

Assessment of unilateral effects of concentrations in EU competition law

(doctoral thesis)

Theses

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I. The short summary of the research

I evaluated how the assessment of unilateral effects in merger control, as part of EU competition law, has evolved over time. By doing this, I have assessed the evolution of competition policy in the last two decades, especially on the field of merger control. A milestone of the evolution was the adoption of a new merger regulation in 2004 which changed the substantive provisions. Therefore I have carefully evaluated to possible effects of this change.

II. On the method of the research

„A lawyer who has not studied economics ... is very apt to become a public enemy”.⁴ This is clearly an overstatement, but shows perfectly that law enforcement in the 21st century cannot be carried out in many areas without having a thorough knowledge of economics. There are several situations where economic theory would suggest a different outcome compared to the actual legal solutions. This is not a system error, but is merely a reflection of the fact that in some situations law prevails over economics in a particular case.

The aim of competition law is to protect competition. But consensus ends here in the academic literature, since many authors have different concepts about the meaning of competition. Nevertheless it is widely acknowledged that one of the aims is that competition law shall ensure by the protection of competition that the buyers of goods and services shall have lower prices and better quality while innovation necessary for the progression of the society is also preserved. In order to reach this aim, competition law has prohibitions and the authorities will enforce these if they are infringed upon; to put it differently, competition law is not requiring following a particular conduct, it requires not to behave in a particular way. Law and economics has to give meaning to the few sentence long prohibitions. Having in mind that the regulation concerns economic competition,

⁴ Brandeis *The Living Law* (1916) 10 Illinois Law Review 416.

the regulation can not free itself from its particularities. These particularities are examined by economics, so not using its results when creating and applying the rules on competition might be harmful to the society and the regulation itself will be wrong. By relying on economics the optimal goals and aims can be defined, so those theoretical situations which could be achieved in an ideal world. Economics can moreover help to a large extent by telling us how these goals can be achieved and what are the conditions for that and consequences of it. Nevertheless the final decisions have to be adopted in the legal sphere. In order to have a full understanding of the effects and operation of the rules on competition, it is inevitable to compare the actual practice with the results of economics. The economic analysis of law is labelled sometimes as the law and economics method. The benefit of this is that economics is serving law in a positive sense, namely that it creates and tests models in order to evaluate and predict the behaviour of market actors.⁵

We relied on the academic literature extensively.⁶ We have to stress two important considerations regarding the use of academic literature. Having in mind that the dissertation has also a historical perspective, very often we have been referring to the academic literature of the particular time period. The most recent publications are used extensively, but usually after the historical context is drawn up.

It is widely known that the official translations of union law is often of poor quality or even misleading. It is enough to rely on the fact that the translation of the substantive test lacks the word dominant position in Article 2 (3) and so the sentence is wrong; moreover the word effective is translated to the Hungarian word meaning efficient. The merger regulation and basically all official Hungarian translations use "hatékony verseny" for effective competition, or in German "wirksame Wettbewerb". The correct term would be however "hatásos verseny". Since this has a substantive

⁵ See further Posner: *Overcoming law*. (Harvard University Press, Cambridge, Mass. ; London, 1995) 15-21.

⁶ I had access to libraries and databases like the unique library of the European University Institute, the library of the Institute of Advanced Legal Studies in London or the library of the University of Cambridge.

impact we have done the followings. Until we have not discussed the relevance of issue we have used the two terms in line with our arguments. Afterwards we use the term effective competition for the reasons stated in the thesis later on.

When citing legal sources and other official documents I have been citing those regulations and documents in Hungarian, which have an officially translated title on EUR-LEX or which have a well-known name. The title of those sources which were not translated were not translated by us, since the significance of references is that they shall be retrievable and this would have been made more difficult if we translated them.

It is also a methodological issue that due to the fact that I have used some expression despite the fact that there are better translations for them. The reason for this is that all official Hungarian translations use those terms. In these cases I did not correct the official Hungarian translations even if there were much better terms. The reason for this is that the Hungarian translations are official translations, so if I was using different terms for the same definitions that would lead to greater problems than the benefit it would bring. This issue had to be raised since this happens not only in some cases, but is a constant issue all over the thesis. From the above mentioned follows that we have very few footnotes containing the English originals of the terms.

While discussing the topic I have relied heavily on economics. This is required by the subject itself. The problem stemming from this is that economics is a constantly changing field and is rich in new theories, often involving disputes. During the writing of the dissertation I choose to follow three principles to cite authors and literature. When there is a fundamental concept analysed in the theses, I quite often go back to the original author who created the concept. For the applicability of the theories I have relied on well-known authors, who have wide recognition in literature. In case I cite more authors, I have compared their arguments and – at least in an implicit way – took a stance on the issue. This was not an economic evaluation of the results; I did not want to decide between their

achievements. I have first made a legal evaluation and then took into account the views of other authors.

Competition law is under great influence from the European Commission. I mean it has wide discretion for the achievement of competition policy. Despite this, the doctoral thesis followed the following principles. When assessing legislative acts I have been mainly relying on grammatical and teleological interpretation. This is followed on the same level by the actual interpretation given by the European Court of Justice. That in fact binds the European Commission entirely as to the questions of law. It follows directly that if I had to decide between two interpretations I always followed that of the European Court of Justice. Even if the ruling was delivered quite a long time ago. It is namely possible that the European Commission has changed its approach to a particular issue, which might even be articulated in decisions. Nevertheless until the European Court of Justice or the General Court accepts this change in interpretation by changing its jurisprudence, it follows from the system of European Union law that we cannot accept the new interpretation. In such cases it is possible that there is a difference in the legal interpretation of the EU courts and the European Commission, since the particular issue was not raised before the European Court of Justice or the General Court since there was a change in the European Commission's policy. We have to note nevertheless that in all aspects of competition law, the European Court of Justice is continuously confirming the interpretations adopted in the '70s and '80s, so we might be sceptical of new interpretations by the European Commission with a reason.

As the title of the dissertation also shows it is about the unilateral effects of concentrations and it does not deal with the countervailing factors like buyer power or entry barriers.

The dissertation does not compare the evolution of law with that in the US and in the Member States. The reason for this is that the thesis is not a comparative one, which would differ both in its methodology and subject and would require a completely different assessment. This approach is also justified by the fact that both national laws and the legal system of the United States had an impact

on the evolution of EU law, but there are such great differences between the legal systems that a comparison would touch on institutional and policy issues which would also require a different approach. It is enough to mention that while in the US courts are deciding about the prohibition of concentrations, in the EU this is done by an administrative body. This fact in itself results in a completely different operation of the two systems, which can also have an impact on the substantive issues.

III. On the results of scholarly research

III.1 Short summary of the scientific results

1. The roots of EU competition law go back before the conclusion of the ECSC-EEC-Euratom Treaties. The ordoliberal thoughts or the Freiburg-school had a particularly important impact on the later development of law. The ordoliberals anticipated competition law among others as a tool to disperse economic power. The law *allowing the emergence of private economic power and provisions allowing the abuse of it* are very dangerous. This line of arguments shows the basic characteristic of merger control, namely the aim to prevent the emergence of harmful market structures and the abuse thereof.
2. During the drafting of the ECSC Treaty the provisions on competition, especially those on the concentrations in the steel- and coal industry, resulted in substantial disputes. Germany was interested in the concentration of the industry, while the rest of the founding Member States in the opposite. Finally, after the solution to the problem, the first competition regulation which included rules on merger control was adopted.
3. Contrary to the ECSC Treaty the EEC Treaty did not encompass any rules on the control of concentrations. This had to be a deliberate decision, but the reasons for it are not entirely clear. Indirect sources outline four reasons: the importance of industrial policy considerations; Member States wanted to adopt secondary legislation on merger control; the Member States did not want to transfer competence to the EEC regarding all economic sectors; or the problem of merger control was not of great concern and so they did not want to adopt rules in the framework treaty.
4. The officials of the European Commission were considering the adoption of a regulation already in 1965, but they have actually proposed draft legislation only in 1973. Following this and after several amendments in 1989 a council regulation was adopted.

5. Directly before the adoption of the regulation, in the drafts the consideration of industrial policy and of pure competition based principles appeared in turn. The text which was finally adopted included the dominance test and was falling into the previous category. After the regulation was adopted, the European Commission made it clear that it is not possible to include industrial policy considerations to the application of the substantive test. With this, the regulation of merger control on a supranational level excluded the possibility of industrial or other policy considerations winning explicit importance in the application of the merger control rules.
6. The dominance test in the Merger Regulation (1989) had two pillars. A concentration apart from creating or strengthening a dominant position had to significantly impede effective competition to be prohibited by the European Commission. If the first was established, the second pillar of the substantive test was basically automatically assumed by the European Commission. Although according to the jurisprudence of the General Court the picture is somewhat blurred regarding the second pillar, the judgements of the European Court of Justice made it clear that the importance of the second pillar lies in the establishment of a causal connection between the dominant position and the harmful effect on effective competition and in a so called de minimis rule. The latter means that those concentrations which had no appreciable effect on competition were not prohibited. The jurisprudence of the European Court of Justice unequivocally also states that if an undertaking is in a dominant position, that means that it can inevitably impede or hinder effective competition. In practice that meant that the European Commission basically automatically assumed that the second pillar was satisfied if dominant position was created or strengthened. That requirement is inherent in the notion of dominance.
7. The dominance test, as interpreted by the European Court of Justice, was flexible enough for the European Commission to prevent the impediment to effective competition. In 2004 the Council Regulation 139/2004/EC (Merger Regulation) introduced the SIEC test. The two pillars of the dominance test in the Merger Regulation (1989) had a different role than in the SIEC test currently. Contrary to the independent role described above, according to the SIEC test, the

creation or strengthening of a dominant position is only a form of the impediment to effective competition, even if it is the most common.

8. The SIEC test is only downwards open, but not upwards. This means that according to the SIEC test a concentration creating or strengthening a dominant position cannot be allowed. But a concentration not creating or strengthening a dominant position can be prohibited, if it significantly impedes effective competition on the market.
9. The SIEC not only is markedly different from the dominant test, but also for example from the SLC test applied in the US. The main differences are those between efficient and effective competition and the notion of dominant position. Effective competition and efficient competition are not equivalent since economic competition can be efficient for the consumers in the short term, for example because there are significantly lower prices. But effective competition means more than that, namely the safeguarding of a market structure which provides for the protection of consumer welfare also on the long term. The emphasis here is more on market structure, whereas in the case of efficient competition the emphasis is more on the evaluation of consumer welfare. The second substantial difference is that SIEC test unrebuttably assumes the significant impediment to effective competition if a dominant position is created or strengthened and as a result a concentration has to be prohibited. The only exception to this in law is the failing firm defence.
10. Academic literature identified five situations where the dominance test might not be the best solution: (i) if the concentration involves two close competitors on a differentiated product market; (ii) if the number of competitors would drop from 3 to 2, but the undertaking not concerned in the concentration is the market leader and collective dominance is not likely; (iii) if the undertakings concerned by the concentration have small market shares compared to the total volume of sales or capacity, but the output of the competitors is constrained; (iv) if despite the small market shares of the undertakings concerned, they can submit "all or nothing" offers; (v) and finally if the concentration involves a maverick.

The reasons identified in the academic literature are not or only to a limited extent valid. In my opinion the change from dominant test to the SIEC test was not necessary. None of the situations identified above to underpin the necessity of changing the substantive test are such which were not dealt with adequately by the dominance test. The change nevertheless had several beneficial effects.

11. The previous two pillar system after the adoption of the SIEC test merged into one pillar, however it is questionable whether the European Court of Justice will distinguish the notion of significant impediment of effective competition from the notion of dominant position. I mean, whether the notion of dominant position has a different meaning in the two? I think this is not likely, since the European Court of Justice interpreted the notion of dominance consistently in cases under Article 102 and the Merger Regulation. But since the European Commission can prohibit a concentration even if it is not creating or strengthening a dominant position, the dominance test can be interpreted stricter. A jurisprudence heading in this direction is not yet on the horizon.
12. Market power is the central notion of competition policy and in particular of merger control. Those behaviours of the undertakings which do not create market power or are not an abuse of existing market power are ideally outside the scope of competition law. This is also the case for merger control, if the states or in our case the European Union applies the rules according to their aims. Ultimately according to the competition authorities, the aim of merger control in modern competition laws is to maximise consumer welfare by maintaining a competitive market structure, so the prevention of the creation of market power which can be abused in the future to the detriment of consumers. It has to be underlined that the aim is not to maximise consumer welfare, but to do this by maintaining a competitive market structure. Recently the European Court of Justice stressed in some important cases that the aims of competition rules in the TFEU are multiple, and apart from protecting consumer interest, they also protect competitors and the market structure and hence economic competition itself.

13. In reality, markets characterised by perfect competition or monopolies are quite rare. However we can frequently observe oligopolies on the markets. Oligopolies or even more, market structures described as such are the main issues in modern competition policy.
14. If we accept as a premise that in order to harm competition significant market power is required, than the only possibility to do so apart from single market power is if a small number of market players have market power together. On markets with many players if there is no one undertaking with market power, than it is unlikely to have lasting competition problems if markets function properly.
15. The reform peaking in 2004 also introduced the term unilateral effects. The term used mainly in merger control does not mean that the notion of dominance is not used any longer, since the two terms have significantly different meaning. In practice, when assessing a concentration we distinguish between three fundamental situations. Firstly, under the so called unilateral effects theory we distinguish between mergers that create or strengthen a dominant position and between those which might give rise to unilateral, not insignificant price increases on oligopoly markets. The third situation is when on oligopoly markets the market players' behaviour depends on the behaviour of the others and so the undertakings want to influence the behaviour of the others.
16. All undertakings have some degree of market power. The reference price is the (competitive) price prevailing under the conditions of perfect competition, which will never occur in reality. Market power therefore has to be substantial and lasting in order to matter for competition policy. It is possible that an undertaking achieves significant market power on its own or that undertakings do this collectively. Competition law is not only fighting individual, but also significant collective market power. If a concentration creates significant individual market power, than we call that situation as unilateral or non-coordinated effects; if a concentration creates significant collective market power, where the use of such market power depends on the behaviour of the other undertakings, than we call that as coordinated effects.

17. When analysing a market it is of significant importance to define what kind of competition is taking place on it. The market outcome is different if for example the undertakings first set prices or if they choose the level of output. It is of similarly great significance whether the products are homogeneous or whether there is significant differentiation. To give a framework for analysing markets we can use so called oligopoly models.
18. On markets it is typical that every market player has some degree of market power, so the market price – if no special circumstances are present – is somewhere between the competitive and monopoly price. If the process of competition is functioning well, than it will correct the individual market power of the undertakings, so that shall not be a great concern for the society.
19. The competition authorities use different methods to measure market power in order to apply the competition provisions. Market power can be measured directly or indirectly. If we knew the demand elasticity facing an undertaking, than by using the Lerner-index we could measure market power directly and we wouldn't have to concern ourselves with market definition and market shares. In the case of concentrations it is ever more frequent to approximate the degree of market power directly, but in practice we still apply the traditional indirect methods.
20. Below we will describe briefly the direct and indirect methods of measuring market power and our most important conclusions.
21. Indirect measuring of market power is mainly done by defining the relevant market, more precisely by defining the market shares on the relevant market. The so called traditional approach follows the following analysis. First we have to define the relevant market(s), than carry out the competitive assessment whether after the concentration a competition problem will be present, or not, especially with a view on the market shares after the concentration.
22. In competition law market shares are used among others to measure market power indirectly. Market shares can range from tiny to 100 per cent. It is paradoxical – as we will see – that even if the market share is 100 per cent, which does not necessarily mean market power, does not mean that we have a situation which is called monopoly in economics. However very low market

shares surely mean that market power which might cause competition problems is not likely. The use of market shares only lead as a general rule to Type I and II errors, so there might be concentrations which shall have been prohibited and the other way around.

23. The Merger Regulation includes an explicit and an implicit assumption regarding market shares. Under a market share of 25 % one can assume that dominant position is not created by the concentration and effective competition is not impeded. The implicit assumption is in the reference to dominant position. The EU courts have a solid case-law that above a market share of 50 per cent the existence of a dominant position can be assumed. The European Commission assumed from the beginning that it has wide discretion, since compared to the 25 per cent market share assumption; the Merger Regulation (1989) does not contain any positive assumption for dominance. Its practice of course relies on the case law of the European Court of Justice on the prohibition of abusing a dominant position in Article 102 TFEU.
24. The measuring of market shares on the relevant market can be carried out using several methods. This method might change according to the specifics of the relevant market. A substantial difference between the methods is whether the market shares are assigned to undertakings based on the market equilibrium factors (e.g. income, production) or on structural factors (e.g. capacity, reserves, equipment). The real significance of this can only be understood if we place these factors in the SCP model. In practice the factors defining the market equilibrium are used most frequently and these are based on the performance of the market. The two methods can lead to substantially different outcomes because market power reflected by market shares routed in structural factors can easily influence the market shares calculated based on performance factors. It is worth to mention that since analysis in merger control is forward looking, it is always important to look at the market shares based on output capacity, since most of the times this can be easily measured and capacity extension and commitments can be calculated for a longer time period.

25. Market shares in themselves are only indicative and shall be evaluated together with other factors if we would like to draw conclusions regarding market power. If there is no perfect coordination between the market players, the increase in market shares means also the increase of market power. (If there is perfect coordination the increase in market shares does not necessarily mean the increase of market power, since as a result of coordination the market share most probably did not reflect the actual market power of the undertakings.) It can also be stated that if an undertaking has large market share, significant synergies or economies of scale have to be achieved in order to see the prices falling after the concentration. In the early years of EC merger control the European Commission treated 40 per cent market share post concentration as the critical threshold. The second critical threshold was set by the European Commission at 60 per cent, but it also stressed that even above this level an automatic prohibition cannot be expected. With time the market share around 40-50 per cent, as a critical threshold melted and the European Commission established single dominance even at very low market shares in merger cases. From early on it was clear that the assumptions established by the EU courts do not provide safe harbour below 50 per cent market shares. The EU courts are consistently relying on the 50 per cent presumption.
26. Knowing market concentration rather than market shares is much more useful, but the former one can only be calculated from the latter one. The level of concentration on a particular market is not enough to decide on a proposed concentration, because other factors also have an important role. The obvious connection between concentration indices and market power is questionable. Nevertheless under normal circumstances they can serve as a good starting point or more, they can be used to signal the lack of market power.
27. The significance of measuring market concentration and the practical application of this can be well demonstrated in the model called by Harvard scholars – basically developed by Mason and Bain – as SCP model. The SCP model is based on the structure-conduct-performance paradigm, meaning that the structure of the market determines the conduct of the firms on the market,

which determines the performance of the market. It is worth to underline the connection that from the market structure it is possible to draw conclusions regarding the performance of the market. Although the SCP model needed to be further developed, it is still an essential part of modern competition law analysis. Thus, the whole existence of merger control is based on this model. It is clear that the SCP model had a great influence on the thinking of the European Commission.

28. Many believe that high profits are signs of monopoly or weak competition, normal profits for competition, while loss for extreme competition. According to the representatives of the Harvard school, high profits are indicators for bad market performance. This proved to be misleading in practice although in the enforcement practice of some competition authorities this is still present. The reality is that there is some connection between market structure and profitability. Despite the controversies, in some cases profitability can be used to measure market power indirectly. Profitability can be measured in several ways, like on the basis of net present value, IRR, return on sales or accounting rate of return. Measuring profitability is the same like the notion of the relevant market for economists, just the other way around. The notion of the relevant market is a specific competition law term and it cannot be found elsewhere in economics. The European Commission was very sceptical regarding profitability around the time when the Merger Regulation (1989) was adopted, since it assumed direct correlation between market concentration and profitability.
29. The reasoning above and the profitability analysis shall not be confused with the price/concentration analysis, where we investigate what price level is present in a particular industry where concentration is higher or low.
30. In the last two decades the possibility to reasonably approximate market power indirectly has become real. The new techniques applied almost on a daily basis in merger proceedings are often combining econometrics and game theory. The European Commission treated these methods from the beginning on as such which are suitable for making a preliminary assessment

of competition on the market and choose the most suitable factors for further evaluation. It is worth to mention here that measuring market power directly can also only approximate market power, so in this sense it is similar to the indirect methods. What makes it different is that the indirect approximating methods are a result of a practical compromise, since very often the required data is not available or not fully available and the collection of the data would require disproportionate efforts. Based on the above considerations we can state that in practice these methods also use simplifications and assumptions.

31. Farrell and Shapiro proposed a new method in 2008 which can be applied to differentiated product markets with *Bertrand competition* in horizontal merger cases and uses a price/cost ratio and the level of substitutability to eliminate the need for defining the relevant markets and approximate market power directly. The method is called upward pricing pressure analysis. The essence of the method is that it is balancing the cons of the loss of direct competition between the merging parties and the decrease of marginal cost, looking at the net effects. The method does not require the complete equilibrium analysis of the industry and is based "only" on the pre-merger price and cost information (margin) and the diversion ratio. The theory of upward pricing pressure is to be tested and is moreover not suitable to be used as a sole method for adopting merger decisions based on it. Since the data used by the method needs to be gathered anyway, it can be used for a quick screening whether a phase II investigation is necessary or not. But even if in theory the method could be used in some merger cases to decide on the merger without market definition, currently EU law requires a market definition.

32. Stock market data is a useful tool for approximating whether after a merger the undertaking will be more profitable or not, which might be evidence for market power or efficiencies. To decide which one is it a careful analysis is needed. If the stock market is expecting price increase then the price of the shares of both the competitors and the merging parties will increase. If cost reduction is expected, the price of the share of the merging parties will increase, while that of the competitors decrease. If efficiencies are also expected then the share price of buyers will

increase, if increase in market power is expected than the share price of the buyers will decrease. The above mentioned assumptions have solid background in economics and most of the models which are applicable to horizontal concentrations propose that such mergers usually result in higher equilibrium price (weighted accordingly in the case of differentiated products). And the equilibrium is also the same for all competing undertakings. The increase of the market price usually means that the profitability of the merging parties and the competitors will increase in the short run. These assumptions will generally lead to the increase of the price of the shares. This is true if the merger is not significantly increasing efficiencies, which will then lead to lower prices for consumers. The latter conclusion also means that the analysis of the stock prices of the merging parties is not sufficient to determine whether prices or efficiencies will increase. Apart from many positive features, stock market reactions don't seem to be suitable to be used on their own for the evaluation of mergers, among others, because several conditions need to be fulfilled for the above mentioned intuitive conclusions to hold. One of the fundamental limits of the use of this method in merger control is that it is only suitable to measure unilateral effects, and it is not recommended for conglomerate type mergers. Another disadvantage is that the competition authority is relying on a method which is relying on the expectations of the stock markets, which already is only assumed to be working efficiently or quasi-efficiently. In the stock prices a possible prohibition decision by a competition authority is already priced in. The method has some basic limitations also apart from the fundamental assumptions, namely that if the undertakings produce several different products, their income is only based to a limited extent on the products in the relevant market, so the market shares might not reflect the competitive effects of the merger.

33. It is worth to recall that the theoretical foundations of merger control is that we assume that above a particular market concentration markets are prone to induce anticompetitive effects and such situations are to be prevented by the competition authorities. The price/concentration analysis we compare market concentration with market prices and draw conclusions about their

correlation. Although it is rarely questioned nowadays that as a general rule higher concentration usually means less intensive competition, the price/concentration analysis is not frequently used by the competition authorities to analyse the effects of a concentration. But this is not required, since the correlation between concentration and the price level is already incorporated into the traditional methods. The analysis would be particularly successful if we could isolate the effects of the concentration from other effects, like sales volume, product mix, marketing costs, distribution costs, etc. The analysis is widely used to evaluate industries, but in itself it is not suitable to be used for the analysis of concentrations.

34. Natural experiments are relying on benchmarks which help to compare the effects of a particular behaviour with the situation as if it had not happened. Natural experiments might be particularly helpful in the case of merger analysis, since the concentration did not take place yet, so its effect can't be measured yet. To evaluate future concentrations we can analyse situations which happened in the past and reflect to a large extent the facts of a particular case. Natural experiments are by their very nature theoretical and are used to check the basic assumptions in a merger procedure, but the conclusions from natural experiments are hardly suitable to be used as a sole method for merger analysis.
35. Some concentrations are on markets where tenders are frequent. The analysis of these tenders might provide useful information about the market position and market power of competitors. This is very frequently used by the European Commission in practice, which is a clear indication that it has high probative force and the European Court of Justice gives wide discretion to the Commission regarding the use of these evidence. Compared to the methods discussed, these can be used in the form of merger simulations on their own to evaluate a proposed merger. We can analyse detailed correlations on the markets and also evaluate the competitive pressure exerted on each other by the market players. It is by no chance that the method is growing in importance on markets where tenders or offers are frequent.

36. In the case of natural experiments we use an inductive method. We draw conclusions from actual, past events. However merger simulations use a deductive method, namely using different evidence, assumptions and axioms we will come to a conclusion. During a merger simulation what happens is that we apply well adopted economic models to characterize the type of competition among the market players and then quantify the effects of the concentration. The effect we are looking for is the degree of price increase. We use merger simulations primarily for evaluating unilateral effects of horizontal concentrations with differentiated products and Bertrand competition. Most of the concentrations posing competition problems are on oligopolistic markets, where there are only a small number of market players, who can to a considerable extent observe each other's behaviour and respond to small alterations. The market players are well aware of this and they will anticipate the logical behaviour of their competitors when deciding about their own actions. But this is an assumption which is especially missing in Bertrand type models. Even more, if the type of competition changes after a concentration, this method cannot incorporate this fact. To interpret the effects of merger simulations is sometime difficult even for an economist, so it is very likely that it will be used only as a supplementary method. It is more likely that it will be used with the traditional models, since to be able to decide between different simulation models we need to know the markets and the primary tool to do this is the definition of the relevant market itself. The widespread use of simulation models also means that frequently the different parties propose different models in a procedure and firstly the European Commission, than the EU courts have to decide on those. Since according to EU law the European Commission has wide discretion on such issues, this means that the European Commission has an advantage to decide on the relevant model.

37. In modern competition law the main question apart from market power is whether a particular competitive effect is credible and likely to occur or not? We avoid referring to relevant markets directly, since some of the models do not require market definition.

38. At the time of the adoption of the Merger Regulation (1989) the European Commission distinguished basically between horizontal-, vertical- and conglomerate mergers. The most dangerous of these were the horizontal concentrations according to the Commissioner at that time. This approach has gained in significance since then, but EU merger control is also very cautious regarding vertical and conglomerate mergers. The horizontal-vertical-conglomerate typology is still relevant, but the emphasis has been shifted to the issue of so called competitive effects. According to the two relevant notices we can distinguish between coordinated and non-coordinated effects in all three cases.
39. The European Commission describes in its notices that unilateral effects or non-coordinated effects of concentrations as such, which "eliminate important competitive constraints on one or more firms, which consequently would have increased market power, without resorting to coordinated behaviour". Here we have to refer to the fact that according to the Merger Regulation the dominance test and the SIEC test are different, but some of the officials working at the European Commission were on the opinion that they are basically the same. Like previously mentioned we think that the SIEC test can only be interpreted in a way, which allows the incorporation of the dominance test, but has also a wider application, catching also concentrations which do not create or strengthen a dominant position.
40. The horizontal guidelines of the European Commission set out correctly that a single factor cannot be evaluated on its own, and without accurately and directly measuring market power, any information can only be evaluated together with other information.
41. From a theoretical point of view, the first question to be evaluated is the type and characteristics of competition on the market. Having in mind the methods analysed previously we shall distinguish between the following situations. The most important factors of competition are whether it is price or quantity based and whether the products are homogeneous or differentiated? The starting point for the evaluation of the effects of a concentration shall be the evaluation of these factors.

42. The remaining competitors behave differently to a merger of two competitors depending whether they set prices or decide on quantities on the market. The form of reaction is as a general rule irrelevant, since without efficiencies consumer welfare decreases.
43. According to the horizontal guidelines there is direct correlation between market shares and market power. Market shares and the increase of market shares are an important factor, but are not enough to evaluate the competitive effects of a concentration. If there is product differentiation in an industry where a concentration takes place, than large market shares might not be the best indicators of market power. According to the traditional assessment, market shares are evaluated in a static way. In this case we assume that after a concentration the switching consumers will switch away proportionately to the market shares of the other undertakings. This assumption is very doubtful in case of differentiated products. This is due to the fact, that the current market shares reflect the first choice of the consumers, but here the most interesting factor would be the difference between their second and third choices, since consumers will switch to those undertakings which are their second choice.
44. We have to make a distinction between a situation where an undertaking becomes a monopoly by way of competition and between the situation where this is achieved by mergers. The existence and functioning of merger control is based on this premise. If it were otherwise, than ex post control of market power would be sufficient.
45. The competitive assessment is a complex process where we have to consider all factors which might strengthen or weaken the possibilities of independent market behaviour of an undertaking and which can lead to the elimination of competitive pressure. To carry this out we apply some structural presumptions, but we have to take also every other factor into consideration if that factor has an appreciable impact on the market behaviour of the undertakings. According to the approach taken by the European Commission, the fact whether a concentration is horizontal, vertical or conglomerate, is not relevant. Basically in all three cases we have to evaluate evidence

based on the followings: is the undertaking able to impede competition, if yes than is this a real threat, is it likely?

46. The ability-motivation assessment is however difficult to reconcile with the case law of the European Court of Justice and the notion of dominance. Thus the notion of dominance is centred on the question whether an undertaking is able to behave independently of the other market participants or not? The former and current merger regulation both prohibit the creation of dominance itself. Therefore motivation is irrelevant and must not be evaluated. The most striking example for this is the possibility to take efficiencies into account.
47. If an undertaking becomes dominant or its dominant position is strengthened after a concentration, which means that it is able to behave independently of the other players in the market. If efficiencies are improved or this is achieved because it becomes more efficient, than that means that it can behave even more independently from the others. So, according to the state of law, efficiencies cannot countervail a dominant position. Regarding this it is not reasonable to assume that the notion of dominance would be different in merger control and under Article 102 TFEU, since that would not be compatible with the case law of the European Court of Justice.
48. The evaluation of efficiencies is however a real possibility if the concentration does not create or strengthen a dominant position but lead to harmful competitive effects under the SIEC test, since they have to be balanced against those effects.

III.2. How the results of the research can be utilised

The questions which were analysed and the result of the research are advancing the internal development of law in Hungary, especially regarding Hungarian academic literature. Moreover the results also include such which are not yet formulated and reasoned in this depth and way on worldwide level, like the part on efficiencies after the changes in 2004.

The achieved results go beyond the narrow topic of the dissertation, and can also contribute to competition law literature in general, and I also discussed several issues in it, which can be applied in other areas of competition law.

IV. A témakörben készült saját publikációk jegyzéke – Own relevant publications

IV.1. Szerkesztett művek

TÓTH TIHAMÉR – SZILÁGYI PÁL (szerk.): A magyar versenyjog múltja és jövője: Jubileumi kötet a modern magyar versenyjog 20 éves fennállására. (PPKE JÁK, Budapest, 2011.)

IV.2. Könyvrészletek, jegyzetek

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SZILÁGYI Pál: Versenypolitika az Európai Unióban. In Szabó Marcel és Lános Petra (szerk.): Az Európai Unió szakpolitikái (Szent István Társulat, Budapest, 2010.)

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SZILÁGYI Pál: Koncentráció ellenőrzés, fúziókontroll, In Boytha Györgyné (szerk.): Versenyjog. (Szent István Társulat, Budapest, 2006. (Utánnymás: 2007.))

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IV.3. Tanulmányok

SZILÁGYI Pál: *A pénzügyi és a gazdasági válság hatása a versenypolitikára és kapcsolódó szabályozási területekre (Háttér tanulmány)*, 2010.

SZILÁGYI Pál: *A versenypolitikai keretek változása az Európai Unióban és Magyarországon 2007-ben (Háttér tanulmány)*, In Laki Mihály – Voszka Éva (szerk.): *Kaleidoszkóp – Versenyhelyzet Magyarországon 2007-ben*. (Pénzügykutató Rt., Budapest: 2008.)

IV.4. Folyóiratok

IV.4.1. Angol

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IV.4.2. Magyar

SZILÁGYI Pál, *A holland T-Mobile ügy*, *Jogesetek Magyarázta*, 2011/1.

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