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An Overview on EU Antitrust Decisions and their Guidelines

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1. Introduction

The main aim of this thesis is to first provide a general overview of the EU antitrust enforcement under Article 102, by looking at 122 decisions of the European Commission during the time period between the beginning of 1999 until the end 2019 and then investigate if the assessment of cases has changed over time due to the Guidelines published in this period.

The first two of the three Guidelines that are of interest during this 20 year period are the 1998 and 2006 Guidelines on fines that outlined the calculation of fines imposed for violation of either Article 101 or 102. The third is the 2009 Guidance paper on the enforcement priorities of applying Article 102 which is also Guideline in all but name.

The major subject of interest in the case of the Guidelines on fines is whether the change from 1998 to 2006 led to an increase or a decrease in the level of fines imposed on undertakings in violation of Article 102. Furthermore, there seems to be a bit of uncertainty surrounding the calculation of fines according to Dethmers Frances and Engelen Heleen (2011) which possibly can be lifted by a more detailed and extensive econometric analysis of the cases.

In the case of the 2009 Guidance paper, the goal is to provide a contrast of the cases prior and after its release and search for overall significant changes in the assessments made by the European Commission. This includes an analysis of the types of infringements that were detected, or the types of effects an abuse has caused, but also the structure of the markets as well as of the investigated undertakings. The analysis does not only include the successful cases (non-rejection) but also cases which were unsuccessful (rejection), such as those where the European Commission could not determine an abuse of a dominant position. Over the whole course of the thesis some of the cases will be used to exemplify certain aspects of the antitrust enforcement.

The first part of the thesis deals with the general procedure of enforcing Article 102, the surrounding regulation under which the Commission operates and provides a summary of the different Guidelines as well as their aims according to the European Commission. The second part provides an overview of the data and the different decisions which also includes the description of infringements used for the classification of the cases.

In the third part the data will be used to determine with simple t-distribution test if there are significant changes to the assessment and nature of the cases prior to the release of the 2009 Guidance paper and after. The paper also aims at trying to answer why many complaints regarding Article 102 have never been properly investigated.

The last part of the thesis deals with the question of fine calculation and how it might have changed after the release of the new Guidelines in 2006. Here an econometric analysis provides some insights into what variables outlined in the Guidelines matter and which do not.

Lastly, the key findings will be presented in order to identify possible ways of better aligning the rather surprising finding that the approach outlined in the Guidelines on fines does not provide a good explanation for the calculation of fines.

2. General Enforcement of Article 102

The main enforcement tools of competition policy in the European Union are Article 101 and Article 102 TFEU. While Article 101 deals with cartel cases, Article 102 focuses on antitrust behaviour of firms. More precisely Article 102 deals with the abuse of a dominant position in the internal market of the European Union and allows the European Commission to impose fines as well as remedies in order to resolve competition concerns. The legal text reads as follows:

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

In order to start a case under article 102 it has to be assessed what the relevant market is and whether or not the company in question has a dominant position in the relevant market. A dominant position in a market is not problematic in itself however if an undertaking does have a dominant position it has the potential to use quasi monopoly power and distort competition. It is therefore able to "behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers".[1]

The relevant market is divided into two sections the geographic and the product market. For dominance to apply the undertaking has to have considerable market power in a geographic region for a specific product. In geographical terms a substantial part of the internal market under article 102 can be as large as the smallest member states or even part of the internal market of a larger member state. Global markets are taken into account as well, so the range of what constitutes a substantial part of the internal market in geographic terms can be quite broad. On the other hand, the product market is bound by what the Commission considers to be suitable substitutes within the relevant market. Suitable because the mere fact that the product is functional interchangeable or has similar characteristics is not enough. Consumers must be able to react to a change in the price of a product and either buy from a competitor or change their consumption pattern by substituting for other products. Similarly, "differences in product characteristics are not sufficient to exclude demand substitutability since this will depend to a large extent on how customers value different characteristics".[2] So if consumers are willing to substitute a product after a price increase for another product with functional or characteristic differences, then they may belong to the same product market.

After the definition of the relevant product market the empirical work then consists of searching for evidence of past substitutability and quantitative tests of cross price elasticities. Most likely a SSNIP test is conducted, and its accuracy verified by asking the competitors as well as the customers via a survey, how they would react to an increase in the price of the product.

Then after the relevant market is fully defined, the market share of the undertaking in question can be calculated. This is important because for dominance to apply, the firm should at least have a market share of around 40%. Below this threshold dominance is unlikely and only under very specific circumstances dominance may exist. One example where dominance was detected although the undertaking technically had a market share below the threshold was the Virgin/British Airways case [case no. 34780], where British Airways had an estimated market share of just 39,7%. The infringement in this case concerned giving a commission to travel agents who would then in turn sell British Airways tickets. The case was appealed to the Court of First Instance where the European Commission's interpretation of dominance in the market was upheld.[3] Another more recent edge case where

[1] Motta Massiomo (2009): Competition Policy Theory and Practice, 12th edition Cambridge University Press p.34-35

[2] Commission Notice on the definition of relevant market for the purposes of Community competition law, 1997

[3] Cinni Michelle and McGowan Lee (2009): Competition Policy in the European Union

dominance was detected concerned AB InBev with a market share of exactly 40% [case No. 40134]. The infringement in this case concerned limiting imports of beer from the Netherlands to Belgium through various means in order to maintain higher prices in Belgium. Nevertheless, these two cases are an exception because usually undertakings investigated under Article 102 have a market share well above 50%.

Finally, after definition of the relevant market and the determination of the market share an abuse of the dominant position can be determined. There are various ways in which a company can abuse its dominant position in the marketplace. The law itself though does not specifically provide prohibited and allowed practices it only provides some examples that are not exhaustive.[4] In the broadest sense the law prohibits dominant undertakings from exclusionary and exploitative actions. It can do this in various ways for example by raising prices on its customers or extorting to low prices from suppliers which would be exploitative actions. Examples of exclusionary practices would be to not allow competitors access to essential infrastructure or products necessary for production. So almost all of the cases concerning abuse of dominance are somewhat special in their scope and general type. Furthermore, the application of Article 102 and its predecessors is and always was subject to the enforcement priorities of the competition authorities. In consequence the prohibition decisions made by the European Commission under Article 102 have been more controversial compared to Article 101 cases [Motta Massimo, 2009].

In the end if the findings of the investigation meet the definitions of an abuse of dominance and the investigated undertaking is in fact dominant in the relevant market, the European Commission can reach a prohibition decision as long as the described actions fit the definitions of abuse outlined in Article 102. The prohibition decision normally consists of remedies calling for an end of the infringement by the undertaking and usually also includes a fine. Nevertheless, the Commission does not need to impose a fine and has done so in four cases during the time frame investigated.

As a last step the decision might be appealed at the European Court of Justice and be either upheld amended or annulled. Due to their controversial nature prohibition decisions under Article 102 are routinely challenged in court by the affected undertakings. However, in practice decisions are mostly just amended and only infrequently annulled.[5] For Commitment decisions the newer form of Article 102 enforcement, this general approach of market assessment is mostly the same but not as detailed and extensive.

[4] Lyons Bruce (2009): Cases in European Competition Policy the Economic Analysis
[5] Colomo Ibáñez Pablo (2018): The Shaping of EU competition Law p.162-172

3. Guidance, Guidelines and Regulation

When a regulation enters into force it immediately becomes legally binding, but the content of a published Guideline or Guidance paper does not impose any immediate legal obligations. Any of those texts are more like informed opinions and recommendations on how certain procedures should be handled. Nevertheless, the European Court of Justice often views these publications as binding and can demand that the European Commission follow its own recommendations. The reason is that they are made public for everybody to see and give possible offenders or suspects an idea of what to expect from the Commission. So, while the Guidelines and the Guidance papers are not legally binding in the sense of a regulation, they are a restriction on how the Commission can enforce the Articles concerning competition. The three publications that are of interest with regard to the enforcement of Article 102 are the fine Guidelines of 1998 and 2006 as well as the Guidance paper of 2009. While the first two only deal with the setting of fines in Article 101 and 102 cases, the Guidance paper of 2009 deals with the substantial enforcement of Article 102. One other aspect that has to be accounted for is the Regulation within these papers are embedded in. The reason for this is that in 2004 the previous regulation was heavily amended and provided new forms of enforcement for the European Commission as well as the member states.

3.1. Regulation

The competences in cartel and antitrust case enforcement were established with Regulation No. 17 back in 1962 and while it has been amended over the years there were no major changes to the text until 2004 when Council Regulation No 1/2003 entered into force. One of the major changes was the introduction of Commitment decisions under Article 9 that opened a new possibility of enforcement apart from the standard Article 7 prohibition decisions.[6] It allows the European Commission to apply Commitment decisions which are a collaborative effort between the Commission and an undertaking to address competition concerns. The undertaking under investigation and the Commission however do not establish that there was an actual infringement of the Article on competition. These decisions have become very popular tool of enforcing competition policy in recent years most likely because there is no need for an extensive and rigorous investigation. Furthermore, they are not subject to legal recourse since the undertaking applies the commitments voluntarily. Therefore, potential long lasting

[6] Council Regulation (EC) No 1/2003, 2002

legal battles are avoided. A sort of a disadvantage of course is that in the Commission refrains from punishing undertakings via fines in the case of a Commitment decision[7].

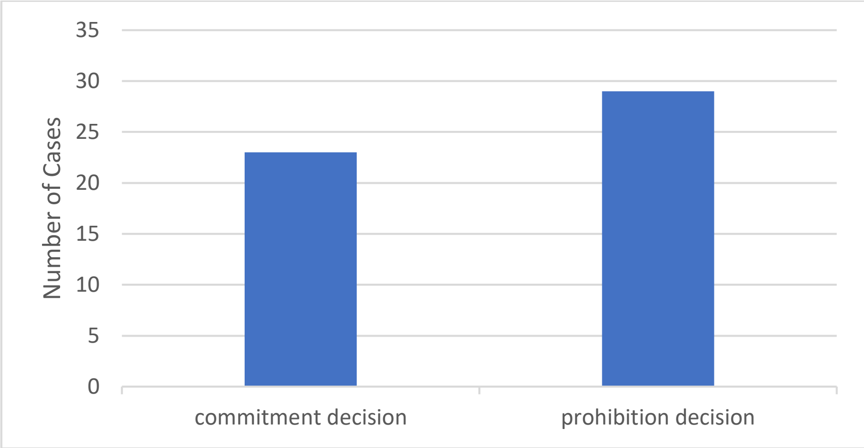

Figure 1: Final decisions relating to TFEU 102

Another change was to allow national authorities to apply Article 101 and 102 on their own. Prior to 2004 they could only be applied and enforced by the European Commission with the possibility to call on member state authorities to help with the investigation under Article 13 and 14 [Regulation No 17]. So, the role of the national authorities was passive and was changed to a more active role. This is not only the case with the competition authorities themselves but also the national courts which now are able to rule on those cases. Furthermore, cooperation between the Commission and the national authorities shall be facilitated with the European Commission acting as an instructor on the competition procedures. Decision taken by the Commission also supersede national decisions in case they contradict or are in conflict with decisions of the Commission. In fact, under Article 16 they should avoid such circumstances from the beginning to ensure uniform application of Community competition law [Regulation 1/2003].

Essentially the new Regulation provided a new enforcement tool with the introduction of commitment decisions and also decentralized the enforcement. Altogether there have been 2663 investigations relating to Article 101 or 102 from 2004 to 2019 of which only 399 were headed by the European Commission[8]. In general, the Regulation was successful in widening the enforcement of EU competition rules to the member states but there might be a little discrepancy since smaller and newer members of the EU sometimes underenforce the competition rules [Malinauskaite Jurgita, 2016].

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[7] Competition policy brief (2014): To commit or not to commit? Deciding between prohibition and commitments.

[8] European Competition Network Statistics

Nevertheless, while it is positive that the member states are very active in enforcing the competition rules a major concern is the divergence of procedural rules due to different culture in the enforcement of competition rules. The risk of course is that plaintiffs may start shopping for favourable terms where to launch complaints against a competitor. Thus, in the future it might be necessary to introduce further regulation to ensure harmonisation [Competition Policy in Europe, 2004].

Additionally, the lack of a central database for Article 101 and 102 cases handled by the national competition authorities seems like an oversight in that regard. The regulation only demands that court cases related to the enforcement of the competition rules be sent in and made available for publication. So, while the analysis of the national cases will be an interesting subject of inquiry it will be made needlessly difficult by not having a standardized format for the publication of decisions in the form the European Commission tries to aspire to.

3.2. Guidelines 1998

With the Guidelines of 1998 on fines the European Commission tried to formalize and explain the fine setting in competition cases regarding Article 101 and 102. The idea was to give examples of what is considered a minor and a more serious breach of competition rules. The gravity of an infringement is divided into three categories. First Minor infringements according to the Guideline result in a fine from 1000 ECU to 1 Million ECU while the fine for a serious violation would range from 1 Million ECU up to 20 Million ECU. At last, very serious infringements are considered to likely exceed the boundaries of serious infringements and are usually cases where the undertaking is holding a monopoly position. Then according to the Guidelines, the fine calculation can be simplified to [x gravity +y duration = basic amount]. In the last 20 years there were only two cases relating to article 102, where no calculation or evaluation was thought to be necessary and a symbolic fine of a 1000€ was imposed.[9]

Furthermore, the duration of the infringement is also divided into three categories: short (up to a year), medium (one to five years) and long (more than five years). These categories also factor into the gravity part of the calculation of the base amount by increasing the gravity portion by a certain percentage in accordance with the length of the infringement. While this at least shows that the duration of the infringement influences the fine, it is still not clear what other factors influence gravity. Some examples of aggravating and attenuating circumstances are given of that can lead to an increase or reduction of the fine. Aggravating circumstances include being a repeat offender or refusing to cooperate with the

[9] Guidelines on the method of setting fines imposed pursuant to Article 15 (2) of Regulation No 17 and Article 65 (5) of the ECSC Treaty, 1998

Commission in its investigation and retaliatory measures against other undertakings to force compliance. Some attenuating circumstances are the general non implementation of agreed harmful practices, termination of the infringement as soon as the Commission intervenes and infringements that are the result of negligence or came into being unintentional. The last example is important in the context of Article 102 if the undertaking in question just recently gained a dominant position through fair competition in the relevant market and is suddenly in violation of competition rules due to its new position in the market. Eventually though the given list of examples is not complete and other examples may be presented in new competition cases if the European Commission sees a reason to do so, hence the annex "other" in the Guidelines. Furthermore, none of examples given explain how they factor into gravity and the Guidelines only refer to the EEC Council Regulation No 17 which itself in Article 15 states that ***"in fixing the amount of the fine, regard shall be given to the gravity and the duration of the infringement"*** without explaining what gravity consists of.

So, the general idea of the 1998 Guidelines was to put cases into categories and then calculate the fine from this starting point.

3.3. Guidelines 2006

The introduction of the 2006 Guidelines on fines readjusted the previous 1998 Guidelines towards a more universal framework of fine calculation. The basic amount of a fine is now determined by the sales within the relevant geographic market that is affected by a violation of the competition rules and also explicitly mentions that worldwide sales can be included in the calculation if the infringement extends beyond the European Economic Area. Most recently this was used in both of the Qualcomm cases [case no. 39711/40220]. Again, the outlined framework within the Guidelines is relevant for fine setting under Article 101 as well as Article 102.

One of the main changes made in the 2006 Guidelines compared to the 1998 Guidelines is that there are no categories of infringements anymore. Now the abuse and infringements are related to a certain value of fines. Every base amount of the fine is now related to the sales of the undertaking within the relevant market. Up to 30% of the value of sales in the relevant market is taken as a starting point for the fine calculation, with the percentage depending on the infringement and the market share of the undertaking. However, gravity again plays a role in the determination of the base amount and again there is no clear explanation how the gravity is determined. In the document it is stated that "the assessment of gravity will be made by case by case basis and take into account all the relevant circumstances of the case". So, while there now is clear connection between the fine and the sales of the relevant market it is still not quite clear how different infringements factor into gravity and therefore the base amount of the fine. The only thing that is mentioned within the Guidelines is that horizontal price fixing as well as market sharing, and output limitation agreements are thought of as very harmful due to their usually secret nature. This however does relate more to fines imposed on cartels under TFEU 101 and is less relevant for cases under TFEU 102.

The duration of the infringement now is also no longer divided into categories. Under the new system it is only relevant how long the duration of the infringement was by adding up the years of infringement and multiplying them with the previously determined value of sales. So, the new formula for calculating the fine is x gravity depending on the value of sales in the relevant market times the duration of the infringement. [x gravity * y duration = base amount].[10]

Again, this base amount can be increased or decreased because of aggravating or mitigating (prior attenuating) circumstances. The reasons for an increase or a decrease are pretty much the same as in the 1998 Guidelines. One of the more important changes is that there is 100% increase in the base amount if the undertaking in question is a repeat offender for a similar infringement or it simply continues the infringement. Otherwise, there is no real change and the described circumstances are more or less the same.

A new addition is the case where the European Commission may decide to increase the fine in order to deter similar or further infringements. So, in cases where the fine calculation may not reflect an appropriate punishment. For example, in case the company is very large, but the relevant market is comparatively small, the Commission can decide to increase the fine irrespective of any aggravating or mitigating circumstances. On the flip side it is also recognised that a company may not be able to pay a fine or that the amount is too high for the undertaking to afford it. In case that the economic viability of the undertaking is in jeopardy due to the fine, the Commission can decide to reduce the fine.

3.4. Guidance 2009

With the publication of the Guidance paper 2009 the European Commission tried to formalize and structure the enforcement of article 102. In the document itself it is also stated that it should lead to a better predictability and clarity for undertakings which sorts of conduct are seen by the Commission as harmful and in violation of article 102. The paper provides a number of infringement examples that are easy to understand and based on previous antitrust cases. These include predation and foreclosure infringements as well as exclusive dealing and different kinds of rebates.

[10] Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation No 1/2003, 2006

The idea of releasing a Guidance paper on the enforcement of Article 102 was around for some time but the publication took longer than expected [Michelle Cini and Lee McCowan, 2009]. A first discussion paper from December 2005 already called for a more economics based approach instead of trying allowed and prohibited practices under Article 102. It provided opinions on the relation between different infringements dominance and the resulting effects as well as how the infringements should be assessed in a general way. In the end though it probably was better to take more time in order to come up with a comprehensive and long lasting framework for enforcement of Article 102.

The first part of the Guidance paper deals with the general approach of assessing the relevant market and the market power of undertakings. For the most part the paper follows the previous Notice on definition of the relevant market by the Commission from 1997 but there is an emphasis to use a more economic approach especially when dealing with price based exclusionary conduct. The preferred proceeding that is established in the paper is to investigate whether a dominant undertaking can operate efficiently using cost benchmarks. The Commission will look at average avoidable cost (AAC) and long run average incremental cost (LRAIC) and determine if the undertaking is foregoing short term profits in order to foreclose or deny entry to equally efficient competitors. According to the procedure this can happen when an undertaking is not able to cover either its AACs or the LRAICs[11]. Nevertheless, if the data in a specific case shows that a competitor can compete effectively despite of pricing below cost recovery by the dominant undertaking the Commission will in principle consider that the conduct has no negative effect on competition and therefore consumers. Since this framework is aimed at all infringements based on altering prices it not only applies to predatory pricing but also to conditional rebates where it is again established as best practice to identify whether rebates of a dominant undertaking should be considered harmful. The main idea is to put the enforcement of Article 102 on a more economic effects based footing and avoid the previous tendencies where the possibility of restricting competition was enough to establish abuse of dominance. [12]

The Guidance also outlines the conditions under which a dominant undertaking can defend its possible harmful infringement and have it considered by the European Commission not to be in breach of Article 102. One possible argument that can be made by an undertaking is that the conduct is objectively necessary because it improves health and safety of consumers. Another is that the conduct increases efficiencies which otherwise would not be possible and are a net benefit for consumers. Finally, it is also possible to show that the alleged infringement does not lead to foreclosure but to an increase in competition and therefore it creates efficiency gains by increased innovation through

[11] Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, 2009.

[12] Colomo Ibáñez Pablo (2018): The Shaping of EU competition Law, Cambridge University Press p. 273-287

competition. The responsibility to make the case that the conduct is not hindering competition or harming consumers rests fully on the undertaking under investigation while the final assessment whether the arguments brought forth are valid or not rests with the Commission. So even though there is a roadmap for undertakings to defend themselves they are still dependent on the Commission to agree with their viewpoint. An effect based approach however gives undertakings under investigation a better and definitive tool to challenge the Commissions allegations.

Specific Forms of Abuse, section A of the Guidance paper deals with the different kinds of infringements that will most likely lead to an investigation under Article 102. It is divided into four broad section "Exclusive dealing, Tying and Bundling, Predation and Refusal to supply and margin squeeze", which then are exemplified by specific cases that fit the description. Furthermore, each of these sections has a dedicated paragraph dealing with the possible efficiencies that may arise from these practices and therefore do not harm competition or are no longer considered to be in breach of Article 102. Sadly, no specific examples are provided, so it is still quite difficult to determine what level of efficiency gains or benefits for consumers are necessary in order to show that the alleged infringement is not harmful. Exclusive dealing is explained by two examples: Exclusive purchasing and Conditional rebates. While it is rather clear why Exclusive purchasing by a dominant undertaking is harmful to competition and consumers the case to determine why Conditional rebates are in violation of competition law is a lot trickier. The reason for that as is highlighted in the paper itself is that Conditional rebates are not an uncommon practice. Therefore, it is necessary to study the individual rebate systems and their likely foreclosure effects in detail with all data available. As mentioned before this now includes an analysis using AAC and LRAIC. In general, retroactive rebates are considered to be most likely to lead to foreclosure in a market, because the need to purchase the last unit of a product before the threshold substantially increases the loyalty effect that retroactive rebates have compared to immediate unit discounts or quantity rebates. Two case examples that show the harmful effects of rebates are Michelin II [case no. 35141] and British Airways [case no. 34780]. In both cases the system of rebates granted by the dominant undertaking included retroactive rebates and volumes bases rebates. Another example is the case against Hoffmann La-Roche. While this case is rather old it is still highly relevant and in the context of rebates. In the context of rebates, it included a retroactive rebate but not only that it also included an English clause which guaranteed that Hoffmann La-Roche was always offering the best price, thereby increasing the loyalty of its customers[13]. So, it is easy to see why retroactive rebates are highlighted as especially harmful to competition.

Section B then deals with tying and bundling where the major concern is to determine whether or not products are really distinct. Meaning a significant portion of customers would prefer to buy the

[13] European Commission Decisions on Competition p.194-197

tied/bundled products separately. A central way of determining distinct products is therefore consumer demand in the relevant markets which has to be estimated by looking at competitors selling the products in question separately or if this is not possible by doing a survey among consumers. One of the major concerns of tying and bundling is that it allows an undertaking that is dominant in one product market to extend its dominance to another market by tying or bundling. However, the Commission again acknowledges that there can be cost benefits to consumers when products are sold in a bundle. This is the case when thinking about multi-product rebates where an undertaking is able to offer the bundle at a lower price compared to separately sold products. These rebates of course also have potential foreclosure effects which are investigated by again looking if the LRAIC are below the price the customer pays for the bundle. In case the price is below the LRAIC the rebates will be considered harmful because even an equally efficient competitor can no longer profitably enter the market. The Microsoft Internet Explorer/Media player and Work server interoperability case [case no. 37792] and the case against Hilti [court case T-30/89] explain this section on tying and bundling. In the Microsoft case the infringement mostly consisted of extending the existing dominance in the operating system market to browsers and media players by bundling the products. In comparison, Hilti had a policy where it only sold cartridges for its nail guns in complement with its own nails to the end users. Therefore, Hilti tied the expendable materials with its tools. Furthermore, where it was not possible for Hilti to ty the products it reduced the discounts for its cartridges when the consumer was purchasing its nails from a competitor.

The third section C deals with predation and as already stated the main tool to determine if a dominant undertaking is foregoing current profits for future profits using predation are AAC and LRAIC. As in the case of multi product rebates if LRAIC are higher than the price of the product the pricing will be viewed as having foreclosure effects because equally efficient competitors are not able to compete. On the same note if AAC are above, the price of the product will be viewed as an indication sacrifice of profits by an undertaking. However further evidence in the form of a loss of revenue compared to a more reasonable conduct is needed. The Commission in this case will only consider in its words realistic and economically sound alternatives of conduct and no hypothetical scenarios to see if the dominant undertaking could have been more profitable during the time the alleged predatory strategy was undertaken. Another way to show that a dominant undertaking is engaging in predatory pricing is of course finding documents that show a plan to use a predatory strategy in order to foreclose competitors or prohibit entry into the relevant market. This is of course true for all of the infringements. In any case where documents are found, showing the clear intent of a dominant undertaking to foreclose or prohibit entry by means that are in breach of Article 102, the evidence is enough for enforcement of the rules by the European Commission. Most likely this part was added to not fully rely on the analysis of predatory strategies of AAC and LRAIC which could be up for debate because either the data is bad/not available, or assumptions of the realistic alternative conduct are flawed. The three case examples for predation are Tetra Pak II [court case T-83/91], AKZO Chemie [court case C-62/86] and France Telecom Wanadoo [case no. 38233]. In case of AKZO Chemie the company captured major customers of its competitor by undercutting its prices. While undercutting itself is not an infringement the fact that it was done selectively for major buyers of its competitor was determined by the Commission as predatory. The Tetra Pak II case did also feature specific price cuts in order to harm its competitors, but it was different because Tetra Pak also engaged in sorts of exclusivity contracts that prohibited entry or expansion for competitors. Lastly, in the case of France Telecom Wanadoo, the Commission was actually able to obtain internal documents that showed that dominant undertaking was engaging in predatory pricing, with the objective of pre-emptively prohibiting competitors getting enough customers to effectively compete or drive them out of the market.

Finally, the last part section D of the Guidance paper deals with the Refusal to supply and margin squeeze which can be applied to wide variety of different products and markets. It includes the refusal to supply as well as the refusal to license intellectual property in the case of Microsoft [case no. 37792] even private interoperability information owned by the firm. Furthermore, the access to facilities or networks necessary for operation on the relevant market are also not off limits. [14] The central point to determine in these cases is if a certain input is indispensable for an undertaking to operate in the relevant market and whether or not a dominant undertaking is using its position to keep competitors out by outright refusing a competitor access to the input or charging unreasonable prices making effective competition impossible. In order to be objectively necessary an input has to have no actual or potential substitute and competitors on the downstream market of the input are unable to operate on the relevant market without it. Usually, the termination of previous supply by a dominant undertaking is more likely abusive compared to refusing to start to supply an input. In case the supply is granted but the prices are excessive, the dominant undertaking which usually will be integrated in the upstream and downstream market is trying to margin squeeze. In this case LRAIC is used for an as efficient competitor test in the downstream market, to determine if competition in the market is possible or not. A major concern in these cases is that the refusal to supply does hinder innovation because the undertaking controlling the necessary input can decide who enters the market. In the case of an integrated firm there is no need for innovation since more competitive firms can be prohibited from entry. There are a lot of cases given as examples in this section which due to the nature of the infringement are very heterogeneous. One of the most prominent and probably most important cases

[14] Thorsten Käseberg (2012): Intellectual Property, Antitrust and Cumulative Innovation in the EU and the US

in recent years which will be discussed separately is the one against Microsoft [case no. 37792] concerning server interoperability and the tying/bundling of its media player.

It should be mentioned that all of the case examples given in the paper are cases that went on to the European Courts and received either a final judgement or a preliminary judgement that upheld most of the assessments made by the European Commission in these cases.

As a last point, the Guidance paper firmly establishes that consumer harm of any form is a central point in antitrust enforcement for the European Commission. In this context harm does not only include consumer welfare via price but also a reduction in choice and quality of a product or service provided by an undertaking. Furthermore, consumers in this sense both include the end consumer and also customers of a dominant undertaking that are harmed by its abusive practices.

4. Landmark Cases and their Relationship with the Guidelines

Apart from the Regulation and the Guidelines, enforcement of Article 102 is heavily influenced by previous cases, in particular when the European Court of Justice gives a final ruling. There are a few cases that are regularly quoted in the final decisions of the European Commission to show the legal reasoning why an undertaking is abusing its dominance. Compared to the Guidance paper for example landmark cases are not in opposition to or agreement with the outlined procedures, they actually inform how the procedures are finally written down in the Guidance paper, as previously shown. The same is true for Guidelines on fines that use certain cases to highlight what possible fines can be imposed due to previous cases. So landmark cases usually expand and solidify the interpretation of the competition law by the European Commission in a significant way. The Commission then based on this case law and its implication codifies the enforcement with guidelines or other publications. Apart from the already mentioned case examples in the Guidance paper some of the most quoted and influential Landmark cases are Hoffman La-Roche and United Brands. Both of these cases are from the 1970ies but due to their nature are still highly relevant for current European antitrust enforcement.

The Hoffmann La-Roche case was an important case because the ruling of the European Court of Justice on the matter provided the basic interpretation of the assessment of dominance and the abuse of dominance within the framework of Article 102 [Motta Massimo, 2009]. It further made clear that the business practice of granting rebates, more specifically the English clause, can have anticompetitive effects in the presence of dominants. However, the final ruling on the case led to fine reduction because the court was not satisfied with the European Commission’s assessment of the dominant position in parts of the relevant markets of the case.

In the case of United Brands, the ruling of the European Court of Justice seems unfavourable to the Commission because parts of the decision were annulled due to what the Court considered was a faulty economic analysis. This then also led to a fine reduction like in the case of Hoffman La-Roche. It provided one of few instances where an undertaking was found guilty and fined for excessive pricing. Furthermore, the case dealt with price discrimination within the predecessor of the EU the European Community which also had the goal of market integration between member states. The reason why part of the decision was annulled was that the cost structure of the company had not been properly considered in demonstrating an excessive profit margin within the Commission's assessment. Nevertheless, the court agreed that charging an excessive price which is excessive because it has no reasonable relation to the economic value of the product supplied would [constitute] an abuse.[15]

In both of these landmark cases some part of the European Commission's analysis was found to be faulty or incomplete. Nevertheless, due to their defining nature they are heavily featured in the 2009 Guidance paper. Two recent cases are worth to examine in this context. The latest example of a Landmark case within the 2009 Guidance paper is the Microsoft decision from 2004. Another case that is also of interest here because it could become a future landmark case depending on its final conclusion is the case against Intel from 2009.

4.1. Microsoft

The case against Microsoft deals with interoperability of work group servers operating systems developed by competitors and Microsoft own operating system and tying of Windows Media Player to its operating system [case no. 37792]. In the beginning the two subjects were investigated separately starting with the interoperability of work group servers and then adding on the Media player case. Both of the tying and bundling as well as the refusal to supply was heavily used as examples in the Guidance paper to illustrate different forms of abuse and the right of undertakings when they are allowed to choose their trading partners and when they are prohibited from excluding competitors due to dominance. In this case, the specific concerns were intellectual property rights that include licences necessary to provide interface information.

The main concern on the server side of the case was that since Microsoft had a dominant position in the market for work server operating systems and special information was required for interoperability it was impossible for competitors to enter the market. Servers with an operating system different from Microsoft were not able to properly communicate with Microsoft work servers thereby making them

[15] Russo, Pieter Schinkel, Günster and Carree (2010): European Commission Decisions on Competition Economic Perspectives on Landmark Antitrust and Merger Cases p.115-121

unattractive due to their resulting limited usability. The media player part of the case was mostly about the concern that Microsoft was bundling the media player and its PC operating system. This side of the case was much less controversial, and Microsoft was fined again for pretty much the same tying and bundling with its Internet Explorer case a few years later [case no. 39530]. In both of these tying and bundling cases the remedies to deal with the competition concerns are clear. Unbundle the products and let the consumer choose if they want to buy or install the operating system including the additional services. Which is what happened in essence, the decision required that Microsoft now had to sell one version of its operating system with and one without its Media Player. However, the initial infringement was that the Media Player was included for free together with the operating system. This essentially gave Microsoft the possibility to sell its product as a bargain bundle including the Media Player and a normal bundle without at the same price. Thereby not really addressing the anticompetitive effects.

In comparison to the Media Player part of the case ensuring the interoperability of group servers was a lot more complicated not only because a monitoring mechanism had to be established to ensure compliance with the decision.

First the case started because Microsoft increased its market share in the workgroup server market from 20% in 1996 to 60% in 2001. This was a quite rapid increase in market share which the Commission at least in part attributed to anticompetitive actions.[16] However, while a 60% market share can be considered dominant on its own, the case also took in consideration Microsoft's dominance in the PC operating system market. Here the then new operating system Windows 2000, which included new authorisation information for servers, only allowed communication between Windows operating systems. Basically, both products needed to use Microsoft Windows 2000 in order to function properly. To put differently if one person wanted to use Windows 2000 on his PC the whole server infrastructure would also need to use it. So, in the light of its dominance in the PC operating systems market there was considerable pressure on consumers to switch to Microsoft products on the secondary workgroup server market.[17]

The case then revolved around the problem of how to implement the interoperability that the European Commission considered to be a suitable remedy to address the competition concerns. The idea of the Commission was that Microsoft would license the parts of its intellectual property deemed necessary for interoperability and a monitoring trustee would ensure the compliance with the decision. However, Microsoft argued that the decision would force them to disclose sensitive

[16] Lyons Bruce (2009): Cases in European Competition Policy the Economic Analysis p.50-71
[17] Russo, Pieter Schinkel, Günster and Carree (2010): European Commission Decisions on Competition Economic Perspectives on Landmark Antitrust and Merger Cases p.174-178

information that would lead to copying of their products by competitors. In addition, Microsoft claimed that continued access to the information guaranteeing interoperability would lead to decreased research and development for workgroup servers by Microsoft which would negatively impact consumers. This argument was pursued even after prohibition decision but neither the monitoring trustee nor the Commission regarded the claims as credible.

This then led to Microsoft being fined three separate times for violating the remedies of the prohibition decision: first because of the initial infringements, then because it did not provide all the information necessary to allow interoperability even after the decision and finally because the licensing fee was considered to be unreasonable effectively engaging in margin squeezing within the imposed remedies. All appeals in this case were upheld by the Court and Microsoft decided to not further appeal the case in 2007.

Finally, the case provides two new aspects to the competition enforcement. Free products in the tech sector can be anticompetitive if they are tied to another product and in some cases, competition has to be allowed even when intellectual property rights are as an effect of the competition negated.[18] Lastly, the case has also landmark status because the initial fine of almost half a billion euro far superseded anything imposed by the Commission to this point.

4.2. Intel

While the prohibition decision in the Intel case [case no. 37990] was reached in 2009, the case is still ongoing in the EU Courts to this day, and it is still not clear how the final ruling will look like. Nevertheless, the case could still have a major influence on the cases in the future as soon as a final ruling is reached at last. Current rulings in the case are already used as proceeding examples in other high profile decisions concerning Qualcomm[19] [case no. 40220] and Google (Android) [case no. 40099] even though the final decision is still outstanding.

The most recent ruling in 2017, the Court of Justice of the European Union sent the case back to the General Court for another ruling on the economic assessment of the case by the European Commission. In Intel's view the as efficient competitor test carried out by the Commission did not represent the economic realities. The argument of the General Court that the economic analysis was just supplemental but not necessary in the case was not upheld by the higher court. [20] So now the General Court has to decide if the economic analysis presented in the prohibition decision is in fact

[18] Glader Marcus (2006): Innovation Markets and Competition Analysis; EU Competition Law and US p. 170-186
[19] Colomo Ibáñez Pablo (2018): The Future of Article 102 after Intel
[20] Intel, Case C-413/14 P

adequate or if arguments brought forward by Intel are correct and therefore the prohibition decision should be annulled or the fine of 1.06 billion Euro should be reduced substantially. Looking at previous appealed decisions it is unlikely that the whole prohibition decision will be annulled but a reduction of the fine on the other hand is very possible.

The case itself revolved around rebates schemes and naked restrictions through exclusivity agreements with a number of original equipment manufacturers (OEM) of PCs. In those agreements the OEMs were guaranteed preferred prices for Intel's x86 processor chips as long as they bought the vast majority of chips from Intel and not AMD, its only relevant competitor. Furthermore, Intel provided one of the largest PC retailers in Europe, the Media Saturn Holding with advertisement grants if they were exclusively selling Intel based PCs thereby excluding AMD products. Most of these actions can be verified by e-mails sent to the companies participating in the rebate and advertisement schemes. Intel however denies that these business practices had any negative effect on its competitor AMD and in fact were in no way restricting the choice of OEMs or retailers.

One of the problems of the Intel case was that the Commission essentially made a trial run of the more economic approach which shortly after the decision was outlined in the Guidance paper, but it did not fully rely on this approach in its decision. While the Guidance paper goes in the direction of a rule of reason approach in the case of rebates granted by Intel, the previous decisions relied on a per se illegality argument established in Hoffmann-La Roche [Petit Nicolas, 2015]. Where it was established that under certain market conditions a dominant undertaking simply cannot grant rebates to its customers due to their anticompetitive effects. However, in the decision the Commission basically tried to use both a per se illegality argument and a rule of reason approach by carrying out an economic analysis as described in the price based abuse section of the 2009 Guidance paper. In the first appeal the General Court argued that this economic analysis was only a supplement and the abuse of Article 102 was already established due to the fact that the rebates indeed were granted. The European Court of Justice was not in full agreement with this ruling and decided in 2017 that the matter had to be revisited with an explicit focus on the price based analysis saying:" *The review by the General Court, in the light of the arguments put forward by Intel, of whether the rebates at issue are capable of restricting competition involves the examination of factual and economic evidence which it is for that court to carry out*".[21]

So, the European Court of Justice decided to refer the case back to the General Court for another ruling on the matter which is still outstanding. Now even though the case is already ten years old it could go on for bit longer because after the next ruling by the General Court it would still be possible for Intel

[21] Intel, Case C-413/14 P

to again appeal the ruling and once again appear in front of the European Court of Justice for the real final decision on the case.

The case regardless of when it is finally decided will have a crucial effect, by establishing what levels of economic analysis are necessary to determine anticompetitive effects in what the Guidance paper calls price based infringements. Especially when dealing with rebates granted by dominant undertakings. In effect the judgment should provide the to do list for price based abuses under the more economic effects based approach of the European Commission that has to be fulfilled so that prohibition decisions are upheld by the courts.[22] A partial annulment of the decision would mean that the approach in Intel was not rigorous enough and adjustment in antitrust enforcement would be needed. The best case scenario for the Commission is of course that the decision is upheld even if the court may decide to reduce the fine because the analysis was precise enough to justify such a high fine - so, a somewhat similar situation as in the United Brands case where the general approach is deemed to be correct, but it was not carried out with enough care.

5. Overview of Analysed Antitrust Cases

Overall, there are 122 cases included in the dataset that are linked to Article 102 from 1999 to 2019, taken from the European Commission website on competition cases. The majority, 70 of them, are cases that were rejected or had their investigations closed through a closure of proceedings or an administrative closure. In case a rejection decision is reached the investigation never leaves the preliminary stage and no substantial resources are committed to carry out a full investigation. This can happen because a complaint is already dealt with by national competition authorities, or the preliminary investigation did not turn up any evidence of abuse or even dominance in the relevant market. Pure rejection decisions are the most frequent decisions with 53 cases. However, one of the cases [case no. 40304] had to be omitted because too much of the documents was blacked out either on the request of the person making the complaint or because the complaint contained sensitive private information. This made it impossible to determine the alleged infringement and whether or not it actually was an Article 102 violation as the filing of the case suggests.

Furthermore, one commitment decision, involving ISDA and Markit Group Holdings Limited [case no. 39745], is included as a joint violation of Article 101/102 even though the decision only mentions that: "no violation of Article 101 is admitted by any of the two undertakings". So, there is no direct reference

[22] Colomo Ibáñez Pablo (2018): The Future of Article 102 after Intel, London School of Economics.

of Article 102 in the decision. The reason for the inclusion of this case is that the European Commission filed the case under the legal basis section as having Article 102 relevance and the arguments brought forward in the decision only really make sense if abuse of dominance concerns were present, since it mostly dealt with a refusal to license intellectual property rights.

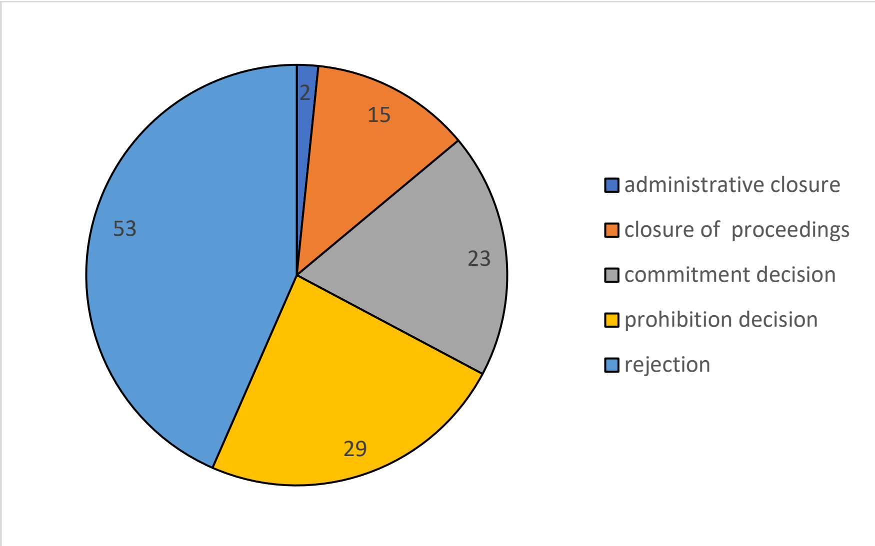

Figure 2: Number of Decisions

Closure of proceedings decisions follow only after an in depth investigation. So, the start of the investigation is announced and then is closed because the suspected abuse could probably not be substantiated. An administrative closure decision follows the same rules as a closure of proceeding and is taken after an investigation. Their distinction is mostly of an administrative and procedural nature otherwise they are the same. A problem with both of these proceedings is however that in only one case concerning the repair of brand watches [case no. 39097] a reason was given why the investigation was closed. Possibly because the case had been rejected at first and was then opened after a ruling by the General Court. Therefore, it was less due to procedure that a reason for the closure of the investigation was given but due to the fact that the General Court basically ordered an investigation and most likely would not have been satisfied had the Commission simply closed the case without reason. The reason being that no infringement of Article 101 or 102 could be detected.

The other 52 either received a prohibition or a commitment decision. Those are the cases where remedies or fines are imposed on undertakings by the European Commission. Compared to the rejection cases the final decision is always provided in English, with a summary of the case at least available in the three working languages if not all official languages of the European Union. Outright rejection decisions usually are provided in English. In some cases, however they are only provided in the language of the person filing the complaint. There are seven French, three Italian, two Spanish and German rejection decision, as well as one Polish one. So, while the documents are publicly available these decisions can sometimes be less accessible due to language barriers.

The cases themselves are quite heterogeneous and encompass almost every sector of the economy. The difference is highest within the rejection cases where for example even art [case no. 37219] in the sense of the involuntary part taking in a copyright collecting society is featured. One of the most unusual rejection cases is also an outright rejection case from a private person in Luxembourg around 2012 [case no. 39892]. In this case a person tried to argue that their internet, telecommunication, and television provider Numericable had a dominant position on the street he was living on. The person argued that Numericable was engaging in price discrimination and excessive pricing and further accused the Commission of inaction due to the small size of its country. The case was firmly rejected on the ground that the market definition was miss specified, with the assurance that every complaint will be dealt with according to the facts. Also, later case examples will show that the European Commission does not refrain from investigating cases in small member states concerning relatively small markets.

The nonrejection decisions are definitely less unusual. A lot of the 52 cases concern the energy and telecommunication sector. The fact that there are a lot of cases concerning those two sectors is not really surprising since the market concentration is or was often rather high due to previously existing state monopolies. A further problem in these sectors often is the vertical integration of service providers and the network used to operate those services[23,24]. In some of these cases it can be argued that the European Commission has been trying to reach the goal of market liberalisation by using competition law to open up those sectors. The use of divestment in connection with Article 102 also first comes up with the E.ON AG commitment decision [case no. 39389] in 2008. Here the commitment decision included the divestment of powerplants effectively reducing the power generation capacity of E.ON with the aim of making the German electricity market more competitive and reducing prices for consumers. A paper by Böckers Veit Dosu Tomaso and Szücs Florian (2017) suggest that at least in the E.ON case these divestments led to a reduction in wholesale prices in the relevant market, validating the action taken by the European Commission. Later on, three more cases followed where undertakings in the energy sector had to divest from part of their operations to address competition concerns.

Nevertheless, apart from similarities of cases in the telecommunication and energy sector the rest of the cases dealt with over the last 20 years are almost all unique in scope and nature.

[23] Eekhoff Johann (2004): Competition Policy in Europe
[24] Cinni Michelle and McGowan Lee (2009): Competition Policy in the European Union p.236-259

5.1. Infringements Description

The Guidance paper divides the infringements most likely to occur under Article 102 into four sections: exclusive dealing, tying and bundling, predation and refusal to supply and margin squeeze. As previously stated, each of these sections can be applied to different forms of abuse that can involve things like pricing or restrictive agreements. The classification for the cases is mostly inspired by a paper from 2006 by Van Damme Eric, Larouche Pierre and Müller Wieland[25] in which they analyse the different forms of anticompetitive behaviour in antitrust cases prior to 2005. Since the main focus of the paper is to identify what is considered to be anticompetitive behaviour according to Article 102, the classification is very detailed. For the purpose of this paper a simpler narrower categorization of the cases is more suitable. Furthermore, since the focus of enforcement changes over time the classification needs to be adapted. Current Guidelines as well as the assessment within the case files differ from earlier cases and in order to make the cases comparable a different classification is necessary.

Only non-rejection cases were used to determine the classification because they represent a definitive infringement. The rejection cases then follow this established framework. In any case the framework is not the ultimate way to categorise the infringements under Article 102, but it seemed to be the one best suited for the analysis of the changes due to the 2009 Guidance paper. There also is nothing in the 2009 Guidance paper of other Guidelines that outlines a comprehensive list of infringements from the European Commission. The baseline the Guidance paper provides are the sections dealing with exclusive dealing, tying and bundling, predation and refusal to supply as well as margin squeeze. However, refusal to supply also includes actions of refusal to license or limiting access to essential infrastructure, in this sense restrictive agreements are also somewhat attached to this category. So, to some degree the categorization of cases will depend on personal perception of the presented arguments in the prohibition and commitment decisions in combination with the published opinion of the European Commission in the Guidance paper and other publications. The final categorization used for the analysis consists of three main categories each with corresponding specific infringements.

Pricing infringements which involve all abuses where the undertaking in question alters the price with the objective to either extort money or foreclose competitors using its dominant position.

predatory pricing

margin squeeze

[25] Van Damme Eric, Larouche Pierre and Müller Wieland (2006): Abuse of a Dominant Position; Cases and Experiments, TILEC.

excessive pricing

price discrimination

Agreement infringements are considered those where the dominant undertaking tries to uphold its position by restricting the sale or use of its products via an agreement with another party.

restrictive agreements

tying and bundling

fidelity rebates

naked restrictions

Behaviour infringements include those infringements where the dominant undertaking can unilaterally prohibit entry into the relevant market or foreclose competitors by not allowing them to use certain property owned by the undertaking. It also includes situations where the undertaking refuses to sell its essential products to companies without relevant reasons of safety and quality.

dissimilar conditions for equivalent transactions

limiting or refusing access to essential infrastructure

refusal to sell

refusal to license

exclusive dealing

It could be argued that tying and bundling also belongs to the behaviour type of infringements but most of the cases are actually agreements between the abusive undertaking and its customers to which they once agreed but the European Commission found to be abusive. Often because the bundle was cheaper than the separate products. So, they were not purely unilateral decisions by the undertaking itself and needed a second party.

5.2. Number of Infringements per Case

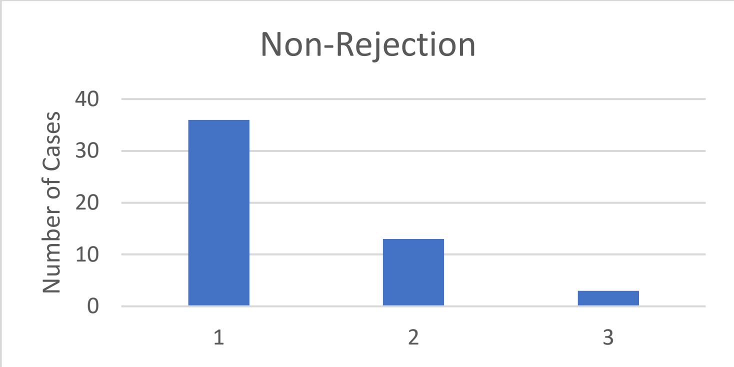

Figure 3: Total Violations per Case

For each of the infringements listed in the previous chapter there exists at least one case in the dataset. Additionally, there are a number of cases where the Commission identified more than one violation of the competition rules by the dominant undertakings. In 13 cases two different infringements were detected and in three cases the undertaking actually abused its dominance in three different ways. The three undertakings in these cases are Google (Android) [case no. 40099], the Coca Cola Company [case no. 39116] and Deutsche Post [case no. 36915]. In the Google (Android) case, a prohibition decision, the European Commission identified a restrictive agreement, tying and bundling and naked restriction violation. The Coca Cola Company case, a commitment decision, included naked restriction, fidelity rebates and tying and bundling. Both of these cases are quite straight forward, and the assessment of the infringements is understandable. The Deutsche Post prohibition decision on the other hand was the only one not involving any agreement infringement and consistent of refusal to sell, refusal to deal and excessive pricing. Overall, the Deutsche Post case is very special since it is one of the two cases involving a symbolic fine and most of the case revolves around cross border mail delivery within Germany where international senders were discriminated by price or slowed mail delivery. Mail simply did not get delivered in reasonable time because of a multitude technical pricing reasons for “foreign” mail, which also led to the seizing of mail by Deutsche Post under certain circumstances. The reason why only a symbolic fine was imposed was that the abusive behaviour was partially in accordance with case law of German courts and therefore the European Commission refrained from applying the full fine appropriate for the case. All in all, in a majority of the cases the assessment under commitment and prohibition decisions determines only one infringement. As for the rejected cases the data differs significantly.

Figure 4: Total Number of Infringements per Case

In a slight majority of the rejection cases the complaint alleges more than one infringement of Article 102. Within the rejection cases the number of single infringements equal the number of double infringements. In the one outlier case alleging four infringements Ryanair accused Aer Lingus and the Dublin Airport Authority of limiting/refusing access to essential infrastructure, tying and bundling, price discrimination and excessive pricing. The Commission however could not detect any of the alleged infringements and rejected the complaint. While the complaints do not go completely overboard with possible abuses as the outlier case, there is a stark difference in the number of determined violations between the rejection cases, and the commitment and prohibition decisions made by the European Commission.

Something else that has to be mentioned here is that within the rejection cases the complaints often suggest that more than one article on competition is violated. What is especially interesting is that there are cases that suggest a joint violation of Article 102 and Article 106, which generally deals with state aid. A case involving both articles would point to a situation where a member state of the European Union sponsors or supports an undertaking which in turn is abusing its dominant position in the relevant market to hinder competition. Conceptionally such a case is just not very likely to occur because there are a number of state aid rules that in such a case are already being violated before an abuse of dominance was detected.

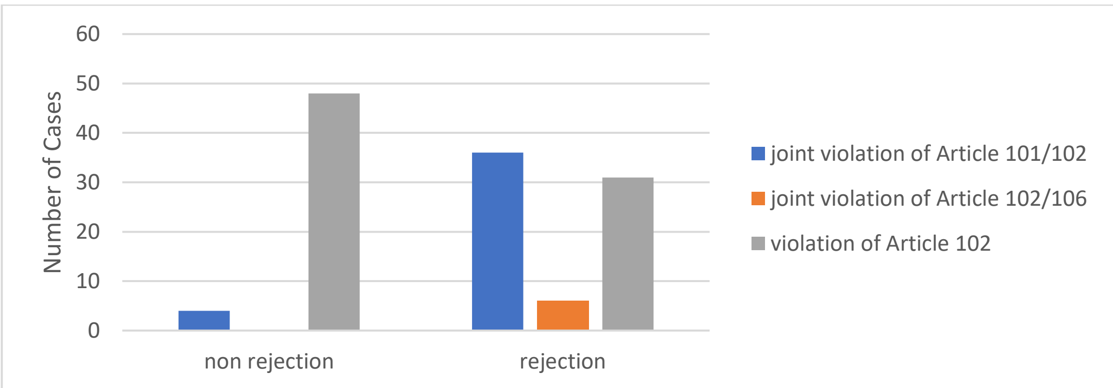

Figure 5: Number of Cases According to Articles of Competition

Within the non-rejection cases there is no decision based on a joint violation of Article 102 and Article 106, yet there are six cases within the rejection category. Furthermore, there are a lot more cases alleging a joint violation of Article 101 and Article 102 within rejection cases that are very rare within the non-rejection cases. There have only been one prohibition and three commitment decisions since 1999 where the circumstances of the case actually allowed a possible joint violation. The first commitment decision in such a case was made in 2012 concerning Rio Tinto Alcan [case no. 39230] revolving around the licensing of aluminium processing licences and special production equipment. The case had an Article 101 dimension because most of the firms operating in the relevant market were subsidiaries owned by the dominant firm Rio Tinto Alcan. This enabled the firm to tie the licenses to the necessary machines needed for production. The only prohibition decision on a joint violation of Article 101 and 102 was made in 2014 concerning a number of pharmaceutical companies of which Servier SAS [case no. 39612] was the only undertaking fined for a violation of Article 101 as well as Article 102. Again, the case mostly revolved around licensing and patent rights. This time though the firms were not all owned by the dominant undertaking as in the case of Rio Tinto Alcan but agreed to work together with the dominant undertaking in order to control the relevant market. The strategy by which Servier SAS abused its dominance consisted of buying up firms that were close to producing a generic drug of its own pharmaceutical product or acquiring patents needed for the production of the same. Furthermore, companies which were close to producing a generic drug but were hindered by Servier's patents tried to challenge, the in their view, unfair patent rights that excluded them from the market. However, each time they were close to actually gaining access to the market, Servier SAS settled the matter out of court and guaranteed the firms a part of its market share or offered payments. These payments can only be described as bribes in order to keep the rivals producing the generic drug out of the relevant market.

Compared to these cases the rejection decisions involving a joint violation of either Article 101, 102 and 106 are not really credible on the grounds that they are rare or non-existent in general. Considering the number of alleged joint violations, the people filing the complaints most likely do not really understand which actions would constitute an abuse of these articles.

6. Effect of the 2009 Guidance Paper on the Assessment of Cases

One of the main questions is if the 2009 Guidance paper led to a significant change in the assessment of cases by the European Commission. Since the paper provides a blueprint for the enforcement and infringements that will be considered most likely to be in breach of Article 102, there could be a stronger focus on certain infringements that are exemplified by the paper. Another possible effect could be that the time for enforcement as well as the length of the infringement is changed due to the more stringent threshold needed for establishing a violation of Article 102 through due to the more "economic approach". Finally, did reporting of infringements to the European Commission become more valid.

	ALL				Before 2009				After 2009				re	no
	Rejection		Non-Rejection		Rejection		Non-Rejection		Rejection		Non-Rejection			
All Infringements	**112**	**61.20%**	**71**	**38.80%**	28	15.30%	33	18.03%	84	45.90%	38	20.77%	*	-
Pricing	**27**	**62.79%**	**16**	**37.21%**	8	18.18%	10	22.73%	20	45.45%	6	13.64%	*	-
Agreement	**37**	**64.91%**	**20**	**35.09%**	13	22.03%	9	15.25%	25	42.37%	12	20.34%	*	-
Behaviour	**45**	**56.25%**	**35**	**43.75%**	7	8.64%	15	18.52%	39	48.15%	20	24.69%	*	-
Months until Decision	**8**		**32.35**		7.47		20.95		8.15		40.06		-	*
Months of Infringement	**0**		**31.68**		0		38.31		0		27.19		-	-

Table 1: Overview of Infringements

Since the introduction of the 2009 Guidance paper there has been a significant increase in the number of reported infringements when looking at cases where no commitment or prohibition decision was reached by the European Commission. These rejection cases are dismissed because of various reasons with the most obvious being that no infringement as described in the complaint can be detected at the very start of the preliminary stage before an official investigation is launched. Another one is that the case is actually not within the jurisdiction of the Commission because the case is either already handled by the national authorities of a member state or the allegations made do not strictly fall under the scope of Article 102. Finally, it is also possible that an officially launched investigation did not provide any evidence of violation of the competition law and the Commission therefore decided to close the investigation. The increase of rejected cases is true for all types of infringement classes: Pricing, Agreement and Behaviour. This indicates that the publication did not lead to a clarification of what constitutes an infringement as intended. It rather provided people with several examples of violations of Article 102 that they could use in order to launch complaints against undertakings though they had no real legal basis. In Comparison, according to the European Commission's own assessments of the number of infringements in did not significantly change after the publication of the paper when looking at the non-rejection cases.

What changed however was the time it took the European Commission to conclude a case. While prior to 2009 the average time to reach a decision was just under two years it now takes more than three years, finish the investigation and to reach a decision. This is surprising considering that the number of commitment decisions increased. It would be expected that they take less time to achieve since the burden of proof or the establishment of workable commitments is usually not as difficult as in the case of prohibition decision. Prohibition decisions can be appealed and therefore need sufficient evidence provided by the Commission to be upheld in court. Surprisingly though, the longest it took the European Commission to come to a decision was the Gazprom case [case no. 39816] which started on 27.09.2011, finished on 24.05.2018 and ended after a total of 82 months with a commitment decision.

In comparison the lengthiest investigation in a prohibition case was a tie between the Google (Shopping) [case no. 39740] and the Lietuvos gelezinkeliai (LG) [case no. 39813] cases, ended after a 79-month long investigation.

On the side of rejections there was no significant change and generally most of the complaints got outright rejected. Again, this means that they never see a formal opening of proceedings and a proper investigation. Therefore, the average time needed to come to a decision is quite low with 7.47 and 8.15 months for Rejection cases compared to the non-Rejection cases because most of them are effectively just thrown out and therefore the time of investigation is zero.

Something else that is interesting is that the total time of infringement did go down from an average of around 38 to 27 months, when including commitment decisions which due to the proceedings have no time of infringement attached in the decision. However even the inclusion of commitment decisions as theoretical zero infringement cases does not make the reduction significant.

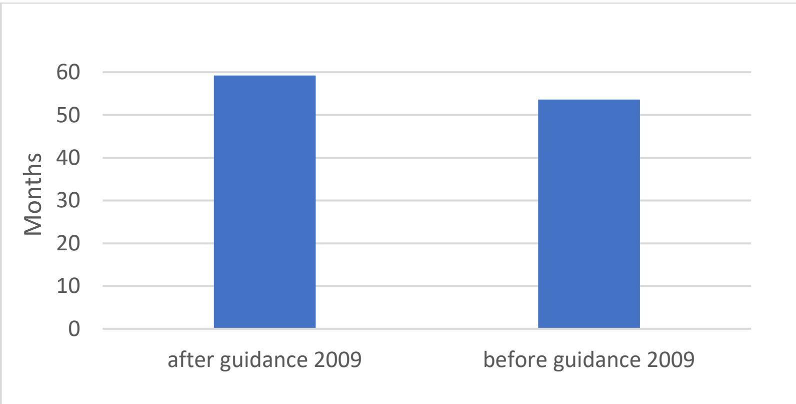

Figure 6: Average Months of Infringement of Prohibition Decisions

Comparatively the average months of infringement considering only the prohibition decisions has not changed in a significant way at all. There is a slight uptick of around half a year after the introduction of the Guidance paper but nothing that could be considered significant. Such a small change could easily be attributed to one case.

6.1. Infringements by Decisions

	All Infringements				Pricing				Agreement				Behaviour				S
	Before 2009		After 2009		Before 2009		After 2009		Before 2009		After 2009		Before 2009		After 2009		
Prohibition	**24**	**13.11%**	**18**	**9.84%**	7	15.91%	3	6.82%	6	10.17%	4	6.78%	12	14.81%	11	13.58%	-
Commitment	**9**	**4.92%**	**20**	**10.93%**	3	6.82%	3	6.82%	3	5.08%	8	13.56%	3	3.70%	9	11.11%	-
Rejection	**21**	**11.48%**	**69**	**37.70%**	7	15.91%	16	36.36%	8	13.79%	20	33.90%	6	7.41%	33	40.74%	iab*
Closure	**7**	**3.83%**	**12**	**6.56%**	1	2.33%	2	4.55%	5	8.47%	4	6.78%	1	1.23%	6	7.41%	-
Administrative	**0**	**0%**	**3**	**1.64%**	0	0%	2	4.55%	0	0%	1	1.72%	0	0%	0	0%	-

Table 2: Infringements by Decisions

Splitting up the cases according to the different decisions made by the European Commission it can be clearly seen that the increase of infringements stems from the fact that there are a lot more cases where an abuse was alleged but the complaint did not lead to an investigation. Rejection decisions make up almost half of all alleged infringements and there is a significant increase in the number of reported Agreement and Behavioural Infringements. Especially behavioural infringements seem to be very common among complainants, possibly because refusal to sell/license/deal are easily to be claimed and could be possibly true. The company however needs to hold a dominant position for the conduct to be illegal. The same applies for refusing or limiting access to essential infrastructure or applying dissimilar conditions for equivalent transactions.

All other decisions by the European Commission did not experience any significant increase in the total number of infringements or within one of the three specific groups. What should be mentioned here is that administrative closure decisions are very rare and there are only two cases where such a decision was made. In the case of a Deutsche Bahn [case no. 39915] investigation in 2013 commitments were already put forward by the company but then the case was shut down after 18 months of investigation. The other case concerned French water suppliers [case no. 39756] which was also closed in 2013 and finally shut down after 36 months with no insights being published on why they were closed.

6.2. Infringements by Sector

rejection	All Infringements				Pricing				Agreement				Behaviour				s
	Rejection		Non-Rejection		Before 2009		After 2009		Before 2009		After 2009		Before 2009		After 2009		
Manufacture	**37**	**20.22%**	**25**	**13.66%**	0	0.00%	6	13.64%	1	1.69%	11	18.64%	2	2.47%	17	20.99%	b*
Service	**68**	**37.16%**	**31**	**16.94%**	8	18.18%	13	29.55%	11	18.64%	14	23.73%	4	4.94%	18	22.22%	b*
Infrastructure	**1**	**0.55%**	**13**	**7.10%**	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	1.23%	-
Extraction	**6**	**3.28%**	**2**	**1.09%**	0	0.00%	1	2.27%	1	1.69%	0	0.00%	1	1.23%	3	3.75%	-

Table 3: Infringements by Sector (rejection)

Looking at the sector distribution of the alleged infringements, of rejected cases, it can be seen that the increase in the alleged behavioural infringements originates mainly from the manufacturing and service sectors which have experienced a significant increase after 2009. There also is a slight increase of pricing and agreement infringements but those do not represent a significant change.

As for the sector infrastructure there is only one rejected case which dealt with the use of rail infrastructure. Deutsche Bahn complained that it could not use essential facilities for transport owned by Rete Ferroviaria Italiana [case No. 39649]. The case was ended with a rejection decision because it had already been brought in front of an Italian court. The difference in the number of infrastructure cases between rejected and non-rejected cases is quite remarkable. Especially considering that there are a lot more rejection cases overall and the complainants are rather liberal in their accusations. The expectation would be that there are a lot more cases where firms complain that vertically integrated firms are excluding or hindering them from the use of essential infrastructure.

Otherwise, no significant changes can be detected with respect to the sector infringements within the rejection decisions. The reason for this is that there were no or very few cases relating to manufacture before 2009 and few cases in general relating to infrastructure or extraction. Therefore, the Guidance paper had no major impact on the sector specific rejection cases.

non-rejection	**All Infringements**				**Pricing**				**Agreement**				**Behaviour**				**s**
	Rejection		Non-Rejection		Before 2009		After 2009		Before 2009		After 2009		Before 2009		After 2009		
Manufacture	**37**	**20.22%**	**25**	**13.66%**	2	4.55%	2	4.55%	7	11.86%	3	5.08%	4	4.94%	7	8.64%	-
Service	**68**	**37.16%**	**31**	**16.94%**	5	11.36%	3	6.82%	2	3.39%	8	13.56%	9	11.11%	6	7.41%	-
Infrastructure	**1**	**0.55%**	**13**	**7.10%**	3	6.82%	1	2.27%	0	0.00%	1	1.69%	1	1.23%	7	8.64%	-
Extraction	**6**	**3.28%**	**2**	**1.09%**	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	1.23%	0	0.00%	-

Table 4: Infringements by Sector (non-rejection)

Within the non-Rejection cases there was no significant change at all on a sector level. However, cases concerning infrastructure while mostly being behaviour infringements, pricing and agreement infringements do also occur. A lot of these cases are of course found in the energy sector where infrastructure is almost always essential for supply through pipelines or powerlines. Again, it is curious why there are so few cases within the rejections compared to the non-rejections. One explanation could be that almost all complaints are substantive, and a real investigation are conducted leading to commitment or prohibition decisions. Another reason could be that there simply are not enough competitors or complainants that file a complaint because the market is so concentrated, and the end consumers do not realize that they may be harmed. Since the difference is highly significant and considering that the rejected case was dismissed because a national court has already dealt with the matter it can be assumed that infrastructure related cases usually are likely to not be rejected. Therefore, they lead to a proper investigation and decision and more cases show up in the non-rejected cases.

6.3. Non-Rejection Decisions

	Prohibition						Commitment						p	c
	All		Before 2009		After 2009		**All**		Before 2009		After 2009			
Decisions	**29**	**55.77%**	15	28.82%	14	26.92%	**23**	**44.23%**	6	11.54%	17	32.69%	-	*
EEA	**6**	**37.50%**	3	18.75%	3	18.75%	**10**	**62.50%**	1	6.25%	9	56.25%	--	**
Affected Member Sates	**49**		23		26		**36**		22		14		-	*
Mean Market Share	**80.16**		82.83		77.29		**79.46**		82.5		78.38		-	-
Months until Decision	**33.59**		21.1		47		**30.78**		20.67		34.35		*	*

Table 5: Overview Prohibition and Commitment Decisions

The most notable difference between prohibition and commitment decisions after 2009 is that a majority of European Economic Area (EEA) level competition concerns are dealt with via a commitment decision. The increase in commitment decisions is very significant even when considering that they have been introduced by the Regulation 1/2003 in 2004. Overall, 62.5% of all cases with EEA relevance were resolved through commitment decisions.

It has also become clear that it takes a lot longer for prohibition decisions to be reached after the publication of the Guidance paper. In fact, they almost take a year longer to reach compared to commitment decisions after 2009. This could be one of the effects of the more “economic approach” outlined in the 2009 Guidance paper. Prohibition decisions now should provide an economic analysis that is as detailed as possible especially when dealing with infringements where an AAC and LRAIC approach can be used to determine the effects of the abuse.

The market-share of the dominant undertakings has not changed significantly over time and on average is consistently high in the relevant market for both prohibition and commitment decisions. A lot of the firms involved are either true monopolies or they are the only company with a large market share facing a number of comparatively small competitors. In 25 of the 52 decisions the undertaking in question had an estimated market share greater or equal to 90%. A lot of the undertakings are also true monopolies often due to the circumstance that they own essential infrastructure or are in the possession of intellectual property rights which are necessary inputs for competitors and other undertakings.

The smallest market shares for which dominance in the relevant market were detected are around 40% which is in line with the European Commission’s own assessment that a dominant position is unlikely to occur at this lower bound[26]. There are only two cases in which such a low market share was grounds for action by the Commission. In the case of Michelin II [case no. 35141] a prohibition decision was reached and in the Coca Cola Company case [case no. 39116] which ended with a commitment

[26] Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, 2009

decision. So, it is rather unusual for undertakings to get investigated if their market share is close to this threshold.

The Coca Cola case as an outlier is also the reason why the number of affected member states is significantly different prior and after the introduction of the Guidance paper in the commitment decisions.

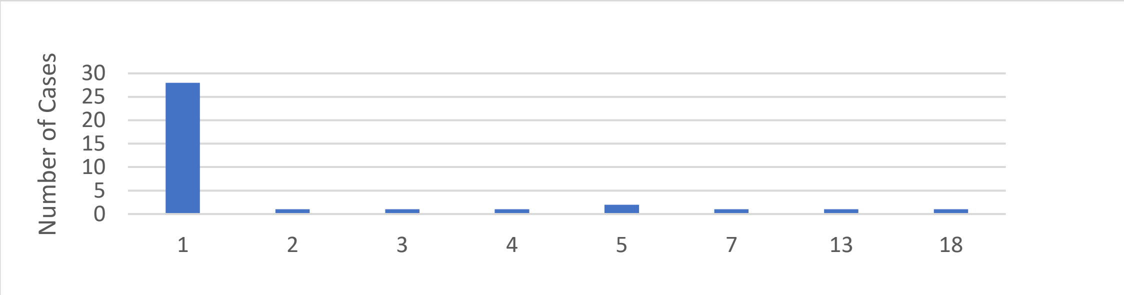

Figure 7: Number of Member States Affected

Something else that is interesting, is that the number of affected member states by decision is rather low. In fact, the relevant geographic market in 28 cases was only one member state. So, while there may be an interest to prosecute larger cross-country cases, the reality is that a lot of infringements of Article 102 are done on a rather limited single country level. Even though the newer regulation would allow national competition authorities and courts to prosecute dominate firms on the basis of Article 102[27].

Cases involving more than one member state, are actually quite unique. The majority of cases usually only affect one member state even when including EEA cases. During the 20-year period covered by the data, only 8 cases involved more than one member and 16 had EEA relevance while there were 28 single member state cases.

In each of the prohibition and commitment decisions the European Commission does not only determine the infringement but also the negative impact of the infringement. The categories which have already been generally established in other publications of the Commission[28] have been outlined in detail in the 2009 Guidance paper. Again, as is the case with infringements more than one category can apply in a specific case and usually more than one harmful effect is determined per case.

[27] Regulation (EC) No1/2003
[28] Commission Notice on the definition of relevant market for the purposes of Community competition law, 1997

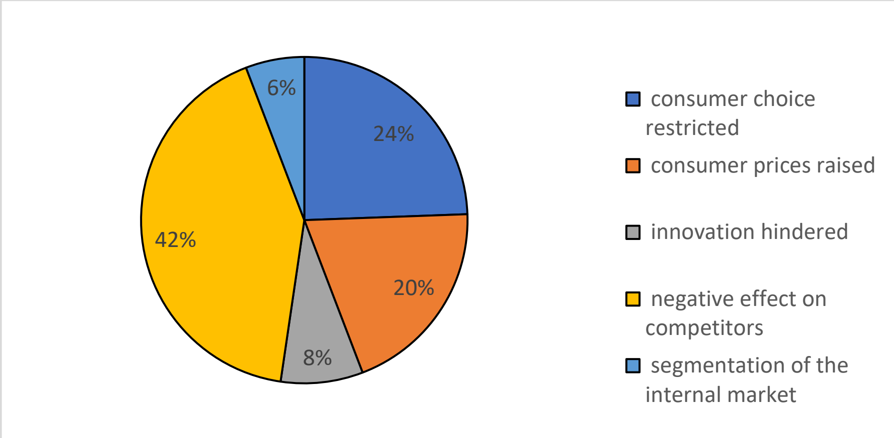

Figure 8: Determined harm caused by the infringement

The most prominent harm identified is the negative effect on competitors. A category that sometimes could be negatively interpreted as protection of competitors and not the protection of competition. Especially when it is the only concern established in the case. It is probably the category that is established easiest because competitors in this sense also includes potential competitors that are not in the market right now, so it is enough to show the theoretical negative economic impact on the competitors to establish the harm. This however is problematic because under certain circumstances as the Guidance paper outlines a violation of Article 102 is established if there are negative effects resulting from the conduct of the dominant undertaking.

Consumer prices in comparison can be measured and the change can be estimated using historic prices or current prices and the cost structure of existing competitors. The segmentation of the internal market can also be established by looking at the business structure of the undertaking. Whether or not it can be established if consumer choice was restricted, or innovation hindered by the infringement can again be somewhat questionable but the examined cases in the set themselves are very specific and are not relying on heavy theoretical interpretation of the terms. The cases where the Commission determined that consumer choice was restricted usually revolve around cases where up and downstream integrated firms explicitly restrict effective competition on the downstream market. For example, in the Google (Shopping) case [case no. 39740] the concern was restricted consumer choice because Google did not show or in principle hide search results (upstream) for price comparison websites (downstream) of competitors in favour of its own price comparison service. In cases where the effect of the infringement is hindered innovation, the general nature of the cases is that integrated firms prohibit the entry or effective competition on the downstream markets. The concerns expressed by the Commission in such cases are almost identical to those in its merger policy brief but addressing the concerns from opposite sites.[29] A special case concerning hindered innovation and consumer

[29] Competition policy brief (2016): EU merger control and innovation

choice was a joint violation of TFEU 101/102 involving Servier SAS [case no. 39612]. Here the undertaking basically generated a cartel using its dominance to selectively grant patents of its pharmaceuticals to competitors and buying out any competitive threat to its pharmaceutical products. Through its cartel and vertical integration Servier SAS effectively influenced the development or lack thereof as well as the production of pharmaceutical products in the relevant market. It is quite clear to see why this would be detrimental to innovation and consumer choice.

	Prohibition						Commitment						p	c
	All		Before 2009		After 2009		All		Before 2009		After 2009			
Consumer Choice	**14**	**66.67%**	8	38.10%	6	28.57%	**7**	**33.33%**	2	9.52%	5	23.81%	-	-
Consumer Price	**11**	**64.71%**	7	41.18%	4	23.53%	**6**	**35.29%**	2	11.76%	4	23.53%	-	-
Innovation	**4**	**57.14%**	3	42.86%	1	14.29%	**3**	**42.86%**	0	0.00%	3	42.86%	-	-
Competition	**18**	**50.00%**	10	27.78%	8	22.22%	**18**	**50.00%**	6	16.67%	12	33.33%	-	-
Segmentation	**3**	**60.00%**	2	40.00%	1	20.00%	**2**	**40.00%**	0	0.00%	2	40.00%	-	-

Table 6: Effects of the Infringement by Prohibition and Commitment Decisions

The assessment of harm done by an infringement of Article 102 however has not significantly changed since the introduction of the 2009 Guidance paper. As mentioned before the categories were mostly established prior to 2009 and even though the paper clarified by putting the harm in relation to the infringements nothing substantially changed. Nevertheless, each of the four infringement categories features its own paragraph on consumer harm and how it manifests. Therefore, it definitely is central in the consideration of competition law enforcement. However, the central aim of the paper was not to change the assessment of harm but the assessment of the infringements.

One possible observation when looking at the table above is that there could be a preference of the Commission to deal with consumer choice and price concerns with a prohibition decision because there were almost double the cases overall compared to commitment decisions. However, this is mostly due to the time before 2009 and afterwards there is no real difference at all.

Something that will be interesting to observe in the future is whether innovation concerns will be dealt with more with commitment or prohibition decisions. Right now, there are few cases but of the four cases after 2009 three have been commitment decisions and only one a prohibition decision.

7. The Probability of Investigation or Rejection

As previously shown, a lot of the rejected cases never even reach the stage of a proper investigation but what is the reason for the high number of rejections. Not all of the outright rejections are truly baseless in some of the cases the European Commission said it was not responsible for the investigation of the allegations made by the complainant. These are all, cases that fall under the category of *not for the commission to decide*. As already explained, this can either be because the matter was already being taken care of by national competition authorities or because the cases did not fall within the scope of the Articles on competition. Nevertheless, they could be seen as cases that at least have some merit compared to other complaints, some of which were only loosely connected to the Articles on competition. The same is true for cases where the European Commission originally started an investigation but later determined to close them. In those cases, the Commission at least had to have some reason to even start an in depth investigation.

In Comparison to cartel cases there is no real leniency program and therefore no self-reporting of an abuse of a dominant position by undertakings themselves, whistle-blowers aside. The closest equivalent to the leniency program is simply a commitment decision. So, the Commission, unless it starts investigations on its own, relies on complaints from competitors or customers to start its investigation in an Article 102 case. This means that the detection of an abuse of a dominant position relies on the quality of a complaint.

Using a very simple logit model it is possible to bluntly illustrate what should not be done in a complaint if the plaintiff wants the Commission to take his allegation seriously and possibly have his matter investigated properly. The suggestion in line with what was shown in the tables above is, to minimize the number of total violations and also to not use joint violations of multiple articles on competition but only refer to Article 102. Keeping all else equal these complaints should have the highest probability of succeeding, in the sense that there is a real competition concern to investigate. The three models represent the different probabilities of rejection for the different levels of merit a case had. The first includes all prohibition, commitment, closure of proceedings, administrative closure decisions as well as cases that were not for the commission to decide. Then one after another the cases with less merit are dropped first those which fall under the category not for the commission to decide and then the closure of proceedings and admirative closure decisions. The final model then is a direct comparison of rejection and non-rejection cases.

So, the explanatory variables of the model are: *v102, vt, service, and g2009*. The first variable *v102*, is simply a dummy variable indicating that the case only deals with an Article 102 violation and the variable *vt* is the total number of infringements in a case. Due to the general lack of infrastructure and extraction cases in the rejection category only the service sector is included. Finally, *g2009* indicates if a case was closed before or after the release of the 2009 Guidance paper. Apart from the change in the dependent variable *probrej*, which represents the different groups of cases, the final model looks as follows:

$$probrej \sim \beta_0 + \beta_1 v102 + \beta_2 vt + \beta_3 service + \beta_4 g2009 + \epsilon_i$$

Table 7	(v1)	(v2)	(v3)
VARIABLES	probrej1	probrej2	probrej3
v102	1.2576***	1.9591***	2.6222***
	(0.4570)	(0.4577)	(0.5986)
vt	-1.1646***	-0.9278**	-0.5076
	(0.3778)	(0.3901)	(0.4110)
service	-0.3661	-0.3129	-1.0925**
	(0.4493)	(0.4399)	(0.4687)
g2009	-0.1147	-0.9820*	-0.9941*
	(0.5195)	(0.5268)	(0.5242)
Constant	2.2013**	1.1900	-0.2292
	(0.9170)	(0.9214)	(1.0123)
Observations	122	122	122
Standard errors in parentheses			
***** p<0.01, ** p<0.05, * p<0.1**			

Table 7: Logistic Regression Summary Table

Now what can be immediately seen is that the "merit" of a case and which in this sense is the probability of an investigation rises if the case is not dealing or alleging a joint violation of multiple competition articles. The first version (*v1*) which still includes the not for the commission to decide cases looks nice because both *v102* and *vt* are highly significant. However, while the variables are great at predicting cases that will probably have some merit, they are very bad at predicting those that will not. In the first model 87.06% of all cases with at least some merit are correctly predicted but only 43.24% of those without any. So, there are a lot of false positive predictions in comparison with version 2 (*v2*) which only includes cases where a true investigation was started: prohibition, commitment, closure of proceedings decisions and the administrative closure cases. The model (*v2*) performs a bit worse at predicting 80.6% of investigations but is able to predict 69.09% of non-investigation cases. Lastly version 3 (*v3*) which puts rejection against non-rejection cases is able to predict 75% of non-rejections but is also only able to predict 75.71% of rejections. Now it could be argued that for the purpose of showing what will most likely lead to an investigation, it is not necessary to care about false positive cases. However, these models show that while it is easy to generally predict rejection or a possible investigation by just looking if it is single violation of Article 102 (*v102*) or a joint violation of multiple articles, the variable is not able to make a clear distinction. Furthermore, the total violations in a case are not significant when directly comparing rejection to non-rejection cases. Therefore, a lower number of total violations in the complaint has a higher likelihood to lead to an investigation but not necessarily to a commitment or prohibition decision. It is also interesting that sector is only getting significant when directly comparing rejection and non-rejection cases and actually has a negative impact. The reason for this is most likely the high number of service related rejection decisions. One surprising outcome is that the variable for the Guidance paper (*g2009*) is not really significant. In both the second (*v2*) and the third version (*v3*) it only comes close to a 5% significance level. So, the paper might have had a negative influence on whether cases got investigated or received proper commitment and prohibition decisions after 2009 but it was at best a small one. In conclusion the Guidance paper definitely is not as influential for antitrust enforcement as was the introduction of the leniency program for cartel cases in 1996 and its subsequent adaptions which lead to a substantial increase in the number of cartels detected by the European Commission.[30]

Something that would have been nice to include as an explanatory variable is if an allegation was made by a direct competitor or someone else. Mostly because in some cases there is an indication that direct competitors tend to make allegations with no real basis in competition law. Sadly, the European Commission does not provide data on who made the complaint in almost all the cases where the investigation was shut down. The only exception was made in the watchmaker repair case [case no. 39097]. Furthermore, the non-rejection cases also do not always provide the information on who filed the complaint. So, there are simply too many important data points missing.

Nevertheless, what can be seen is that the highest likelihood of getting a case to be investigated was achieved by keeping it specific to Article 102 and not adding further violations of either Article 101 or 106. On the other hand, it seems that the analysis of the current cases does provide no real indication on whether a case will finally lead to a prohibition or commitment decision due to higher number of violations because in (*v3*) the coefficient for total violations (*vt*) is not significant.

8. Fines under Article 102

There are 26 decisions of the European Commission where a fine was imposed including two symbolic fines of a 1000€. Of the 26 decisions ten fall in the period between the 1998 and 2006 Guidelines on fines and 16 in the period after. The only fines in this paper that are considered are those that had a relation to Article 102. So, in the case of Servier SAS [case no. 39612] which was a joint violation of Article 101 and 102 only the undertaking receiving a fine for Article 102 is counted in order to ensure that the fine setting of abuse of dominance and cartel cases are separated. With the expressed intent of the European Commission to "ensure the transparency and impartiality of the Commission's decisions"[31], the introduction of the Guidelines should result in an easily traceable fine setting. The

[30] Ordóñez-de-Haro Manuel José, Borrell Joan -Ramon and Jiménez Luis Juan (2018): The European Commission's Fight against Cartels (1962-2014): A Retrospective and Forensic Analysis

[31] Guidelines on the method of setting fines imposed pursuant to Article 15 (2) of Regulation No 17 and Article 65 (5) of the ECSC Treaty, 1998

Guidelines published in 2006 thus follow a more refined way of calculation and describe in more detail what factors increase or decrease the fines.

An investigation into the fine setting under Article 102 by Dethmers Frances and Engelen Heleen in 2011[32] did not establish up a noticeable fine system. The analysis however did only include a limited number of variables like geographic scope and the scope of the infringement in terms of seriousness of the abuse in the specific case. So, their analysis mostly followed the system of the 1998 Guidelines on fines dividing cases into the three major categories as described in chapter 3.2. It should also be mentioned that at the time they also only had two cases under the 2006 Guidelines to look at. Interestingly however it also includes an Article 101 prior Article 81 case from 2000 concerning Soda ash and involving the companies Solvay SA and Chemische Fabrik Kalk (CFK) [case no. 39003]. The reason why this case was included is not really clear.

	Fine						**Mean Fine**			**Turnover**			
	All		Before 2006		After 2006		**All**	Before 2006	After 2006	**All**		Before 2006	After 2006
Manufacture	**2.644,9M**	**21.78%**	103,8M	0.85%	2.830,9M	20.93%	**62,7M**	20,8M	68,7M	**147.173,8M**	**24.71%**	5.24%	19.47%
Service	**9.228,2M**	**75.99%**	1696,3M	13.97%	7.531,8M	57.40%	**146,5M**	84,2M	175,2M	**342.845,2M**	**57.57%**	7.21%	50.36%
Infrastructure	**270,4M**	**2.23%**	12,6M	0.10%	257,8M	2.12%	**22,5M**	12,6M	25,8M	**105.539,5M**	**17.72%**	8.11%	9.61%
Prohibition	**11.582,5M**	**95.38%**	1812,7M	14.93%	10.060M	80.45%	**399,4M**	139,4M	628,7M	**540.558,5M**	**90.76%**	20.56%	70.21%
Commitment	**561M**	**4.62%**	0	0.00%	561M	4.62%	**24,4M**	0	26,7M	**55.000M**	**9.24%**	0%	9.24%

Table 8: Overview of Fines

Now a short overview of the fines should provide an understanding of how and when the European Commission imposes fines and how they may be influenced by the Guidelines. At first glance fines have increased over all categories after the introduction of the 2006 Guidelines. However, in the Service and Manufacture sector the total turnover represented by the firms has increased dramatically. In these sectors there were a lot of high-profile cases after 2006 compared to the period between 1999-2006, which include firms like Google, Microsoft, Qualcomm and Intel. Prior to 2006 there was only one high-profile case, concerning Microsoft an undertaking that had been fined multiple times by the European Commission and was also the only company to date that had a fine imposed for not complying with the remedies outlined in a commitment decision. This one case alone accounts 4.62% of all fines imposed over a twenty-year period. However, the company that is responsible for more than half of the fines imposed by the Commission and responsible for the significant increase of fines within the service sector is Google. The Google (Shopping) [case no. 39740] and (Android) [case no. 40099] cases cost Google more than 6.7 billion Euros. In relative terms though, the fines only represented an estimated 3% (Shopping) and 4.4% (Android) of total turnover of the undertaking. In other words, not really record breaking fines in relative terms and well below the legal maximum of 10% of total turnover the Commission can impose.

[32] Dethmers Frances and Engelen Heleen (2011): Fines under article 102 of the Treaty on the Functioning of the European Union, European Competition Law Review; Thomas Reuters UK Limited and Contributors

In recent cartel cases a majority of fines imposed by the European Commission, if not being a deterrence of anticompetitive behaviour, were at least compensating for the distorted price setting due to the anticompetitive behaviour of the concerned undertakings.[33] If this is also true for fines imposed under Article 102 is hard to say. Looking at the past 20 years only two companies Microsoft [case no. 37792] and Deutsche Telekom [case no. 37579 and 39523] were fined more than once for the "same" infringement in a prohibition decision. So, firms usually are not repeat offenders especially considering that Microsoft's violation of the decision was rather a failure to properly implement remedies of the prohibition decision than a real new violation of Article 102. However, what may be a better indication of whether or not the fines are a deterrence, is the fact that none of the commitment decisions were violated. So, undertakings apparently are not willing to take the risk of being fined when there is no recourse and therefore no possibility for them to get a reduction through a revaluation by the court.

As for the increase of fines in the Manufacturing sector has also been caused by international companies. Intel [case no. 37990] was fined in a single case for more than a billion Euros for its exclusive dealings with Original Equipment Manufacturers in the PC and laptop market. Qualcomm on the other hand, was fined more than 1.2 billion Euros in two cases: one dealing with predatory pricing of its UMTS chip sets [case no. 39711] and the other for making exclusivity payments to Apple for using only Qualcomm LTE chipsets [case no. 40220]. The rest of the fines is distributed over seven other cases and even put together the total amount of the fines would not come close to a billion euros.

Now it may seem that most of the fines the European Commission collects, come from US based companies which makes it seem as if the Commission is extorting US based companies. However, with the exception of Google (Shopping), all of the firms faced similar antitrust concerns raised by the US Federal Trade Commission.[34] Even though Google does not face the same scrutiny in certain areas in the US as it does in the European Union it does so in others.[35] So, the Commission is not singling out foreign based large multinational firms in order to extort money. Furthermore, the relative fine imposed on tech companies was never exceptionally high.

Also, investigations into the European Union merger control by Bradford Anu, Jackson J. Robert Jr., and Jonathon Zytnick (2018) did not reveal any targeted action against foreign acquisitions by the European Commission. Their analysis of over 5000 cases between 1990 and 2014 suggests that the Commission is actually more lenient in its enforcement when the acquirer is not based in the European Union.

[33] Allain Marie-Laure, Boyer Marcel, Kotchoni Rachidi, Ponssard Jean-Pierre (2015): Are cartel fines optimal? Theory and evidence from the European Union, International Review of Law and Economics.

[34] FTC Intel, FTC Qualcomm Inc.

[35] FTC Google Inc. and Motorola Mobility LLC

Merger control is of course only one part of antitrust enforcement but as is also suggested by the authors it would be unlikely that the European Commission would not act in a protectionist way in merger control, and then start using unfair/protectionist measures in other antitrust fields dealing with cartel or abuse of dominance cases.

In this context it should also be mentioned, Amazon which had an ongoing Article 102 case from 2015 to 2017 [case no. 40153], concerning a sort of most favoured nation clause, here called parity clause with its E-book suppliers. The problem was that Amazon had to be informed of any changes in the price of E-books sold with other competing retailers and be allowed to match those prices. Guaranteeing that Amazon always sold at the lowest/best price. Nevertheless, Amazon and the Commission were able to resolve the competition issues with a commitment decision therefore not imposing any fines.

It should further be noted that the US and EU competition law enforcement does still differ in some instances, but it has become more similar over the last couple of years[36]. So, enforcement of competition law, under Article 102 in the European Union or under section 2 of the Sherman Act in the US, will a lot of times lead to similar cases, when the companies are active on a worldwide market[37].

Infrastructure related cases do not seem very impressive compared to the other two sectors. The overall fines companies were ordered to pay in this sector only make up around 2.23% of all fines imposed during the analysed 20-year period. This is because most of these cases concern companies working in the energy industry. It seems that the European Commission has decided to go a different route when dealing with these companies, as already shown above by applying commitment decisions. Nevertheless, the second highest fine relative to turnover was imposed in an infrastructure related case with 6.8% on the Lietuvos gelezinkeliai (LG) [case no. 39813] company for not making a train track available for transport to a competitor. While the fine in total is only around 27.9 million Euros, it shows that the Commission does not shy away from also fining smaller companies for a substantial amount relative to their turnover.

The case with the highest fine relative to turnover was the case against Tomra Systems [case no. 38113]. A 7.1% fine was imposed for blocking entry into the market for reverse vending machines. This also was the last decision before the release of the 2006 Guidelines.

[36] Cinni Michelle and McGowan Lee (2009): Competition Policy in the European Union p.314-340
[37] Fox Eleanor (2014): Monopolization and Abuse of Dominances: Why Europe is different, The Antitrust Bulletin

8.1. Effects of the Guidelines on Fines

The aim of the paper is to measure the effects of the 2006 Guidelines on fines via a simple instrumental variable regression. The most important aspects for setting the fine in an Article 102 case according to the European Commission are the gravity and the duration of the infringement. While the duration of the infringement is given in each prohibition decision, as a simple number of years and months, the gravity is not as easily assessed. Both the general size of the firm in question and the relevant geographic market seem to matter a lot. While in the 1998 Guidelines this is only stated via previous cases that constitute different levels of infringement, it is explicitly stated in the 2006 Guidelines that the value of sales and scope of the geographic market factor into the gravity of the infringement. Nevertheless, there is still some ambiguity in the sentence "The assessment of gravity will be made on a case-by-case basis for all types of infringement, taking account of all the relevant circumstances of the case".[38]

Both guidelines also include the possibility of imposing a low symbolic fine if it can be explained why such an action is necessary to be applied. Since cases where a symbolic fine is imposed are unique and do not require a calculation of the fine both the Football World Cup [case no. 36888] and Deutsche Post [case no. 36915] case will be omitted in the econometric analysis.

The four models below are simple regression models that try to capture which factors influence and explain the amount of the fine and thereby the gravity that is attached to the abuse of dominance in a certain case. For all the models the logarithm of the fine is used as dependent variable. Turnover too is used in logarithmic form in order to provide comparable percentage effects of the different variables and their effects on the fine imposed on the undertakings. The goal is to identify how much the different variables influence the relative fine an undertaking receives for an Article 102 violation and if those variables match the concepts outlined in the Guidelines on fines. Furthermore, the results should also provide the extent to which the new Guidelines have affected the level of the fine.

The general model therefore looks as follows:

$$\ln fine \sim \beta_0 + \beta_1 \ln turnover + \beta_2 EEA + \beta_3 memberst + \beta_4 g2006 + \beta_5 year + \beta_6 ht + \beta_7 vt + \epsilon_i$$

EEA and g2006 are both dummy variables with the first indicating whether or not a case had EEA relevance and the g2006 indicates if a decision was reached before or after the release of the 2006 Guidelines on fines. The number of member states affected by a decision is given *memberst* and the duration of the infringement by year. The last two variables *vt* and *ht* indicate the sum of total violation and consumer harm caused by the infringement in a specific case. These two variables should

[38] Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation No 1/2003, 2006.

somewhat represent the gravity of the infringement. Other variables like market share or the fact that an undertaking was a monopoly in the case were not included because they were not significant in any way as soon as turnover is introduced in the model. Furthermore, they are not prominently featured as deciding factors in the Guidelines on fines.

Table 9	**(v1)**	**(v2)**	**(v3)**	**(v4)**
VARIABLES	lnfine	lnfine	lnfine	lnfine
lnturnover	0.3752**	0.3028*	0.3677**	0.4028***
	(0.1395)	(0.1676)	(0.1426)	(0.1379)
EEA	2.9755***	3.4744***	3.3132***	3.1156***
	(0.7180)	(0.7279)	(0.6883)	(0.6572)
memberst	0.2188**	0.2364**	0.2374**	0.2639***
	(0.0913)	(0.0934)	(0.0923)	(0.0881)
g2006	1.1821**	1.0633**	1.0217*	1.0619**
	(0.4944)	(0.4995)	(0.4907)	(0.4884)
year	0.1169	0.1302	0.1290	
	(0.1292)	(0.1334)	(0.1318)	
vt	0.5804			
	(0.4299)			
ht		0.1948		
		(0.2557)		
Constant	6.2440*	8.1912**	7.1408**	6.9571**
	(3.0618)	(3.3862)	(3.0564)	(3.0472)
Observations	24	24	24	24
R-squared	0.8256	0.8133	0.8069	0.7966
Standard errors in parentheses				
***** p<0.01, ** p<0.05, * p<0.1**				

Table 9: Fine Regression Summary Table

What can be seen is that the duration of the infringement the variable *year* is not significant at even a ten percent level. This is rather surprising because both the 1998 [x gravity +y duration = basic amount] and the 2006 [x gravity * y duration = base amount] Guidelines suggest that a longer infringement will lead to a higher fine in their equations. So immediately a half of the simplified equation put forward in the Guidelines seems to have no influence on the fine in general. This should not happen and is not due to the cases with extremely high fines because in those cases the duration is usually above the average of around 31 months. So, their fines should support the relation outlined in the Guidelines regardless of using the 1998 or 2006 equation. Excluding either one of those cases makes the relationship of fines and the duration of the infringement worse.

Both (*vt*) the sum of total violations and (*ht*) the sum of consumer harm caused within a case are not significant. Effectively this would suggest that multiple offenses do not really factor into the fine calculation or put differently additional violation do not influence the perceived level of gravity in a case. Surprisingly enough this is also true for the sum of consumer harm caused by the abuse. It makes no difference if an undertaking harming consumer on multiple fronts through raised prices, hindered innovation or a loss of choice in products. The use of total violations and sum of all detected consumer harm might look strange at first, but the problem is even on an individual level of violations and consumer harm no significant effect on the fine can be detected. So, there is no specific worth or level attached to these categories in terms of severity that could factor into the gravity of the abuse.

EEA which is identifying if a case had an effect on the whole European Economic Area is highly significant in all versions and has a strong effect on the level of the fine. However, the effect may be a bit overstated since EEA relevant cases involve the largest international firms within the set. If a case has relevance on an EEA level the fine would increase more than 20 times than if it were not. Which is unrealistic because if it were true then a lot of the cases would exceed the regulatory boundaries of the fines.

The estimated effect of the 2006 Guidelines on fines is that they almost double the fines imposed on companies. However, in the model v3 they are only significant at a 10% level with a p value of 0.052. Here additional future cases are likely to lead to a higher statistical significance. Generally, the effect also seems a bit high suggesting an increase of the fines of around 189% after 2006. However, this still somewhat reasonable since the average fine to turnover ratio has increased from an average of 1.8% to 2.5% and a lot of high-profile cases after 2006 were above the average. How much of this increase is solely due to the new formula and approach of the 2006 Guidelines is hard to say. Part of the increase could simply be a more forceful application of punitive fines by the European Commission and since total violations consumer harm and years of infringement are not significant the variable might catch other effects that increase the fine but are not considered in the model.

Both the increase in turnover and the number of member states affected by the infringement are significant although at different levels over the four models. Turnover has a high effect on the fines which is to be expected since the size of the company matters a lot for the level of the fine. Depending on the model a 0.3-0.4% percentage increase for every percent increase of the fine. Additional member states or in other words a wider geographical market also increases the level of the fine.

The most surprising outcome probably is that the duration of the infringement is not significant. Which is inconsistent with the published guidelines on fines that state that the duration of the infringement will increase the fine imposed on the undertaking. This again raises the question on how gravity is defined even more so than the fact that it seems that multiple different infringements within one Article 102 case do not lead to an increase in the fines.

The fact that there are rather few cases to use to estimate the effects of the different variables is of course problematic. However, since the European Commission relies on rather simple equations to determine the basic amounts, it should be at least possible to get significant values for the duration of the infringement. Effectively, most of the fine calculation probably depends on “the assessment of gravity” that “will be made by case by case basis and take into account all the relevant circumstances of the case”[39]. This means that it is up to the European Commission and its interpretation of the surrounding circumstances in each individual case to determine the level of the fine. As Dethmers Frances and Engelen Heleen (2011) I could not detect any real predictable pattern in the level of fines.

The only variable that seems to matter is the overall scope of the relevant market in the form of the number of affected member states (*memberst*) and the size of the dominant undertaking in the form of *turnover*. Otherwise, it seems that after the publication of the 2006 Guidelines the fines have increased. However, the increase alone does not provide any real information about the basic assessment of gravity before and after 2006.

This outcome is also quite similar to the analysis of fines imposed in European Union in cartel cases. A paper by Veljanovski Cento (2011) investigating the deterrence effect of fines imposed in cartel cases found that fines increased significantly after the introduction of the 2006 Guidelines on fines compared to the previous period of the 1998 Guidelines on fines. This increase however was mostly attributed to a change in the application of the leniency program, a factor that plays no role for abuse of dominance cases. What cannot attribute to different antitrust procedures though is the fact that the calculation of the fines, as well as the application of the Guidelines on fines, is not always clear in cartel cases as well.

9. Key Findings and Discussion

The most notable changes that occurred after the release of the 2009 Guidance paper probably were that the number of infringements especially in the behavioural category increased considerably and that there seems to be a switch in the enforcement approach of Article 102 as indicated by the increase of commitment decisions.

One unintended effect of the Guidance paper may have been that certain complainants took the described infringements as inspiration, for what turned out to be mostly baseless accusations. This is

[39] Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation No 1/2003, 2006.

further underlined by the fact that the complainants never seem to be quite sure if only one or multiple of the articles on competition are violated. In order to reduce certain complaints in the future a concise Guideline on how to file a complaint including the baseline circumstances that should apply for a violation under either article of competition should be compiled. This should also include a description of what constitutes a relevant product market as well as its geographic boundaries. Most of this is already described at length in publications of the European Commission but never put together in a comprehensive form.

As far as the change in commitment decisions is concerned, the European Commission probably tries to get competition concerns resolved in a shorter timeframe without committing a lot of resources over an extended period of time.[40] Considering that a lot of those cases had EEA relevance, the effects on competition are quite substantial because the relevant geographic market is then considered to be the whole of the EEA or even the world. What is also interesting in this regard is that the overall number of member states affected by commitment decisions in non-EEA relevant cases actually decreased during the same period of time. However, this is only due to an outlier Commitment decision in the Coca Cola Company case [case no. 39116] and not due to any real changes in enforcement.

In comparison prohibition decisions after 2009 took significantly longer to be concluded and there is no one outlier case responsible for the increase. The longest cases during the 1999-2009 period, were the Microsoft case [case no. 37792] with 31 months and the Astra Zeneca [case no. 37507] case with 36 months both being below the average of the 2009-2019 period with 47 months of investigation until the prohibition decision was reached. As for the number of affected member states as well as EEA relevant cases no significant change can be observed at all.

Something that can definitely be observed is that the level of fines compared to turnover increased even if the calculation of how those fines came to be cannot entirely be identified. Nevertheless, there is a definitive increase in the average level of the fine from 1.8% to 2.5% of the undertaking's turnover - something that is also reflected in the relatively high significance of the dummy variable for the Guidelines in all but one version of the regression on fines.

It is troubling though that there is no way of getting a specific measure of gravity for a certain case because it seems not to be related to something definitive like the infringement or the harm caused by the abuse. Furthermore, the duration of infringement in years, which is clearly outlined in both Guidelines on fines as a factor that increases the fine, is not significant at all in any of the regression models. Basically, the number of years can only be forced to be a significant variable if every other

[40] Colomo Ibáñez Pablo (2018): The Shaping of EU competition Law, Cambridge University Press p.287-303

significant variable is omitted. As soon as turnover is included years of infringement do not play a significant role anymore. This is also true when fine and turnover are not log transformed, so it is not due to the setup of the particular regression model.

This is a somewhat serious problem especially in the light of the 2009 Guidance paper that pushes for a more economic effects based approach in the enforcement of Article 102. The fines imposed under this new framework should also follow a similar approach. It probably would be best to separate how fines are imposed under Article 101 and 102 because the current methods outlined in the Guidelines are applied for both articles which is probably not ideal. Separate papers on the calculation of fines for each of the articles could clear up the inconsistencies that have arisen with regard to abuse of dominance cases which seem to be somewhat similar to those in cartel cases. Also, an approach which considers the effects of the abuse or particular infringements to be determining factors for the fine would be advisable because this would be more in line with the general direction of the 2009 Guidance paper.[41]

Most importantly though a clear definition of what gravity is, should be provided. It seems to be a rather vaguely defined variable and its magnitude can vary considerably depending on the views of the European Commission. One example of this would be the ARA case [case no. 39759] where the undertaking technically received a 30% reduction of the fine thanks to its cooperation and furthermore a more favourable calculation of the sales affected by the infringement. Nevertheless, the final fine to turnover ratio of around 3,2% is above the average level for fines calculated after 2006 of around 2,5%. So, from the numbers alone it is hard to see how the favourable terms applied in this case actually factored into the fine.[42]

One way to define it could be to check if there was actual foreclosure or denial of market entry in the specific case, which can be considered one of the worst outcomes of an abuse of dominance and assigning it the highest form of gravity. Therefore, infringements that have not resulted in an actual foreclosure but are likely to result in foreclosure have a lower gravity assigned to them. If a price based infringement is investigated, it would be possible to use the AAC and LRAIC approach from the Guidance paper to define what is a more or less serious abuse. Thereby linking the gravity to something that is comparable over all cases involving price based infringements.

[41] Dethmers Frances and Engelen Heleen (2011): Fines under article 102 of the Treaty on the Functioning of the European Union, European Competition Law Review; Thomas Reuters UK Limited and Contributors.
[42] Barbier de la Serre Eric and Lagathu Eileen (2017): The Law on Fines Imposed in EU Competition Proceedings: Time for a Refresh of the Fining Guidelines, Journal of European Competition law and Practice.

Something else that will be of general interest in this regard is the effects of the devolution of antitrust enforcement and to what extent the national competition authorities follow the Guidelines provided by the European Commission. Should the enforcement of Article 102 by national competition authorities diverge from what the Commission intended, it may be necessary to provide national authorities with specific Guidelines on national enforcement of the articles on competition in order to ensure consistency in enforcement. In this sense the fine calculation should also follow an easily understandable framework that can be applied uniformly across the European Union.

10. Conclusion

After the investigation of 122 rejection and non-rejection cases concerning the abuse of dominance decisions by the European Commission it has to be concluded that the effects of the investigated Guidelines on antitrust enforcement under Article 102 TFEU have not been overwhelming. There are, however, major differences between rejection and non-rejection cases. In particular the number of infringements reported in rejection cases and allegations of joint violations of multiple Articles on competition. Nonetheless the investigated Guidelines in no way suddenly changed the previous assessment of cases mostly because they are based on the previous antitrust cases. The Guidance paper is mostly a compilation of landmark cases with the added intention of introducing a more effects based approach in enforcement. There are limited changes in enforcement, but they cannot be directly connected to the publication of the Guidance paper. The overall assessment of the cases however did not change.

The two Guidelines on fines on the other hand seek to clarify the fine setting but do not really succeed in this effort. While the introduction of the 2006 Guidelines seems to have had an effect on the level of the fine in later cases, a precise measure of this effect sadly cannot be provided since there seems to be a bit of inconsistency in the application of the outlined framework. One of the major open questions is how the duration of the infringement factors into the fine level in an abuse of dominance case. So, it is still not traceable how the fine in prohibition decisions or violation of commitment decisions is really calculated.

Overall, the Guidelines published by the European Commission in general are a snapshot of the current standard that orients itself on previous cases and includes adaption in the fields where the Commission finds it to be necessary to make antitrust enforcement fit for the future. A goal which is not necessarily achieved in its entirety.

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Deutsche Telekom, European Commission Prohibition Decision of 15.10.2014 Case No.39523

Deutsche Telekom and Slovak Telekom, European Commission Prohibition Decision of 15.10.2014 Case No. 39523

Samsung, European Commission Commitment Decision of 29.04.2014 Case No. 39939

Motorola, European Commission Prohibition Decision of 29.04.2014 Case No. 39985

OPCOM/Romanian Power Exchange, European Commission Prohibition Decision of 05.03.2014 Case No. 39984

Biogaran / Krka Tovarna Zdravil / Laboratoires Servier / Lupin / Mylan / NICHE GENERICS (UK) / Servier SAS / Teva (UK) Limited / Teva Pharmaceuticals Europe B.V. / Unichem Laboratories, European Commission Prohibition Decision of 09.07.2014 Case No. 39612

CEZ, European Commission Commitment Decision of 24.11.2009 Case No. 39727

Thomson Reuters Corporation, European Commission Commitment Decision of 24.04.2013 Case No. 39654

Rio Tinto Alcan, European Commission Commitment Decision of 20.12.2012 Case No. 39230

IBM, European Commission Commitment Decision of 13.12.2011 Case No. 39692

Standard and Poors, European Commission Commitment Decision of 15.11.2011 Case No. 39592

Telekomunikacja Polska, European Commission Prohibition Decision of 22.06.2011 Case No. 39525

Eni SpA, European Commission Commitment Decision of 23.12.2010 Case No. 39315

E.ON AG, European Commission Commitment Decision of 04.05.2010 Case No. 39317

Svenska Kraftnät, European Commission Commitment Decision of 14.04.2010 Case No. 39351

EDF, European Commission Commitment Decision of 17.03.2010 Case No. 39386

Microsoft, European Commission Commitment Decision of 16.12.2009 Case No. 39530

Rambus, European Commission Commitment Decision of 09.12.2009 Case No. 38636

Gaz de France, European Commission Commitment Decision of 03.12.2009 Case No. 39316

Intel, European Commission Prohibition Decision of 13.05.2009 Case No. 37990

RWE AG, European Commission Commitment Decision of 12.06.2009 case No. 39402

E.ON AG, European Commission Commitment Decision of 26.11.2008 Case No. 39388

E.ON AG, European Commission Commitment Decision of 26.11.2008 Case No. 39389

Distrigaz, European Commission Commitment Decision of 11.10.2007 Case No. 37966

Telefonica SA / Telefonica de Espana, European Commission Prohibition Decision of 04.07.2007 Case No. 38784

Tomra Systems, European Commission Commitment Decision of 29.03.2006 Case No. 38113

ALROSA & DBCAG (part of de Beers group) & City and West East (part of de Beers group), European Commission Commitment Decision of 22.02.2006 Case No. 38381

Astra Zeneca, European Commission Commitment Decision of 19.07.2006 Case No. 37507

Coca Cola Company, European Commission Commitment Decision of 22.06.2005 Case No. 39116

Clearstream, European Commission Commitment Decision of 02.06.2004 Case No. 38096

Microsoft, European Commission Commitment Decision of 24.03.2004 Case No. 37792

Ferrovie dello Stato, European Commission Prohibition Decision of 25.08.2003 Case No. 37685

Wanadoo, European Commission Prohibition Decision of 16.07.2003 Case No. 38233

Deutsche Telekom, European Commission Prohibition Decision of 21.05.2003 Case No. 37579/37578/37451

Michelin, European Commission Prohibition Decision of 31.05.2002 Case No. 35141

La Poste, European Commission Prohibition Decision of 05.12.2001 Case No. 37859

Deutsche Post, European Commission Prohibition Decision of 25.07.2001 Case No. 36915

Football World Cup, European Commission Prohibition Decision of 20.07.1999 Case No. 36888

British Airways, European Commission Prohibition Decision of 13.12.1999 Case No. 34780

Ilmailulaitos/Luftfartsverket, European Commission Prohibition Decision of 12.02.1999 Case No. 35767

Solvay/CFK, European Commission Prohibition Decision of 13.12.2000 Case No. 39003

Court and FTC Cases

Intel, Case C-413/14 P

http://curia.europa.eu/juris/document/document.jsf?text=&docid=194082&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=7581378

Intel, FTC file number 061 0247

https://www.ftc.gov/enforcement/cases-proceedings/061-0247/intel-corporation-matter

Qualcomm Inc., FTC file number 141 0199

https://www.ftc.gov/enforcement/cases-proceedings/141-0199/qualcomm-inc

Google Inc. and Motorola Mobility LLC, FTC file number 121 0120

https://www.ftc.gov/enforcement/cases-proceedings/1210120/motorola-mobility-llc-google-inc-matter

13. Appendix

Abstract (English)

Based on an analysis of Article 102 cases during the period of 1999 to 2019, this thesis aims to assess how the release of Guidelines has influenced the European Commission's enforcement in abuse of dominance cases. More specifically if the 2009 Guidance paper led to structural changes, concerning the enforcement of abuse of dominance cases, and whether or not the new calculation method provided in the 2006 Guidelines on fines led to changes in the level of fines imposed on undertakings. On the structural side the findings suggest that there are only limited changes to enforcement, with the exception of commitment decisions which have become much more popular for cases concerning the European Economic Area. Fines on the other hand have increased significantly after 2006, however it seems that the European Commission does not entirely follow its own calculation formular outlined in the Guidelines on fines.

Abstract (Deutsch)

Basierend auf einer Analyse von Fällen nach Artikel 102 im Zeitraum von 1999 bis 2019 soll in dieser Arbeit untersucht werden, wie die Veröffentlichung von Leitlinien die Durchsetzung der Europäischen Kommission bei Fällen von Missbrauch von Dominanz beeinflusst hat. Insbesondere, wie das Leitlinienpapier 2009 zu strukturellen Änderungen, in Bezug auf die Durchsetzung in Fällen des Missbrauchs einer beherrschenden Marktstellung führte und ob die neue Berechnungsmethode in den Leitlinien für Geldbußen von 2006, zu Änderungen in der Höhe der gegen Unternehmen verhängten Geldbußen führte oder nicht. Auf der strukturellen Seite deuten die Ergebnisse darauf hin, dass es nur begrenzte Änderungen bei der Durchsetzung gibt, mit Ausnahme von Verpflichtungszusagen, die in Fällen, die den Europäischen Wirtschaftsraum betreffen, viel häufiger geworden sind. Die Geldbußen hingegen waren nach 2006 erheblich höher als davor, es scheint jedoch so, dass die Europäische Kommission, die in den Leitlinien für Geldbußen beschriebene Berechnungsformel nicht vollständig befolgt.

Summary Table 1 (non-rejections)	Obs	Mean	Std. Dev.	Min	Max
Turnover	69	8.62e+09	2.03e+10	0	9.81e+10
Fine	69	1.76e+08	6.42e+08	0	4.34e+09
Relative-fine	24	.0227275	.0228714	.0002609	.0714286
Years of Infringement	69	1.989.734	2.733.148	0	9
EEA relevance	69	.2318841	.4251272	0	1
Member-States	69	1.231.884	2.829.181	0	18
Manufacturing	69	.3043478	.4635016	0	1
Extraction	69	.0434783	.2054251	0	1
Service	69	.4782609	.5031868	0	1
Infrastructure	69	.1594203	.3687494	0	1
Monopoly	69	.173913	.3818115	0	1

Summary Table 2 (All Infringements)	Obs	Mean	Std. Dev.	Min	Max
Violation total (vt)	122	1.508.197	.6330551	1	4
Pricing total (pt)	122	.3606557	.5900774	0	2
Agreement total (at)	122	.4836066	.6584932	0	3
Behaviour total (bt)	122	.6639344	.6755549	0	3
Predatory pricing	122	.0327869	.1788127	0	1
Margin squeeze	122	.0819672	.275446	0	1
Excessive pricing	122	.1557377	.3641018	0	1
Price discrimination	122	.0901639	.2875976	0	1
Restrictive agreements	122	.204918	.4053062	0	1
Tying and bundling	122	.0901639	.2875976	0	1
Fidelity rebates	122	.0819672	.275446	0	1
Naked restrictions	122	.1065574	.3098221	0	1
Dissimilar conditions for equivalent transactions	122	.0819672	.275446	0	1
Limiting access to essential infrastructure	122	.1557377	.3641018	0	1
Refusal to sell	122	.1393443	.3477335	0	1
Refusal to license	122	.0901639	.2875976	0	1
Exclusive dealing	122	.1967213	.3991591	0	1
TFEU 102	122	.647541	.479706	0	1
TFEU 101/102	122	.3278689	.4713726	0	1
TFEU 106/102	122	.0491803	.2171361	0	1
Guidelines 2006	122	.7786885	.4168416	0	1
Guidance 2009	122	.704918	.4579603	0	1

Summary Table 3 (non-rejection)	Obs	Mean	Std. Dev.	Min	Max
Violation total (vt)	69	1.362.319	.5680466	1	3
Pricing total (pt)	69	.3043478	.4635016	0	1
Agreement total (at)	69	.4492754	.6759793	0	3
Behaviour total (bt)	69	.6086957	.6466518	0	2
Predatory pricing	69	.0289855	.1689948	0	1
Margin squeeze	69	.0724638	.2611536	0	1
Excessive pricing	69	.115942	.3225009	0	1
Price discrimination	69	.0869565	.2838356	0	1
Restrictive agreements	69	.173913	.3818115	0	1
Tying and bundling	69	.115942	.3225009	0	1
Fidelity rebates	69	.1014493	.3041346	0	1
Naked restrictions	69	.057971	.2354007	0	1
Dissimilar conditions for equivalent transactions	69	.0724638	.2611536	0	1
Limiting access to essential infrastructure	69	.2028986	.4051038	0	1
Refusal to sell	69	.0869565	.2838356	0	1
Refusal to license	69	.115942	.3225009	0	1
Exclusive dealing	69	.1304348	.3392485	0	1
TFEU 102	69	.8550725	.3546068	0	1
TFEU 101/102	69	.1449275	.3546068	0	1
TFEU 106/102	69	0	0	0	0
Guidelines 2006	69	.7391304	.4423259	0	1
Guidance 2009	69	.6376812	.4841917	0	1

Summary Table 4 (rejection)	Obs	Mean	Std. Dev.	Min	Max
Violation total (vt)	53	1.698.113	.6675128	1	4
Pricing total (pt)	53	.4339623	.7208284	0	2
Agreement total (at)	53	.5283019	.6386215	0	2
Behaviour total (bt)	53	.7358491	.7112001	0	3
Predatory pricing	53	.0377358	.1923802	0	1
Margin squeeze	53	.0943396	.2950978	0	1
Excessive pricing	53	.2075472	.4094316	0	1
Price discrimination	53	.0943396	.2950978	0	1
Restrictive agreements	53	.245283	.4343722	0	1
Tying and bundling	53	.0566038	.2332953	0	1
Fidelity rebates	53	.0566038	.2332953	0	1
Naked restrictions	53	.1698113	.37906	0	1
Dissimilar conditions for equivalent transactions	53	.0943396	.2950978	0	1
Limiting access to essential infrastructure	53	.0943396	.2950978	0	1
Refusal to sell	53	.2075472	.4094316	0	1
Refusal to license	53	.0566038	.2332953	0	1
Exclusive dealing	53	.2830189	.4547763	0	1
TFEU 102	53	.3773585	.4893644	0	1
TFEU 101/102	53	.5660377	.5003627	0	1
TFEU 106/102	53	.1132075	.3198784	0	1
Guidelines 2006	53	.8301887	.37906	0	1
Guidance 2009	53	.7924528	.4094316	0	1

Summary Table 5 (non-rejection)	Obs	Mean	Std. Dev.	Min	Max
Harm total (ht)	69	1.231.884	1.045.226	0	5
Consumer choice restricted	69	.3043478	.4635016	0	1
Consumer prices raised	69	.2463768	.4340574	0	1
Innovation hindered	69	.1014493	.3041346	0	1
Negative effect on competitors	69	.5217391	.5031868	0	1
Segmentation of the internal market	69	.057971	.2354007	0	1

Regression Summary Table Printout

Variable	v1	v2	v3	v4
lnturnover	.40279095***	.36771589**	.30277329*	.3751667**
EEA	3.1156471***	3.3132008***	3.4743779***	2.9754995***
memberst	.26391452***	.23739982**	.23644363**	.21875901**
g2006	1.061936**	1.021721*	1.0633393**	1.1820841**
year		.12895899	.13017664	.11685697
ht			.19479059	
vt				.58040058
_cons	6.9570768**	7.14077**	8.1912225**	6.2439522*
N	24	24	24	24
aic	77.260975	78.017016	79.211552	77.57262
r2	.79664348	.80691528	.81328786	.8256126
r2_a	.75383158	.75328063	.74738945	.76406411

legend: * p<.1; ** p<.05; *** p<.01

Logistic Regression Table Printout

Variable	v1	v2	v3
v102	1.2576***	1.9591***	2.6222***
vt	-1.1646***	-.92779**	-.50762
service	-.36611	-.31293	-1.0925**
g2009	-.1147	-.98203*	-.99405*
_cons	2.2013**	1.19	-.22918

legend: * p<.1; ** p<.05; *** p<.01

Logistic model for probrej1

	True		
Classified	D	~D	Total
+	74	21	95
-	11	16	27
Total	85	37	122

Classified + if predicted Pr(D) >= .5
True D defined as probrej1 != 0

Sensitivity	Pr(+| D)	87.06%
Specificity	Pr(-|~D)	43.24%
Positive predictive value	Pr(D| +)	77.89%
Negative predictive value	Pr(~D| -)	59.26%
False + rate for true ~D	Pr(+|~D)	56.76%
False - rate for true D	Pr(-| D)	12.94%
False + rate for classified +	Pr(~D| +)	22.11%
False - rate for classified -	Pr(D| -)	40.74%
Correctly classified		73.77%

Logistic model for probrej2

Classified	True D	True ~D	Total
+	54	17	71
-	13	38	51
Total	67	55	122

Classified + if predicted Pr(D) >= .5
True D defined as probrej2 != 0

Sensitivity	Pr(+| D)	80.60%
Specificity	Pr(-|~D)	69.09%
Positive predictive value	Pr(D| +)	76.06%
Negative predictive value	Pr(~D| -)	74.51%
False + rate for true ~D	Pr(+|~D)	30.91%
False - rate for true D	Pr(-| D)	19.40%
False + rate for classified +	Pr(~D| +)	23.94%
False - rate for classified -	Pr(D| -)	25.49%
Correctly classified		75.41%

Logistic model for probrej3

Classified	True D	True ~D	Total
+	39	17	56
-	13	53	66
Total	52	70	122

Classified + if predicted Pr(D) >= .5
True D defined as probrej3 != 0

Sensitivity	Pr(+| D)	75.00%
Specificity	Pr(-|~D)	75.71%
Positive predictive value	Pr(D| +)	69.64%
Negative predictive value	Pr(~D| -)	80.30%
False + rate for true ~D	Pr(+|~D)	24.29%
False - rate for true D	Pr(-| D)	25.00%
False + rate for classified +	Pr(~D| +)	30.36%
False - rate for classified -	Pr(D| -)	19.70%
Correctly classified		75.41%

case number	firm	industry (specific)	start	end	decison	months until decision
39913	Philips N.V. and Osram AG	Electronics	25.10.2019	25.10.2019	rejection	0
40498	?	Mining	22.07.2019	22.07.2019	rejection	0
40497	Gazprom	Energy	17.04.2019	17.04.2019	rejection	0
40037	Subaru	Motor Vehicels	26.06.2018	26.06.2018	rejection	0
40026	VKR	Manufacture	14.06.2018	14.06.2018	rejection	0
40290	Tegometall	Manufacture	03.05.2018	03.05.2018	rejection	0
39885 fr	Google	Software	11.04.2018	11.04.2018	rejection	0
39804 it	Volkswagen Group Italy	Motor Vehicels	05.02.2018	05.02.2018	rejection	0
40205	Deutsche Zementhersteller	Manufacture	24.07.2017	24.07.2017	rejection	0
40273 es	LOGISTA	Tabacco	14.06.2017	14.06.2017	rejection	0
40160	Clearing Banks	Finance	17.05.2017	17.05.2017	rejection	0
39822	DuPont/Honeywell	Manufacture Motor Vehicles	16.12.2011	25.10.2017	closure of proceedings	71
40169	Mayer & Co. Beschläge	Manufacture	11.03.2016	11.03.2016	rejection	0
40251 pl	PKP Cargo	Freight rail transport	15.09.2016	15.09.2016	rejection	0
40348	Swedavia	Transport	14.12.2016	14.12.2016	rejection	0
40265	OPAP	Gambling	12.09.2016	12.09.2016	rejection	0
40336	Uber	Transportation	11.04.2016	11.04.2016	rejection	0
40291	Epuro	Wholesale Machinery and equipment	21.01.2016	21.01.2016	rejection	0
39784	Microsft	Software	01.12.2010/2	01.12.2010/2	rejection	0
39730	Bank of America Corporation	Finance	29.04.2011	04.12.2015	closure of proceedings	56
40010	AENA	Airline	25.02.2015	25.02.2015	rejection	0
39846	Dassault Systémes/ Parametri	Software	09.10.2015	09.10.2015	rejection	0
39864	BASF	Manufacture of pesticides and other agrochemical products	19.06.2015	19.06.2015	rejection	0
40080 fr	?	Retail/Trade of wholesale food beverages and tabacco	19.01.2015	19.01.2015	rejection	0
39958	CEZ	Mining	24.03.2014	24.03.2014	rejection	0
39840	MathWorks	Software	29.02.2012	02.09.2014	closure of proceedings	31
40105	UEFA	Sport	24.10.2014	24.10.2014	rejection	0
40072	Magyar Suzuki Corparation	Sale Motor Vehicels	14.10.2014	14.10.2014	rejection	0
39779 it	Piaggio	Manufacture Motorcycles	08.10.2014	08.10.2014	rejection	0
39951	Internet Providers	Telecomunication	11.07.2013	03.10.2014	closure of proceedings	15
40165	BP Europa	Repair Motor Vehicles	11.09.2014	11.09.2014	rejection	0
40166	Mazda Motors Deutschland	Retail Motor Vehicles	17.09.2014	17.09.2014	rejection	0
40104 fr	Legrand France SA, Schneider	Energy	01.08.2014	01.08.2014	rejection	0
39921	Visa Europe/Mastercard Europ	Finance	23.07.2014	23.07.2014	rejection	0
39594 it	EDF	Energy	17.07.2014	17.07.2014	rejection	0
39899	UEFA/FIFA/FFF/RFEF/DFB	Sport	15.07.2014	15.07.2014	rejection	0
40199	Port Authority Split	Sea Tranport	28.11.2014	28.11.2014	rejection	0
39886	Aer Lingus/Dublin Airport Aut	Airline	20.01.2014	20.01.2014	rejection	0
39097	Watch Manufacturers	Repair of watches clocks and jewellery	05.08.2011	29.07.2014	closure of proceedings	35
39869	Schiphol	Airline	03.05.2013	03.05.2013	rejection	0
39915	Deutsche Bahn	Rail transport	13.06.2012	18.12.2013	administrative closure	18
39756 fr	FP2E / SAUR / Suez Environne	Water Supply Treatment	16.04.2010	30.04.2013	administrative closure	36
39741	P&I Clubs	Insurance	26.08.2010	27.07.2012	closure of proceedings	23
39785	OPAP	Gambling	19.12.2012	19.12.2012	rejection	0
39892 fr	Numericable	Telecomunication	29.03.2012	29.03.2012	rejection	0
39511	IBM	Manufacture Electronics	26.07.2010	30.09.2011	closure of proceedings	14
39246	Boehringer	Manufacture Pharma	29.03.2007	06.07.2011	closure of proceedings	52
39732	BMW/Fiat/Ford/Honda/Renau	Sport (Formula One)	04.08.2011	04.08.2011	rejection	0
39461 es	AOP	Sale of fuel ores metals and industrial chemicals	25.04.2011	25.04.2011	rejection	0
39387	Electrabel/EDF	Energy	26.07.2007	03.02.2011	closure of proceedings	43
39294	Microsoft	Software	14.01.2008	25.06.2010	closure of proceedings	29
39649	Rete Ferroviaria Italiana	Rail Transport	30.04.2010	30.04.2010	rejection	0
39653 fr	France Telecom	Telecomunication	02.07.2010	02.07.2010	rejection	0
39471 fr	WADA/ATP/ICSW	Sport	12.10.2009	12.10.2009	rejection	0
39247	Qualcomm	Manufacture	01.10.2007	24.11.2009	closure of proceedings	25
39097	Watch Manufacturers	Repair of watches clocks jewellery	10.07.2008	10.07.2008	rejection	0
39221	De Beers	Mining	26.01.2007	26.01.2007	rejection	0
38097	O2/Vodafone	Telecomunication	22.07.2004	18.07.2007	closure of proceedings	36
36570	Helsingborgs Hamn	Transport	23.07.2004	23.07.2004	rejection	0
36568	Helsingborgs Hamn	Transport	23.07.2004	23.07.2004	rejection	0
37761	Imax	Media	25.03.2004	25.03.2004	rejection	0
38316 fr	International Karting Commis	Sport	19.03.2004	19.03.2004	rejection	0
36751 it	Eurocontrol	Airtravel	12.02.2004	12.02.2004	rejection	0
37055	Intercontinental Marketing	Data Collection	24.10.2000	04.10.2002	closure of proceedings	24
38321	Opodo Limited	Travel	09.12.2002	09.12.2002	rejection	0
37219 fr	SACEM	Art	12.08.2002	12.08.2002	rejection	0
36816	Intercontinental Marketing	Data Collection	24.10.2000	04.10.2002	closure of proceedings	24
38158 fr	FINA	Sports	01.08.2002	01.08.2002	rejection	0
36638	FIA	Sports	30.06.1999	30.10.2001	closure of proceedings	28
36431	Ricoh	Printing Supply	07.01.1999	07.01.1999	rejection	0

case number	firm	market definition misspecified (geo)	market definition misspecified (prod)	no infringement detected	no dominant position	allged joint violation of tfeu 102/106	alleged joint violation tfeu 101/102	violation tfeu 102	not for commission to decide
39913	Philips N.V. and Osram AG	0	0	1	1	0	1	0	0
40498	?	0	0	0	0	1	1	0	1
40497	Gazprom	0	0	1	0	0	0	1	0
40037	Subaru	0	0	1	0	0	1	0	1
40026	VKR	0	0	1	0	0	0	1	0
40290	Tegometall	0	1	0	1	0	1	0	0
39885 fr	Google	0	0	1	0	0	0	1	0
39804 it	Volkswagen Group Italy	0	0	0	0	0	1	0	1
40205	Deutsche Zementhersteller	0	1	0	0	0	1	0	0
40273 es	LOGISTA	0	0	0	0	1	0	0	1
40160	Clearing Banks	0	0	0	0	0	1	0	1
39822	DuPont/Honeywell	0	0	0	0	0	1	0	0
40169	Mayer & Co. Beschläge	1	0	0	0	0	1	0	0
40251 pl	PKP Cargo	0	0	0	0	0	0	1	1
40348	Swedavia	1	0	0	0	0	0	1	1
40265	OPAP	1	1	0	0	1	0	0	1
40336	Uber	0	0	1	0	0	1	0	0
40291	Epuro	1	1	0	0	0	1	0	0
39784	Microsft	1	1	0	0	1	1	0	0
39730	Bank of America	0	0	0	0	0	1	0	0
40010	AENA	0	0	1	0	0	0	1	0
39846	Dassault Systémes/ Paramet	0	1	0	0	0	0	1	0
39864	BASF	1	1	0	0	0	1	0	1
40080 fr	?	0	1	1	1	0	1	0	1
39958	CEZ	0	0	0	0	0	0	1	1
39840	MathWorks	0	0	0	0	0	0	1	0
40105	UEFA	0	0	1	0	0	1	0	1
40072	Magyar Suzuki Corparation	1	1	0	0	0	0	1	0
39779 it	Piaggio	0	1	0	1	0	0	1	0
39951	Internet Providers	0	0	0	0	0	0	1	0
40165	BP Europa	0	0	0	0	0	1	0	1
40166	Mazda Motors Deutschland	1	0	0	0	0	1	0	1
40104 fr	Legrand France SA,	0	1	1	0	0	1	0	0
39921	Visa Europe/Mastercard Eur	0	1	1	0	0	1	0	0
39594 it	EDF	0	0	1	0	0	0	1	0
39899	UEFA/FIFA/FFF/RFEF/DFB	0	1	0	0	0	1	0	0
40199	Port Authority Split	1	0	0	0	1	0	0	1
39886	Aer Lingus/Dublin Airport Au	0	0	1	0	0	1	0	0
39097	Watch Manufacturers	0	0	1	0	0	1	0	0
39869	Schiphol	0	0	0	0	0	0	1	1
39915	Deutsche Bahn	0	0	0	0	0	0	1	0
39756 fr	FP2E / SAUR / Suez Environn	0	0	0	0	0	1	0	0
39741	P&I Clubs	0	0	0	0	0	1	0	0
39785	OPAP	0	0	1	0	1	1	0	0
39892 fr	Numericable	1	1	0	0	0	0	1	1
39511	IBM	0	0	0	0	0	0	1	0
39246	Boehringer	0	0	0	0	0	0	1	0
39732	BMW/Fiat/Ford/Honda/Ren	0	1	0	0	0	1	0	0
39461 es	AOP	0	0	1	0	0	1	0	0
39387	Electrabel/EDF	0	0	0	0	0	0	1	0
39294	Microsoft	0	0	0	0	0	0	1	0
39649	Rete Ferroviaria Italiana	0	0	0	0	0	0	1	1
39653 fr	France Telecom	0	0	1	0	0	0	1	0
39471 fr	WADA/ATP/ICSW	0	1	1	0	0	1	0	0
39247	Qualcomm	0	0	0	0	0	0	1	0
39097	Watch Manufacturers	0	1	1	0	0	1	0	0
39221	De Beers	0	1	0	1	0	1	0	0
38097	O2/Vodafone	0	0	0	0	0	0	1	0
36570	Helsingborgs Hamn	0	0	1	0	0	0	1	0
36568	Helsingborgs Hamn	0	0	1	0	0	0	1	0
37761	Imax	0	1	1	0	0	0	1	0
38316 fr	International Karting Commi	0	1	1	0	0	1	0	0
36751 it	Eurocontrol	0	1	1	0	0	0	1	0
37055	Intercontinental Marketing	0	0	0	0	0	0	1	0
38321	Opodo Limited	0	1	1	0	0	1	0	0
37219 fr	SACEM	1	0	1	0	0	1	0	0
36816	Intercontinental Marketing	0	0	0	0	0	0	1	0
38158 fr	FINA	0	1	1	0	0	1	0	0
36638	FIA	0	0	0	0	0	1	0	0
36431	Ricoh	0	1	0	1	0	0	1	0

case number	firm	predatory pricing	margin squeeze	excessive pricing	price discrimination	restrictive agreements	tying and bundeling	fidelity rebates	naked restrictions	dissimilar conditions for equivalent transactions	limiting/refusing access to essential infrastrucutre	refusal to sell	refusal to license	exclusive dealing
39913	Philips N.V. and Osram AG	0	0	0	0	1	0	0	0	0	1	0	0	0
40498	?	0	0	0	0	0	0	0	0	0	1	0	0	0
40497	Gazprom	0	0	1	0	1	0	0	0	0	0	0	0	0
40037	Subaru	0	0	0	0	0	0	0	0	0	0	1	0	0
40026	VKR	1	0	0	0	0	0	1	0	0	0	0	0	0
40290	Tegometall	0	0	0	0	0	0	0	1	0	0	0	0	0
39885 fr	Google	0	0	0	0	0	0	0	0	1	0	0	0	0
39804 it	Volkswagen Group Italy	0	0	0	1	0	0	0	0	0	0	0	0	1
40205	Deutsche Zementhersteller	0	0	0	0	0	0	0	0	0	0	1	0	0
40273 es	LOGISTA	0	0	0	0	0	0	0	0	0	0	1	0	1
40160	Clearing Banks	0	0	0	0	0	0	0	0	0	0	1	0	0
39822	DuPont/Honeywell	0	0	0	0	0	0	0	0	0	0	0	1	0
40169	Mayer & Co. Beschläge	1	0	0	0	0	0	0	0	0	0	0	0	0
40251 pl	PKP Cargo	0	0	0	0	0	0	1	0	0	0	0	0	1
40348	Swedavia	0	0	1	0	0	0	0	0	0	0	0	0	0
40265	OPAP	0	0	0	0	0	0	0	0	0	0	0	0	1
40336	Uber	0	0	0	0	0	0	0	0	1	0	0	0	0
40291	Epuro	0	0	0	0	0	0	0	0	0	0	1	0	1
39784	Microsft	0	0	0	0	1	0	0	0	0	0	0	0	1
39730	Bank of America	0	0	0	1	0	0	0	0	0	0	0	0	0
40010	AENA	0	0	1	0	0	1	0	0	0	0	1	0	0
39846	Dassault Systémes/ Paramet	0	0	0	0	0	0	0	0	0	1	0	1	0
39864	BASF	0	0	0	0	0	0	0	0	1	0	0	0	0
40080 fr	?	0	0	0	0	0	0	0	0	0	0	0	0	1
39958	CEZ	0	0	0	1	0	0	0	0	0	0	0	0	0
39840	MathWorks	0	0	0	0	0	0	0	0	0	0	0	1	0
40105	UEFA	0	0	0	0	1	0	0	0	0	0	0	0	0
40072	Magyar Suzuki Corparation	0	0	0	0	0	0	0	1	0	0	0	0	0
39779 it	Piaggio	0	0	0	0	0	0	0	1	0	0	0	0	1
39951	Internet Providers	0	0	0	0	0	0	0	1	0	0	0	0	0
40165	BP Europa	0	0	0	0	1	0	0	0	0	0	0	0	1
40166	Mazda Motors Deutschland	0	0	0	0	1	0	0	1	0	0	0	0	0
40104 fr	Legrand France SA,	0	0	0	0	0	0	0	0	0	1	1	1	0
39921	Visa Europe/Mastercard Eur	0	0	0	0	0	0	0	0	0	1	1	0	0
39594 it	EDF	0	1	1	0	0	0	0	0	0	0	0	0	0
39899	UEFA/FIFA/FFF/RFEF/DFB	0	0	0	0	0	0	0	0	0	0	0	1	1
40199	Port Authority Split	0	0	0	0	0	0	0	0	1	0	0	0	0
39886	Aer Lingus/Dublin Airport Au	0	0	1	1	0	1	0	0	1	0	0	0	0
39097	Watch Manufacturers	0	0	0	0	1	0	0	0	0	0	1	0	0
39869	Schiphol	0	0	1	0	0	0	0	0	0	0	0	0	0
39915	Deutsche Bahn	0	0	0	1	0	0	1	0	0	0	0	0	0
39756 fr	FP2E / SAUR / Suez Environn	0	0	1	0	0	0	0	0	0	0	0	0	0
39741	P&I Clubs	0	0	0	0	1	0	0	0	0	0	0	0	0
39785	OPAP	0	0	0	0	1	0	0	1	0	0	0	0	0
39892 fr	Numericable	0	0	1	1	0	0	0	0	0	0	0	0	0
39511	IBM	0	0	0	0	0	1	0	0	0	0	0	0	0
39246	Boehringer	0	0	0	0	0	0	0	0	0	0	0	1	0
39732	BMW/Fiat/Ford/Honda/Rena	0	0	0	0	1	0	0	0	0	0	0	0	1
39461 es	AOP	0	0	0	0	0	0	1	0	0	0	0	0	1
39387	Electrabel/EDF	0	0	0	0	0	0	0	0	0	0	0	0	1
39294	Microsoft	0	0	0	0	0	0	0	0	0	1	0	0	0
39649	Rete Ferroviaria Italiana	0	0	0	0	0	0	0	0	0	1	0	0	0
39653 fr	France Telecom	0	1	1	0	0	0	0	0	0	0	0	0	0
39471 fr	WADA/ATP/ICSW	0	0	0	0	1	0	0	1	0	0	0	0	0
39247	Qualcomm	0	1	0	0	0	0	0	0	0	0	0	0	0
39097	Watch Manufacturers	0	0	0	0	1	0	0	0	0	0	1	0	0
39221	De Beers	0	0	0	0	0	0	0	1	0	0	0	0	1
38097	O2/Vodafone	0	0	1	0	0	0	0	0	0	0	0	0	0
36570	Helsingborgs Hamn	0	1	1	0	0	0	0	0	0	0	0	0	0
36568	Helsingborgs Hamn	0	1	1	0	0	0	0	0	0	0	0	0	0
37761	Imax	0	0	1	0	0	1	0	0	0	0	0	0	0
38316 fr	International Karting Commi	0	0	0	0	1	0	0	1	0	0	0	0	1
36751 it	Eurocontrol	0	0	0	0	0	0	0	1	0	0	0	0	1
37055	Intercontinental Marketing	0	0	0	0	0	1	1	0	0	0	0	0	0
38321	Opodo Limited	0	1	0	1	0	0	0	0	0	0	0	0	0
37219 fr	SACEM	0	0	0	0	1	0	0	0	0	0	1	0	0
36816	Intercontinental Marketing	0	0	0	0	0	1	1	0	0	0	0	0	0
38158 fr	FINA	0	0	0	0	1	0	0	0	0	0	0	0	0
36638	FIA	0	0	0	0	1	0	0	0	0	0	0	0	1
36431	Ricoh	0	0	0	0	0	0	0	0	0	0	1	0	0

case number	firm	pricing total	agreements total	behaviour total	violation total	sector
39913	Philips N.V. and Osram AG	0	1	0	1	manufacture/production
40498	?	0	0	1	1	extraction/agriculture
40497	Gazprom	1	1	0	2	manufacture/production
40037	Subaru	0	0	1	1	manufacture/production
40026	VKR	1	1	0	2	manufacture/production
40290	Tegometall	0	1	0	1	manufacture/production
39885 fr	Google	0	0	1	1	services
39804 it	Volkswagen Group Italy	1	0	1	2	manufacture/production
40205	Deutsche Zementhersteller	0	0	1	1	manufacture/production
40273 es	LOGISTA	0	0	2	2	extraction/agriculture
40160	Clearing Banks	0	0	1	1	services
39822	DuPont/Honeywell	0	0	1	1	manufacture/production
40169	Mayer & Co. Beschläge	1	0	0	1	manufacture/production
40251 pl	PKP Cargo	0	1	1	2	services
40348	Swedavia	1	0	0	1	services
40265	OPAP	0	0	1	1	services
40336	Uber	0	0	1	1	services
40291	Epuro	0	0	2	2	manufacture/production
39784	Microsft	0	1	1	2	services
39730	Bank of America	1	0	0	1	services
40010	AENA	1	1	1	3	services
39846	Dassault Systémes/ Paramet	0	0	2	2	services
39864	BASF	0	0	1	1	manufacture/production
40080 fr	?	0	0	1	1	manufacture/production
39958	CEZ	1	0	0	1	extraction/agriculture
39840	MathWorks	0	0	1	1	services
40105	UEFA	0	1	0	1	services
40072	Magyar Suzuki Corparation	0	1	0	1	manufacture/production
39779 it	Piaggio	0	1	1	2	manufacture/production
39951	Internet Providers	0	1	0	1	services
40165	BP Europa	0	1	1	2	manufacture/production
40166	Mazda Motors Deutschland	0	2	0	2	manufacture/production
40104 fr	Legrand France SA,	0	0	3	3	manufacture/production
39921	Visa Europe/Mastercard Euro	0	0	2	2	services
39594 it	EDF	2	0	0	2	manufacture/production
39899	UEFA/FIFA/FFF/RFEF/DFB	0	0	2	2	services
40199	Port Authority Split	0	0	1	1	services
39886	Aer Lingus/Dublin Airport Au	2	1	1	4	services
39097	Watch Manufacturers	0	1	1	2	manufacture/production
39869	Schiphol	1	0	0	1	services
39915	Deutsche Bahn	1	1	0	2	services
39756 fr	FP2E / SAUR / Suez Environn	1	0	0	1	services
39741	P&I Clubs	0	1	0	1	services
39785	OPAP	0	2	0	2	services
39892 fr	Numericable	2	0	0	2	services
39511	IBM	0	1	0	1	services
39246	Boehringer	0	0	1	1	manufacture/production
39732	BMW/Fiat/Ford/Honda/Rena	0	1	1	2	services
39461 es	AOP	0	1	1	2	manufacture/production
39387	Electrabel/EDF	0	0	1	1	manufacture/production
39294	Microsoft	0	0	1	1	services
39649	Rete Ferroviaria Italiana	0	0	1	1	infrastructure
39653 fr	France Telecom	2	0	0	2	services
39471 fr	WADA/ATP/ICSW	0	2	0	2	services
39247	Qualcomm	1	0	0	1	services
39097	Watch Manufacturers	0	1	1	2	manufacture/production
39221	De Beers	0	1	1	2	extraction/agriculture
38097	O2/Vodafone	1	0	0	1	services
36570	Helsingborgs Hamn	2	0	0	2	services
36568	Helsingborgs Hamn	2	0	0	2	services
37761	Imax	1	1	0	2	services
38316 fr	International Karting Commi	0	2	1	3	services
36751 it	Eurocontrol	0	1	1	2	services
37055	Intercontinental Marketing	0	2	0	2	services
38321	Opodo Limited	2	0	0	2	services
37219 fr	SACEM	0	1	1	2	services
36816	Intercontinental Marketing	0	2	0	2	services
38158 fr	FINA	0	1	0	1	services
36638	FIA	0	1	1	2	services
36431	Ricoh	0	0	1	1	manufacture/production

case number	firm	industry (specific)	start	end	decison	months of infringement	months until decision	fine
40134	AB Inbev	Manufacture drinks	30.06.2016	13.05.2019	prohibition decision	80	23	200.409.000
39849	BEH (Bulgarian Energy H	Energy	05.07.2013	17.12.2018	prohibition decision	60	65	77.068.000
40220	Qualcomm	Electronics	16.07.2015	24.01.2018	prohibition decision	67	30	997.439.000
39711	Qualcomm	Electronics	16.07.2015	19.07.2018	prohibition decision	24	36	242.042.000
40099	Google	Software	15.04.2015	18.07.2018	prohibition decision	48	39	4.342.865.000
39816	Gazprom	Energy	27.09.2011	24.05.2018	commitment decision	0	82	0
39813	Lietuvos gelezinkeliai (L	Rail transport	10.03.2011	02.10.2017	prohibition decision	98	79	27.873.000
40153	Amazon	Online Retail	11.06.2015	03.08.2017	commitment decision	0	26	0
39740	Google	Online Retail	30.11.2010	27.06.2017	prohibition decision	108	79	2.424.495.000
39759	ARA	Recycling/waste collection	15.07.2011	20.09.2016	prohibition decision	49	62	6.000.000
39745	ISDA/Markit Group Hold	Finance	20.04.2011	20.07.2016	commitment decision	0	63	0
39767	BEH (Bulgarian Energy H	Energy	04.12.2012	10.12.2015	commitment decision	0	36	0
39523	Deutsche telekom/ Slov	Telecomunication	27.04.2009	15.10.2014	prohibition decision	64	66	38.838.000
39523	Deutsche telekom	Telecomunication	13.12.2010	15.10.2014	prohibition decision	64	47	31.070.000
39939	Samsung	Electronics	30.01.2012	29.04.2014	commitment decision	0	27	0
39985	Motorola	Telecomunication	02.04.2012	29.04.2014	prohibition decision	1	24	0
39984	OPCOM/Romanian Powe	Energy	06.12.2012	05.03.2014	prohibition decision	63	16	1.031.000
39612	Biogaran / Krka Tovarna	Pharmaceuticals	02.07.2009	09.07.2014	prohibition decision	55	60	41.270.000
39727	CEZ	Energy	24.11.2009	24.04.2013	commitment decision	0	42	0
39654	Thomson Reuters Corpo	Finance	10.11.2009	20.12.2012	commitment decision	0	38	0
39230	Rio Tinto Alcan	Production/Manufacture of machinery	20.02.2008	20.12.2012	commitment decision	0	58	0
39692	IBM	Electronics	26.07.2010	13.12.2011	commitment decision	0	17	0
39592	Standard and Poors	Finace	12.01.2009	15.11.2011	commitment decision	0	34	0
39525	Telekomunikacja Polska	Telecomunication	30.10.2008	22.06.2011	prohibition decision	48	32	127.554.194
39315	Eni SpA	Energy	10.05.2007	23.12.2010	commitment decision	0	43	0
39317	E.ON AG	Energy	11.01.2010	04.05.2010	commitment decision	0	4	0
39351	Svenska Kraftnät	Energy	23.04.2009	14.04.2010	commitment decision	0	12	0
39386	EDF	Energy	26.07.2007	17.03.2010	commitment decision	0	32	0
39530	Microsoft	Software	14.01.2008	16.12.2009	commitment decision	14	23	561.000.000
38636	Rambus	Electronics	23.08.2007	09.12.2009	commitment decision	0	28	0
39316	Gaz de France	Energy	22.05.2008	03.12.2009	commitment decision	0	19	0
37990	Intel	Electronics	27.07.2007	13.05.2009	prohibition decision	62	22	1.060.000.000
39402	RWE AG	Energy	10.05.2007	12.06.2009	commitment decision	0	25	0
39388	E.ON AG	Energy	12.12.2006	26.11.2008	commitment decision	0	23	0
39389	E.ON AG	Energy	12.12.2006	26.11.2008	commitment decision	0	23	0
37966	Distrigaz	Energy	29.03.2007	11.10.2007	commitment decision	0	7	0
38784	Telefonica SA / Telefoni	Telecomunication	21.02.2006	04.07.2007	prohibition decision	51	17	151.875.000
38113	Tomra Systems	Manufacturing	22.07.2004	29.03.2006	prohibition decision	48	20	24.000.000
38381	ALROSA + DBCAG (part o	Mining	14.01.2003	22.02.2006	commitment decision	0	37	0
37507	Astra Zeneca	Pharmaceuticals	25.07.2003	19.07.2006	prohibition decision	77	36	60.000.000
39116	Coca Cola Company	Manufacturing	29.09.2004	22.06.2005	commitment decision	0	9	0
38096	Clearstream	Finance	23.03.2003	02.06.2004	prohibition decision	24	13	0
37792	Microsoft	Software	01.08.2000	24.03.2004	prohibition decision	66	31	1.676.696.304
37685	Ferrovie dello Stato	Transport	21.06.2001	25.08.2003	prohibition decision	24	26	0
38233	Wanadoo	Telecomunication	19.12.2001	16.07.2003	prohibition decision	19,50	20	10.350.000
37579/3	Deutsche Telekom	Telecomunication	02.05.2002	21.05.2003	prohibition decision	65	12	12.600.000
35141	Michelin	Manufacturing	28.06.1999	31.05.2002	prohibition decision	96	23	19.760.000
37859	La Poste	Postal Service	01.06.2001	05.12.2001	prohibition decision	20	6	2.500.000
36915	Deutsche Post AG	Postal Service	25.05.2000	25.07.2001	prohibition decision	46	14	1.000
36888	Football World Cup	Sports	25.08.1998	20.07.1999	prohibition decision	24	11	1.000
34780	British Airways	Airline	20.12.1996	13.12.1999	prohibition decision	84	36	6.800.000
35767	Ilmailulaitos/Luftfartsve	Airline	05.05.1997	10.02.1999	prohibition decision	98	29	0

case number	firm	predatory pricing	margin squeeze	excessive pricing	price discrimination	restrictive agreements	tying and bundling	fidelity rebates	naked restrictions	dissimilar conditions for	ing access to essential	refusal to sell	refusal to license	exclusive dealing
40134	AB Inbev	0	0	0	0	0	0	0	1	0	0	0	0	0
39849	BEH (Bulgarian Energy Ho	0	0	0	0	0	0	0	0	0	1	0	0	0
40220	Qualcomm	0	0	0	0	0	0	0	0	0	0	0	0	1
39711	Qualcomm	1	0	0	0	0	0	0	0	0	0	0	0	0
40099	Google	0	0	0	0	1	1	0	1	0	0	0	0	0
39816	Gazprom	0	0	0	0	1	0	0	0	0	0	0	0	0
39813	Lietuvos gelezinkeliai (L	0	0	0	0	0	0	0	0	0	1	0	0	0
40153	Amazon	0	0	0	0	1	0	0	0	0	0	0	0	0
39740	Google	0	0	0	0	0	0	0	0	0	1	0	0	0
39759	ARA	0	0	0	0	0	0	0	0	0	1	0	0	0
39745	ISDA/Markit Group Holdi	0	0	0	0	1	0	0	0	0	0	0	1	0
39767	BEH (Bulgarian Energy Ho	0	0	0	0	1	0	0	0	0	0	0	0	0
39523	Deutsche telekom/ Slova	0	1	0	0	0	0	0	0	0	0	0	0	0
39523	Deutsche telekom	0	1	0	0	0	0	0	0	0	0	0	0	0
39939	Samsung	0	0	0	0	0	0	0	0	0	0	0	1	0
39985	Motorola	0	0	0	0	0	0	0	0	0	0	0	1	0
39984	OPCOM/Romanian Powe	0	0	0	0	0	0	0	0	1	0	0	0	0
39612	Biogaran / Krka Tovarna Z	0	0	0	0	0	0	0	0	0	0	0	1	1
39727	CEZ	0	0	0	0	0	0	0	0	0	1	0	0	0
39654	Thomson Reuters Corpor	0	0	0	0	1	0	0	0	0	0	0	0	0
39230	Rio Tinto Alcan	0	0	0	0	0	1	0	0	0	0	0	0	0
39692	IBM	0	0	0	0	0	0	0	0	0	1	0	0	0
39592	Standard and Poors	0	0	1	0	0	0	0	0	0	0	0	0	0
39525	Telekomunikacja Polska	0	0	0	0	0	0	0	0	1	0	1	0	0
39315	Eni SpA	0	0	0	0	0	0	0	0	0	1	0	0	0
39317	E.ON AG	0	0	0	0	0	0	0	0	0	1	1	0	0
39351	Svenska Kraftnät	0	0	0	1	0	0	0	0	0	0	0	0	0
39386	EDF	0	0	0	0	1	0	0	0	0	0	0	0	1
39530	Microsoft	0	0	0	0	0	1	0	0	0	0	0	0	0
38636	Rambus	0	0	1	0	0	0	0	0	0	0	0	0	0
39316	Gaz de France	0	0	0	0	0	0	0	0	0	1	0	0	0
37990	Intel	0	0	0	0	0	0	1	1	0	0	0	0	0
39402	RWE AG	0	1	0	0	0	0	0	0	0	1	0	0	0
39388	E.ON AG	0	0	1	0	0	0	0	0	0	0	0	0	0
39389	E.ON AG	0	0	1	0	0	0	0	0	0	0	0	0	0
37966	Distrigaz	0	0	0	0	1	0	0	0	0	0	0	0	0
38784	Telefonica SA / Telefonic	0	1	0	0	0	0	0	0	0	0	0	0	0
38113	Tomra Systems	0	0	0	0	0	0	1	0	0	0	0	0	1
38381	ALROSA + DBCAG (part of	0	0	0	0	0	0	0	0	0	0	0	0	1
37507	Astra Zeneca	0	0	0	0	0	0	0	0	0	1	0	1	0
39116	Coca Cola Company	0	0	0	0	0	1	1	0	0	0	0	0	1
38096	Clearstream	0	0	0	1	0	0	0	0	0	0	1	0	0
37792	Microsoft	0	0	0	0	0	1	0	0	0	1	0	0	0
37685	Ferrovie dello Stato	0	0	0	0	0	0	0	0	0	1	0	0	0
38233	Wanadoo	1	0	0	0	0	0	0	0	0	0	0	0	0
37579/37	Deutsche Telekom	0	0	0	1	0	0	0	0	0	0	0	0	0
35141	Michelin	0	0	0	0	1	0	0	0	0	0	0	0	0
37859	La Poste	0	0	1	0	0	0	0	0	0	0	0	0	0
36915	Deutsche Post AG	0	0	1	0	0	0	0	0	1	0	1	0	0
36888	Football World Cup	0	0	0	0	0	0	0	0	1	0	1	0	0
34780	British Airways	0	0	0	0	0	0	1	0	0	0	0	0	1
35767	Ilmailulaitos/Luftfartsve	0	0	0	1	0	0	0	0	1	0	0	0	0

case number	firm	affected member states (market)	EEA wide impact	market share	turnover	relevant competitors	exerting monopoly power	ip/licensing case	monopoly
40134	AB Inbev	1	0	50	46.295.000.000	0	1	0	0
39849	BEH (Bulgarian Energy H	1	0	60	3.320.000.000	0	1	0	0
40220	Qualcomm	0	1	90	20.355.897.960	0	1	0	0
39711	Qualcomm	0	1	60	19.058.425.200	1	0	0	0
40099	Google	0	1	80	98.127.000.000	0	1	0	0
39816	Gazprom	5	0	75	0	0	1	0	0
39813	Lietuvos gelezinkeliai (L	1	0	100	409.500.000	0	0	0	1
40153	Amazon	0	1	65	0	0	1	0	0
39740	Google	13	0	85	81.597.000.000	0	1	0	0
39759	ARA	1	0	95	190.000.000	0	1	0	0
39745	ISDA/Markit Group Hold	0	1	100	0	0	0	1	0
39767	BEH (Bulgarian Energy H	3	0	82,5	0	0	1	0	0
39523	Deutsche telekom/ Slov	1	0	45	934.200.000	7	0	0	0
39523	Deutsche telekom	1	0	45	60.132.000.000	7	0	0	0
39939	Samsung	0	1	100	0	0	0	1	0
39985	Motorola	1	0	100	0	0	0	1	0
39984	OPCOM/Romanian Powe	1	0	99	610.000.000	0	1	0	0
39612	Biogaran / Krka Tovarna	4	0	100	4.189.012.000	0	0	1	0
39727	CEZ	1	0	65	0	0	0	0	0
39654	Thomson Reuters Corpo	0	1	60	0	2	0	0	0
39230	Rio Tinto Alcan	0	1	50	0	4	0	0	0
39692	IBM	0	1	100	0	0	1	0	0
39592	Standard and Poors	0	1	100	0	0	0	0	1
39525	Telekomunikacja Polska	1	0	73	3.930.000.000	4	0	0	0
39315	Eni SpA	1	0	75	0	0	1	0	0
39317	E.ON AG	1	0	60	0	4	0	0	0
39351	Svenska Kraftnät	1	0	100	0	0	0	0	1
39386	EDF	1	0	60	0	0	0	0	0
39530	Microsoft	0	1	90	55.000.000.000	0	1	0	0
38636	Rambus	0	1	90	0	0	0	1	0
39316	Gaz de France	1	0	60	0	0	1	0	0
37990	Intel	0	1	70	26.069.485.994	1	0	0	0
39402	RWE AG	1	0	100	0	0	1	0	0
39388	E.ON AG	1	0	100	0	0	0	0	1
39389	E.ON AG	1	0	100	0	0	0	0	1
37966	Distrigaz	1	0	75	0	1	0	0	0
38784	Telefonica SA / Telefoni	1	0	100	52.900.000.000	0	0	0	1
38113	Tomra Systems	5	0	95	336.000.000	0	1	0	0
38381	ALROSA + DBCAG (part o	0	1	80	0	1	0	0	0
37507	Astra Zeneca	7	0	83,5	17.106.972.715	3	0	0	0
39116	Coca Cola Company	18	0	40	0	0	1	0	0
38096	Clearstream	1	0	100	0	0	0	0	1
37792	Microsoft	0	1	60	30.701.000.000	0	1	0	0
37685	Ferrovie dello Stato	2	0	100	0	0	0	0	1
38233	Wanadoo	1	0	59	1.111.000.000	0	1	0	0
37579/3	Deutsche Telekom	1	0	95	48.300.000.000	0	1	0	0
35141	Michelin	1	0	50	13.763.000.000	5	0	0	0
37859	La Poste	1	0	100	1.760.044.026	0	0	0	1
36915	Deutsche Post AG	1	0	100	0	0	0	0	1
36888	Football World Cup	0	1	100	0	0	0	0	1
34780	British Airways	1	0	40	9.363.000.000	1	0	0	0
35767	Ilmailulaitos/Luftfartsve	1	0	90	0	0	1	0	0

case number	firm	pricing total	agreements total	behaviour total	violation total	sector
40134	AB Inbev	0	1	0	1	manufacture/production
39849	BEH (Bulgarian Energy H	0	0	1	1	infrastructure
40220	Qualcomm	0	0	1	1	manufacture/production
39711	Qualcomm	1	0	0	1	manufacture/production
40099	Google	0	3	0	3	services
39816	Gazprom	0	1	0	1	services
39813	Lietuvos gelezinkeliai (L	0	0	1	1	infrastructure
40153	Amazon	0	1	0	1	services
39740	Google	0	0	1	1	services
39759	ARA	0	0	1	1	services
39745	ISDA/Markit Group Hold	0	1	1	2	services
39767	BEH (Bulgarian Energy H	0	1	0	1	infrastructure
39523	Deutsche telekom/ Slov	1	0	0	1	services
39523	Deutsche telekom	1	0	0	1	services
39939	Samsung	0	0	1	1	manufacture/production
39985	Motorola	0	0	1	1	manufacture/production
39984	OPCOM/Romanian Pow	0	0	1	1	infrastructure
39612	Biogaran / Krka Tovarna	0	0	2	2	manufacture/production
39727	CEZ	0	0	1	1	services
39654	Thomson Reuters Corpo	0	1	0	1	services
39230	Rio Tinto Alcan	0	1	0	1	manufacture/production
39692	IBM	0	0	1	1	manufacture/production
39592	Standard and Poors	1	0	0	1	services
39525	Telekomunikacja Polska	0	0	2	2	services
39315	Eni SpA	0	0	1	1	infrastructure
39317	E.ON AG	0	0	2	2	infrastructure
39351	Svenska Kraftnät	1	0	0	1	infrastructure
39386	EDF	0	1	1	2	manufacture/production
39530	Microsoft	0	1	0	1	services
38636	Rambus	1	0	0	1	manufacture/production
39316	Gaz de France	0	0	1	1	infrastructure
37990	Intel	0	2	0	2	manufacture/production
39402	RWE AG	1	0	1	2	infrastructure
39388	E.ON AG	1	0	0	1	manufacture/production
39389	E.ON AG	1	0	0	1	manufacture/production
37966	Distrigaz	0	1	0	1	manufacture/production
38784	Telefonica SA / Telefoni	1	0	0	1	infrastructure
38113	Tomra Systems	0	1	1	2	manufacture/production
38381	ALROSA + DBCAG (part o	0	0	1	1	extraction/agriculture
37507	Astra Zeneca	0	0	2	2	manufacture/production
39116	Coca Cola Company	0	2	1	3	manufacture/production
38096	Clearstream	1	0	1	2	services
37792	Microsoft	0	1	1	1	services
37685	Ferrovie dello Stato	0	0	1	1	services
38233	Wanadoo	1	0	0	1	services
37579/37578	Deutsche Telekom	1	0	0	1	infrastructure
35141	Michelin	0	1	0	1	manufacture/production
37859	La Poste	1	0	0	1	services
36915	Deutsche Post AG	1	0	2	3	services
36888	Football World Cup	0	0	2	2	services
34780	British Airways	0	1	1	2	services
35767	Ilmailulaitos/Luftfartsve	1	0	1	2	services