://ec.europa.eu/comm/competition/ecn/index_en.html.

appealed with the CFI/ECJ on economic grounds. The Commission has sought to strengthen its in-house economic expertise with the creation of the position of Chief Competition Economist and its support team of economists. In addition, the Economic Advisory Group on Competition Policy, a group of leading academic economic advisors, was formed. These developments, together with increased international cooperation with antitrust agencies worldwide through transatlantic agreements and the International Competition Network (ICN), have advanced an economic effects-based approach to the Commission's decisions on antitrust.¹⁹

3. Commission Decisions over Time by Type and Origin

In Figure 1 we show how the total of the 538 separate formal antitrust decisions in the period 1964-2004 are distributed over the years.²⁰ The first few years after the approval of Regulation 17 of 1962, the Commission took and published only few decisions. Thereafter, their number rose steadily over the years although numbers differ quite substantially from one year to another. A peak in the number of cases was reached in 1992, but this was followed by a substantial drop. The graph suggests that the entry of new Member States has had only limited effect on the number of decisions.

¹⁹ See Roeller and Stehmann (2006).

²⁰ Note that because our data do not include comfort letters, the number of cases the DG Comp effectively dealt with is substantially higher than the number of formal decisions displayed in the figures, which only include the formal decisions.

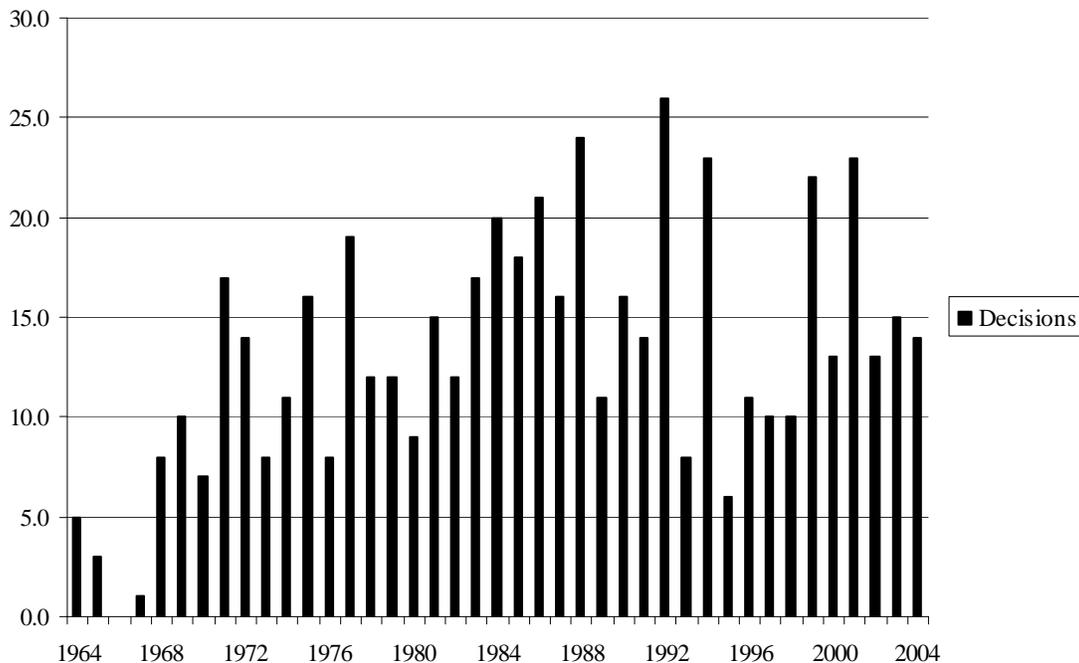


Figure 1: Total number of Commission decisions on antitrust per year.

The early upward trend reflects DG Comp’s growing legitimacy and jurisdiction. The upward trend continued up to 1988 but was not continued from 1989 on. The latter may be explained by the measures introduced to reduce the Commission’s workload, such as the block exemption regulation system and a stronger reliance on comfort letters over official decisions in this period. In addition, around this time of change in trend the DG Comp was burdened with enforcement of the 1989 merger control regulation. The merger task force was initially recruited from DG Comp staff, leaving less capacity to take up antitrust cases. Note that the number of cases (or even infringements) tells little about the size and shape of the pool of European antitrust violations. Hence, the graph does not indicate the success of competition policy enforcement seeking to detect and prevent anticompetitive behaviour.

An interesting pattern emerges when we organize all formal decisions by the month of the year in which each decision was taken. We find that over half of the cases are decided upon in two months: 17% is taken in July and 37% in December. Hence, there are peaks before Summer and Christmas. There is no such concentrated pattern in the opening months of investigations. There are also clear concentrated periods of high productivity at the end of the terms of a Competition Commissioner. In 1988, when Commissioner Sutherland ended his term, he took the majority of decisions in his last month in office (December). The ending of

Commissioner Brittan’s term explains the outlier in 1992, after whom Commissioner Van Miert took over in January 1993. The following peak is in 1999, the end of Van Miert’s period in office.

Figure 2 displays the same total numbers as the previous graph, categorized by the type of formal decision: interim measure, infringement, exemption or negative clearance. In the early stages of EC competition law enforcement, the Commission concluded its investigations mainly by issuing negative clearances and exemptions. Two years after Regulation 17 was adopted, in March 1964 the first antitrust decision on record, *Grossfillex and Fillistorf*, was a negative clearance under Article 81(1) for a vertical agreement.²¹ Another four decisions followed that year. With only another four decisions in total in the years 1965-1967, 1968 saw an increase to eight. In the year 1971, with 17 decisions, enforcement for the first time overshoot what would become the average of 13 decisions per year in the Commission’s effective policy period between 1964 and 2004.

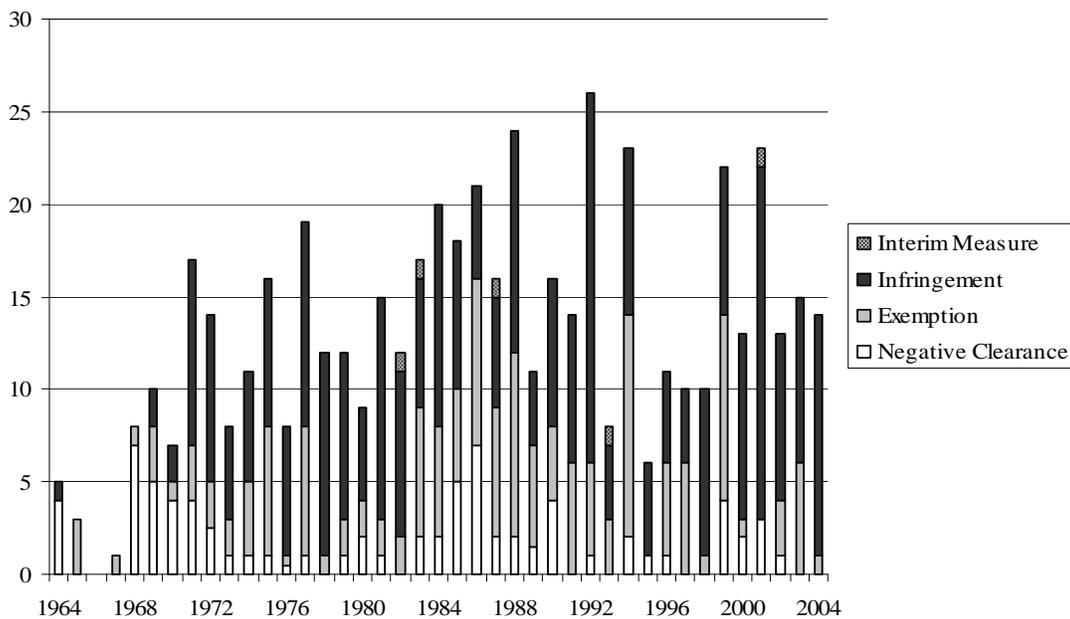


Figure 2: Types of formal Commission decisions per year.

The first findings of an infringement was in September 1964, in the Commission’s fourth decision, *Grundig-Consten*.²² The agreement between the two firms was concluded to be a

²¹ *Grosfillex & Fillistorf* Commission decision 64/233/EEC [1964] OJ L 64/915, Case IV/61.

²² *Grundig-Consten* Commission decision 64/566/EEC [1964] OJ L 64/2545, Case IV/3344.

breach of Article 81(1), and ordered to be discontinued. This first adverse finding was appealed to the ECJ. The ECJ largely upheld the decision in its first appeal ruling in European antitrust law, in June 1966. Only in July 1969 did the Commission find infringements again, in the *Quinine* cartel case, with a total fine of ECU 500,000, and in the *Dyestuffs* cartel case, with a total fine of ECU 490,000.²³ In the *Quinine* cartel a breach of Article 81(1) was found, in the form of horizontal market sharing, quota arrangements and price fixing. The German Bundeskartellamt had earlier found evidence against the firms involved in the arrangement. The decision was appealed with limited success in three distinct ECJ cases by ACF Chemiefarma, Buchler & Company as well as Boehringer Mannheim. The ECJ largely upheld the Commission's decision. The *Dyestuffs* international cartel case, an industry with a long history of monopolization, is seminal for its international dimension and has served in proceeding *Annual Reports* as a benchmark.²⁴

Figure 2 shows that from the early 1970s onwards, the number of infringements found increased relative to exemptions and negative clearances. For further analysis, we have divided the total enforcement period since 1964 in three representative periods of equal length. The first enforcement period runs from 1964 to 1977. This is the starting phase of competition law enforcement. The second period runs from 1978 to 1990. While it existed since the Treaty of Rome, in 1978 the European Parliament was for the first time directly elected by the people of the European Community. This period closes just when the CFI and the Merger Regulation had become effective. In addition, an accumulated back-log of cases was cleared under Commissioner Leon Brittan at the very beginning of the 1990s.²⁵ The third enforcement period, from 1991 to 2004, is characterized by a number of innovations in enforcement that stimulated cartel enforcement, including the introduction of leniency programs and the establishment of designated anti-cartel units. In addition, enforcement of Article 82 was broadened through a more effects-based economic analysis of potential abusive practices. The importance of the position of the Commissioner for Competition has grown drastically over the three enforcement periods.

In Figure 3, the formal decision types have been presented in pie diagrams for the three representative enforcement periods identified above, containing 127, 203 and 208 decisions, respectively. The figure brings out that indeed the relative number of infringement decisions

²³ *Quinine* Commission decision 69/240/EEC [1969] OJ L 192/5, Case IV/26.623 and *Dyestuffs* Commission decision 69/243/EEC [1969] OJ L 195/11, Case IV/26267.

²⁴ p. 28, I Report on Competition (1971); p. 32, VI Report on Competition (1977); p. 38, XI Report on Competition (1981).

²⁵ The number of cases pending dropped from 3239 in 1989 to 1231 only three years later. Many of these cases dealt with notified agreements no longer in force.

has increased over the periods, reducing in particular the share of negative clearances, with exemptions remaining almost constant. The rise in infringement decisions since 1999 is largely due to the Commission creating the first anti-cartel unit and starting receiving leniency applications to the leniency program introduced in 1996.

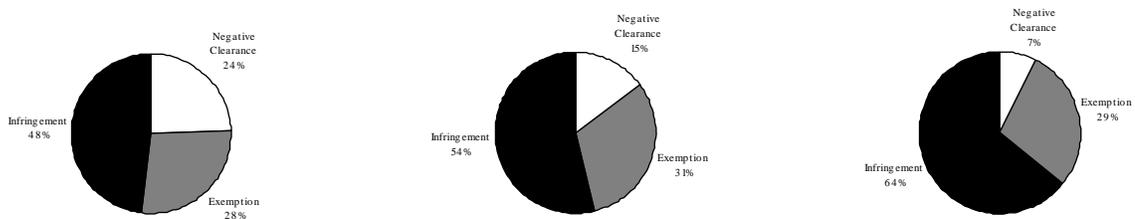


Figure 3: Formal decisions by type for three enforcement periods.

Figure 4 displays the report route of the cases. It reveals that leniency formed a large attractor of cases completed in 2001 and onwards. Two years after the introduction of the leniency program, *British Sugar* was the first decision in which leniency played a role.²⁶ Advocates of the availability of leniency often take the high number of leniency cases as a measure of the program's success. In addition, the information provided by the parties in their applications has speeded up proceedings. One of the European cartel cases that was most swiftly dealt with is *Fine Art Auction Houses*, the first cartel decision made under the revised 2002 leniency notice after only half year of investigation in 2002.²⁷

²⁶ *British Sugar* Commission decision 1999/210/EC [1999] OJ L 76/1, Cases IV/33.708, 33.709, 33.710, 33.711.

²⁷ *Fine Art Auction Houses* Commission decision 2005/590/EC [2005] OJ L 200/92, Case COMP/E-2/37.784.

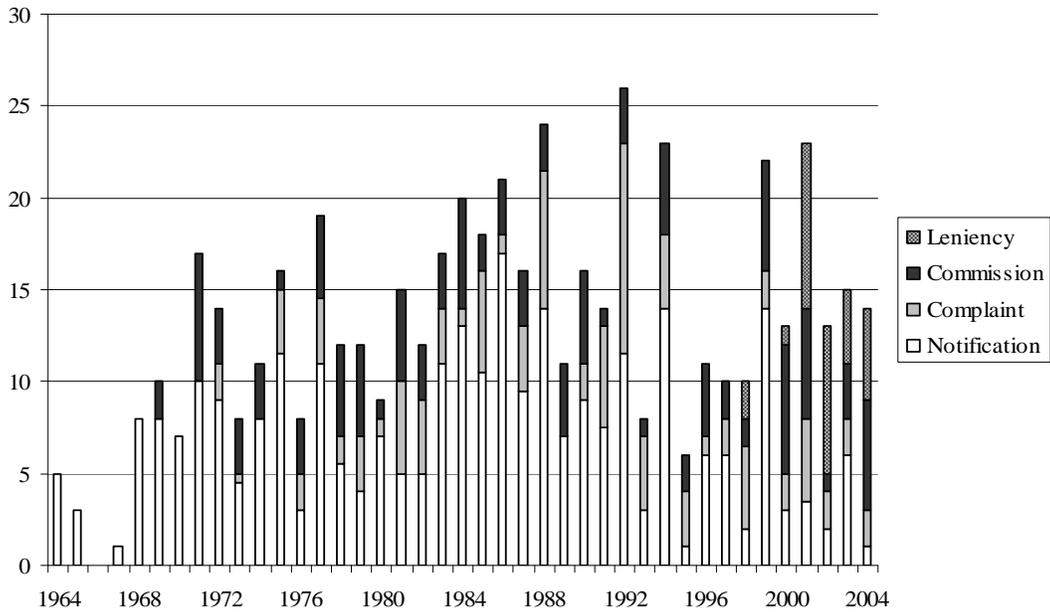


Figure 4: Report route of Commission decisions on antitrust.

Another clear trend in Figure 4 is the role of notifications in initiating formal decisions, which has decreased significantly since the turn of the century. Instead, increasingly decisions are classified as originating from the Commission’s own initiative. So the abolishment of the notification system effective as from May 2004 came at a time when the share of notifications in formal decisions was already falling. Figure 5, which presents pie charts of report routes per representative enforcement period, brings this out even clearer. Notifications as the origin of a case decreases from seven out of ten cases between 1964 and 1977 to less than four out of ten in the period 1991-2004. This may be partly due, in anticipation of Regulation 1/2003, to an increased use of comfort letters.

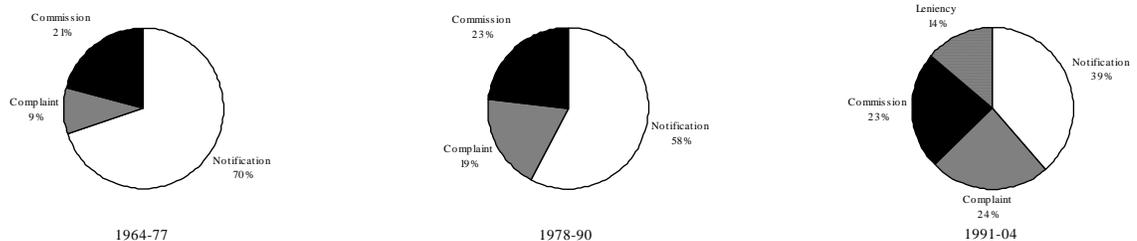


Figure 5: Report route by type for three enforcement periods.

Figure 5 shows that official decisions on cases brought to the Commission by complaints have been increasing over the years. Parties with a legitimate interest may lodge a complaint. Nonetheless, the Commission has discretionary power in handling complaints. It can reject a complaint, which it must motivate in a written decision to the complainant, that is subject to appeal and (may be) published in the *Official Journal*.²⁸ Although they carry the risk of selection bias and even strategic abuse, complaints are an essential source of information for the Commission. The data suggest that initially potential complainants needed some time to become aware of the possibility to complain about suspected anti-competitive behavior of rivals, suppliers or distributors. However, it should be kept in mind that a substantial part of the decisions that are registered as Commission’s own initiative were in fact complaints by parties that preferred to remain anonymous. This effect may have been stronger in early periods than it is today.

Table 1 displays the Commission’s official decisions against their report route for the entire enforcement history. Almost one in four notifications resulted in an infringement, but a negative clearance was slightly more likely. The majority of notifications was exempted. The other categories are almost exclusively connected to infringements in the table. This should not be interpreted as a causal relation as if complaints or investigations initiated by the Commission lead in a large majority of cases to an infringement decision. Only those investigations on complaints and by the Commission’s own initiative that result in enough evidence for an infringement decision end up in official publications. An example of the few cases in which a Commission’s initiative did not lead to an infringement, is *Bayer/Gist-Brocades*.²⁹ After opening investigations in December 1974, a prompt notification by the parties led to an exemption for cooperation in production, sales and distribution for eight years with conditions roughly one year later.

	Negative Clearance	Exemption	Infringement	Interim Measure	Total
Notification	73.25	151.75	62	0	287
Complaint	1.25	1.75	92.5	4	99.5
Commission	1	3	117.5	1	122.5
Leniency	0	0	29	0	29
Total	75.5	156.5	301	5	538

²⁸ As the Commission does not systematically publish rejections of complaints, we have not included them in our analyses.

²⁹ *Bayer/Gist-Brocades* Commission decision 76/172/EEC [1976] OJ L 30/13, Case IV/27.073.

Table 1: Formal decisions by report route.³⁰

4. Commission Decisions by Type of Economic Conduct

We distinguish six main categories of economically motivated types of findings in the Commission’s antitrust decisions. These are Article 81 decisions on horizontal constraints, licensing, vertical restraints and joint ventures, together with Article 82 cases on abuse of dominance, and Article 86 cases addressed to Member States. Procedural decisions make for a separate category.³¹ Figure 6 breaks the total number of formal decisions of the European Commission on antitrust down into these categories. Note that these numbers include all decisions and not only infringements, so that it reflects the outcome of investigative efforts of the Commission over economic categories of potential anticompetitive behaviour. Note that a number of cases are in multiple categories. An example is the *Warner - Lambert/Gillette and Bic/Gillette* case.³² It concerned a notified shareholding agreement, about which complaints had been made as well. Since the decision had horizontal as well as dominance aspects, we include it as 0.5 notification, 0.5 complaint, 0.5 horizontal and 0.5 abuse of dominance.

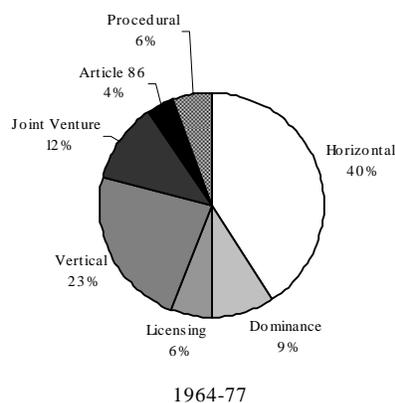


Figure 6: Formal Commission decisions by economic conduct.

³⁰ Cases may have more than one report route and type of formal decision, resulting in the fractions in the table. In nine decisions simultaneously exemptions and negative clearances were granted under Article 81.

³¹ These are Commission decisions adopted pursuant to Regulation 17 of 1962, Art.11, which concerns the Commission’s right to ask information, and Art.15-16, the Commission’s right to impose fines. These articles correspond – notwithstanding the differences - to the current Article 18, 23 and 24 of Regulation 1/2003.

³² *Warner - Lambert/Gillette and Bic/Gillette and others* Commission decision 93/252/EEC [1993] OJ L 116/21, Cases IV/33.440, 33.486.

	Negative Clearance	Exemption	Infringement	Interim Measure	Total
Horizontal	29	59.5	130.83	0	219.33
Dominance	1	0	45.33	3.5	49.83
Licensing	10.5	10	9.83	0.5	30.83
Vertical	24	32.5	66.5	1	124
Joint Venture	11	49.5	2	0	62.5
Article 86	0	5	16	0	21
Procedural	0	0	30.5	0	30.5
Total	75.5	156.5	301	5	538

Table 2: Alleged economic conducts by decision type.³³

Table 2 displays the distribution of economic findings by decision types. Article 82 and procedural decisions are almost always infringements. Most joint ventures that make it to the stage of a formal decision are exempted, the rest is likely deterred or modified. Note that these numbers should not be interpreted strictly as the probabilities of adverse findings in investigations, since it is likely that many Commission investigations are never concluded with a formal decision but rather not pursued or otherwise informally resolved. The majority of formal decisions on horizontal cases and cases on vertical restraints are an infringement. Licensing cases display an equal distribution over negative clearances, exemptions, and

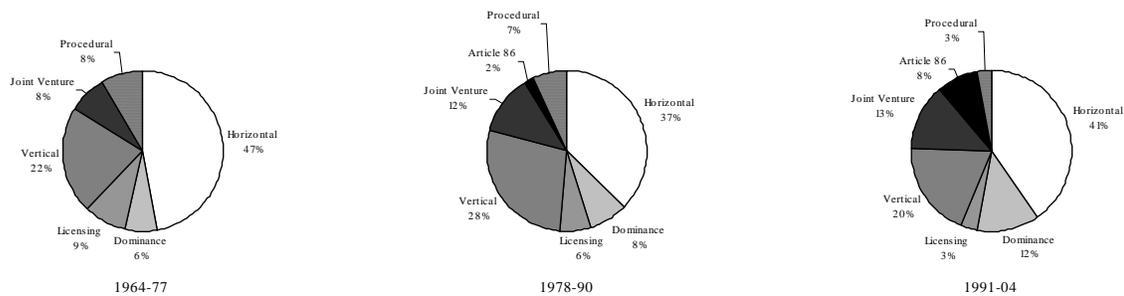


Figure 7: Formal Commission decisions by economic conduct per enforcement period.

Figure 7 presents the seven categories per representative enforcement period. The distribution of the types of investigations is more or less constant over the three representative periods of

³³ If a decision involved more than one type of economic conduct, each of these received an equal share in the decision type. In total 12 decisions involved two different types of conduct. The only case causing a decision to be attributed to three different economic conducts is *Decca Navigator System*, see *Decca Navigator System* Commission decision 89/113/EC [1989] OJ L 43/27, Cases IV/30.979, 31.394.

enforcement, with some variations. Horizontal constraints consistently are the largest category. In the period 1964-1977, they make up for almost half of all cases, including landmark decisions like *Quinine* (first landmark cartel case fined ECU 500,000) and *European Sugar* (largest cartel case in this period with a record breaking fine of ECU 9,000,000).³⁴ The category includes horizontal co-operations such as trade associations, agreements on standards, and strategic alliances, many of which received a negative clearance or an exemption. More than 75 per cent of all horizontal infringement cases are cartel cases, concerned with fixing prices or dividing the market with the intent of eliminating competition. Whereas initially cartels were notified to the Commission, this quickly stopped and cases were instead brought to the attention of the authorities through complaints or active detection by the Commission. In the last decade, almost all cartel investigations either started from or involved leniency applications.³⁵

Vertical restraints are the second largest category of formal decisions. They include territorial exclusivity agreements, selective distribution systems, exclusive dealing and franchising. The very first infringement found, in *Grundig-Consten*, was an exclusive dealing case. In the second period of enforcement, the share of vertical restraints in total is largest with 28 per cent. Vertical restraints have a long history of block exemption regulations dating back to 1967 and renewed several times.³⁶ The block exemption regulation introduced in June 2000 is designed to provide a 'safe harbour' for most vertical agreements (market shares not exceeding 30%) possibly reducing the relative importance of vertical restraints in Figure 7.³⁷ In the last decade, further efforts to integrate and harmonize the single European market have led to substantial fines for automobile manufacturers for preventing parallel imports: €102 million to VW-Audi³⁸, €43 million to Opel³⁹, €72 million to Mercedes Benz.⁴⁰

There is a significant shift in the routes by which vertical cases have come to be considered by the European Commission. In the first enforcement period almost 80 per cent of cases was notified by companies seeking permission for their business strategies. In the last period, no more than 15 per cent of decisions are the result of a notification, another 15 per cent follows from a complaint, and the other 70 per cent are classified as Commission's own initiative.

³⁴ *Quinine* Commission decision 69/240/EEC [1969] OJ L 192/5, Case IV26.623; *European sugar industry* Commission decision 73/109/EC [1973] OJ L 140/17, Case IV/26.918.

³⁵ Schinkel (2007) offers a more extensive analysis of European cartel cases.

³⁶ Commission Reg. 67/67/EEC of 22 March 1967 on the application of Article 85 (3) of the Treaty to certain categories of exclusive dealing agreements.

³⁷ Regulation No. 2790/1999, L336, 29.12.1999.

³⁸ *VW-Audi* Commission decision 98/273/EC [1998] OJ L 124/60, Case IV/35.733.

³⁹ *Opel* Commission decision 2001/146/EC [2001] OJ L 59/1, Case COMP/36.653.

⁴⁰ *Mercedes Benz* Commission decision 2002/758/EC [2002] OJ L 257/1, Case COMP/36.264.

In total we identified seven subcategories summarizing the types of vertical restraints in the economic literature. They are: exclusive dealing and market foreclosure, territorial exclusivity and parallel import bans, resale price maintenance (RPM), bundling and tying, selective distribution systems, franchising, and discounts/rebates. Territorial exclusivity and parallel import bans is the largest category making up for 50 per cent of all cases and 80 per cent of all infringements related to vertical restraints. This enforcement priority exposes the aim of European market integration and harmonization explicit in the EC Treaty. Article 81(1) focuses on the prohibition of any conduct distorting internal EU market competition and trade.

All other sub-classifications are relatively small in size. The second and third largest categories are selective distribution systems and discounts/rebates, respectively. These two categories show a different pattern than the largest one, most often having an exemption or negative clearance. For selective distribution systems, only 15 per cent of all formal decisions are findings of an infringement, compared to 30 per cent negative clearances and 55 per cent exemptions. For discounts/rebates no infringements are recorded. Of all cases in this classification 54 per cent received a negative clearance, otherwise the temporary exemption from Article 81(3) applied. Hence, selective distribution systems appear not often perceived as harming competition and discounts and rebates schemes only seem to matter whenever a dominant position is present. However, there may be deterrence effects (including informal opposition by DG Comp) present that do not show in numbers of formal decisions.

The remaining four subcategories – exclusive dealing and market foreclosure, resale price maintenance (RPM), bundling and tying and franchising – sum up to 17 per cent of all decisions on agreements on vertical conduct. There have been only three decisions on exclusive dealing, all ending in a negative clearance. In contrast, RPM almost always resulted in an infringement. Only in one case, RPM ended in a negative clearance: the so-called *D'Ieteren motor oils* case.⁴¹ The Commission concluded that consumers would be passed on the benefits in this case and did not interfere.

There are no vertical cases prohibiting bundling or tying. A negative clearance was given in 36 per cent of all cases. The rest resulted in exemptions. Franchising agreements also found little resistance from the Commission. In a franchising agreement, all conditions covering distribution and production of a good are specified in detail. The franchisor limits entrepreneurial freedom of the franchisee for the transfer of knowledge, trademarks and/or

⁴¹ *D'Ieteren motor oils* Commission decision 91/39/EEC [1991] OJ L 20/42, Case IV/32.595.

patents. Still, the Commission did not perceive these limitations as an issue and granted all five franchise agreements under investigation an exemption.⁴² This was swiftly followed by the first block exemption regulation covering franchising agreements in 1988.⁴³

Next, consider abuse of dominance decisions in Figure 7. Their share has somewhat increased in the third enforcement period. The Commission made several landmark decisions during this period, with the *Microsoft* case drawing most attention. Other well-known cases are *Tetra Pak II* and *Michelin*. We have distinguished ten economic sub-classifications of abuse of dominance: discriminatory sales conditions, predatory pricing, loyalty discounts/fidelity rebates, squeezing, bundling/tying, monopsony purchasing, restricting entry, refusal to sell/buy, preventing interoperability and best-price guarantees. In many abuse cases, more than one potential form of anticompetitive behaviour plays a role. In *Tetra Pak II* in 1991, for example, the company engaged simultaneously in discriminatory sales conditions, predatory pricing, tying and restricting entry. The Commission fined the firm ECU 75 million being the highest fine imposed under Article 82 up to that point, against which Tetra Pak unsuccessfully appealed.⁴⁴ Another example is the *Irish Sugar* decision in 1997, in which the company offered a complex discriminatory pricing and contract scheme incorporating loyalty rebates that facilitated its attempt to price predatorily in order to restrict entry. The Commission imposed a fine of about EUR 9 million euro, which was only slightly reduced on appeal.⁴⁵ A recent example is the *Michelin* case in 2002.⁴⁶ Michelin infringed EC competition law for the second time on anticompetitive loyalty discounts and fidelity rebates.

Discriminatory sales conditions and refusal to sell/buy are the two most often found abuses of dominance, with 20 per cent each. An example of an early case of price discrimination with a substantial fine (ECU 1,000,000) was the *Chiquita* decision.⁴⁷ Second are loyalty discounts, restricting entry and best price guarantees, each accounting for about 15 per cent. There is no formal Commission decision that deals with monopsony purchasing power in the enforcement period we consider. Aspects of bundling or tying are found in ten cases. There are only seven cases of predatory pricing in the period considered. The first was *Akzo/ECS*, in

⁴² These cases are: *Yves Rocher* Commission decision 87/14/EEC [1987] OJ L 8/49, Cases IV/31.428, 31.429, 31.430, 31.431, 31.432; *Pronuptia* Commission decision 87/17/EEC [1987] OJ L 13/39, Case IV/30.937; *Computerland* Commission decision 87/407/EEC [1987] OJ L 222/12, Case IV/32.034; *Service Master* Commission decision 88/604/EEC [1988] OJ L 332/38, Case IV/32.358; and *Charles Jourdan* Commission decision 89/94/EEC [1989] OJ L 35/31, Case IV/31.697.

⁴³ Commission Reg. 4087/88/EEC of 28 December 1988 on the application of Article 85 (3) of the Treaty to categories of franchise agreements.

⁴⁴ *Tetra Pak II* Commission decision 92/163/EEC [1992] OJ L 72/1, Case IV/31.043.

⁴⁵ *Irish Sugar* Commission decision 97/624/EC [1997] OJ L 258/1, Cases IV/34.621, 35.059.

⁴⁶ *Michelin* Commission decision 2002/405/EC [2002] OJ L 143/1, Case COMP/E-2/36.041.

⁴⁷ *Chiquita* Commission decision 76/353/EEC [1976] OJ L 95/1, Case IV/26.699.

which an interim measure was decided in 1983 and a fine of ECU 10 million was given in 1985.⁴⁸ Akzo was accused of seeking to remove their British competitor ECS from the benzoyl peroxide market by anticompetitive means. There are three cases of price squeezing and two of preventing interoperability. The latter are *Decca Navigator* and *Microsoft*, of which Microsoft led to the highest fine so far in an abuse of dominance case. The decision was unsuccessfully appealed with the CFI.⁴⁹

Licensing and joint ventures together remain a steady category over the years of around 17 per cent of all decisions, mostly negative clearances or exemptions. Joint ventures have increased somewhat in the total share of decision types from seven to twelve and thirteen per cent over the enforcement periods. At the same time, licensing cases decreased from nine to six and four per cent. Joint ventures (JVs) can be divided into ones involving mainly R&D and those involving mainly marketing, distribution and production. The types of JVs show a dispersed pattern over time. In the first and the last enforcement period, marketing, distribution and production agreements made up for about two-third of JV cases. In the intermediate period from 1978-90, most JVs were concerned with R&D agreements. Strategic alliances became increasingly popular as alternative form of cooperation and a separate enforcement category from the mid 1990s on with a total of eight decisions up to 2004. The alliances all received exemptions also in line with the Commission aiming at strengthening the competitiveness of its Member State firms. All cases were brought to the attention of the Commission by notification. For licensing, we distinguish trademark & branding and Intellectual Property Rights (IPR). Across all periods, IPR licensing was more frequent than trademark and branding licenses. Whereas from 1964 until 1990 IPR licensing made up for about two thirds of all the cases, in the last enforcement period, all licensing cases were IPR cases. Licensing cases were almost all the result of notifications and increasingly came under block exemption regulations.

Finally, note that the share of the Article 86 (in conjunction with Article 82) decisions is small but grows over time in Figure 7. The share is 8% in the last period between 1991 and 2004. Prominent examples for the increased attention for former state-run monopolies being liberalized are *UPS/Deutsche Post*⁵⁰, *British Post/Deutsche Post*⁵¹ and *Snepeld/La Poste*⁵².

⁴⁸ *Ecs/Akzo Chemie* Commission decision 85/609/EEC [1985] OJ L 374/1, Case IV/30.698.

⁴⁹ *Decca Navigator System* Commission decision 89/113/EC [1989] OJ L 43/27, Cases IV/30.979, 31.394; *Microsoft* Commission decision of 24 March 2004, published on DG Comp website, Case COMP/C-3/37.792.

⁵⁰ *Deutsche Post AG* Commission decision 2001/354/EC [2001] OJ L 125/27, Case COMP/35.141.

⁵¹ *Deutsche Post AG — Interception of cross-border mail* Commission decision 2001/892/EC [2001] OJ L 331/40, Case COMP/C-1/36.915.

Five exemptions in 1996 and 1997 were addressed to Member States to exempt a postponement to liberalize their local telecommunications industries.⁵³

5. Commission Decisions by Economic Sector

The European Commission appears to have found more need for the application of the European competition rules in certain industries than in others. Amongst the horizontal cartel infringements, for example, there are many that concern chemicals. Many vertical abuses were established in the automobile, cosmetics, consumer electronics and alcoholic beverage industries. In this section, we consider the distribution of all antitrust decisions over ten sectors as specified by the OECD: agriculture; mining; manufacturing; electricity and gas; construction; trade (wholesaling and retailing) & hotels; transport; banking & insurance (including real estate); communication; public service. We further subdivided the manufacturing sectors in five sub-sectors: food & drinks; textile, leather and paper; chemicals; plastics, rubber and glass; metal products and engineering (including cars and electronics).

Table 3 presents decisions by report route for each of these sectors. This table, and also the rest of the paper, excludes the interim measure cases (5) and the procedural issue cases (30.5), leaving 502.5 cases. Manufacturing, communication and transport, attracted the largest number of antitrust decisions. Manufacturing alone accounts for more than six out of ten cases and infringements. Obviously, this is a very large sector that includes many large firms. It is also a sector which is capital intensive, with relatively high other entry barriers and inter-firm dependencies (e.g. standard setting). This increases the risk of abuse and/or collusion relative to industries with lower barriers, lower capital intensity and less R&D expenditures.

	Negative Clearance	Exemption	Infringement	Total
Agriculture	1	1	11	13
Mining	2.5	0	3.5	6
Manufacturing	91.5	39.5	176	307
<i>Food & Drinks</i>	6	3	31	40

⁵² *Snepd/France, La Poste* Commission decision 2002/344/EC [2002] OJ L 120/19, Case COMP/37.133.

⁵³ The five countries are Ireland, Portugal, Luxembourg, Spain and Greece. The cases are grouped under Article 86 since addressed to Member States but actually fall under Commission Directive 90/338/EEC of 28 June 1990 on competition in the market for telecommunication services [1990] OJ L 192/10 and Commission Directive 96/2/EC of 16 January 1996 amending Directive 90/338/EEC with regard to mobile and personal communications [1996] OJ L 20/59.

<i>Textile, Leather & Paper</i>	5	3	8	16
<i>Chemicals</i>	24.5	11	49.5	85
<i>Plastics, Rubber & Glass</i>	8	7	34	49
<i>Metal Products & Engineering</i>	48	15.5	53.5	117
Electricity & Gas	5	1	3	9
Construction	0	4	5	9
Trade & Hotels	6.5	14.5	9	30
Transport	9	2	30.5	41.5
Banking & Insurance	13.5	5.5	7	26
Communication	25.5	9	22.5	57
Public Service	1	0	3	4
Total	155.5	76.5	270.5	502.5

Table 3: Decision by sector classification.⁵⁴

The table reveals that trade & hotels, as well as banking & insurance have had a relatively low share of infringement decisions. There were seven infringement decisions in the banking and insurance sector, including cartel cases of financial institutions that fixed inter-banking commission rates. However, banking also received a substantial number of exemption decisions on arrangements related to the development of payment networks. The transportation sector, on the other hand, has had a high share of adverse findings. About three-quarter of all decisions are infringements in this sector. Transport has historically attracted a lot of regulatory attention, for example with respect to maritime trade agency agreements.⁵⁵ The Commission's interest in the communication sector is in part related to the liberalization efforts in this sector. In addition, the sector has had a number of abuses of dominance that related to former and ongoing government involvement, for example in postal service.

	Horizontal	Dominance	Licensing	Vertical	Joint Venture	Article 86	Total
Agriculture	7	1	2	3	0	0	13
Mining	6	0	0	0	0	0	6
Manufacturing	136.83	23.83	19.83	89.5	37	0	307
<i>Food & Drinks</i>	17	3	5.5	14.5	0	0	40
<i>Textile, Leather & Paper</i>	8	0	3	3	2	0	16
<i>Chemicals</i>	51	8	1	13.5	11.5	0	85
<i>Plastics, Rubber & Glass</i>	27	4	3	11	4	0	49
<i>Metal products & engineering</i>	33.83	8.83	7.33	47.5	19.5	0	117

⁵⁴ Both an exemption and a negative clearance were given in eight cases. All decisions but four involved one sector only. These four cases involved two sectors.

⁵⁵ *Transatlantic Agreement* Commission decision 94/980/EEC [1994] OJ L 376/1, Case IV/34.446, *Greek Ferries* Commission decision 1999/271/EC [1999] OJ L 109/24, Case IV/34.446, *P&I Clubs* Commission decision 1999/329/EC [1999] OJ L 125/12, Case IV/30.373. See also Council Reg. 4056/86/EEC of 22 December 1986 laying down detailed rules for the application of Articles 85 and 86 of the Treaty to maritime transport.

Electricity & Gas	2	1	2	2	2	0	9
Construction	8	0	0	1	0	0	9
Trade & Hotels	10	0	1.5	18.5	0	0	30
Transport	18.5	10	0	2	4	7	41.5
Banking & Insurance	21	1	0	2	1	1	26
Communication	8.5	8.5	5.5	4	17.5	13	57
Public Service	2	1	0	1	0	0	4
Total	219.83	46.33	30.83	123	61.5	21	502.5

Table 4: Alleged economic conducts by sector classification.⁵⁶

Table 4 presents the OECD sector classification versus economic conduct. This gives some insight into possible reasons for the difference in the rate of infringement across different sectors. The high rate in the transport sector appears due to a relatively high number of abuse of dominance issues. The low rate in the communication sector can be related to a relatively high number of joint ventures, a category that is usually exempted. Note that many Article 86 cases fall in this sector. Licensing and joint venture cases are relatively frequently found in the metal products & engineering sub-sector. Finally, note that the construction sector harboured a high number of trade associations fixing prices and bid-rigging cartels, especially in The Netherlands, Germany and Belgium.⁵⁷

We focus on the main eight (sub-)sectors: four sub-sectors of manufacturing, trade & hotels, banking & insurance, transportation and communication. Together, these sectors contain the bulk of cases. In Figure 8, their share in all formal Commission decisions is presented for the three enforcement periods. Manufacturing is the largest sector. However, its overall share in number of cases became less than half during the third enforcement period. Especially the sub-sector of metal products & engineering has decreased in relative number of cases. The sub-sector of chemicals continues to be sizeable in terms of number of cases. This industry is prone to collusion due to e.g. product homogeneity and supply conditions. It contains the bulk of repeat offenders in European antitrust. A list of the top repeat offenders (usually in cartels) contains firms like: BASF (involved in 9 infringement cases), Solvay (8), ICI (8), Hoechst/Aventis⁵⁸ (8), AKZO (4), Bayer (4) and Shell (4). These firms were often in cartels together, like the *Dyestuffs*, *Polypropylene* and *PVC* cases. Stephan (2005) argues that the uncovered cartels in chemicals were very much interconnected, so that one case could

⁵⁶ See also footnote to Table 2.

⁵⁷ Starting with *Vereeniging van Cementhandelaren* Commission decision 72/22/EEC [1972] OJ L 13/34, Case IV/324 up to *Stichting Certificatie Kraanverhuurbedrijf and FNK* Commission decision 94/272/EEC [1994] OJ L 117/30, Case IV/B-2/34.179. An important bid-rigging case was *Building and Constructions in the Netherlands* Commission decision 92/204/EEC [1992] OJ L 92/1, Cases IV/31.571, 31.572.

⁵⁸ Aventis is the name of the merged company of Hoechst and Rhône-Poulenc.

quickly lead to another. The leniency notice has also helped to uncover cartels in chemicals, but it appears as if some other sectors are immune to leniency (Röller and Stehmann, 2006, p. 293). The transportation and communication sectors show a steady increase in importance, both up to 22 per cent of all cases in the last enforcement period. Many of these decisions relate to the liberalization processes in the various Member States (Article 86 cases).

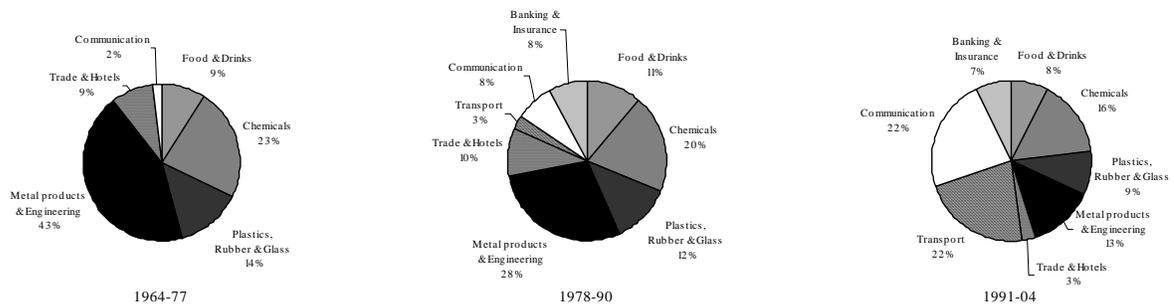


Figure 8: Formal Commission decisions by sector per enforcement period.

6. Enforcement of the Competition Rules

Our data allow us to study the duration of the investigations of the European Commission in cases that reached the stage of a formal decision. Figure 9 shows the average case duration of cases decided in a given year, from the start of the investigation until production of the formal decision in months per year.

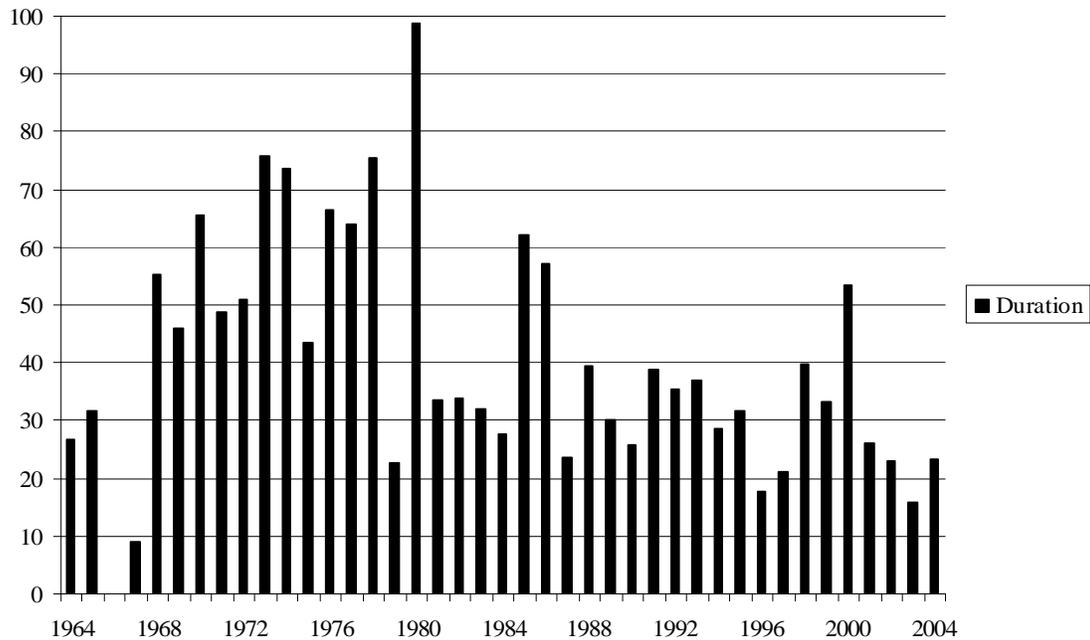


Figure 9: Duration of antitrust investigations in average number of months per year.

The figure brings out a clear downward trend from when enforcement got underway in the early 1970s. The average number of months of investigation dropped from around sixty in the 1970s to an average of about thirty months per decision in the 1990s. Related to the duration of the investigation is the back-log of cases at DG Comp. During the 1970s, a back-log of about 4000 cases had evolved, which was first reduced in the 1980s under Commissioner Sutherland, in part because notified agreements had expired and because in the mean time introduced block exemption regulations made notification unnecessary. About one thousand cases were close in a short period of time.⁵⁹ Thereafter, there was a rapid decline of the back-log under Commissioner Brittan until 1992, when the stock of investigations was around one thousand.⁶⁰

The numbers in Figure 9 appear high, but they are influenced by some individual cases that took exceptionally long. For example, the peak in 1980 is largely due to four cases that had already been notified in 1962. Of all Article 81 and 82 decisions, the longest investigation of all Commission decisions has been in *Association Belge des Banques* (1986), with 289

⁵⁹ See XV Report on Competition, 1985, p.38.

⁶⁰ See XXII Report on Competition, 1992, p.83.

months.⁶¹ However, the long duration of the case is best explained using the back-log effect. The Association of Belgium Banks filed a notification already in 1962 but was apparently only investigated more than two decades later under Commissioner Sutherland. DG Comp did not give such cases priority and focused its limited resources on more critical cases. Two cases were decided upon exceptionally fast (within one month): *NAVEWA–ANSEAU* and *EATA*.⁶² The last case with a duration of more than five years dates back to July 2001. On average over all its formal decisions, the Commission needed 40.6 (in total 21,800) months after opening the investigation, with an average of 43 months for Article 81 and 30 months for Article 82 decisions.

Another statistic that conveys information about the enforcement process is the length of a decision, measured as the number of recitals in the official publication. The formal decision documents are organized in numbered paragraphs, each containing a more or less self-contained element of the analysis – such as a separate argument. Therefore, the length of the decisions in terms of their paragraphs conveys some information on the extent of the analysis and complexity of the case. The longest Commission decision on Article 81 in terms of recitals was the *Copper Plumbing Tubes* cartel with 842 recitals.⁶³ For Article 82 it was *Microsoft* with 1080 recitals.⁶⁴ Overall, decisions have required 82 recitals on average. Figure 10 plots the average number of recitals per year.

The average number of recitals has grown exponentially. All cases after July 2001 have required more than 90 recitals. This can only partly be related to the increasing percentage of infringements (see Figure 3). In 2002 and 2004, the average length of the official decisions is above 300 recitals with some complex cases, such as *Plasterboard* with 601 recitals and the *Microsoft* case.⁶⁵ It turns out that cartels in particular make for long formal decision documents, even when their investigation time is relatively short. The number of recitals in *Fine Art Auction Houses* with a duration of half a year, for example, is 238.⁶⁶ The Commission has a tendency to justify Article 81 and 82 cases about equally extensive. For the period 2001-2004 the average was 293 recitals for Article 81 cases and 273 recitals for Article 82/86 cases. The latter includes the large *Microsoft* case, though.

⁶¹ *Association Belge des Banques* Commission decision 87/13/EEC [1987] OJ L 7/27, Case IV/261.

⁶² *Navewa – Anseau* Commission decision 82/371/EEC [1982] OJ L 167/17, Case IV/29.995; *Europe Asia Trade Agreement* Commission decision 1999/485/EC [1999] OJ L 193/23, Case IV/34.250.

⁶³ *Industrial copper tubes* Commission decision 2004/421/EC [2004] OJ L 125/50, Case COMP/38.240.

⁶⁴ *Microsoft* Commission decision of 24 March 2004, published on DG Comp website, Case COMP/C-3/37.792.

⁶⁵ *Plasterboard* Commission decision 2005/471/EC [2005] OJ L 166/8, Case COMP/E-1/37.152.

⁶⁶ *Fine Art Auction Houses* Commission decision 2005/590/EC [2005] OJ L 200/92, Case COMP/E-2/37.784.

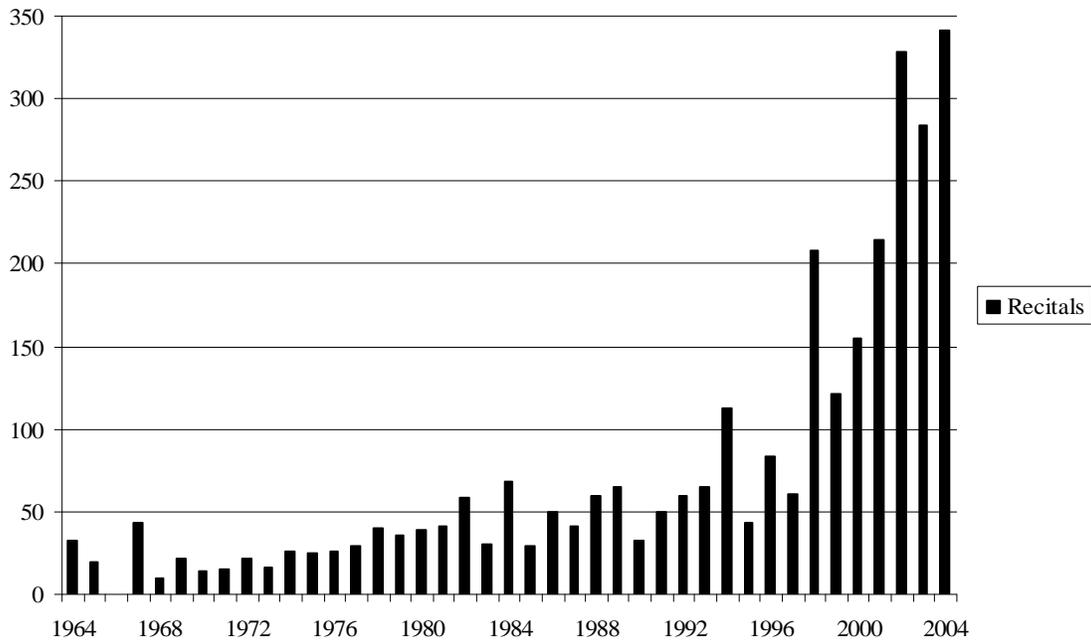


Figure 10: Average number of recitals per decision per year.

The European Commission is expected to justify its infringement decisions in detail. Several successful appeal procedures in the 1990s have raised requirements in terms of precisions in the factual description and in the economic and legal argumentation made upon the Commission by several recent Courts' interventions. The then newly established CFI left its mark. In addition, the average number of recitals has been increased due to a selection bias, as in recent years the Commission almost exclusively publishes infringements, as opposed to negative clearances, which can be much shorter. The average number of recitals is since 1998 higher in each year than beforehand. This may be caused to a large extent by the introduction of fining guidelines in that year requiring more elaborate justification.⁶⁷ In addition, the leniency applications often result in large amounts of telling evidence, which support the detail in decision documents. The two trends of shortened investigation times and more extensive decision documents also relate to an increase in DG Comp's staff numbers and their experience and expertise.

⁶⁷ Fining guidelines are published on 14.1.98, OJ C 9/3. The guidelines show how the amount of a fine is determined from a basic amount which is increased due to aggravating circumstances and decreased due to attenuating circumstances.

Each official decision is signed by a Member of the Commission. In the period up to July 1975 this was the President of the European Commission and thereafter it was the Commissioner for Competition. Albert Borschette was the first Commissioner for Competition to sign in the last year of his period in office. Raymond Vouel was the first to sign all decisions during his period as Commissioner for Competition. In our sample period, in total 15 different Members of the Commission have signed one or more decisions. In Table 5 we give an overview of the decisions signed by the President or the Commissioner for Competition. We also provide a measure for ‘diligence’ that is defined as the total number of antitrust decisions signed, divided by the total number of months in office. This should not be read as a measure of ‘success’. First, the personal influence of either President or Commissioner on the number of decisions is limited since they involve many officials working at DG Comp and elsewhere at the Commission. In addition, the true objective of competition policy is to deter anticompetitive behaviour.

The first President, Walter Hallstein, only signed nine cases, finding one single infringement. Yet, as explained above, in the initial years of the enforcement of the Treaty of Rome, emphasis was on establishing the tools for enforcement of the Treaty, producing a number of Regulations.⁶⁸ Peter Sutherland and Mario Monti were the ‘most active’ Commissioners, measured in number of official decisions per month. Mario Monti’s decisions contained much higher fines, though, as the next section shows. He left office in November 2004, being succeeded by the current Commissioner Kroes. There has been an end-of-term effect for some Commissioners. The Commissioners Andriessen, Sutherland and Brittan had, respectively, 27, 29 and 27 percent of their decisions taken in the last six months of their term. We find no such effect for recent Commissioners: the percentages for Commissioners Van Miert and Monti were 16 and 13 percent.

⁶⁸ Council Reg. 17 of 1962/EEC of 6 February 1962 on First Regulation implementing Articles 85 and 86 of the Treaty; Council Reg. 141/62/EEC of 26 November 1962 exempting transport from the application of Council Reg. 17 of 1962; Commission Reg. 99/63/EEC of 25 July 1963 on the hearings provided for in Article 19(1) and (2) of Council Reg. 17 of 1962; Council Reg. 19/65/EEC of 2 March 1965 on the application of Article 85 (3) of the Treaty to certain categories of agreements and concerted practices; Council Reg. 165/65/EEC of 11 December 1965 extending the delay for the non-application to rail, road and inland waterway transport; Commission Reg. 67/67/EEC of 22 March 1967 on the application of Article 85 (3) of the Treaty to certain categories of exclusive dealing agreements; Council Reg. 1002/67/EEC of 14 December 1967 extending the delay for the non-application to rail, road and inland waterway transport.

Signer	Period in Office	Months	Decisions	Infringements	Diligence ⁶⁹
Walter Hallstein ⁷⁰	01/58-06/67	113	9	1	0.08
Jean Rey ⁷¹	06/67-06/70	36	21	2	0.58
Franco Malfatti ⁷²	06/70-03/72	21	18	6	0.86
Sicco Mansholt ⁷³	03/72-01/73	10	10	8	1.00
Francois-Xavier Ortoli ⁷⁴	01/73-07/76	42	26	15	0.58
Raymond Vouel	07/76-01/81	54	49.5	32.5	0.92
Frans Andriessen	01/81-01/85	48	55	33	1.15
Peter Sutherland	01/85-01/89	48	77	30	1.60
Leon Brittan	01/89-01/93	48	62	35	1.29
Karel Van Miert	01/93-09/99	80	86	41	1.08
Mario Monti	09/99-11/04	50	78 ⁷⁵	61	1.56

Table 5: Antitrust decisions per Commissioner's period in office.⁷⁶

Table 6 presents a similar assignment of formal decisions to the Director Generals of DG Comp. Again, in the initial decade under Meter Verloren van Themaat, the Directorate General produced only a few decisions. Since the early 1980s, however, when Manfred Caspari took office, output per month is almost constant at more than one per month. Note that Philip Lowe remained in office after the end of our sample period in December 2004.

⁶⁹ The diligence measure is constructed as the total number of antitrust decisions signed, divided by the total number of months in office.

⁷⁰ President acting. Commissioner Hans von Groeben.

⁷¹ President acting. Commissioner Maan Sassen.

⁷² President acting. Commissioner Albert Borschette.

⁷³ President acting. Commissioner Albert Borschette.

⁷⁴ President acting. Commissioner Albert Borschette.

⁷⁵ There are two cases in which the signer is unclear. These are *Wanadoo Interactive* Commission decision of 16 July 2003, case COMP/38.233 and *Compagnie Maritime Belge (CEWAL)* Commission decision of 30 April 2004, cases COMP/D/32.448, 32.450. Both cases we have assumed under Commissioner Mario Monti.

⁷⁶ We do not incorporate the following Members of the Commission signing: A. Borschette (8 non-procedural decisions), P.J. Hillery (1) and G.M. Thomson (2).

Director General	Period in Office	Months	Decisions	Infringements	Diligence
Pieter VerLoren van Themaat	04/58-09/67	113	9	1	0.08
Ernst Albrecht	10/67-12/70	39	25	4	0.64
Willy Schleider	01/71-04/81	124	110.5	65.5	0.89
Manfred Caspari	05/81–12/89	105	144	67	1.37
Claus Dieter Ehlermann	03/90–04/95	61	81	44	1.33
Alexander Schlaub	05/95-08/02	88	96	61	1.09
Philip Lowe	09/02-12/04	28	37	28	1.32

Table 6: Antitrust decisions per Director General’s period in office.

7. Remedies and Sanctions

In total, there are 301 infringements including procedural cases. In the first period between 1964 until 1977, the Commission produced 61 infringement decisions. The second period (1978-90) accounts for 108 cases and the last (1991-04) for 132. The two joint ventures – out of more than sixty applications – that were also formally concluded a breach of Article 81 are excluded from our analysis in this section. The prohibitions were not fined and none of them was appealed. As before, we exclude the 30 purely procedural cases from the analysis as they do not have any identifiable underlying economic conduct. Fines for procedural violations, such as failure to provide requested information, are relatively small. The only case which has a procedural and an economic concern is the *Theal/Watts* case.⁷⁷

There are four main categories of infringements: horizontal constraints, abuse of dominance (Articles 82 and 86), vertical restraints and licensing. The pattern of adverse findings by category that emerges is similar to that in economic rationale for all decisions in Figure 7. Most infringements in the last enforcement period are in the category of horizontal constraints. Apart from an increased priority for cartel enforcement, this may reflect the success of the leniency programs in attracting applications. Between 1991 and 2004, almost 40 per cent of horizontal infringement decisions resulted from investigations that involved

⁷⁷ *Theal/Watts* Commission decision 77/129/EEC [1977] OJ L 39/19, Case IV/28.812. The case involved a vertical agreement preventing parallel imports that was notified, but with incorrect information about the underlying agreement. The two companies were fined ECU 25.000 for procedural errors and the agreement was prohibited.

one or more leniency applications. The category licensing infringements almost vanished over time. In the latest period there was only one infringement involving an aspect of licensing.⁷⁸ This may reflect the Commission’s evolved perception of the importance of technology and trademark transfers, see also Jorde and Teece (1990).

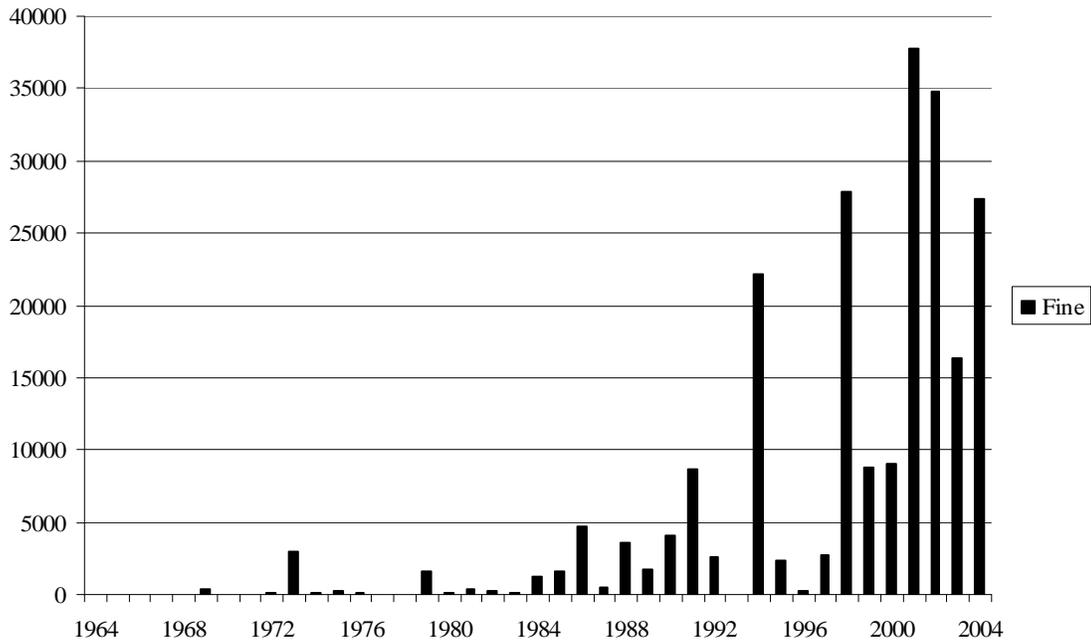


Figure 11: Average total fines per antitrust infringement with a fine in €1.000.

The Commission can sanction infringements of the EC competition rules. Normally, the Commission would order the infringing parties to discontinue their anti-competitive behaviour. In addition the Commission can impose sanctions in the form of fines, as well as structural and behavioural remedies. We refrain from analysing the latter and focus instead on the use and level of fines. Both have increased over the history of European competition law enforcement. Figure 11 shows the average fine per antitrust infringement with a fine over the years, corrected for inflation.⁷⁹ Clearly, fines have gone up in real value over the years. This reflects the European Commission’s commitment to enforce competition rules.

⁷⁸ *Souris-Topps* Commission decision of 26 May 2004 COMP/C-3/37.980 OJ L 353/5.

⁷⁹ To correct for inflation, we used the official data from EUROSTAT. We used inflation rates over the years to express all fines in terms of Euros (ECU) of 1964.

The level of fines varies greatly over the types of infringement. The highest fine the European Commission gave for an infringement of the competition rules for a single firm in a single case in the period covered was for Microsoft Corporation in 2004: €497.2 million. All other fines in the top-10 of highest European Commission antitrust fines are for cartels. Examples of high profile cartel cases (including the outside sample period) are *Elevators and Escalators* (2007, €92.3 million), *Vitamins* (2001, €855.2 million), *Gas Insulated Switchgear* (2007, €750.7 million), *Synthetic Rubber* (2006, €519.0 million) and *Plasterboard* (2002, €478.3 million).⁸⁰ From 1991 to 2004, all horizontal infringements have led to the imposition of a fine. Table 7 presents fines according to the economic conduct for the three enforcement periods. The table presents the sum of fines, as well as the average fine per firm per infringement with a fine in that period. Note that Article 86 cases, involving a Member State or a company in charge of a service of general economic interest on behalf of the Member State, have never been fined and are excluded from the table.

		Horizontal	Dominance	Licensing	Vertical
Sum of Fines	1964-77	10,591	1,650	0	506
	1978-90	194,975	53,280	145	15,384
	1991-04	4,456,228	850,611	795	478,898
Average Fine per Case per Firm	1964-77	45.2	108.9	0	12.7
	1978-90	2,223.5	3,977.3	2.8	528.2
	1991-04	48,800.2	50,474.3	11.4	21,337.2

Table 7: Fines per type of economic conduct (in €1.000) per enforcement period.

The category of horizontal conduct is responsible for the highest share (77 per cent) of total fine. The highest average fine per firm per infringement are for the categories of horizontal conduct (cartels) and abuse of dominance. These two types of infringements are clearly perceived as most harmful for economic welfare. Table 8 presents the twelve highest fines for firms up to 2004 of which eight are for firms in cartels.

⁸⁰ *Elevators and escalators* Commission decision of 21 February 2007, not yet published, Case COMP/38.823; *Vitamins* Commission decision 2003/2/EC [2003] OJ L 6/1, Case COMP/E-1/37.512; *Gas insulated switchgear* Commission decision of 24 January 2007, not yet published, Case COMP/38.899; *Synthetic rubber* Commission decision of 29 November 2006, not yet published, Case COMP/38.638; *Plasterboard* Commission decision 2005/471/EC [2005] OJ L 166/8, Case COMP/E-1/37.152.

Company	Year	Fine	Conduct
Microsoft	2004	497.2	tying and refusal to licence
Hoffmann-La Roche	2001	462.0	cartel
BASF	2001	296.2	cartel
Lafarge	2002	249.6	cartel
Arjo Wiggins Appleton	2001	184.3	cartel
Nintendo	2002	149.1	preventing parallel trade
BPB	2002	138.6	cartel
Degussa	2002	118.1	cartel
VW/Audi	1998	102.0	preventing parallel trade
Hoechst	2003	99.0	cartel
SGL Carbon	2001	80.2	cartel
Tetra Pak	1991	75.0	exclusionary practices

Table 8: The top fines (in €1,000,000) over 1964-2004 per firm per case.

8. Appeals before the CFI and the ECJ

The formal decisions of the European Commission can be appealed before the European Court of Justice (ECJ). The main goal of the ECJ is to ensure that the proper interpretation and application of the Treaty is not jeopardized (Article 164 EC Treaty). Since 1989, in case of decisions adopted under EC competition rules, firms can appeal a Commission decision first before the CFI. In total 161 cases out of 538 formal Commission decisions have had appeals lodged to. Slightly more than half of 271 Commission's infringement decisions (excluding joint venture and procedural cases) have been appealed. Appeals are by individual parties, so there may be several per decision. We record all appeals decided upon by CFI/ECJ. The total number of appeals was 479 and there are 28 pending. The two cases with most appeals lodged were the *BMW Belgium* vertical restraints case (all 48 distributors appealed) and the *Cement* cartel (41 appeals).⁸¹

In related cases, appeals are combined. Article 82 decisions are found to get appealed most often, in 74 per cent of all cases. Cartels cases follow closely with 61 per cent being appealed. The appeals rate has gone up considerably among the recent cartel cases under the leniency notice: 25 out of 29 cases received appeals. This high appeals rate may also relate to the high fines given after the 1998 fines guidelines were introduced (Veljanovski, 2007). The steep increase in cartel fines in this period provides a strong financial incentive to argue cases before the CFI. Out of the total of 479 appeals, 264 were completely upheld by CFI/ECJ, 139

⁸¹ *BMW Belgium NV and Belgian BMW dealers* Commission decision 78/155/EEC [1978] OJ L 46/33, Case IV/29.146; *Cement* Commission decision 94/815/EEC [1994] OJ L 343/1, Case IV/33.126 and IV/33.322.

were partially annulled or received fine reduction and 76 appeals were granted, i.e. the European Commission decision was quashed. An infamous case was the *German Banks* cartel fined for €100.8 million in total.⁸² In this case, the Commission had failed to meet its deadline by accidentally faxing its decision documents blank-side-up, which forced the court to rule in favour of the defendants and overturn the fines. The average received percentage of fine reduction (if any) for partially or fully annulled cases was 51%. Veljanovski (2007) reports a reduction of cartel fines by 23% on average on appeal.

We seek to obtain insight into the determinants of the appeal probability. To that end, we have estimated a probability model on 269 antitrust infringement decisions.⁸³ The appeal probability indicates the degree to which firms disagree with the infringement decision and this may differ across sectors, over time, across economic rationales and complexity of the case at hand. We use a probit model with the binary outcome variable *appeal*, with 1 meaning there was at least one appeal to the case, otherwise 0. Independent variables include case characteristics, (sub-)sector dummies (left out category are the five smallest sectors) and Commissioner dummies (left out category are the ones before Vouel). The latter also act as time dummies. We include the following case characteristics: average fine (per firm), number of parties, duration and the number of recitals. For economic rationale we include a horizontal conduct dummy and an abuse of dominance (Article 82 and 86 cases) dummy, with vertical and licensing infringements being the left out category.⁸⁴ Table 9 provides the probit results for the 269 observations. If we denote our vector of independent vectors as x and the corresponding vector of coefficients as b , then the equation for our model is: $P[\textit{appeal} = 1] = \Phi(x^T b)$, where Φ is the cumulative normal distribution function. The marginal effect of x on the probability is calculated as $d\Phi(x^T b)/dx$.

Table 9 provides marginal effects, coefficients, their standard errors and means of the independent variables. An important and significant determinant for the decision whether or not to appeal an infringement decision is the level of the fine: the higher the fine the higher the probability that one or more parties will appeal. Parties hope to receive a reduction of their fine on appeal. The two cases with highest fines in which there was no appeal were *Fine*

⁸² *German Banks* Commission decision 2003/25/EC [2003] OJ L15/1 Case COMP/37.919.

⁸³ We ignored (the five) appeals to exemptions and negative clearances. One case is excluded since we do not have information on the number of recitals since the decision document is not published yet. The case, *Sodium gluconate* Commission decision of 2 October 2001, Case COMP/36.756, was withdrawn on 19 March 2002, but only for one out of six cartel members. Also the *Jungbuzlauer* follow-up case is excluded.

⁸⁴ In fact we use as variable the logarithm of average fine+1 and the logarithm of the number of recitals, so as to avoid dominance of the high fines and numbers of recitals in the last few years of the period under consideration.

Art Auction Houses (Euro 20.4 million) and *Food Flavor Enhancers* (Euro 20.6 million), both in 2002. The marginal effect indicates that the probability of an appeal to a no-fine infringement case is some sixty percentage points lower than that to the *Microsoft* case. The number of parties, the decision is addressed to, has a significant positive effect on the probability that there is an appeal on the case. This is not surprising: each party may consider appealing. The marginal effect suggests that each additional party increases the appeal probability by one percentage point. The length of the decision in terms of the number of recitals also is a significant determinant of the probability that an appeal is lodged. We have previously interpreted the length of a decision as an indicator of the perceived complexity of the case. It suggests that such cases have more issues to challenge. However, there may be some endogeneity: the Commission may pay more attention to cases in which the chances of appeal are perceived to be higher. The marginal effect indicates that a doubling of the number of recitals corresponds to a twelve percentage points higher appeal probability.

	Marginal effect	Coefficient	Standard Error	Mean
Food & Drinks	0.025	0.062	0.382	0.115
Textile, Leather & Paper	-0.078	-0.196	0.591	0.030
Chemicals	0.151	0.387	0.361	0.181
Plastics, Rubber & Glass	0.004	0.009	0.402	0.126
Metal products & engineering	-0.087	-0.218	0.358	0.198
Trade & Hotels	-0.273	-0.684	0.631	0.033
Transport	-0.147	-0.369	0.404	0.113
Banking & Insurance	0.336	1.000	0.663	0.026
Communication	0.027	0.068	0.429	0.083
Vouel	-0.159	-0.403	0.366	0.115
Andriessen	-0.110	-0.276	0.363	0.122
Sutherland	-0.128	-0.323	0.376	0.115
Brittan	-0.007	-0.019	0.375	0.130
van Miert	-0.046	-0.116	0.422	0.152
Monti	-0.197	-0.499	0.456	0.226
Average Party Fine	0.030	0.076**	0.016	7.763
Number of Parties	0.010	0.026*	0.012	5.507
Duration	0.001	0.003	0.002	36.756
Recitals	0.166	0.418**	0.134	4.224
Horizontal	-0.042	-0.105	0.240	0.488
Dominance	0.201	0.505	0.293	0.227
Constant	...	-2.356**	0.556	1

Mean dependent variable 0.515
Pseudo R² = 0.270
Note: * and ** indicate significance at 5% and 1% significance levels, respectively.

Table 9: Probit results of determinants of probability of appeal.

We find neither significant difference between the sectors nor between the Commissioners. Findings of an abuse of dominance tend to have a higher chance of being appealed than horizontal and vertical constraint infringements, but the effect is hardly significant. Hence, the probability of appeal has been more or less comparable across sectors and over the enforcement periods in case the increase in fine and length of decision document has been accounted for. This may be seen as comforting for the European Commission since there appears not to be an important sectoral or Commissioner's bias.

9. Concluding Remarks

We provide a statistical analysis of all formal decisions under the Articles 81, 82 and 86 of the EC Treaty from the first decision in 1964 up to and including the last decision in 2004. Over time, the European Commission has developed its perception and enforcement of the competition rules in several dimensions. The current paper gives a background to this development over more than four decades. It is limited in its view in more than one respect. One important limitation lies in the fact that only very general case characteristics are taken into account. Another limitation is that only violations that were uncovered and for which sufficient evidence was found are published. Many antitrust violations may have gone unnoticed. The current focus of the Commission on the key infringements of cartels and cases of abuses of dominance might, for example, have led to less attention for cases of vertical restraints.

There have been many changes over time: in the areas of block exemptions, case law, regulations, number of Member States, anti-cartel units, leniency, merger control law, Member State authorities (NCAs) and so on. European competition law enforcement has matured: decisions concentrate on infringements, are much more detailed, taken much faster and fines are much higher. Regulation 1/2003, introduced at the end of our sample period, terminated the use of the enforcement instruments of notifications, negative clearances and individual exemptions. In addition, today many cases are dealt by the NCAs. This has all decreased the administrative burden of the Commission and increased the Commission's discretion in whether or not to take on a case.

Today, there are discussions about introducing a private damages practice and about using plea-bargaining techniques to deal more swiftly with cases. The success of the leniency program is also under some dispute. Stephan (2005), for example, argues that the 1996 leniency notice has largely uncovered failed, not active cartels and that most cases were

initiated previously in the U.S. The high fines in the cartel cases and the *Microsoft* case have made the Commission's antitrust work more visible than ever. The enhanced importance of the Commission's work makes mistakes increasingly costly. The strongly increased appeals rate following the 1998 fining guidelines may, for example, indicate regulatory failure with high legal costs. It may also be a temporary phenomenon where firms have to get used to tougher enforcement and higher fines.

References

- Baker, J.B., (2003), "The Case for Antitrust Enforcement," *Journal of Economic Perspectives*, 17, 27-50.
- Bergman, M.A., M. Jakobsson and C. Razo (2005), "An Econometric Analysis of the European Commission's Merger Decisions," *International Journal of Industrial Organization* 23, 717-737.
- Bos, A.M. and M.P. Schinkel (2007), "On the Scope for the European Commission's 2006 Fining Guidelines under the Legal Maximum Fine," *Journal of Competition Law and Economics*, 2(4), 673-682.
- Commission for the European Communities, Directorate-General for Competition (2003), European Union, Competition Policy, XXXIInd Report on competition policy 2002, Office for Official Publications of the European Communities, Luxembourg.
- Corwin, E.D. (1992), "Trends in Enforcement of the Antimonopoly Laws", in *Antitrust and Regulation*, Elgar, London, 110-118.
- Davies S.W., L.D. Nigel and R. Clarke (1999), "Monopoly in the UK: What determines whether the MMC finds against the investigated firms?", *Journal of Industrial Economics*, 47, 263-83.
- Davies, S. and B.R. Lyons (2007), *Mergers and Merger Remedies in the EU: Assessing the Consequences for Competition*, Edward Elgar, Cheltenham.
- Duso T., K.P. Gugler and B. Yurtoglu (July 2006), "How Effective is European Merger Control?", WZB, Markets and Politics Working Paper No. SP II 2006-12.
- Duso, T., D.J. Neven and L.H. Röller (April 2006), "The Political Economy of European Merger Control: Evidence using Stock Market Data," WZB Discussion Paper No. FS IV 02-34 (forthcoming in *Journal of Law & Economics*).
- Faull, J. and A. Nikpay (2007, eds.), *The EC Law of Competition*, Oxford University Press, Oxford.
- Gallo, J.C., J.L. Craycraft, and S.C. Bush (1985), "Guess Who Came to Dinner: A Statistical Study of Federal Antitrust Enforcement for the Period 1963-1984", *Review of Industrial Organization*, 2, 106-130.
- Gallo, J.C., J.L. Craycraft, and S. Dutta (1986), "Incarceration and Fines: An Empirical Study of Antitrust Sanctions", *Review of Industrial Organization*, 3, 38-66.
- Gallo, J.C., K.G. Dau-Schmidt, J.L. Craycraft and C.J. Parker (1994), "Criminal Penalties under The Sherman Act: A Study of Law and Economics", *Research in Law and Economics*, 16, 1-73.
- Gallo, J.C., K. Dau-Schmidt, J.L. Craycraft and C.J. Parker (2000), "Department of Justice Antitrust Enforcement, 1955-1997: An Empirical Study", *Review of Industrial Organization*, 17, 75-133.

- Geradin D. and D. Henry (2005), "The EC Fining Policy for Violations of Competition Law: An Empirical Review of The Commission Decisional Practice and the Community Courts Judgments," *European Competition Journal*, 1(2), 401-473.
- Ghosal, V. and J. Gallo (2001), "The Cyclical Behavior of the Department of Justice Antitrust Enforcement Activity", *International Journal of Industrial Organization*, 19, 27-54.
- Ghosal, V. and J. Stennek (2007), *The Political Economy of Antitrust*, North-Holland.
- Global Competition Review, Special Report (2004), *The 2004 Handbook of Competition Enforcement Agencies*, 6th edition.
- Gual, J. and N. Mas (2005), "Industry Characteristics and Anti-Competitive Behaviour: Evidence from the EU", IESE Business School working paper.
- Harding C. and A. Gibbs (2005), "Why go to Court in Europe? An Analysis of Cartel Appeals 1995-2004", *European Law Review*, 30, 349-62.
- Jones C. and M. van der Woude (2006), *EC Competition Law Handbook*, 17th edition, Thomson Sweet & Maxwell, London.
- Jorde, T.M. and D.J. Teece (1990), "Innovation and Cooperation: Implications for Competition and Antitrust", *Journal of Economic Perspectives*, 4(3), 75-96.
- Katsoulacos, Y. and D. Ulph (1998), "Endogenous spillovers and the performance of research joint ventures", *Journal of Industrial Economics*, 46, 333-357.
- Kovacic W.E. and C. Shapiro (2000), "Competition Policy: A Century of Economic and Legal Thinking", *Journal of Economic Perspectives*, 14(1), 43-60.
- Lauk, M. (2002), "Econometric Analysis of the Decisions of the German Cartel Office", working paper, Technische Universität Darmstadt and in German in 2003 in *Jahrbücher für Nationalökonomie und Statistik*, 223, 680-711.
- Lin, P., R. Baldev, M. Sandfort and D. Slotte (2000), "The US Antitrust System and Recent Trends in Antitrust Enforcement", *Journal of Economic Surveys*, 14, 255-306.
- Lyons, B.R. (2004), "Reform of European Merger Policy", *Review of International Economics*, 12, 246-261.
- Martin, S. (2007), "The Goals of Antitrust and Competition Policy", mimeo, Purdue University.
- Neven, D.J. (2006), "Competition Economics and Antitrust in Europe," *Economic Policy*, 21, 741-791.
- Nillsen T., (1997). "On the Consistency of Merger Policy," *Journal of Industrial Economics*, 45, 89-100.
- Posner, R.A. (1970), "A Statistical Study of Antitrust Enforcement," *Journal of Law and Economics*, 13, 365-419.
- Posner, R.A. (2001), *Antitrust Law*, second edition, The University of Chicago Press, Chicago.
- Ritter, L. and W.D. Braun (2005), *European Competition Law. A Practitioner's Guide*, 3rd edition, Kluwer Law International, London.
- Röller, L.-H., H.W. Friederiszick and V. Verouden (2005), "European State Aid Control: An Economic Framework," forthcoming in: P. Buccirossi, *Advances in the Economics of Competition Law*, Cambridge, Mass., MIT Press.
- Roeller, L.H. and O. Stehmann (2006), "The Year 2005 at DG Competition: The Trend towards a More Effects-Based Approach," *Review of Industrial Organization*, 29, 281-304.
- Schinkel, M.P. (2007), "Effective Cartel Enforcement in Europe," *World Competition*, 30, 539-572.
- Seldeslachts, J., J.A. Clougherty and P.P. Barros (2008), "Settle for Now but Block for Tomorrow: The Deterrence Effects of Merger Policy Tools", WZB working paper.

- Stephan, A. (2005), "An Empirical Analysis of the 1996 Leniency Notice," CCP Working Paper 05-10, University of East Anglia, Norwich.
- Veljanovski, C. (2007), "Cartel Fines in Europe: Law, Practice and Deterrence," *World Competition*, 30.
- Vogelaar, F.O.W. (2007), *The European Competition Rules; Landmark Cases of the European Courts and the Commission*, second edition, Europa Law Publishing, Groningen.
- Wils, W.P.J. (2002), *The Optimal Enforcement of EC Antitrust Law*, Kluwer Law International, The Hague.
- Wils, W.P.J. (2005), *Principles of European Antitrust Enforcement*, Hart Publishing, Oxford.

Appendix: Description of the Data of Commission Decisions

The cases are retrieved from the formal decisions of the Commission published over the years in the Reports of Commission Decisions Relating to Competition (Hardcopy version from 1964 until 1998) as well as the Annual Reports on Competition Policy (from 1971 on) and the Commission website. The Annual Reports are consulted for a backing of the information retrieved in Reports of Commission Decisions Relating to Competition. In these reports, the Commission arranges the cases according to the five alleged economic conducts also employed in this paper. The case documents of Directorate-General for Competition (DGCOMP) were initially consulted on the web pages of:

<http://europa.eu.int/comm/competition/antitrust/cases/>

which was last accessed on the world web in April 2008. These web pages do not have the status of an official publication. To guarantee completeness of the data, the set was then checked against the publications in the *Official Journal*, which the Commission is obliged to produce. Initially, we used the Commission's collection in:

European Commission, *Reports of the Commission Decisions relating to competition*, for the years: 1964-73 1973-80 1981-85 1986-88 1989-90 1990-92 1993-94 1994-98, Office for Official Publications of the European Communities, Luxembourg

After this, we corrected minor deviations between the information in the Official Journal and on the Commission's web pages.

The unofficial information provided on the web pages of the Commission is complete up to 2004. The official publications are complete up to 1998 – so that minor discrepancies may exist between the web and official records between 1998 and 2004. All decisions officially published are included in the sheets. All relevant public information published in these documents has been included. Some information was censored by the Commission for reasons of confidentiality. The data is backed by two sources as well as refined by independent proofreaders.