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**The Software 'Market': Advocating an Alternative  
Approach to Competition Law Analysis under Article  
102 TFEU**

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## Summary

In examining the more economic approach in relation to the application of Article 102 TFEU to the software industry, this thesis advances and tests the hypothesis that the Commission's more economic approach as currently formulated and pursued does not lend itself easily to the creation of consistent and coherent competition policy for the software industry. The thesis' argument is based on the observation that the software industry involves more complexities than are capable of being captured by the static neo-classical economic theory underlying the Commission's more economic approach in its present form. However, rather than merely advocating the supremacy of non-economic considerations grounded in 'the law' over either purely or predominantly considerations of economic efficiency, this thesis not only recognises the general importance of economic theory for competition law analysis but also that the actual integration of economic principles and law enforcement is a matter of degree. In accordance with this acknowledgement that competition law analysis necessitates a nuanced approach which involves the taking into account of both 'the law' and insights from economic theory, this thesis analyses the 'traditional' market-based approach to the 'regulation' of competition and advocates a more dynamic, more sophisticated and holistic approach to the object of regulation.

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## Contents

Introduction.....	1
I. Outline of the Thesis .....	3
II. Methodology and Related Issues .....	10
III. Contribution to Knowledge.....	13
Chapter 1 – EU Competition Policy: Setting and Aims .....	16
I. EU Competition Policy .....	16
II. The General Setting of EU Competition Policy.....	16
II.1. The Situation Before the Lisbon Treaty .....	17
II.2. The Situation After the Lisbon Treaty .....	20
III. The Traditional Objectives of EU Competition Policy .....	24
III.1. The Imperative of Market Integration.....	24
III.2. The Goal of Protection of Undistorted Competition.....	32
III.2.1. The Task of Defining Competition .....	33
III.2.2. The Concept of Competition According to <i>Lex Lata</i> of the European Treaties.....	39
III.2.2.1. The Situation before the Lisbon Treaty .....	41
III.2.2.2. The Situation after the Lisbon Treaty .....	54
IV. Conclusion.....	55
Chapter 2 – The European Commission’s Approach to Competition Policy .....	58
I. Setting the Scene that is the Commission’s More Economic Approach.....	58
II. The ‘Rise of the Consumer’: Old Wine in New Bottles? .....	62
II.1. Some Possible Explanations for the ‘Rise of the Consumer’ in EU Competition Policy .....	64
II.2. ‘The Consumer’ and ‘Consumer Welfare’ in EU Competition Policy .....	70
II.2.1. Questioning the Suitability of ‘the Consumer’ and his ‘Welfare’ as an Appropriate Benchmark for EU Competition Policy.....	74
II.2.2. Examining the Notion of ‘the’ Consumer .....	79
II.2.2.1. The Use of the Notion of ‘the Consumer’ in the European Union .....	81
II.2.2.2. ‘The Consumer’ as A Legal Myth .....	88
II.2.3. ‘The Rise of the Consumer’ as the Expression of Economic Reorientation? .....	90
II.2.4. ‘The Consumer’ and ‘Consumer Welfare’ According to the European Commission.....	92
III. Conclusion .....	98

Chapter 3 – The Economics of the Commission’s ‘More Economic Approach’ .....	100
I. What Kind of Economic Theory Features in the Commission’s ‘More Economic Approach’?.....	101
II. Introducing Some Basic Economic Concepts and Terminology .....	105
II.1. Consumer Surplus / Producer Surplus / Total Surplus .....	107
II.2. The Economic Models of Perfect Competition and Monopoly .....	111
II.2.1. The Model of Perfect Competition.....	113
II.2.2. The Economic Model of Monopoly .....	117
III. The Usefulness of Economic Models and Economic Theory for Competition Policy	121
III.1. The Issue of (Economic) Conceptualisation .....	122
III.1.1. The Vagueness and Abstractness of Economic Theory .....	126
III.1.2. The Preference for Bright-line Tests: the Case of the Market Concept .....	128
III.1.2.1. ‘Market Definition’ as an Unambiguous Process?.....	133
III.1.2.2. Divorce of Policy from Reality? .....	136
III.1.3. The Usefulness of (Economic) Conceptualisation .....	143
III.2. The Issue of Economic Efficiency .....	145
IV. Conclusion.....	150
Chapter 4 – Analysing the <i>Ökonomisierung</i> of EU Competition Policy: Manifestation, Effects and Problems .....	152
I. The Manifestation of the <i>Ökonomisierung</i> of EU Competition Policy .....	153
I.1. Manifestation – Part 1: the Commission’s Approach to the Goal(s) of EU Competition Policy .....	155
I.2. Manifestation – Part 2: Analysing the Commission’s Understanding of ‘Competition’ .....	166
I.2.1. An Outline of the Commission’s Understanding of the Concept of Competition ..	168
I.2.2. Challenging the Commission’s Understanding of the Concept of Competition .....	174
I.2.2.1. The Correlation between the Number of Competitors and the Existence of Competition.....	174
I.2.2.2. The Correlation between ‘Market Share’ and the <i>Abuse</i> of a Dominant Position.	187
I.2.3. An Unfortunate Mixture of Behaviour and Structure .....	192
II. The Effects of the Commission’s More Economic Approach for EU Competition Policy .....	193
II.1. The Issue of Normativity.....	193
II.2. The Issue of Legal Certainty .....	203
II.2.1. Commission Guidelines as Measures to ‘overhaul’ EU Competition Law? .....	206
II.2.2. The Impact of the Commission’s Guidance on Enforcement Priorities on Legal Certainty.....	209

II.2.2.1. The Intellectual Incoherence of the Guidance Paper .....	216
II.2.2.2. The Legal Quality of the Guidance Paper .....	224
III. Conclusion .....	229
Chapter 5 – The Commission’s More Economic Approach and the Software Industry ..	233
I. Competition Law Analysis in the Software Industry .....	234
I.1. An Outline of the Software Industry .....	237
I.1.1. Software as ‘Superior Implementation for Functionality’ .....	238
I.1.2. Does Software equal Software? .....	239
I.2. The Question of Competition Law Enforcement in the Software Industry.....	244
I.2.1. Questioning the Call for Non-Intervention.....	246
I.2.2. The Applicability of Competition Law in the New Economy .....	249
II. The More Economic Approach in the Context of the Software Industry .....	256
II.1. The Two Stage Test for the Determination of ‘Dominance’ under Article 102 TFEU.....	258
II.2. The First Stage: Market Definition .....	260
II.2.1. Complexity of Technology .....	277
II.2.2. Speed of Innovation / ‘Market As Moving Target’ .....	281
II.3. The Second Stage: Market Power.....	290
II.3.1. Network Effects .....	295
II.3.2. The Existence and Exercise of Intellectual Property Rights .....	313
III. Conclusion .....	320
Chapter 6 – Advocating an Alternative Approach to Competition Law Analysis under Article 102 TFEU .....	323
I. A Brief Outline of Evolutionary Economics.....	325
I.1. The Advantages of an Evolutionary Economics Approach to (EU) Competition Law Assessment in the Software Industry .....	334
I.1.1. Better Consideration of Important Economic Factors and Characteristics.....	334
I.1.2. More in Line with ‘Competition as a Process’ .....	339
I.1.3. Evolutionary Economics stresses the Importance of Heterogeneity for ‘Competition’ .....	340
I.2. Two Necessary Qualifications .....	342
I.2.1. No Uniform Evolutionary Economic Paradigm exists currently .....	342
I.2.2. Restrictions placed by Scope and Task of Thesis .....	347
II. Considering the Introduction of an Evolutionary Economics Approach to Article 102 TFEU .....	348

II.1. Linge’s Suggestion of Introducing Two Additional Overt Assessment Criteria to Existing Merger and Acquisitions Review Procedure .....	350
II.2. Linge’s Incorporation of ‘Diversity’ and ‘Innovation’ into Existing Merger and Acquisitions Review Procedures .....	352
II.3. The Application of Linge’s Suggestion to the Analysis of an Alleged Violation of Article 102 TFEU in Dynamic and Innovation Intensive Industries .....	358
II.3.1. Are Linge’s suggestions necessarily restricted to existing merger and acquisitions review? .....	359
II.3.2. Can Linge’s suggestions be transposed to an Article 102 TFEU assessment of an industry such as the software sector? .....	363
III. Conclusion .....	377
Chapter 7 – Conclusion .....	382
Bibliography .....	398

## Introduction

“In our information age and information society, information has become an important commodity. More and more workers are information workers, who manipulate and manage information as their primary job function, or knowledge workers, who create and use new knowledge based on assembling and assimilating large bodies of information. Software has become a primary vehicle by which the most mechanistic aspects of information acquisition, organization, manipulation, and access are realized, supplemented by the insights and actions of people. The growing importance of information and knowledge lead directly to the growing importance and role of software.”<sup>1</sup>

This importance of software is also reflected in the context of the European Union where, in 2007, the ICT sector (of which the software industry forms a part<sup>2</sup>) accounted for 5.6% of the European GDP (€ 670 Billion) and for 5.3% of total employment.<sup>3</sup> Furthermore, according to the European Commission, the ICT sector also has a large influence on “overall productivity growth (20% directly from the ICT sector and 30% from ICT investments)”; a fact which can be explained by “the high levels of dynamism and innovation inherent in the sector, and the enabling role the sector plays in changing how other sectors do business.”<sup>4</sup>

It is against this backdrop of the software industry’s importance for the EU economy that this thesis explores the regulation of competition in the software industry by the European Union in the light of the European Commission’s recent reform efforts as embodied by its so-called ‘more economic approach’. In particular, this thesis examines the more economic

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<sup>1</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 3 *et seq.*

<sup>2</sup> European Commission, *Information Communication Technologies (ICTs), Glossary*, at: [http://ec.europa.eu/enterprise/glossary/index\\_en.htm#i](http://ec.europa.eu/enterprise/glossary/index_en.htm#i) (30/08/2011).

<sup>3</sup> European Commission, *Information and communication technologies - ICT policy in brief*.

<sup>4</sup> European Commission, *A Digital Agenda for Europe*, 26 August 2010, COM(2010) 245 final/2, 4.



approach and considers the formation of related competition policy with regard to Article 102 TFEU in the software industry. The term 'more economic approach' refers to one part of the still ongoing reform process of European competition policy whose origins can be traced back to the Modernisation Programme of the early 2000s<sup>5</sup> and denotes the fact that, ever since, the European Commission has placed an increased emphasis on developing "an economic interpretation of EU competition rules" by aiming for "greater sophistication in the economic analysis".<sup>6</sup> In a nutshell, this "means that the assessment of each specific case will not be undertaken on the basis of the form or the intrinsic nature of a particular practice (form-based approach) but rather will be based on the assessment of its anti- and pro-competitive effects (effects-based approach)"; as a consequence, "efficiency as a goal of Antitrust" is expected to become more important in competition law analysis.<sup>7</sup> In accordance with this programmatic description, the European Commission's more economic approach can be said to centre around the idea that both the modelling of competition policy and the enforcement of competition law rules should be based on the effects which 'competition' is expected to have upon consumer welfare while questions of economic efficiency should also play a greater role in the regulatory assessment.<sup>8</sup> In this context, it seems

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<sup>5</sup> See e.g. Oliver Budzinski, „Wettbewerbsfreiheit“ und „More Economic Approach“: Wohin steuert die Europäische Wettbewerbspolitik?, Marburger Papers on Economics No. 13-2007, especially pages 1-7; Arndt Christiansen, Die „Ökonomisierung“ der EU-Fusionskontrolle: Mehr Kosten als Nutzen?, (2005) *Wirtschaft und Wettbewerb* 285.

<sup>6</sup> Mario Monti, EU competition policy after May 2004, Speech, Fordham Annual Conference on International Antitrust Law and Policy, New York, 24 October 2003.

<sup>7</sup> Dieter Schmidtchen, Introduction, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 1.

<sup>8</sup> Michael Albers, Der "more economic approach" bei Verdrängungsmisbräuchen: Zum Stand der Überlegungen der Europäischen Kommission, *passim*; see also Jordi Gual / Martin Hellwig *et al.*, Report by the EAGCP – "An economic approach to Article 82", *passim*.

worthwhile to point out that, in relation to the consideration of economic efficiency issues in the course of competition law analysis, 'Europe' seems to be slowly catching up with earlier comparable developments as catalysed by the emergence of the so-called Chicago School in the US in the course of the 1970s and 1980s.<sup>9</sup>

## **I. Outline of the Thesis**

In examining the more economic approach in relation to the application of Article 102 TFEU to the software industry, this thesis advances and tests the hypothesis that the Commission's more economic approach as currently formulated and pursued does not lend itself easily to the creation of consistent and coherent competition policy for the software industry. The thesis' argument is based on the observation that the software industry involves more complexities than are capable of being captured by the neoclassically influenced economic theory underlying the Commission's more economic approach in its present form. However, rather than merely advocating the supremacy of non-economic considerations grounded in 'the law' over either pure or predominant considerations of economic efficiency, this thesis not only recognises the general importance of economic theory for competition law analysis but also that "the relevant challenge of properly integrating the principles of economics and law enforcement is not at all a matter of "black and white"" but more a question of "shade[s] of grey".<sup>10</sup>

In accordance with this acknowledgement that competition law analysis necessitates a nuanced approach which involves the taking into account of

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<sup>9</sup> See e.g. Robert H. Bork, *The Antitrust Paradox – A Policy at War with Itself*; David J. Gerber, *The Transformation of European Community Competition Law?*, (1994) 35 *Harvard International Law Journal* 97.

<sup>10</sup> Bernhard Heitzer, *Economic assessment in competition enforcement: developments in France and Germany*, Speech, CRA International, Annual Conference "Economic Developments in European Competition Policy", Brussels, 3 December 2008.

both 'the law' and insights from economic theory, this thesis analyses the 'traditional' market-based approach to the 'regulation' of competition and advocates a more dynamic, more sophisticated and holistic approach to the object of regulation. The thesis' argumentation is structured as follows: Chapter 1 'EU Competition Policy: Setting and Aims' deals with the general setting of EU competition policy both with regard to the situation before and after the Lisbon Treaty. It outlines and considers the 'constitutional'<sup>11</sup> policy goals as contained in both the Treaty on the Functioning of the European Union and the Treaty on European Union in order to evaluate how the Commission's more economic approach in its current form accords or contrasts with the aims of EU competition policy as contained in these European Treaties. In particular, it analyses the traditional objectives of EU competition policy as expressed by the European Treaties, i.e. the imperative of market integration and the goal of protection of undistorted competition and also discusses the meaning of the concept of competition as presented by the European Treaties.

The consideration of the goals of EU competition policy as contained in the European Treaties in Chapter 1 is duly followed by an introduction to, and an outline of, the Commission's more economic approach which, given the complexity of the Commission's recent reform efforts, is spread over two Chapters: Chapter 2 'The European Commission's Approach to Competition Policy', after a brief introduction of the origins and the overall setting of the Commission's more economic approach, focuses on one important notion featuring in the more economic approach; this notion being 'the consumer', given that the consideration of 'consumer welfare' appears to form the key 'ingredient' of the Commission's more economic approach. In doing so, it discusses whether the Commission's

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<sup>11</sup> See discussion in section II. of Chapter 1, *passim*.

approach can be regarded as a complete overhaul of the application of EU competition law and also analyses whether 'the consumer' can be considered an appropriate benchmark for EU competition policy. One key conclusion drawn in Chapter 2 is that the Commission conveys the impression of intending to overhaul EU competition policy by replacing the traditional objectives of EU competition policy as contained in the European Treaties with the (economic) goal of consumer welfare. Furthermore, Chapter 2 indicates that the shifted focus from the traditional policy goals as outlined in Chapter 1 are likely to lead to a conflict between the Commission's enforcement practice and the *lex lata* of the European Treaties which, as argued and substantiated *passim* throughout the thesis, this thesis considers to be one factor why the Commission's more economic approach is unlikely to result in the creation of coherent and consistent competition policy for the software industry.

Chapter 3 'The Economics of the Commission's More Economic Approach' complements and substantiates the analysis conducted, and the conclusions drawn, in Chapter 2 by focusing on the economic theory which underlies the Commission's reform efforts. In particular, it addresses two points which are relevant to the argument that the Commission's current approach to competition law analysis in relation to high technology sectors is unlikely to lead to the creation of coherent competition policy for the software industry; namely, what kind of economic theory underlies its more economic approach and what the Commission's decision to 'champion' consumer welfare as the overall policy goal means for the formation of EU competition policy. Chapter 3, in doing so, ultimately argues that many of the pitfalls associated with the Commission's more economic approach in relation to the software industry are connected with (or even hail from) the Commission's 'peculiar' use and understanding of economic theory or, more precisely,

from the Commission's seeming wish to rely on a rather 'static' form of economic theory by following what might be called a neoclassical ly influenced economic approach to competition law analysis. As discussed in detail in Chapter 3, this argument is based on the following considerations: although it is acknowledged that the question of dynamic efficiency might not be easily incorporated into competition law analysis,<sup>12</sup> and also that a potential trade-off ('Zielkonflikt') might exist between the concepts of productive and allocative efficiency and the concept of dynamic efficiency,<sup>13</sup> the focus on static efficiency considerations in the form of price and quantity might be seen as leading to an undue regulatory "focus on price competition between firms *given* current costs and current product offerings"<sup>14</sup> and therefore also to incomplete and problematic legal analysis and regulatory outcomes. In other words, Chapter 3 substantiates the argument advanced throughout this thesis that a price and allocation focused approach to competition policy in high-technology sectors may be regarded as being "burdened by a myopic focus on market structure as the key determinant of innovation" and therefore also be regarded as a "remarkably naïve, highly incomplete" approach to competition law enforcement;<sup>15</sup> this is because a selective focus on economic issues such as allocation or price arguably falls short of

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<sup>12</sup> See Gisela Linge, *Competition Policy, Innovation, and Diversity*, 9; Joseph F. Brodley, *The economic goals of antitrust: Efficiency, consumer welfare and technological progress*, (1987) 62 *New York University Law Review* 1020.

<sup>13</sup> See Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 12; Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 29-31; Gisela Linge, *Competition Policy, Innovation, and Diversity*, 19-22.

<sup>14</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-036.

<sup>15</sup> J. Gregory Sidak / David J. Teece, *Dynamic Competition in Antitrust Law*, (2009) 5 *Journal of Competition Law & Economics* 581, 589.

the manifold facets and aspects of the concept of competition,<sup>16</sup> especially where ‘competition’ in an innovation context is concerned.

Chapter 4 “Analysing the *Ökonomisierung* of EU Competition Policy: Manifestation, Effects and Problems” addresses questions of general importance for the hypothesis that the Commission’s more economic approach does not lend itself easily to the creation of coherent and consistent competition policy for the software industry. In so doing, it follows the analysis of the Commission’s more economic approach in Chapter 2 and 3 with a more detailed analysis of the ways in which the Commission’s more economic approach manifests itself in relation to both the goals of EU competition policy and the concept of competition. With particular reference to Commission documents such as the *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*,<sup>17</sup> Chapter 4 also discusses what implications the more economic approach has for the questions of legal certainty and normativity in the area of EU competition law. In short, by discussing the effects and problems of the Commission’s recent reform efforts, Chapter 4 questions the general suitability of the more economic approach as a means to create coherent and consistent competition policy and regulatory decisions.

Chapter 5 ‘The Commission’s More Economic Approach and the Software Industry’ provides the linkage between the identification of general problems with the Commission’s more economic approach in these

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<sup>16</sup> See e.g. Karl M. Meessen, *Prinzip Wettbewerb*, (2009) *Juristenzeitung* 697; Shelby D. Hunt, *A General Theory of Competition – Resources, Competences, Productivity, Economic Growth*, 4 *et seq.*; Robert H. Bork, *The Antitrust Paradox – A Policy at War with Itself*, 58-61 [footnotes omitted].

<sup>17</sup> European Commission, *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*, Official Journal 2009 C45, 24/02/2009.

Chapters and the suggestion of a different approach to competition law analysis which follows in Chapter 6. It builds upon the foundations laid in Chapter 4 and, by examining the question of why the issues raised in the preceding Chapters might be said to be exacerbated in the context of the software industry, substantiates the thesis' hypothesis. However, rather than accepting the sometimes heard statement that software is different<sup>18</sup> at face value – which, if true, could be understood to mean that the software industry should *per se* be exempted from the scrutiny of competition law – Chapter 5 evaluates the correctness of this statement by analysing how 'different' software, and thus also the software industry, actually is. In other words, Chapter 5 examines where the software industry (if at all) might differ from other economic sectors, and, if such differences are found to exist, how these differences may relate to the problems discussed in the previous chapters. This investigation – which focuses on the concept of 'the market' and in particular the question of 'Dominance' under Article 102 TFEU as an indicator of how the problems associated with the Commission's more economic approach may manifest themselves – leads Chapter 5 to the conclusion that the problems caused by factual indeterminacies for competition law assessment in general (as discussed in Chapter 4) are intensified by the characteristics of the software industry. It is further submitted that these characteristics represent a problem for the more economic approach in its present form insofar that the somewhat static theoretical foundations of the Commission's recent reform efforts and its resulting shortcomings are even more exposed in a dynamic environment such as the software industry as these (economic) factors cannot be sufficiently captured by the

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<sup>18</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, Preface, xii. See also Peter Buxmann / Heiner Diefenbach / Thomas Hess, *Die Softwareindustrie: Ökonomische Prinzipien, Strategien, Perspektiven*, 1.

Commission's currently advocated approach, thus ultimately rendering the more economic approach in its present form unsuitable for the formation of coherent competition policy and competitive regulation in this dynamic sector. In considering these issues, Chapter 5 substantiates this thesis' call for a more sophisticated economic approach to the application of competition law which truly integrates – rather than merely purports to do so – modern economic theory, i.e. one which goes beyond the current, seemingly static regulatory approach by allowing for the incorporation of modern theoretical insights about the dynamics of the process of competition,<sup>19</sup> and thereby prepares the ground for this thesis' submission in Chapter 6 that 'greater sensitivity' in relation to competition law analysis is needed if coherent and consistent competition policy and competitive regulation is to emerge within, and for, high technology sectors such as the software industry.<sup>20</sup>

Chapter 6 "Advocating an Alternative Approach to Competition Law Analysis under Article 102 TFEU" proceeds from the conclusions drawn in the preceding Chapters and builds upon the argument advanced in Chapter 5 that "a sound antitrust policy cannot be founded on the fiction that the world is simple."<sup>21</sup> Put differently, it is argued that, just as the "understanding of innovation driven industries and markets requires looking at the intertwined and feedback driven dynamics between market structure and innovation activities",<sup>22</sup> so too does competition law analysis

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<sup>19</sup> See Wolfgang Kerber, *Competition, Innovation, and Maintaining Diversity through Competition Law*, 24.

<sup>20</sup> Of a similar opinion: Willow A. Sheremata, "New" issues in competition policy raised by information technology industries, (1998) 43 *Antitrust Bulletin* 547, 548.

<sup>21</sup> Richard Schmalensee, *Another Look at Market Power*, (1982) 95 *Harvard Law Review* 1789.

<sup>22</sup> Uwe Cantner, *Industrial dynamics and evolution – the role of innovation, competences and learning*, in: Josef Drexl / Wolfgang Kerber / Rupprecht Podzun, *Competition Policy and the Economic Approach – Foundations and Limitations*, 149, 150.



if it is to result in coherent and consistent competitive regulation and competition policy for dynamic economic sectors such as the software industry. In building upon recent economic research, Chapter 6 discusses and advocates the express incorporation of more dynamically orientated economic theory into competition law analysis than is currently perceptible within the Commission's more economic approach; in particular, it is suggested that what might reasonably be called an "incompleteness"<sup>23</sup> of the theoretical foundations of the Commission's current approach to competition law analysis could be overcome by expressly incorporating insights from so-called evolutionary economics into the process of competition law regulation. It is submitted that, because the European Treaties do not appear to exclusively approach the concepts of 'the market' and 'competition' as economic concepts but rather seem to approach either concept 'open-mindedly', such an incorporation would also have the beneficial effect of removing the conflict between the Commission's narrowly understood goal of consumer welfare and the traditional goals of 'protection of undistorted competition' and 'market integration' as contained in the European Treaties.

The thesis concludes with a Chapter summarising the conclusions reached.

## **II. Methodology and Related Issues**

As pointed out by Zippelius, the term 'method' denotes the path to a (particular) goal which, in sciences, is the path that leads in a rational and thus traceable and controllable manner to theoretic cognition, practical insight or also to limits of cognisance.<sup>24</sup> Therefore, in order to demonstrate

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<sup>23</sup> Maurice Stucke, *Better Competition Advocacy*, (2008) 82 *St. John's Law Review* 951, 967.

<sup>24</sup> Reinhold Zippelius, *Juristische Methodenlehre*, 1.

the veracity of the research conducted in, and of the conclusions drawn by, this thesis, it is necessary to outline the methodology used in the examination of this thesis' hypothesis that the Commission's more economic approach in its present form does not lend itself easily to the creation of consistent and coherent competition policy for the software industry.

The testing of this thesis' hypothesis was conducted on the basis of qualitative, rather than quantitative research, i.e. it involved what might be called traditional, library based legal analysis; having said this, the research process also involved the occasional reference to, and consideration of, quantitative research such as surveys as a source of secondary analysis. In addition to the analysis of relevant legal material such as legislation, judgments, Commission documents and academic literature, the research further involved and, given the objects of investigation 'more economic approach' and 'software industry', also necessitated the consideration of relevant literature in the fields of economics and information technology. Furthermore, in order to keep the research project within manageable boundaries and, also, to lead to verifiable and traceable conclusions, the analysis focuses on questions relating to an Article 102 TFEU investigation in the software industry.

In view of the European and thus transnational context of the investigation, the research was conducted using material from different jurisdictions (such as the United Kingdom, Germany and the United States of America) which was variously written in different languages (such as English, German and French); where the language of the original source quoted by this thesis is not English, a translation into English has been

provided.<sup>25</sup> In this context, it seems worthwhile to point out that the reference to what might seem a rather large body of US literature and sources whilst investigating an European issue can be explained with the fact that most research in relation to questions relating to the use and usefulness of economic theory for competition law analysis appears to have first been undertaken in the United States whereas 'European' research seems to be only catching up.

The temporal context of this thesis is largely provided on the one hand by the regulatory investigations in relation to Microsoft first in the United States of America and subsequently in the EU, and, on the other hand, by the gradual introduction of the Commission's more economic approach as a part of the Modernisation Programme since the early 2000s,<sup>26</sup> although earlier events and documents have been considered where appropriate. The cut-off date for the research conducted is 01 April 2011; however, where possible and appropriate, material issued and developments after that date later have been incorporated.

Finally, mention should be made of two stylistic points: first, this thesis uses single quotation marks to highlight a particular term or phrase; it uses double quotation marks to denote the use of a direct quote. Second, it should be noted that for reasons of convenience of reading and legibility, hyperlinks indicating where to find a particular document have been provided in the bibliography, rather than in the footnotes, although, occasionally, direct references to websites will be made in the footnotes when referring to a particular website.

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<sup>25</sup> In case that longer quotes have been included in the actual text of the thesis, this translation is to be found in the associated footnote.

<sup>26</sup> See e.g. Council Regulation (EC) No 1/2003, 16 December 2002, On the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, Official Journal 2003 L001, 04/01/2003; Joanna Goyder / Albertina Albers-Llorens, Goyder's EC Competition Law, 623 *et seq.*.

### III. Contribution to Knowledge

This research project has been mainly triggered by two things: on the one hand, like many other pieces of research,<sup>27</sup> this thesis was influenced by the legal investigations Microsoft has been subject to in the last ten to fifteen years on either side of the Atlantic. On the other hand, it was also triggered by the realisation that, even (or maybe especially) in competition law, “[a]ll that glitters is not gold”,<sup>28</sup> i.e. that a competition law regulator’s enforcement decision which, at first glance, seems to be correct or at least justified, might, at second glance, reveal a number of issues that are likely to warrant a different evaluation by disclosing an overemphasis by the said competition law regulator on considerations of (statically understood) economic efficiency which are arguably inappropriate for the formation of coherent competition policy and regulatory decisions in a highly dynamic industry such as the software sector. This realisation might be considered both the starting point and the common thread which informs the testing of the hypothesis that the Commission’s more economic approach in its present form does not lend itself easily to the creation of consistent and coherent competition policy for the software industry.

In accordance with the above outline of the motivation for this research project, this thesis argues that the current regulatory approach to competition law assessment in the software industry is too narrow because it focuses almost entirely on the question of (statically

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<sup>27</sup> See e.g. Stan J. Liebowitz / Stephen E. Margolis, *Winners, Losers & Microsoft – Competition and Antitrust in High Technology*; Alexandra von Westernhagen, *Zugang zu geistigem Eigentum nach europäischem Kartellrecht*; Dan Eklöf, *The Microsoft Case – at the Heart of the IP/Antitrust Intersection*, in: Ariel Ezrachi (ed.), *Article 82 EC: Reflections on its Recent Evolution*, 99; Lange, Knut Werner, *Europäisches Kartellrecht und geistiges Eigentum – der Fall Microsoft*, in: Knut Werner Lange / Diethelm Klippel / Ansgar Ohly, *Geistiges Eigentum und Wettbewerb*, 131; Page, William H. / John E. Lopatka, *The Microsoft Case – Antitrust, High Technology, and Consumer Welfare*.

<sup>28</sup> William Shakespeare, *The Merchant of Venice*, Act II Scene vii.

understood) economic efficiency, thereby not only neglecting important characteristics of the software industry but also, in the context of the EU, matters contained in the primary law of the European Union which cannot necessarily be recorded in purely economic terms. Although the testing of this argument might be regarded as a contribution to knowledge in its own right, this thesis also enhances the existing body of research regarding the application of the Commission's more economic approach to dynamic economic sectors such as the software industry by considering different options in relation to the adoption of an improved, i.e. more refined and sophisticated, economic approach to competition law analysis which will allow the dynamics of the software sector to be properly addressed and considered in the course of an Article 102 TFEU investigation. Drawing on current economic research in relation to the incorporation of dynamic efficiency considerations into existing merger review procedures, this thesis discusses the transfer and the adaption of this *economic* research with regard to a *legal* assessment under Article 102 TFEU. In particular, it suggests a shift of focus from the narrowly defined static market concept by incorporating issues relating to innovation and diversity in addition to, i.e. as part of, the existing assessment process, thereby ensuring that these issues are neither only added as some sort of an "afterthought"<sup>29</sup> to the analysis informing competitive regulation nor, indeed, completely ignored. The benefits of such a dynamic approach to an Article 102 TFEU assessment for the competition law regulator are twofold: on the one hand, it allows for the more accurate indication of cases which do, or do not, need to be regulated; on the other hand, it

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<sup>29</sup> It has been suggested that this 'belated' consideration of dynamic efficiency considerations is currently 'the norm' in competition law analysis, see: Keith N. Hylton / Haizhen Lin, *Optimal Antitrust Enforcement, Dynamic Competition, and Changing Economic Conditions*, (2010) 77 *Antitrust Law Journal* 247, 248.

allows but also, by enabling the explicit consideration of dynamic efficiency issues as part of the existing regulatory assessment process, the formation of more coherent, more consistent and more transparent competition policy and enforcement practice, thus also facilitating better self-assessment of the undertakings themselves.

Put differently, this thesis not only contributes to the ongoing discussion in relation to the Commission's more economic approach by considering the incorporation of an evolutionary economics into the application of Article 102 TFEU in order to facilitate the creation of a more coherent competition policy for dynamic industries such as the software industry but also, in so doing, to the discussion of how a more robust framework for competition law analysis in relation to dynamic effects might be best achieved.

## **Chapter 1 – EU Competition Policy: Setting and Aims**

### **I. EU Competition Policy**

In order to evaluate how – both generally and more specifically in relation to the software industry – the Commission’s more economic approach in its current form contrasts with the aims of EU competition policy as contained in the European Treaties, i.e. both the Treaty on the Functioning of the European Union (thereafter: TFEU) and the Treaty on European Union (thereafter: TEU), it is necessary to outline and to consider these – one might say: ‘constitutional’<sup>30</sup> – policy goals. This is done in this Chapter.

In so doing, this Chapter provides the foundation for both this thesis’ hypothesis that, in its present form, the Commission’s more economic approach does not lend itself easily to the creation of a coherent competition policy in relation to the software industry and the suggestion that the current regulatory approach might be replaced by a more holistic approach.

### **II. The General Setting of EU Competition Policy**

The major EU competition law provisions are contained in Chapter 1, Title VII of Part III of the Treaty on the Functioning of the European Union which consists of Articles 101 to 109. However, EU competition policy is only partly informed by these specific provisions as it has, traditionally speaking, always been interpreted teleologically on the basis of the “constitutional” provisions of the earlier versions of the former EC Treaty: the goals and aims stated in these Articles have been held to inform the

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<sup>30</sup> See discussion in section II of this Chapter, *passim*.

reading of the substantial competition law provisions.<sup>31</sup> Following on from this tradition and given that some of these former constitutional provisions have ‘survived’ the recent Lisbon reform at least in substance,<sup>32</sup> it is hence necessary to read Articles 101 to 109 TFEU in conjunction with other provisions of the European Treaties which lay down certain ground principles of European Union law in order to properly delineate EU competition policy. In order to ‘ease’ this task, the following discusses not only the situation after the Lisbon Treaty but also the situation before this Treaty’s coming into force.<sup>33</sup>

## II.1. The Situation Before the Lisbon Treaty

Until the amendments introduced by the Lisbon Treaty, the delineation of EU competition policy in the light of the ‘constitutional’ provisions was a fairly easy task as the basic principles underlying EU competition policy were contained in Articles 2 to 4 EC Treaty. Especially Article 2 EC Treaty – as it described the “ultimate goals” of EC competition policy – could be considered a good starting point for such discussion;<sup>34</sup> it stipulated that

“[t]he Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing the common policies or activities referred to in Articles 3 and 4, to

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<sup>31</sup> Wulf-Henning Roth, Strategic competition policy: a comment on EU competition policy, in: Hanns Ullrich (ed.), *The Evolution of European Competition Law – Whose Regulation, Which Competition?*, 38, 40.

<sup>32</sup> For example, the former Article 2 EC Treaty has been replaced “in substance” by Article 3 TEU, see “Tables of equivalences” regarding the “Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union”, Official Journal 2008 C115/361, 366. Recent case law supports this conclusion, see e.g. European Court of Justice, *Konkurrensvverket v TeliaSonera Sverige AB*, Case C-52/09, 17 February 2011, especially paras. 20 *et seq.*.

<sup>33</sup> Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community, Official Journal 2007 C 306/01 ; in accordance with its Article 6, the Treaty entered into force on 1 December 2009.

<sup>34</sup> Wulf-Henning Roth, Strategic competition policy: a comment on EU competition policy, in: Hanns Ullrich (ed.), *The Evolution of European Competition Law – Whose Regulation, Which Competition?*, 38, 40.



promote throughout the Community a harmonious, balanced and sustainable development of economic activities, [...] a high degree of competitiveness and convergence of economic performance, [...] and economic and social cohesion among Member States.”<sup>35</sup>

These tasks were further specified by Article 3 (1) (g) EC Treaty which commanded the institution of “a system ensuring that competition in the common market is not distorted”<sup>36</sup> and Article 4 (1) EC Treaty which required the Member States to adopt an economic policy which was “conducted in accordance with the principle of an open market economy with free competition.”<sup>37</sup> These provisions were generally understood to mean that the institution of such an open economy system demanded not only the prohibition of privately erected barriers to free movement within the internal market but also the prohibition of state erected restrictions such as state aid.<sup>38</sup> EC competition law (as it was then) dealt with each restriction in Articles 81 to 89 EC Treaty; this inclusion of both public and private actions mirrored the sentiment that

“control of private action is not enough. Governmental measures such as subsidising industry or protecting rigid market structures by regulation can also cause a substantial degree of competition

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<sup>35</sup> Article 2 EC Treaty, Consolidated Version of the Treaty Establishing the European Community, Official Journal 2002 C325, 24/12/2002. Unless otherwise stated, all references to the EC Treaty made in the remainder of this thesis are to this version of the EC Treaty.

<sup>36</sup> Article 3 (1) (g) EC Treaty.

<sup>37</sup> Article 4 (1) EC Treaty.

<sup>38</sup> Following Faull, this thesis defines state aid as more than just subsidies from a federal authority: “The notion of state aid encompasses not only subsidies but also tax exemptions and investments from public funds made in circumstances in which a private investor would have withheld support. The aid must come from the ‘state’, which includes all levels, manifestations and emanations of public authority. Any act or omission by a public authority which reduces the costs of a company or category of companies is liable to constitute state aid.”, see Jonathan Faull, *Some of the questions you always wanted to ask about state aid*, EC Competition Policy Newsletter Summer 1994, 48.

distortion. The best antitrust law can accomplish little if vast amounts of state aids are handed out to ailing industries.”<sup>39</sup>

The addition of all forms of state aid to the list of potentially anti-competitive behaviour had a direct impact on the scope of European competition policy as the inclusion of public activities necessarily led to a more complete and broader view of which actions might have a detrimental effect on competition; namely, activities in the internal market by private *and* public bodies and not just actions taken by private entities alone. The effect of this incorporation was, at least, two-fold: first, it did set EC competition policy apart from other jurisdictions such as the United States where the area of antitrust was (and still is) concerned with activities of private bodies only.<sup>40</sup> Second, it placed competition policy on a much wider footing as it established ‘competition’ as a more inclusive concept rather than limiting its applicability solely to the private sector. Consequently, European competition policy before the amendments by the Lisbon Treaty could be said to apply a more inclusive and broader theoretical concept of competition than, for example, the United States, as it realised that ‘competition’ (howsoever understood) was not just something that took place between private parties. In addition, the inclusion of public bodies both as potential competitors and as potential violators of the competitive process emphasised certain notions of the EC Treaty (such as the importance of public services) and in particular the special status therein to the internal market:

“the creation of the Single market is opening up a whole new world of opportunity for Europe’s industry, which is already bringing a new dynamism into our economies [...] but as the barriers come

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<sup>39</sup> Alexander Schaub, VIII, in: Claus Dieter Ehlermann / Laraine L. Laudati, *European Competition Law Annual 1997: Objectives of Competition Policy*, 119, 122.

<sup>40</sup> See Spencer Weber Waller, *Neo-Realism and the International Harmonization of Law: Lessons from Antitrust*, (1994) 42 *Kansas Law Review* 557, 583 [with further references].

down and the competitive environment becomes tougher, so Member states will be under heavy domestic pressure to put their protective hand over particular companies, industries or economic sectors by maintaining aid which could nullify the whole venture.”<sup>41</sup>

In accordance with the ‘constitutional’ aims as set out in the EC Treaty, European competition law provisions thus appeared to acknowledge that they would be “futile” if Member States could grant “‘beggar my neighbour’ subsidies” to their national undertakings and thereby distort the process of competition; not to mention that such national measures would also “harm the fabric of the Community” by effectively reversing the European internal market.<sup>42</sup> The requirements of the internal market could hence be said to assume a certain primacy among the aims of European competition policy; to this extent, the realisation of the internal market could even be considered the overarching goal of European competition policy before the coming into force of the Lisbon Treaty.<sup>43</sup>

## **II.2. The Situation After the Lisbon Treaty**

The Lisbon Treaty introduced a number of changes to both the specific competition law provisions and the overall objectives of the European Union. While the changes to the former Articles 81 to 89 EC Treaty are more of a ‘cosmetic’ nature (by means of the renumbering of cross-references in accordance with the newly consolidated European Treaties and the replacement of the term “common market” with the term “internal market”), the changes to the basic aims as formerly contained in Articles 2 to 4 EC Treaty – and thus also to the general setting of European

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<sup>41</sup> Leon Brittan quoted in Dennis Swann, Standards, procurement, mergers and state aids, in: Dennis Swann (ed.), *The Single European Market and Beyond*, 53, 74.

<sup>42</sup> Barry J. Rodger / Angus MacCulloch, *Competition Law and Policy in the EC and UK*, 341.

<sup>43</sup> Stephen Wilks / Lee McGowan, *Competition Policy in the European Union: Creating a Federal Agency?*, in: G. Bruce Doern / Stephen Wilks, *Comparative Competition Policy – National Institutions in a Global Market*, 225, 226; Richard Whish, *Competition Law*, 51 *et seq.*.

competition policy – would appear to be more substantial: whereas Article 2 EC Treaty might be considered as having survived the reform at least “functionally”<sup>44</sup> in the form of new Article 3 (3) TEU, Article 4 (1) EC Treaty has been moved from what might be considered the constitutional provisions of the new European Treaties to Article 119 (1) TFEU in the title “Economic and Monetary Union”. Although it is unlikely that this move results in limiting the legal effect of “an open market economy with free competition”<sup>45</sup> solely to the provisions relating to the Economic and Monetary Union;<sup>46</sup> one cannot help but think that the move of former Article 4 (1) EC Treaty to its current location is unfortunate insofar as it “makes a correct legal understanding of the Treaty provisions even more difficult.”<sup>47</sup> This feeling of regret is further heightened by the most radical change introduced by the Lisbon reform in relation to the overall setting of EU competition policy: the institution of “a system ensuring that competition in the common market is not distorted”, as previously contained in Article 3 (1) (g) EC Treaty, no longer appears in the actual

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<sup>44</sup> Josef Drexler, Competition Law as Part of the European Constitution, in: Armin von Bogdandy / Jürgen Bast (eds.), Principles of European Constitutional Law, 659, 662.

<sup>45</sup> Article 119 (1) TFEU.

<sup>46</sup> Josef Drexler, Competition Law as Part of the European Constitution, in: Armin von Bogdandy / Jürgen Bast (eds.), Principles of European Constitutional Law, 659, 668: “A common economic policy [...] also requires the Union to respect the general principles set out in Article 119(1) TFEU in its own economic policy. Yet the most important provisions that the Union has to consider for its economic policy, including the competition law rules, are placed outside the title on the Economic and Monetary Policy. Hence, for the future interpretation of competition rules, one needs to take Article 119 (1) TFEU into consideration. [...] This conclusion is of great importance if read together with the revision concerning the guarantee of undistorted competition in the internal market. Even if the Lisbon Treaty had completely deleted this other guarantee, a European competition policy that, for instance, consequently promoted European champions in the field of merger control would collide with the principle of an open market economy with free competition (Article 119(1) TFEU).” See also Koen Lenaerts / Piet Van Nuffel, European Union Law, 9-005.

<sup>47</sup> Josef Drexler, Competition Law as Part of the European Constitution, in: Armin von Bogdandy / Jürgen Bast (eds.), Principles of European Constitutional Law, 659, 668.

text of the European Treaties. Instead, it has been ‘relocated’ to Protocol No. 27 to the European Treaties which simply states that

“[t]he High Contracting Parties, considering that the internal market as set out in Article 3 of the Treaty on European Union includes a system ensuring that competition is not distorted, have agreed that: To this end, the Union shall, if necessary, take action under the provisions of the Treaties, including under Article 352 of the Treaty on the Functioning of the European Union. [...]”<sup>48</sup>

Although it might be said that this Protocol “is badly drafted” and thus can be considered “a wretched provision”,<sup>49</sup> which has given rise to concerns that the Lisbon changes have undermined the role and value of competition,<sup>50</sup> it is worth recalling that the protection of undistorted competition objective never enjoyed the same importance nor standing as the goal of market integration.<sup>51</sup> As mentioned above, the so-called single-market-imperative has, for a long time, dictated the development of the law and, thus, has frequently also taken precedence over the goal of protection of undistorted competition. From this perspective, it would therefore seem likely that the current legal position in relation to the protection of undistorted competition as a goal of the European Union will largely remain unchanged; “such an understanding is also supported by Article 51 TEU-Lis according to which the protocols form an integral part

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<sup>48</sup> Protocol (No 27) ‘On the Internal Market and Competition’, Official Journal 2008 C115/201, 309.

<sup>49</sup> Robert Lane, *EU Law: Competition*, (2010) 59 *International & Comparative Law Quarterly* 489, 491.

<sup>50</sup> See e.g. Alan Riley, *The EU Reform Treaty and the Competition Protocol: undermining EC competition law*, (2007) *European Competition Law Review* 703, passim; sceptical also: Andreas Weitbrecht, *From Freiburg to Chicago and Beyond – the First 50 Years of European Competition Law*, (2008) 29 *European Competition Law Review* 81, 88; Robert Lane, *EU Law: Competition*, (2010) 59 *International & Comparative Law Quarterly* 489, 491 *et seq.*.

<sup>51</sup> See e.g. Koen Lenaerts / Piet Van Nuffel, *European Union Law*, 9-002: “The establishment of a common market was the most important task entrusted to the Community by the EEC Treaty and, later, the EC Treaty.”.

of the Treaties.”<sup>52</sup> Therefore, although the institution of “a system ensuring that competition in the common market is not distorted” is no longer expressly stated as an “activity” of the European Union,<sup>53</sup> the fact remains that the protection of undistorted competition continues to be important for both the accomplishment and the functioning of the Internal Market by abolishing existing or potential obstacles to cross-border trade<sup>54</sup> and as such would retain its “legal status [...] as a goal of the European Union.”<sup>55</sup>

This would also appear to be the opinion of the Commission:

“[t]he Internal Market and Competition Protocol is a legally binding confirmation that a system of ensuring undistorted competition is an integral part of the Internal Market. [...] Integrating competition into the very concept of the 'Internal Market' clarifies that the one simply cannot exist without the other – which is a fact. The competition rules which have served European citizens so well for fifty years remain fully in force.”<sup>56</sup>

Therefore, in view of the above, it seems reasonable to conclude that the general position in relation to the objectives of market integration and

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<sup>52</sup> Josef Drexler, Competition Law as Part of the European Constitution, in: Armin von Bogdandy / Jürgen Bast (eds.), *Principles of European Constitutional Law*, 659, 663. Of the same opinion: Constanze Semmelmann, *The European Union's Economic Constitution under the Lisbon Treaty: Soul-Searching Among Lawyers Shifts the Focus to Procedure*, (2010) 35 *European Law Review* 516, 522 and 524.

<sup>53</sup> As it was previously the case by means of Article 3 (1) (g) EC Treaty.

<sup>54</sup> See Albertina Albors-Llorens, Competition policy and the shaping of the Single Market, in: Catherine Barnard / Joanne Scott (eds.), *The Law of the Single European Market – Unpacking the Premises*, 311, 312: “A system ensuring undistorted competition is [...] an essential piece in the single market jigsaw.”; Koen Lenaerts / Piet Van Nuffel, *European Union Law*, 9-005.

<sup>55</sup> Constanze Semmelmann, *The European Union's Economic Constitution under the Lisbon Treaty: Soul-Searching Among Lawyers Shifts the Focus to Procedure*, (2010) 35 *European Law Review* 516, 522; see also Alina Kaczorowska, *European Union Law*, 50; unsure as to the consequences of the removal of “a system ensuring that competition in the common market is not distorted” from the list of EU activities: Alison Jones / Brenda Sufrin, *EU Competition Law*, 40. Recent case law supports this conclusion: see e.g. European Court of Justice, *Konkurrensvverket v TeliaSonera Sverige AB*, Case C-52/09, 17 February 2011, especially paras. 20 *et seq.*

<sup>56</sup> Neelie Kroes, *Competition Policy: Achievements in 2006; Work Programme in 2007; Priorities for 2008*, Speech/07/425, European Parliament Economic and Monetary Affairs Committee, Brussels, 26<sup>th</sup> June 2007.

protection of undistorted competition has not changed: both have still to be considered guiding principles of European competition policy. In this respect, it would seem that the main impact of the Lisbon Treaty on the goals of European competition policy lies in further affirming the importance of the market integration imperative as the overall aim for European (competition) policy.<sup>57</sup>

### **III. The Traditional Objectives of EU Competition Policy**

Given the continuing importance of market integration and protection of undistorted competition as goals of EU competition policy and in order to contrast these aims with the Commission's more economic approach (which aims to introduce the – seemingly new – goal of consumer welfare), it is necessary to outline these two traditional objectives and to discuss their impact on, and interaction with, EU competition policy in more detail.

#### **III.1. The Imperative of Market Integration**

In the past, the creation of a European single market has been vital for the European Union for a number of reasons; one might possibly even go as far as stating that market integration has been nothing but a facilitator of many 'things' considered to be of importance for a successful unification process: questions of employment, quality of life, free movement of goods *and* the competitiveness of European industries, to name but a few.<sup>58</sup> Consequently, the establishment and maintenance of the (higher) political

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<sup>57</sup> This statement should however not be read to mean that no further need for the European Union and the Court of Justice exists to clarify the approach to competition policy; see also: Constanze Semmelmann, *The European Union's Economic Constitution under the Lisbon Treaty: Soul-Searching Among Lawyers Shifts the Focus to Procedure*, (2010) 35 *European Law Review* 516, 524; Robert Lane, *EU Law: Competition*, (2010) 59 *International & Comparative Law Quarterly* 489, 492.

<sup>58</sup> See Koen Lenaerts / Piet Van Nuffel, *European Union Law*, Chapter 9.

goal of market integration has, for a long time, been regarded as the main prerequisite for making European undertakings more competitive and viable in the global economic market.<sup>59</sup> As mentioned above, it might even be considered, to a certain extent, to have been the *overarching* goal of EU competition policy;<sup>60</sup> in this respect, the single market imperative may also be regarded as “sometimes [having] dictated the entire development of the law”.<sup>61</sup> For example, under the pre-Lisbon regime, Articles 2, 3 (1) (g), 14 (2) and 98 EC Treaty, if read in conjunction, demonstrated that even another constitutional aim (as ‘protection of undistorted competition’ was then) was subordinate to the establishment of the internal market and hence merely a means to the said market’s establishment and maintenance.<sup>62</sup> However the fact that the achievement of the internal market frequently gained preference over other Union goals is not really surprising as the internal market may be considered as having been “*the central impetus for the ‘new Europe’*” insofar that “economic cooperation was the last remaining hope for a cooperative Europe”.<sup>63</sup>

In view of the fact that, with the coming into force of the Treaty of Maastricht on January 1<sup>st</sup>, 1993, the internal market was, technically

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<sup>59</sup> See e.g. European Commission, A single market for 21<sup>st</sup> century Europe, COM (2007) 724 final.

<sup>60</sup> Stephen Wilks / Lee McGowan, Competition Policy in the European Union: Creating a Federal Agency?, in: G. Bruce Doern / Stephen Wilks, Comparative Competition Policy – National Institutions in a Global Market, 225, 226; Richard Whish, Competition Law, 51 *et seq.*

<sup>61</sup> Alison Jones / Brenda Sufrin, EU Competition Law, 41.

<sup>62</sup> Adrian Künzler, Effizienz oder Wettbewerbsfreiheit?, 319; Albertina Albors-Llorens, Competition policy and the shaping of the Single Market, in: Catherine Barnard / Joanne Scott (eds.), The Law of the Single European Market – Unpacking the Premises, 311, 330.

<sup>63</sup> David J. Gerber, The Transformation of European Community Competition Law?, (1994) 35 Harvard International Law Journal 97, 101 [original emphasis]. Elsewhere, Gerber has called this “the specifically ‘European dimension’”, see David J. Gerber, Law and Competition in Twentieth Century Europe – Protecting Prometheus, 3. It might be worth keeping this ‘specific European dimension’ in mind when discussing more specific questions of EU competition policy later.



speaking, completed on December 31<sup>st</sup>, 1992, one might reasonably assume that the relative importance of market integration as a goal of EU competition policy has, if maybe not disappeared completely, at least waned considerably. However as alluded to before, the prominence of the internal market in various provisions of the new European Treaties – such as Article 3 (3) TEU and Part III of the TFEU – as well as statements such as the above quoted statement by the then Commissioner for Competition Neelie Kroes<sup>64</sup> suggest that this is not the case. Moreover, it would appear that completing the single market is still essentially a ‘never-ending story’:

“[d]espite its achievements so far, the single market is not yet complete. Indeed, creating a genuinely integrated market is not a finite task, but rather an ongoing process, requiring constant effort, vigilance and updating. Indeed, technological and political developments mean that the environment in which the Single Market functions is changing all the time. Although many obstacles have been removed, other barriers have come to light and will go on doing so.”<sup>65</sup>

This statement, taken together with the aforementioned continued prominence of the internal market in the European Treaties suggests that, with regard to EU competition policy, the aim of market integration is likely to “*never* disappear, because competition policy is the only effective means of securing *and maintaining* a single market”.<sup>66</sup> One example for the correctness of this assumption is the relatively recent accession of twelve new Member States; in this context, competition policy may be seen as acting as a major means for the establishment and maintenance of the internal market, e.g. in relation to dismantling existing barriers in these

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<sup>64</sup> See text associated with footnote 27 above.

<sup>65</sup> European Commission, Completing the Single Market.

<sup>66</sup> Tim Frazer, Competition Policy after 1992: The Next Step, (1990) 53 *Modern Law Review* 609, 612 [original emphasis]. Similar: Albertina Albors-Llorens, Competition policy and the shaping of the Single Market, in: Catherine Barnard / Joanne Scott (eds.), *The Law of the Single European Market – Unpacking the Premises*, 311, 328, speaking of “the long road that lies ahead”.

Member States to intra-Union trade. Of course, albeit probably to a lesser degree,<sup>67</sup> the same is also true for 'older' Member States, where changing circumstances (e.g. in form of a financial crisis or high unemployment rates) might lead to the 'temptation' of championing national companies or sectors rather than adhering to the respective EU rules which might be considered to be concerned with, or even directed at, the internal market – such as the competition law provisions.

This apparent perpetuity of the internal market as a goal of EU competition policy also means that EU competition law “has both a negative and a positive role to play in the integration of the single market”: it has a negative role insofar that competition law might impede efforts to (re-)establish isolated domestic markets; it has a positive role insofar that “competition law can be moulded in such a way as to encourage trade between Member States, partly by ‘levelling the playing fields of Europe’ [...] and partly by facilitating cross-border transaction and integration”.<sup>68</sup> This view is in line with Article 26 (2) TFEU (formerly Article 14 (2) EC Treaty) which states that “[t]he internal market shall comprise an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured in accordance with the provisions of the Treaties”; the internal market is thus an area in which these fundamental freedoms are guaranteed and which the competition rules are designed to protect.<sup>69</sup> This suggests that, in the case of EU competition policy, a complete removal of the single market objective would both be undesirable and unwise as this would not only contravene but also, ultimately, undermine the very foundations of the European

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<sup>67</sup> These 'older' Member States have been subject to Community rules and regulations for longer and thus, at least from a technical / institutional point of view, they have less scope for nation-wide deviation from these rules.

<sup>68</sup> Richard Whish, *Competition Law*, 22-23.

<sup>69</sup> Michael Kling / Stefan Thomas, *Kartellrecht*, § 1 para. 3.

Union which had been built upon predominantly economic cooperation between Member States.

Yet it should be noted that market integration is, despite occasional comments to the contrary,<sup>70</sup> not an end in itself; in fact, the goal of an internal market may itself be regarded as a mere means to achieve yet another goal – which may even be the “overarching aim” of all EU policies: “the greater prosperity of [the EU] citizens”.<sup>71</sup> This general orientation is also reflected by the new European Treaties which not only state the determination of the High Contracting Parties “to promote economic and social progress for their peoples”<sup>72</sup> but also that “the essential objective of their efforts [is] the constant improvements of the living and working conditions of their peoples”;<sup>73</sup> the achievement of either (the promotion of social and economic progress and the continuing improvement of living and working conditions) however is, according to the Commission,<sup>74</sup> largely dependent upon the perpetual maintenance of the internal market. The goal of the internal market may thus be described as the ‘common thread’ of EU policies as a whole; with regard to EU competition policy, it embodies the idea that an integrated market increases the chances of survival of European undertakings in the ‘global

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<sup>70</sup> Valentine Korah, *An Introductory Guide to EC Competition Law and Practice*, 8.

<sup>71</sup> Karel van Miert, *Role of Competition Policy in Modern Economics*, Speech at the Danish Competition Council, Copenhagen, 10/11/1997. This view appears to be shared by another former Commissioner for Competition, see Peter D. Sutherland, *The Competition Policy of the European Community*, (1985) 30 *St. Louis University Law Journal* 149: “The competition policy of the European Community is part of the wider endeavour of European integration on which reposes the hopes of our citizens for recovery and sustained prosperity.”.

<sup>72</sup> Preamble of the Treaty on European Union, Consolidated Version of the Treaty on the Functioning of the European Union, Official Journal 2010 C83, 30/03/2010.

<sup>73</sup> Preamble of the Treaty on the Functioning of the European Union, Consolidated Version of the Treaty on the Functioning of the European Union, Official Journal 2010 C83, 30/03/2010.

<sup>74</sup> See e.g. European Commission, *A single market for 21<sup>st</sup> century Europe*, COM (2007) 724 final.

market' by introducing them to more competition and therefore making these companies operate more efficiently as well as increasing their innovative potential:<sup>75</sup>

"[a]n internal market is an essential condition for the development of an efficient and competitive industry. [...] the Community has progressively broken down government-erected trade barriers between Member States [...] The Commission has used its competition policy as an active tool to prevent this [re-erection of private or national barriers], prohibiting, and fining heavily the parties to two main types of agreement: distribution and licensing agreements that prevent parallel trade between Member States, and agreements between competitors to keep out of one another's 'territories'. Moreover, the objectives of competition policy have been integrated into the Commission's new strategy for the European single market [...]. The aim is to prevent anticompetitive practices from undermining the single market's achievements."<sup>76</sup>

Needless to say that this reading of the importance of the market integration goal for EU competition policy appears to be also in line with the case law of the European Courts: for example, the importance of this foundation was highlighted by the European Court of Justice in the case *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*.<sup>77</sup> Having considered what is now Article 102 TFEU, the Court went on to observe that it was based upon Article 3 (f) EC Treaty – later Article 3 (1) (g) EC Treaty, now contained in Protocol No. 27 – requiring the Community to create a system to prevent the distortion of competition within the internal market. The Court then observed that

"[t]he applicants' argument that this provision merely contains a general programme devoid of legal effect, ignores the fact that Article 3 considers the pursuit of the objectives which it lays down to

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<sup>75</sup> See e.g. European Commission, A Single Market for Citizens, COM(2007) 60.

<sup>76</sup> European Commission, XXIX<sup>th</sup> Report on Competition Policy 1999, para. 3.

<sup>77</sup> European Court of Justice, *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*, 21 February 1973, Case 6/72.

be indispensable for the achievement of the Community's tasks. As regards in particular the aim mentioned in (f) [the former 3 (1) (g) EC Treaty], the Treaty in several provisions contains more detailed Regulations for the interpretation of which this aim is decisive."<sup>78</sup>

Furthermore, the Court went on to state that

"[...] if Article 3 (f) [the former 3 (1) (g) EC Treaty] provides for the institution of a system ensuring that competition in the common market is not distorted, then it requires a fortiori that competition must not be eliminated. This requirement is so essential that without it numerous provisions of the Treaty would be pointless. Moreover, it corresponds to the precept of Article 2 of the Treaty according to which one of the tasks of the Community is "to promote throughout the Community a harmonious development of economic activities". Thus the restraints on competition which the Treaty allows under certain conditions because of the need to harmonize the various objectives of the Treaty, are limited by the requirements of Articles 2 and 3. Going beyond this limit involves the risk that the weakening of competition would conflict with the aims of the common market."<sup>79</sup>

This quote indicates two things which this thesis argues are likely to be of relevance in the context of the analysis of the Commission's more economic approach: first that, in view of the apparent importance of "protection of undistorted competition" for EU competition as implied by the above quotes, the goal of market integration is neither EU competition policy's only objective nor its only defining component; consequently, the introduction of another policy goal – such as the consumer welfare objective as currently favoured by the Commission – might not be problematic after all. Second, the above excerpts denote that competition and market integration have to be seen as being mutually dependent

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<sup>78</sup> European Court of Justice, *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*, 21 February 1973, Case 6/72, para. 23.

<sup>79</sup> European Court of Justice, *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*, 21 February 1973, Case 6/72, para. 24.

insofar that, without competition, the single market could neither be established nor maintained;<sup>80</sup> equally, the ‘proper’ functioning of competition in the European Union is dependent upon the free flow of goods, services, workers and capital in the Community, i.e. upon the internal market.<sup>81</sup> In other words, the ECJ’s ruling in *Europemballage* implies that a positive interaction exists between competition policy and the establishment of the internal market:

“[s]uch interaction springs from the fact that these Community policies serve the same fundamental objective – reinforcing the wealth-creating capacity of the Community economy through improved allocation and more efficient use of productive resources. Strict application of the competition rules is an essential complement to the drive to remove legal and administrative obstacles to trade within the Union. It will help to ensure that any anti-competitive practices by companies or national authorities do not inhibit the dynamics of competition that must be the key to achieving the economic advantages which completion of a single market should bring. A strong competition policy will ensure that firms trying to tap the openings created by the internal market do not see their efforts frustrated by such practices.”<sup>82</sup>

Consequently, it would not only appear that, *de lege lata*, the internal market objective has still an important part to play in the formation of EU competition policy – and thus still has to be observed when applying EU competition law – but also that the complete removal of market integration as a goal of EU competition policy would undermine the very foundations upon which the European Union has been built.

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<sup>80</sup> Meinrad Dreher, *Der Rang des Wettbewerbs im europäischen Gemeinschaftsrecht*, (1998) *Wirtschaft und Wettbewerb* 656, 658.

<sup>81</sup> See Richard Whish [2009], *Competition Law*, 22; Peter Roth / Vivien Rose (eds.) [2010], *Bellamy & Child - European Community Law of Competition*, para. 1.074.

<sup>82</sup> European Commission, XXIII<sup>rd</sup> Report on Competition Policy 1993, para. 151.

### III.2. The Goal of Protection of Undistorted Competition

The second goal to be discussed in the context of EU competition policy is the 'protection of undistorted competition'. As reflected by Article 119 (1) TFEU which states that "[f]or the purposes set out in Article 3 of the Treaty on European Union, the activities of the Member States and the Union shall include [...] the adoption of an economic policy which is based [...] on the internal market and on the definition of common objectives, and conducted in accordance with the principle of an open market economy with free competition"<sup>83</sup> and Protocol No. 27 which reiterates "that the internal market as set out in Article 3 of the Treaty on European Union includes a system ensuring that competition is not distorted",<sup>84</sup> this objective is closely connected to the internal market imperative. This suggests that, in the European Union, 'competition' is regarded as "the essential and necessary ingredient of markets" which ensures and facilitates economic growth;<sup>85</sup> in other words, 'competition' is a pivotal concept for the functioning of the European Union.

This importance of the concept of competition requires, given that no clear definition of 'competition' exists in either economics or law,<sup>86</sup> a closer examination of what is meant by 'competition' in the *lex lata* of the European Union. More specifically, this examination is necessary in order to contrast the traditional goal of 'protection of undistorted competition'

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<sup>83</sup> Consolidated Version of the Treaty on the Functioning of the European Union, Official Journal 2010 C83, 30/03/2010.

<sup>84</sup> Protocol No. 27 on the internal market and competition, Official Journal 2010 C83, 30/03/2010.

<sup>85</sup> Neelie Kroes, Welcome to the spring 2005 edition of the Competition Policy Newsletter!, EC Competition Policy Newsletter Spring 2005, 1.

<sup>86</sup> Ingo Schmidt, Wettbewerbspolitik und Kartellrecht, 1. See also Paul J. McNulty, Economic Theory and the Meaning of Competition, (1968) 82 Quarterly Journal of Economics 639: "There is probably no concept in all of economics that is at once more fundamental and pervasive, yet less satisfactorily developed than the concept of competition."

with the Commission's more economic approach; in so doing, the examination not only provides the basis for this thesis' hypothesis that, in its present form, the Commission's more economic approach does not lend itself easily to the creation of a coherent competition policy for the software industry but also for the suggestion that the current regulatory approach might be replaced by a more holistic approach.<sup>87</sup>

### III.2.1. The Task of Defining Competition

Any attempt to define 'competition' appears to eventually encounter the problem that 'competition' is not a "holistic concept" and therefore, "means different things to different people".<sup>88</sup> For example, Bork has identified "at least five different meanings" of 'competition':<sup>89</sup>

"1. 'Competition' may be read as the process of rivalry. [...] 2. 'Competition' may be read as the absence of restraint over one's person's or firm's economic activities by any other person or firm. [...] 3. 'Competition' may be read as that state of the market [quoting George Stigler] "in which the individual buyer or seller does not influence the price by his purchases or sales. Alternately stated, the elasticity of supply facing any buyer is infinite, and the elasticity of demand facing any seller is infinite." [...] 4. 'Competition' may be read, in a meaning closely related to the one just discussed, [quoting Chief Justice Warren in *Brown Shoe*] as the existence of "fragmented industries and markets" preserved "through the protection of viable, small, locally owned businesses". [...] 5. 'Competition' may be read

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<sup>87</sup> This necessity follows from the consideration that, if the terminology which informs a regulator's competition law analysis can either be said to be lacking clarity or, even worse, be said to be in contradiction of the relevant *lex lata*, then the actual analytical process and its results might, potentially, be accused of arbitrariness and randomness; thus opening up the possibility for incoherent competition policy to be formed. Furthermore, without wishing to jump to the conclusion that this is actually the case in relation to the European Commission, this danger might be said to increase in case that the regulator in question (such as the European Commission) also enjoys a wide margin of appreciation and this margin of appreciation is used by the regulator to basically disregard the law.

<sup>88</sup> Sam D. Johnson / A. Michael Ferrill, *Defining Competition: Economic Analysis and Antitrust Decisionmaking*, (1984) 36 *Baylor Law Review* 583, 587.

<sup>89</sup> Robert H. Bork, *The Antitrust Paradox – A Policy at War with Itself*, 58.



as a shorthand expression, a term of art, designating any state of affairs in which consumer welfare cannot be increased by moving to an alternative state of affairs by judicial decree.”<sup>90</sup>

In view of this non-exhaustive list of possible perspectives the establishment of a universally applicable definition would appear to be near impossible even if such an attempt was restricted to e.g. the geographical area of the European Union and to its competition policy: although any such definition attempt might potentially be helped by the fact that, in Western society, “competition is [...] a political and social *desideratum* no less than an economic one”<sup>91</sup> and not a matter of *laissez-faire*<sup>92</sup> (which in itself might be regarded as a ‘personal’ point of view on competition and thus might ‘negatively’ affect the universal applicability of the aspired definition), any definition attempt would still have to make allowances for the fact that the political, social and economic meanings of ‘competition’ differ and pursue different goals;<sup>93</sup> a fact which again could hamper the universal applicability of the desired definition as one view prevailed over the others. Consequently, refraining from attempts to define the concept of competition might even be considered a wise

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<sup>90</sup> Robert H. Bork, *The Antitrust Paradox – A Policy at War with Itself*, 58-61 [footnotes omitted].

<sup>91</sup> Paul J. McNulty, *Economic Theory and the Meaning of Competition*, (1968) 82 *Quarterly Journal of Economics* 639.

<sup>92</sup> John Dickinson, *The Anti-Trust Laws and the Self-Regulation of Industry*, (1932) 18 *American Bar Association Journal* 600, 602.

<sup>93</sup> This divergence of goals has a direct impact on the way competition policy is formed and evaluated – see G. Bruce Doern, *Comparative Competition Policy: Boundaries and Levels of Political Analysis*, in: G. Bruce Doern / Stephen Wilks, *Comparative Competition Policy – National Institutions in a Global Market*, 7 *et seq.*: “[...] for mainstream economists, the overall purpose of competition policy is to protect competition as a means of allocating scarce resources and thus of producing allocative and other types of efficiency; [...] for political scientists [however,] there is also an interest in how antitrust policy is forged out of the ideologies and pressures of big business and organized capitalism, and in how the state enacts measures to reassure small businesses and consumers.”

decision.<sup>94</sup> In addition, it might be worth keeping in mind that, as observed by Gibbons in the context of the US competition laws,

“[t]he antitrust laws are of necessity statements of general principle. They must be given meaning in specific application on a case-to-case basis. It is impossible for a legislature to devise codes so all-encompassing as to predict every case to which the general principle should apply.”<sup>95</sup>

This statement could potentially be taken to suggest that, just as the assignation of a universally applicable meaning to ‘competition’ might be considered an impossible task with regard to the competition laws in general, such a definition might not only be impossible but also unnecessary in relation to the concept of competition. The reason for such a line of argument is that, as any kind of ‘desideratum’, what constitutes ‘competition’ varies – depending on the particular ‘things’ wished for or considered desirable in relation to the alleged actions of a perceived injurer of ‘competition’ – in a specific case and society. Moreover, it could also be maintained that such a definition would potentially have over-restrictive effects on the applicability of the particular competition law(s) in question and thus leave no room for discretion, flexibility or leeway on behalf of the enforcer. Therefore, from this point of view, the concept of competition might and, in order to avoid the over-restriction of the applicability of competition law, maybe even should, be merely defined as part of a particular behavioural scheme which the competition laws of a specific jurisdiction seek either to promote or to prohibit such as e.g. to forbid predatory pricing or to outlaw the abuse of a dominant position. After all, competition laws are generally directed at the encouragement of

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<sup>94</sup> See Joanna Goyder / Albertina Albors-Llorens, Goyder’s EC Competition Law, 8, who observe that although “[t]he Treaty of Rome refers to ‘competition’ as a concept in both Articles 3 (1) (g) and 81, [...] perhaps wisely offers no definition.”

<sup>95</sup> John J. Gibbons, Opinion in: *NBO Industries Treadway Companies, Inc. v. Brunswick Corporation*, 523 F.2d 262, 278-279.

a certain behaviour, that of 'playing by the rules' – whatever these rules might be.<sup>96</sup> Such a reading would also appear to be in line with Articles 101 to 109 TFEU which explicitly refer to particular types of behaviour insofar that they either allude to, or even explicitly state, which kind of behaviour undertakings are discouraged from adopting. Furthermore, the understanding of the concept of competition as a behavioural concept would also allow for the – as this thesis argues: much needed – incorporation of a normative connotation insofar that it would positively enable the relevant competition authorities to enforce the behaviour which a society (or at least its legislator) might wish to encourage.<sup>97</sup>

Still, even though this conclusion seemingly narrows the problem of “*what is 'competition'?*” down insofar that the concept of competition as per the European Treaties appears to be a behavioural and thus a normative concept, it nonetheless leaves some important points unanswered: that of which values are to be selected, not to mention the question of which goals competition policy should (and maybe even *ought* to) pursue. Should 'wealth maximization', sometimes also referred to as 'efficiency', be the sole goal of competition law and 'competition' thus only defined in price and efficiency terms?<sup>98</sup> If it is efficiency considerations which count, in

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<sup>96</sup> See, for example, Jonathan Todd, Transcript from an interview on BBC World, September 2007: “Competition Policy is basically applying rules to make sure that companies compete with each other and, in order to sell their products, innovate and offer good prices to consumers. The risk if there's no competition policy is that companies will do deals with each other to split up the market between them, or will act in a way which doesn't allow competitors on to the market; and in either case the result can be that consumers are denied access to innovative products and pay higher prices.”

<sup>97</sup> See Eleanor M. Fox, *Economic Concentration, Efficiencies and Competition: Social Goals and Political Choices*, (1977) 46 *Antitrust Law Journal* 882: “[C]ompetition’ means different things to different people, and different people assign different values to the qualities that comprise it. Antitrust, like competition, is a bundle of values; it involves goals, priorities, and trade-offs.”

<sup>98</sup> As advocated by supporters (e.g. Bork, Posner and Easterbrook) of the so-called Chicago School.

whose 'best interest' should these efficiencies lie – producers, consumers or society at large? Should these efficiency considerations be the only considerations which count or should there be other – equally or more important – considerations? Alternatively, should the question of consumer choice be the guide for any antitrust analysis and the definition of competition therefore be “choice-based”?<sup>99</sup> At any rate, in view of the seemingly countless permutations for competition policy, it becomes clear that any such definition attempt will also (have to) entail “moral dimensions”, even if ‘competition’ is understood ‘à la Chicago’ in supposedly value-free terms.<sup>100</sup>

In addition, the conclusion above that ‘competition equals a normative concept’ does not necessarily say anything about what the ‘rules of the game’ are or what their underlying perspective is; a fact which might complicate the attempt to ‘define’ competition even further:

“[f]rom a normative perspective economic approaches and legal approaches differ in so far as (mainstream) economic approaches stress welfare goals and ultimately efficiency, whereas legal approaches are functional and focus on economic goals of the European Union and on ‘constitutional goals’ like ‘the rule of law’, ‘legal certainty’ and ‘legitimacy of law-making’. Behind the two approaches, the economic and the legal one, stand different legitimisation concepts. Whereas (main stream) economists use a

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<sup>99</sup> Neil W. Averitt / Robert H. Lande, *Using the “Consumer Choice” Approach to Antitrust Law*, (2007) 74 *Antitrust Law Journal* 175, 184.

<sup>100</sup> John J. Gibbons, *Antitrust, Law & Economics, and Politics*, (1987) 50 *Law and Contemporary Problems* 217, 218: “The selection of efficiency, which some of the Chicagoans define as wealth maximization, as the sole object of antitrust is a political choice, however, and political choices always have moral dimensions.”; see also John J. Flynn / James F. Ponsoldt, *Legal Reasoning and the Jurisprudence of Vertical Restraints: The Limitations of Neoclassical Economic Analysis in the Resolution of Antitrust Disputes*, (1987) 62 *New York University Law Review* 1125; John J. Flynn, *Legal Reasoning, Antitrust Policy and the Social “Science” of Economics*, (1988) 33 *Antitrust Bulletin* 713. – However Posner maintains that “economic research that provides support for liberal positions is rarely said to exhibit political bias.”, Richard A. Posner, *Economic Analysis of Law*, 27.

utilitarian concept (enhancing welfare), legal scholars leave the legitimisation to the legislature and courts.”<sup>101</sup>

Despite appearances however, the above does not, so to speak, further muddy the waters of assigning meaning to ‘competition’; rather, it emphasises (and thereby clarifies) an important point: in the context of competition policy, any attempted definition of competition will be a reflection of political beliefs and will consequently involve the selection of factors deemed to be important to achieve the respectively assumed goal of competition law.<sup>102</sup>

Admittedly, at first glance, this conclusion might look like a vicious circle as, transferred into the context of EU competition policy, ‘competition’ (and the protection thereof) as a goal of competition policy would appear to be defined as the reflection of the goals of competition policy. Consequently, it might be assumed that little (if anything) can be won with this ‘result’; after all, can one honestly say that the description of *a goal* of competition policy as the reflection of *the goals* of competition policy is an enlightening explanation? Rather, this ‘explanation’ might be compared with a situation in which one is asked to describe an apple, and in which, after long deliberation, one only comes up with the answer that ‘an apple is what other apples look like’. Such an answer could, indeed, be considered unsatisfying. At second glance however, there is more to this interim conclusion than would appear to first meet the eye: the above

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<sup>101</sup> Christian Kirchner, Goals of Antitrust and Competition Law Revisited, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 7, 8.

<sup>102</sup> “The claim is often made that the neoclassical model [which is the model on which perfect competition and price theory are built upon] is morally neutral and can be applied mechanically without the decision maker’s own moral values. However, by its assumptions the model chooses which facts and which values ought to be deemed relevant to analysis.” John J. Flynn / James F. Ponsoldt, *Legal Reasoning and the Jurisprudence of Vertical Restraints: The Limitations of Neoclassical Economic Analysis in the Resolution of Antitrust Disputes*, (1987) 62 *New York University Law Review* 1125, 1131 [in footnote 19].

indicates that the term competition can be defined as the ‘product’ of those overall values which are deemed to underlie a particular (supra-)national competition policy. To put it differently, the concept of competition can be understood as the *quasi* manifestation of the respective values of said competition policy. This, in turn, leads back to the question of what the purpose of competition policy is, i.e. the question of what its underlying purpose is: for example, if the values underlying a particular competition policy are of a purely economic nature – such as economic efficiency considerations – then the concept of competition could be reasonably expected to possess only an economic meaning and to reflect only economic values (assuming for a moment that wealth maximisation can actually be considered a value<sup>103</sup>). Moreover, in such a case, there would be no room for non-economic considerations (such as e.g. fairness) within the attempted definition of competition. A similar statement may be made the other way round, i.e. in relation to a competition policy which is intended to explicitly facilitate only non-economic values; in this case, the scope for economic considerations within the concept of competition would be equally curtailed. Transferred back into the context of this thesis, the above leads to the conclusion that the *meaning of ‘competition’* in EU competition policy has to be found *in the rationale for EU competition policy itself*.

### **III.2.2. The Concept of Competition According to *Lex Lata* of the European Treaties**

Given the conclusion that the *meaning of ‘competition’* in EU competition policy has to be found in the *rationale for EU competition policy itself*, the

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<sup>103</sup> Questioning the classification of wealth maximisation as a value: Ronald M. Dworkin, *Is Wealth a Value?*, (1980) 9 *Journal of Legal Studies* 191; Anthony T. Kronman, *Wealth Maximization as a Normative Principle*, (1980) 9 *Journal of Legal Studies* 227.

following examines the meaning of 'competition' as presented by the *lex lata* of the European Treaties. This requires that, as competition law and policy may both be viewed as forming part of the institutional framework of the European Union,<sup>104</sup> EU competition policy has to be considered in the context of the 'broader picture' of the European Union itself.

In order to facilitate this analysis, it seems worth to briefly consider another point related to the ways in which the concept of competition can be approached and understood; the point being whether 'competition' is an instrument or an institution.<sup>105</sup> On the one hand, competition might be regarded as an instrument that is desirable because it is a tool to achieve certain effects; from this point of view, it is the expected *effects of competition* which are the intended goal(s) of competition policy, *not* the assurance of competition ("Gewährleistung des Wettbewerbs")<sup>106</sup> *itself*. On the other hand, competition *as such* might be considered desirable not because of its instrumental character but because of certain beneficial features it possesses. In other words, from this point of view, it is the *institution of competition in itself* which is seen as a goal of competition policy because of the desirable features 'competition' possesses. – Each perspective has an impact on the question of policy formation as in the latter case, 'competition' itself (and thus also the protection of undistorted competition) would be a dominant policy objective; whereas in the former instance, 'competition' would, if at all, only be a minor objective as it was regarded as nothing more than a means to achieve a specified end

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<sup>104</sup> Christian Kirchner, Goals of Antitrust and Competition Law Revisited, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 7, 12.

<sup>105</sup> See Erich Hoppmann, Zum Problem einer wirtschaftspolitisch praktikablen Definition des Wettbewerbs, in: Erich Hoppmann (ed.), *Wirtschaftsordnung und Wettbewerb*, 235, 238 *et seq.*; Adrian Künzler, Effizienz oder Wettbewerbsfreiheit?, 34.

<sup>106</sup> Adrian Künzler, Effizienz oder Wettbewerbsfreiheit?, 34.

(whatever this end might be) rather than 'something' that might be considered 'open-ended' and indeterminate. In view of the potential implications of these differing perspectives for this thesis' hypothesis, it has to be asked not only which line the European Treaties follow, but also which line current EU competition policy follows, i.e. which approach the Commission takes with its more economic approach. The former issue is addressed here, the latter is discussed in Chapter 2.

### **III.2.2.1. The Situation before the Lisbon Treaty**

Before the coming into force of the Lisbon Treaty, the delineation of the concept of competition by means of establishing the overall rationale for EC competition policy (as it was then) required a look not only at the specific provisions of competition law (Articles 81 to 89 EC Treaty) but also the at 'constitutional' Articles 2 to 4 EC Treaty which, *inter alia*, provided the overall (legislative) setting for European competition law and policy and which, in doing so, also outlined the rationale for competition policy as presented by the EC Treaty.

The overall motivation for the EC Treaty was contained in its Preamble which, *inter alia*, stated the Member States' determination "to lay the foundations of an ever closer union among the peoples of Europe", their resolve "to ensure the economic and social progress of their countries by common action to eliminate the barriers which divide Europe", the affirmation of "the constant improvements of the living and working conditions of their peoples" "as the essential objective of their efforts", their recognition "that the removal of existing obstacles calls for concerted action in order to guarantee steady expansion, balanced trade and fair competition", their anxiety "to strengthen the unity of their economies and to ensure their harmonious development by reducing the differences existing between the various regions and the backwardness of the less



favoured regions”, and finally their resolve “by thus pooling their resources to preserve and strengthen peace and liberty”.<sup>107</sup> In accordance with these guidance statements, Article 2 EC Treaty set out that

“[t]he Community shall have as its task, by establishing a common market [...] and by implementing common policies or activities referred to in Articles 3 and 4, to promote throughout the Community a harmonious, balanced and sustainable development of economic activities, [and] a high degree of competitiveness and convergence of economic performance [...].”

This task was specified to include, in Article 3 (1) (g), the establishment of “a system ensuring that competition in the internal market is not distorted” and also, in Article 4 (1), “the adoption of an economic policy which is based on the close coordination of Member States' economic policies, on the internal market and on the definition of common objectives, and [which is] conducted in accordance with the principle of an open market economy with free competition.” In light of both the above quoted Preamble and EC Treaty provisions, the pre-Lisbon rationale for competition policy as per the EC Treaty would thus appear to have been economic unification in order to ensure and strengthen peace and liberty in Europe. Especially if one considers the political developments in Europe in the earlier half of the 20<sup>th</sup> century, this conclusion does not seem to be too far-fetched.<sup>108</sup>

As for the question whether, pre-Lisbon, the EC Treaty regarded the concept of competition either as an instrument or as an institution, it is important to note that Articles 2 to 4 EC Treaty did not specify the tasks of the Community any further and, in particular, neither contained a

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<sup>107</sup> Consolidated Version of the Treaty Establishing the European Community, Official Journal 2002 C325, 24/12/2002.

<sup>108</sup> See for a discussion of the motivation for European unification in general and the creation of EC competition law in particular: David J. Gerber, *Law and Competition in Twentieth Century Europe – Protecting Prometheus*.

definition of competition nor envisaged an ideal *form* of competition. Indeed, searches for either an explicit definition or an unequivocal expression of a preferred form of competition in the remainder of the EC Treaty are for naught. Accordingly, it appears reasonable to conclude that the EC Treaty employed an ‘indeterminate definition of competition’ (‘indeterminierter Wettbewerbsbegriff’).<sup>109</sup> This conclusion is supported by the fact that the documents relating to the reception of the EEC Treaty (Treaty of Rome<sup>110</sup>) as the ‘origin’ of the EC Treaty – as far as these documents have been made publically available – contained neither an indication nor indeed a positive statement as to which theory of competition might be considered as underlying these European Treaties.<sup>111</sup> Furthermore, the reading that the EC Treaty employed an ‘indeterminate definition of competition’ would also appear to be supported by the fact that, although the EC Treaty did not contain a concrete meaning attached to the concept of competition, it did, in its ‘constitutional’ provisions, lay down the basics of a particular economic system – that of “an open market economy with free competition” – which may be regarded as being generally characterised by an emphasis of private / party autonomy (“Privatautonomie”), i.e. an emphasis placed on the general freedom of the individual.<sup>112</sup> Such an interpretation of the relevant Treaty provisions is further substantiated by Articles 81 and 82 EC Treaty which concretised the specified economic system insofar that these competition law provisions detailed some of those rules which could be considered indispensable for the upkeep of such an ‘open market economy’ system.<sup>113</sup>

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<sup>109</sup> Fritz Rittner / Michael Kulka, Wettbewerbs- und Kartellrecht, § 6 para. 35.

<sup>110</sup> Treaty establishing the European Economic Communities, 25<sup>th</sup> March 1957.

<sup>111</sup> Michael Kling / Stefan Thomas, Kartellrecht, § 1 para. 30.

<sup>112</sup> See Michael Kling / Stefan Thomas, Kartellrecht, § 1 para. 29.

<sup>113</sup> See Fritz Rittner / Michael Kulka, Wettbewerbs- und Kartellrecht, § 5 paras. 31 *et seq.* and § 6 paras. 34 *et seq.*. See also Michael Kling / Stefan Thomas, Kartellrecht, § 1

From this point of view, one could call at least Article 82 EC Treaty, if not also Article 81 EC Treaty, “an implementation provision, meaning that it assists Article 2 [EC Treaty] in establishing a common market and implementing common policies.”<sup>114</sup> In this respect, the underlying economic system may be seen as informing the concept of competition insofar that the respective type / kind of economic system has an impact on the question whether the concept of competition is regarded as an instrument or an institution.

The following explanation might help to illustrate this point and thus might ultimately also assist in further clarifying the EC Treaty’s understanding of the concept of competition:<sup>115</sup> an economic system such as the European Union’s ‘open market economy’ is predicated upon the principle of the free development of the individual and therefore has also to leave most areas of social and especially economic activities to the individual and to the individual’s private autonomous organisation /

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para. 29. – This line of argument would also seem to be supported by the European Court of Justice’s judgment in *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*, 21 February 1973, Case 6/72, especially para. 24: “[...] if Article 3 (f) [subsequently Article 3 (1) (g) EC Treaty] provides for the institution of a system ensuring that competition in the common market is not distorted, then it requires a fortiori that competition must not be eliminated. This requirement is so essential that without it numerous provisions of the Treaty would be pointless. Moreover, it corresponds to the precept of Article 2 of the Treaty according to which one of the tasks of the Community is “to promote throughout the Community a harmonious development of economic activities”. Thus the restraints on competition which the Treaty allows under certain conditions because of the need to harmonize the various objectives of the Treaty, are limited by the requirements of Articles 2 and 3. Going beyond this limit involves the risk that the weakening of competition would conflict with the aims of the common market.”.

<sup>114</sup> See, with regard to Article 82 EC Treaty, Liza Lovdahl Gormsen, *A Principled Approach to Abuse of Dominance in European Competition Law*, 62.

<sup>115</sup> The explanation presented here draws upon the discussion in Fritz Rittner / Michael Kulka, *Wettbewerbs- und Kartellrecht*, of both the importance of private / party autonomy and the danger inherent therein for ‘competition’, *ibid.*, § 5 paras. 31 *et seq.*. See also Hermann-Josef Bunte, *Kartellrecht mit neuem Vergaberecht*, 2 *et seq.* and Michael Kling / Stefan Thomas, *Kartellrecht*, § 1 paras. 29 *et seq.*; Liza Lovdahl Gormsen, *Why the Commission’s Enforcement Priorities on Article 82 EC should be withdrawn*, (2010) 31 *European Competition Law Review* 45, 49.

design; any arrangement to the contrary made by such an economic system's legislator would be a contradiction in terms. Yet economic actions which are based on the principle of private / party autonomy might sometimes lead to 'unfortunate' (i.e. those which are considered to be objectionable / undesired from a society's point of view) consequences insofar that some parties might eventually occupy such an economic position – either by reason of size or other factors – which would allow them to undermine or even abrogate competition.<sup>116</sup> In this respect, private autonomous economic activity (as any human action) can be said to carry in it the seeds for the destruction of the very freedoms on which it is based by providing for the possibility that, at least theoretically, such a position of economic strength can be reached. This however means not only that such a 'freedom-based' system is permanently and inherently in danger of 'knocking itself out' – and thereby at least partially, if not completely, also in constant danger to dispose of economic freedom – but also that 'the law' has to take precautionary measures to prevent the occurrence of the aforementioned undesired effects private / party autonomy might have for society at large:

*“Irrig ist sicher die Auffassung, dass im sozialen Prozess des Wettbewerbs eine natürliche Harmonie der Interessen besteht, der Widerstreit der individuellen Interessen ist ein unleugbare Tatsache; deshalb müssen Regeln und Einrichtungen geschaffen werden, die verhindern, dass Einzelne und Gruppen so viel Macht besitzen, dass sie ihre Pläne auf Dauer gegen die Absichten aller Anderen durchsetzen können. Ist der individuelle Verantwortungsbereich durch allgemeine, für alle in gleicher Weise gültige Regeln festgelegt, dann weiß jeder, wo der Freiheitsbereich des anderen beginnt und der eigene Freiheitsbereich endet. Die individuelle Freiheit des*

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<sup>116</sup> See also Victoria Mertikopoulou, DG Competition's Discussion Paper on the Application of Article 82 EC to Exclusionary Abuses: the Proposed Economic Reform from a Legal Point of View, (2007) 28 European Competition Law Review 241, 242.

gezogenen Rahmens muss dann allerdings durch den Staat garantiert werden: Immer, wenn die von den allgemeinen Regeln gezogenen Grenzen überschritten werden, dann hat die Staatsgewalt das Recht und die Pflicht zum Eingriff.“<sup>117</sup>

Two points emerge from these ‘musings’ which have an impact on the question whether the EC Treaty before the coming into force of the Lisbon Treaty regarded the concept of competition as an institution or as an instrument: first, the threats posed by the *exercise* of economic freedom to the very *idea* of economic freedom (of which the process of competition can be regarded as forming an essential part) not only mean that the respective legislator has to create the conditions for competition to be able to take place but also that the legislator has to ensure the ‘maintenance’ of these conditions. This would point towards the concept of competition as applied by the EC Treaty being an institution rather than an instrument because, although the above quote relates to the question of a national – here: German – competition law regime, the situation is no different with regard to the European ‘internal market’.<sup>118</sup> Moreover, in relation to the EC

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<sup>117</sup> Bundeskartellamt, 1. Tätigkeitsbericht (1958), Bundestagsdrucksache 3/1000, 7, quoted in Hermann-Josef Bunte, Kartellrecht mit neuem Vergaberecht, 3. This quote translates as follows: “Certainly wrong is the opinion that a natural harmony of interests exists within the social process of competition as the conflict of individual interests is an undeniable fact; therefore rules and institutions have to be created which prevent that individuals and groups have so much power that it would allow them to enforce their plans against the intentions of all other parties. If the individual sphere of responsibility has been determined by means of common rules which apply to everybody in the same way, everybody knows where the sphere of freedom of others begins and where one’s own sphere of freedom ends. This however means that the individual freedom of the stipulated bounds have to be guaranteed by the State: Whenever the bounds drawn by the common rules are transgressed, the State has the right and the duty to intervene.” [author’s own translation]. See also Victoria Mertikopoulou, DG Competition’s Discussion Paper on the Application of Article 82 EC to Exclusionary Abuses: the Proposed Economic Reform from a Legal Point of View, (2007) 28 European Competition Law Review 241, 242 *et seq.*

<sup>118</sup> Eberhard Günther, Das Kartellrecht in internationaler Beleuchtung. This is because, as either is based on the idea of private autonomy / economic freedom, either is in danger of being nullified by the exercise of the autonomy / freedom which it confers on the undertakings in question.

Treaty, the case law of the European Court of Justice would seem to confirm that the above assertion is true not only for both the upkeep of the 'open market economy' in general and the maintenance of the internal market in particular but also for the individual's economic freedom to partake in, and to benefit from, this 'market'. For example, in *France Télécom SA v Commission of the European Communities*, while concluding that Article 82 EC Treaty referred "not only to practices which may cause damage to consumers directly, but also to those which are detrimental to them through their impact on an effective competition structure", the Court also remarked that

"[...] according to settled case-law, Article 82 EC is an application of the general objective of European Community action laid down by Article 3 (1) (g) EC, namely, the institution of a system ensuring that competition in the common market is not distorted. Thus, the dominant position referred to in Article 82 EC relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers [...]. [...]"

In that context, in prohibiting the abuse of a dominant market position in so far as trade between Member States is capable of being affected, Article 82 EC refers to conduct which is such as to influence the structure of a market where the degree of competition is already weakened and which, through recourse to methods different from those governing normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition [...]."<sup>119</sup>

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<sup>119</sup> European Court of Justice, *France Télécom SA v Commission of the European Communities*, 02 April 2009, Case C-202/07 P, paras. 103-105. See also European Court of Justice, *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*, 21 February 1973, Case 6-72; European Court of Justice, *NV Nederlandsche Banden Industrie Michelin v Commission of the European Communities v Commission of the European Communities*, 09 November 1983, Case 322/81; European Court of Justice, *Hoffmann-La Roche & Co. AG v Commission of the European Communities*, 13 February 1979, Case 85/76; European

Second, it is worth noting that, as Rittner and Kulka have pointed out,<sup>120</sup> a legal regime such as that of the European Union, i.e. one which is based upon the idea of economic freedom, cannot create a regulatory system which is capable of preventing undesired results in their entirety: on the one hand, safeguarding the attainment of a perfect 'hit rate' in terms of (socially) desired results presents a practical impossibility for a legal regime because the people working within, and as part of, a jurisdiction's regulatory system are 'only' humans and as such fallible. On the other hand, ensuring such a never-failing regulatory system represents a theoretical impossibility because such an all encompassing regulation mechanism would mean that the legal system in question would have to determine *all* human behaviour and thereby would have to abandon freedom itself and thus also its freedom creating task. This realisation / insight has an impact on whether the concept of competition is considered an instrument or an institution insofar that a regulatory system which is based on the freedom of the individual does not, and (by definition) cannot, indoctrinate either an ideal form of 'competition' or an ideal market structure; rather, such a regulatory system can only provide a more general outline in terms of which particular types of behaviour are considered to be incompatible with a freedom based economic system.<sup>121</sup> This however means that, in such freedom based legal regimes, 'competition' is regarded, and protected, as an institution but not as an instrument.

This would seem to also have been the position adopted by the old EC Treaty: given that, pre-Lisbon, Article 3 (1) (g) EC Treaty provided for "the

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Court of Justice, *British Airways plc v Commission of the European Communities*, 15 March 2007, Case C-95/04 P.

<sup>120</sup> Fritz Rittner / Michael Kulka, *Wettbewerbs- und Kartellrecht*, § 5 para. 32.

<sup>121</sup> See Fritz Rittner / Michael Kulka, *Wettbewerbs- und Kartellrecht*, § 5 para. 34.

institution of a system ensuring that competition in the common market is not distorted” and that, in the interest that ‘competition’ was not to be eliminated, the Treaty allowed for certain restraints to be placed on the concept of competition; consequently, in the light of the now *de facto* obsolete provisions of the EC Treaty, the concept of competition could be understood as a (legal) principle of organisation of the economic system of the European Union which enjoyed an institutional, rather than instrumental standing. Accordingly, it would appear that the aim was “not to protect competition against any distortion, but to avoid competition being distorted in such a way that it prevents the achievement of the broader objectives of the Treaty.”<sup>122</sup> This reading of the EC Treaty’s position regarding the concept of competition would also appear to be supported by the position of the Courts of the European Union before the coming into force of the Lisbon Treaty which emphasised the importance of ‘competition’ as an institution:

“Article 82 EC does not require it to be demonstrated that the conduct in question had any actual or direct effect on consumers. Competition law concentrates upon protecting the market structure from artificial distortions because *by doing so* the interests of the consumer in the medium to long term are best protected.”<sup>123</sup>

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<sup>122</sup> Liza Lovdahl Gormsen, *A Principled Approach to Abuse of Dominance in European Competition Law*, 62.

<sup>123</sup> Court of First Instance, 17 December 2003, Case T-219/99, *British Airways plc v Commission of the European Communities* [author’s emphasis]. See also Opinion of Advocate General Kokott, 23 February 2006, Case C-95/04 P, *British Airways plc v Commission of the European Communities*, para. 68: “The starting-point here must be the protective purpose of Article 82 EC. The provision forms part of a system designed to protect competition within the internal market from distortions (Article 3 (1) (g) EC). Accordingly, Article 82 EC, like the other competition rules of the Treaty, is not designed only or primarily to protect the immediate interests of individual competitors or consumers, but to protect the *structure of the market* and thus *competition as such (as an institution)*, which has already been weakened by the presence of the dominant undertaking on the market. In this way, consumers are also indirectly protected. Because where competition as such is damaged, disadvantages for consumers are also to be feared.” [original emphasis].



Finally, the conclusion that the old EC Treaty viewed ‘competition’ as an institution rather than an instrument would also appear to be supported by the text of Articles 81 and 82 EC Treaty which, by placing a number of restrictions on certain economic practices / types of economic behaviour, could be considered to preserve private / party autonomy and thus also to safeguard the individual’s ability to ‘play the (economic) game’, i.e. to partake in what might be considered the process of ‘competition’ *as such*: for example, Article 81 EC Treaty deemed all those “agreements [...] and concerted practices” by undertakings “as incompatible with the common market [...] which may affect trade between Member States” and which either were aimed at or resulted in “the prevention, restriction or distortion of competition within the common market”;<sup>124</sup> this prohibition was specified in subsection 1 to include especially those agreements or practices which

- “(a) directly or indirectly fix purchase or selling prices or any other trading conditions;
- (b) limit or control production, markets, technical development, or investment;
- (c) share markets or sources of supply;
- (d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
- (e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.”<sup>125</sup>

Similarly, Article 82 EC Treaty prohibited “[a]ny abuse [...] of a dominant position within the common market [...] in so far as it may affect trade between Member States”; as was the case with Article 81 EC Treaty

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<sup>124</sup> Article 81 (1) EC Treaty, Consolidated Version of the Treaty Establishing the European Community, Official Journal 2002 C325, 24/12/2002.

<sup>125</sup> List contained in Article 81 (1) EC Treaty.

regarding agreements or other concerted practices, Article 82 EC Treaty also specified that

“[s]uch 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.”<sup>126</sup>

Given the emphasis placed on the internal market in both Article 81 and Article 82 EC Treaty and also given that neither precisely described a definite goal (such as e.g. consumer welfare) which ‘competition’ was supposed to achieve, these provisions may be considered as highlighting the importance of private / party autonomy insofar that they did not contain positive statements as to what constitutes – or might constitute – ‘competition’ but rather contained only an outline of specific actions which might be regarded as falling short of whatever the concept of competition – in the light of the EC Treaty’s overall objectives – was thought / meant to entail. Again, this implicit emphasis on private / party autonomy may be seen as strengthening the argument that the EC Treaty regarded ‘competition’ as an institution rather than an instrument. Furthermore, and following on from this, the task of competition law before the Lisbon Treaty could be seen as a negative one insofar that only individual types of restrictions of ‘competition’ – rather than the concept

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<sup>126</sup> Article 82 EC Treaty, Consolidated Version of the Treaty Establishing the European Community, Official Journal 2002 C325, 24/12/2002.

of competition as such – were capable of being defined:<sup>127</sup> in view of the fact that private / party autonomy can be considered to have always been at the heart of the economic system of the European Union, an ‘indoctrination’ as to what the concept of competition was supposed to actually mean (i.e. either an ideal form of competition or an ideal type of market structure) could not take place because the decision of whether and, if so, how to participate in the economic process was (and had to be) left by the EC Treaty to the individual. Put differently, the EC Treaty can be seen as implicitly acknowledging that ‘competition’ is unpredictable both in terms of its ‘shape’ and its results / effects; therefore, neither the ‘constitutional part’ of the EC Treaty nor the actual competition law provisions mentioned anything which pointed into the direction of ideal forms or structures. Moreover, both Article 81 and Article 82 EC only described certain types of behaviour but not a particular ‘market’ structure – nor did they (actively or implicitly) refer to such. Rather, the only structure mentioned in the context of EU competition law before the Lisbon Treaty was that of the ‘system of free competition’ – if one can indeed call the ‘system of free competition’ a structure in the meaning of an ideal arena or form in which ‘competition’ is supposed to take place. What the EC Treaty did however outline in Articles 81 to 89 EC Treaty was (by indicating how not to act and therefore implicitly stating what type of behaviour is permitted) what kind / type of behaviour the European Community desired to be displayed by the parties in the arena ‘internal market’ but it did not outline the structure of the said arena. This particular approach to the concept of competition is insofar consistent as the number of actors in an arena cannot, as such, be considered to say

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<sup>127</sup> Fritz Rittner / Michael Kulka, Wettbewerbs- und Kartellrecht, § 5 para. 34.

anything meaningful about the fact whether or not ‘competition’ exists between the actors in that arena.<sup>128</sup>

In addition, the inclusion of the concept of fairness in Article 82 (a) EC Treaty would appear to support the perception that the European Community (as it then was) was more concerned with questions of behaviour rather than questions of structure when it came to the issue of competition as a concept; after all, only behaviour can be considered to be ‘unfair’ but not a structure which is defined in economic parameters only. Such structural considerations are unaffected by equity considerations; this also appears to be the opinion of the European Court of Justice:

“[t]he specific prohibition of discrimination in subparagraph (c) of the second paragraph of Article 82 EC forms part of the system for ensuring, in accordance with Article 3 (1) (g) EC, that competition is not distorted in the internal market. The commercial behaviour of the undertaking in a dominant position may not distort competition on an upstream or a downstream market, in other words between suppliers or customers of that undertaking. Co-contractors of that undertaking must not be favoured or disfavoured in the area of the competition which they practise amongst themselves.”<sup>129</sup>

To conclude, in view of its outline as per the EC Treaty, the concept of competition before the coming into force of the Lisbon Treaty could therefore probably best be understood as a complex system of ‘market’ processes which arose out of, and because of, the freedom not only to take part in these processes but also to act within these according to individual ideas.<sup>130</sup> The (inevitable?) consequence of this understanding is that, pre-Lisbon, the concept of competition emerged as a behavioural, institutional concept which was independent of both an ideal image of competition and

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<sup>128</sup> This point is further developed in Chapter 2 below.

<sup>129</sup> European Court of Justice, *British Airways plc v Commission of the European Communities*, 15 March 2007, Case C-95/04 P, para. 143.

<sup>130</sup> Erich Hoppmann, „Neue Wettbewerbspolitik“: Vom Wettbewerb zur staatlichen Mikro-Steuerung, in: Erich Hoppmann (ed.), *Wirtschaftsordnung und Wettbewerb*, 276, 289.

an ideal market structure and which, as such, can be regarded as acting as a legal principle of organisation of the economic system of the Union's 'open market economy'.<sup>131</sup>

### **III.2.2.2. The Situation after the Lisbon Treaty**

As pointed out earlier in this Chapter, the provision that "the activities of the Community shall include [...] a system ensuring that competition in the internal market is not distorted" as previously contained in Article 3 (1) (g) EC Treaty has not found its way into the actual text of the revised European Treaties. Instead, the term "a system ensuring that competition is not distorted" is now to be found in Protocol No. 27. Despite the fact that Article 51 TEU provides that the protocols "form an integral part" of the European Treaties, this alteration could be taken to mean that the Lisbon changes have also effected a 'change in direction' as to the meaning attached to the concept of competition in EU competition policy, possibly even to the extent that it might now be feasible to identify the concept of competition in the European Union with either an ideal form or an ideal structure. However, although Protocol No. 27 only 'considers' "that the internal market as set out in Article 3 of the Treaty on European Union includes a system ensuring that competition is not distorted", the revised versions of the European Treaties contain neither positive statements nor concrete indications to suggest such an intended effect. Accordingly, it is suggested by this thesis that the concept of competition after the coming into force of the Lisbon Treaty has remained an institutional and behavioural concept which still does not pursue an ideal form or structure and which continues to act as a principle of legal organisation of the European Union's economic system. This reading of the relevant

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<sup>131</sup> See Fritz Rittner / Michael Kulka, Wettbewerbs- und Kartellrecht, § 5 para. 31 *et seq.*.

provisions of the European Treaties also appears to be supported by the reception of the Lisbon changes in the literature which, by way of omission of an in-depth discussion of this point, seems to indicate continuity rather than change.<sup>132</sup> Consequently, this thesis proceeds not only from the assumption that the Lisbon Treaty has not changed the *lex lata* regarding the goals of EU competition policy but also from the assumption that the concept of competition as applied by the European Treaties post Lisbon has remained the same as before the changes: ‘competition’ is still regarded and protected as an institution and not as an instrument.

#### **IV. Conclusion**

This chapter outlined the general setting of EU competition policy and its traditional goals “protection of undistorted competition” and “market integration” as expressed by the European Treaties. In doing so, the recent changes to EU law by means of the Lisbon Treaty were taken into account and the impact of these changes on the traditional EU competition policy objectives was analysed. Not least in view of recent case law,<sup>133</sup> this analysis concluded that both ‘protection of undistorted competition’ and ‘market integration’ still have to be considered to be the guiding principles of EU competition policy, at the very least until the standing of the

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<sup>132</sup> See e.g. Constanze Semmelmann, *The European Union’s Economic Constitution under the Lisbon Treaty: Soul-Searching Among Lawyers Shifts the Focus to Procedure*, (2010) 35 *European Law Review* 516; Robert Lane, *EU Law: Competition*, (2010) 59 *International & Comparative Law Quarterly* 489. It is also worth mentioning that post-Lisbon academic literature appears to use pre-Lisbon case law on an one-to-one basis, i.e. simply replaces Article 85 and 86 / Article 81 and 82 EC Treaty references with Article 101 and 102 TFEU references, see e.g. Pinar Akman, *The European Commission’s Guidance on Article 102 TFEU: From Inferno to Paradiso?*, (2010) 73 *Modern Law Review* 605; Damian Chalmers / Gareth Davies / Giorgio Monti, *European Union Law – Texts and Materials*, Chapter 23 “Antitrust and Monopolies”.

<sup>133</sup> See e.g. European Court of Justice, *Konkurrensvverket v TeliaSonera Sverige AB*, Case C-52/09, 17 February 2011.

“wretched provision”<sup>134</sup> contained in Protocol No. 27 is given a radically different interpretation by the European Courts. It seems however unlikely that the objective of ‘protection of undistorted competition’ will totally disappear from the radar of European Union goals because, even with the removal of the “hierarchy of objectives [as previously contained in Articles 2 and 3 EC Treaty], which was essential for the development of the case law”<sup>135</sup> and whose abolition is likely to aggravate the correct understanding of the European Treaties, “[o]ne should always remember that a ‘highly competitive social market’ and ‘full employment’ in the Union cannot be attained without effectively protecting competition.”<sup>136</sup>

In addition, this Chapter also discussed the meaning of the concept of competition as contained in the European Treaties. The discussion reasoned that, despite the changes introduced by means of the Lisbon Treaty, the European Treaties still regard competition in terms of an institutional and behavioural concept which is not only independent of both an ideal form of competition and an ideal form of market structure but which also acts as a legal principle of organisation of the EU’s economic system, i.e. the ‘open market economy’. The outline of both the – as this Chapter concluded: still valid and important – traditional goals of EU competition policy in general and the meaning of the concept of competition as contained in the European Treaties in particular provide the basis for the further analysis of the Commission’s more economic approach in the following Chapters as they allow for the evaluation of how the Commission’s reform efforts in their present form contrast with

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<sup>134</sup> Robert Lane, *EU Law: Competition*, (2010) 59 *International & Comparative Law Quarterly* 489, 491.

<sup>135</sup> Josef Drexler, *Competition Law as Part of the European Constitution*, in: Armin von Bogdandy / Jürgen Bast (eds.), *Principles of European Constitutional Law*, 659, 665.

<sup>136</sup> Josef Drexler, *Competition Law as Part of the European Constitution*, in: Armin von Bogdandy / Jürgen Bast (eds.), *Principles of European Constitutional Law*, 659, 665.

these traditional aims of EU competition policy. Put differently, this Chapter established the foundation for the testing of this thesis' hypothesis that the Commission's more economic approach in its present form does not lend itself easily to the creation of a coherent competition policy in relation to the software industry and thereby also for this thesis' suggestion that the current regulatory approach might be replaced by a more holistic approach.



## **Chapter 2 – The European Commission’s Approach to Competition Policy**

In order to contrast the findings made in Chapter 1 with the Commission’s current approach to competition policy, it is necessary to delineate the Commission’s take on competition policy as featured in its more economic approach. Given the complexities of the Commission’s reform efforts, this is done in this and the following Chapter: the former, after a brief introduction of the more economic approach, focuses on one important notion featuring in the more economic approach (‘the consumer’); the latter focuses on the economic theory which underlies the Commission’s reform efforts.

### **I. Setting the Scene that is the Commission’s More Economic Approach**

The term ‘more economic approach’ refers to the still ongoing reform process of European competition policy whose origins can be traced back to the early 2000s<sup>137</sup> and which denotes the fact that, ever since then, the European Commission has placed an increased emphasis on developing “an economic interpretation of EU competition rules” by aiming for “greater sophistication in the economic analysis”.<sup>138</sup> In a nutshell, this “means that the assessment of each specific case will not be undertaken on the basis of the form or the intrinsic nature of a particular practice (form-based approach) but rather will be based on the assessment of its anti- and pro-competitive effects (effects-based approach)”; as a consequence,

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<sup>137</sup> See e.g. Oliver Budzinski, „Wettbewerbsfreiheit“ und „More Economic Approach“: Wohin steuert die Europäische Wettbewerbspolitik?, Marburger Papers on Economics No. 13-2007, especially pages 1-7; Arndt Christiansen, Die „Ökonomisierung“ der EU-Fusionskontrolle: Mehr Kosten als Nutzen?, (2005) *Wirtschaft und Wettbewerb* 285.

<sup>138</sup> Mario Monti, EU competition policy after May 2004, Speech 03/489, Fordham Annual Conference on International Antitrust Law and Policy, New York, 24 October 2003.

“efficiency as a goal of Antitrust” is expected to become more important in competition analysis.<sup>139</sup> In accordance with this programmatic description, the Commission’s more economic approach can be said to centre around the idea that both the modelling of competition policy and the enforcement of competition law rules should be based on the effects ‘competition’ has on consumer welfare while questions of efficiency should also play a greater role in the assessment:<sup>140</sup>

“[c]ompetition policy serves one goal – to make sure that markets can operate as efficiently as possible to deliver these outcomes for our citizens. [Kroes mentions “a high standard of social cohesion and welfare” an “giving individuals a good quality of life and better, more desirable, products and services at lower prices” in the section preceding this quote.] We want to help create a virtuous circle of economic growth and social welfare, in which the benefits are passed on within societies. [...] Consumer welfare is now well established as the standard the Commission applies when assessing mergers and infringements of the Treaty rules on cartels and monopolies. Our aim is simple: to protect competition in the market as a means of enhancing consumer welfare and ensuring an efficient allocation of resources. An effects-based approach, grounded in solid economics, ensures that citizens enjoy the benefits of a competitive, dynamic market economy. And of course our anti-cartel work is clearly focussed on preventing unfair profits being creamed off markets at additional and direct cost to consumers.”<sup>141</sup>

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<sup>139</sup> Dieter Schmidtchen, Introduction, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 1. Another sometimes heard argument for the increased emphasis on economics in the Commission’s approach to competition policy is the (perceived) decline of importance of the traditional goal of market integration which, “[a]s a result”, has led to the increased emphasis on efficiency and consumer welfare; see Lars-Hendrik Roeller / Oliver Stehmann, *The Year 2005 at DG Competition: The Trend towards a More Effects-Based Approach*, (2006) 29 *Review of Industrial Organization* 281, 282.

<sup>140</sup> Michael Albers, *Der “more economic approach” bei Verdrängungsmisbräuchen: Zum Stand der Überlegungen der Europäischen Kommission*, *passim*. See also Jordi Gual / Martin Hellwig *et al.*, *Report by the EAGCP – “An economic approach to Article 82”*, *passim*.

<sup>141</sup> Neelie Kroes, *European Competition Policy – Delivering Better Markets and Better Choices*, Speech, London, 15 September 2005.

Since the early 2000s, the more economic approach has been gradually adopted in a number of Commission guidelines<sup>142</sup> and has also found its way into the EC Merger Regulation.<sup>143</sup> According to the Commission, this change of analytical focus represents the shift “from a legalistic based approach to an interpretation of the rules based on sound economic principles.”<sup>144</sup> In view of the seemingly predominant opinion that economics ‘quite naturally’ forms the traditional foundations of competition law,<sup>145</sup> this statement might come as a surprise.<sup>146</sup> This is especially the case if one recalls that, among other provisions of EU competition law, Articles 101 (1) and 102 (b) TFEU explicitly refer to the notion of “markets” and thus would appear to be ‘made’ for economic analysis; after all, the discipline of economics can be described as being concerned with the study of markets.<sup>147</sup> In any case, the Commission

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<sup>142</sup> See e.g. European Commission, Communication from the Commission – Notice - Guidelines on the application of Article 81(3) of the Treaty, (2004/C101/08); *idem*, Guidelines on Vertical Restraints, (2000/C291/01); *idem*, Commission notice - Guidelines on Vertical Restraints, (SEC/2010/0411 final); *idem*, 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/C45/02).

<sup>143</sup> European Council, On the control of concentrations between undertakings (the EC Merger Regulation), Council Regulation (EC) No 139/2004, 20 January 2004.

<sup>144</sup> Mario Monti, EU competition policy after May 2004, Speech 03/489, Fordham Annual Conference on International Antitrust Law and Policy, New York, 24 October 2003.

<sup>145</sup> Ulf Böge, Der „more economic approach“ und die deutsche Wettbewerbspolitik, (2004) *Wirtschaft und Wettbewerb* 726; Josef Drexl, Die neue Gruppenfreistellungsverordnung über Technologietransfer-Vereinbarungen im Spannungsfeld von Ökonomisierung und Rechtssicherheit, (2004) *Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil* 716, 717; Josef Drexl / Laurence Idot / Joël Monéger, Preface, in: Josef Drexl / Laurence Idot / Joël Monéger (eds.), *Economic Theory and Competition Law*, vii; Doris Hildebrand, Der „more economic approach“ in der Wettbewerbspolitik, (2005) *Wirtschaft und Wettbewerb* 513.

<sup>146</sup> Josef Drexl, Die neue Gruppenfreistellungsverordnung über Technologietransfer-Vereinbarungen im Spannungsfeld von Ökonomisierung und Rechtssicherheit, (2004) *Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil* 716, 717.

<sup>147</sup> See e.g. Paul A. Samuelson / William D. Nordhaus, *Economics*, Chapter 1; Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, Chapter 1.

regards the shifted emphasis as an expression of the need to improve the consistency, transparency *and* predictability of competition law analysis.<sup>148</sup> By examining one key ‘ingredient’ (consumer welfare) of the Commission’s more economic approach, this chapter lays the foundation for the examination (in the following Chapters) of whether these goals are achieved by the Commission’s recent reform efforts, i.e. if the Commission’s more economic approach actually leads to the creation of a more coherent, consistent, transparent and predictable competition policy for the software industry, or whether the more economic approach is at odds not only with some important (economic) features of the software industry but also with the goals of EU competition policy as contained in the European Treaties. Put differently, this Chapter aims to substantiate the hypothesis that the Commission’s current take on competition policy as embodied in its more economic approach does not lend itself easily to the formation of a coherent competition policy for the software industry by analysing issues which might, at first glance, appear to be of general importance for the creation of coherent competition policy but which, as subsequently argued in Chapters 3 and 4, are likely to be exacerbated in the context of the software industry, for example in relation to the question of defining the relevant market.

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<sup>148</sup> See e.g. Jordi Gual / Martin Hellwig *et al.*, Report by the EAGCP – “An economic approach to Article 82, July 2005”, *passim*; Neelie Kroes, Competition policy in a Lisbon context – the State of Play, Speech, German Bundestag – Europaausschuss, Berlin, 6 July 2006: “We are overhauling all our rules in order to firmly ground them in rigorous economic analysis and to improve the speed, transparency and predictability of their application.”; Arndt Christiansen expresses a similar evaluation in relation to the Merger Guidelines in his article, Die “Ökonomisierung” der EU-Fusionskontrolle: Mehr Kosten als Nutzen?, (2005) *Wirtschaft und Wettbewerb* 285, 287.

## II. The 'Rise of the Consumer': Old Wine in New Bottles?

Before properly delving into the question of what might be called the 'rise of the consumer' in EU competition policy, it is worth to consider possible motives for the Commission's reform efforts. In this context, it seems useful to recall that, regardless of the fact that the Commission's more economic approach seems to indicate the intention to shift the emphasis of EU competition policy to consumer welfare, the above has shown that EU competition policy has traditionally had to (and still does) serve "two masters":<sup>149</sup> the imperative of protection of undistorted competition and the market integration imperative. Both market integration and protection of undistorted competition can be regarded as "complementary"<sup>150</sup> goals whose individual importance varies depending on the demands placed upon EU competition policy in general. This 'bi-focal' approach to the design of competition policy might be considered a unique feature of EU competition law insofar that "[i]t differentiates EU law from any other system of competition law".<sup>151</sup> This characteristic is bound to have immediate implications for the formation, operation and understanding of EU competition policy because this difference of 'character' means that an analysis of EU competition policy which focuses on only one but not the other goal cannot be considered complete. Furthermore, it also implies that a proper understanding of EU competition policy can only be achieved if the consideration of the relevant competition laws pays regard to the potential for tension between these two, ostensibly complementary, goals: on the one hand, the free competition imperative is aimed at the

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<sup>149</sup> Alison Jones / Brenda Sufrin, *EU Competition Law*, 42; see also Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, paras. 1-004 – 1-008.

<sup>150</sup> Peter Roth / Vivien Rose (eds.), *Bellamy & Child - European Community Law of Competition*, 1.071.

<sup>151</sup> Alison Jones / Brenda Sufrin, *EU Competition Law*, 42.

effectiveness of economic activity, i.e. at the upkeep of a process which might involve a high concentration of market power and thereby lead to (or even necessitate) the erection of private or public barriers to 'the market', resulting in the re-division of the previously unified 'market'; on the other hand however, the internal market imperative seeks to prevent exactly this outcome.<sup>152</sup> If one accepts this more or less constant struggle between these two goals as inevitable, the Commission's relatively recent introduction of (economic) efficiency and especially consumer welfare as the overriding aims of EU competition policy could potentially be explained with the European Commission's desire to overcome the tension between market integration imperative and the objective of protection of undistorted competition. From this point of view, the Commission's recent reform efforts could therefore be regarded as an attempt to reconcile the potentially conflicting traditional policy goals in the interest – and to the benefit – of the creation of a 'new', and possibly more coherent, competition policy. In other words, the Commission's more economic approach could be classified as 'old wine in new bottles', i.e. essentially nothing other than a re-labelled, but otherwise relatively unchanged approach to EU competition policy intended to further unify the aforementioned traditional objectives. However, the rather mixed reception of the Commission's reform efforts in the academic literature<sup>153</sup>

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<sup>152</sup> Tim Frazer, *Monopoly, Competition and the Law*, 3.

<sup>153</sup> See e.g. Roger van den Bergh, *The 'More Economic Approach' and the Pluralist Tradition of European Competition Law*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27; Oliver Budzinski, „Wettbewerbsfreiheit“ und „More Economic Approach“: Wohin steuert die Europäische Wettbewerbspolitik?, *Marburg Papers on Economics* No. 13-2007; Ulrich Immenga, *Ökonomie und Recht in der europäischen Wettbewerbspolitik*, (2006) *Zeitschrift für Wettbewerbsrecht* 346; Meinrad Dreher / Michael Adam, *The more economic approach to Art. 82 EC and the legal process*, (2006) *Zeitschrift für Wettbewerbsrecht* 259; Arndt Christiansen, *Die „Ökonomisierung“ der EU-Fusionskontrolle: Mehr Kosten als Nutzen?*, (2005) *Wirtschaft und Wettbewerb* 285.

would seem to suggest that this it not the case. Consequently, the following analyses if ‘the rise of the consumer’ as expressed in the Commission’s more economic approach is, indeed, ‘old wine in new bottles’ (i.e. an attempt at the reconciliation of the traditional goals of EU competition policy) or whether it might not be regarded as ‘new wine in new bottles’ (i.e. the introduction of a completely new policy goal which overrides, and possibly even replaces, the aforementioned traditional aims); put differently, the following discusses different possible explanations for the increased emphasis placed on ‘the consumer’ by the Commission.

## **II.1. Some Possible Explanations for the ‘Rise of the Consumer’ in EU Competition Policy**

Several possible explanations can be envisaged for the increased emphasis placed by the Commission’s more economic approach on ‘the consumer’: first, as alluded to above, recent statements by the European Commission might be interpreted to the effect that the focus of its more economic approach on ‘the consumer’ is, in essence, nothing more than the attempt to overcome the potential conflict between the traditional aims of market integration and protection of undistorted competition by establishing ‘consumer welfare’ (sometimes also called ‘consumer benefit’) as a superior and overriding aim to these two traditional imperatives. For example, the 2004 *Guidelines on the application of Article 81(3) of the Treaty* state that

“[t]he objective of Article 81 [EC Treaty – now Art. 101 TFEU] is to protect competition on the market as a means of enhancing consumer welfare and of ensuring an efficient allocation of resources. Competition and market integration serve these ends since the creation and preservation of an open single market promotes an

efficient allocation of resources throughout the Community for the benefit of consumers.”<sup>154</sup>

Also, statements made by members of the European Commission might be interpreted to the same effect as they equally stress the supremacy of the question of consumer welfare over the traditional policy goals of market integration and protection of undistorted competition:

“the goal of competition policy, in all its aspects, is to protect consumer welfare by maintaining a high degree of competition in the common market. Competition should lead to lower prices, a wider choice of goods, and technological innovation, all in the interest of the consumer. [...] In other areas of our competence, such as antitrust policy, the consumer interest is also our guiding principle. [Monti talked about mergers and acquisitions in the passages preceding this quote.] Industry is often tempted to set a limit to the pressure of market forces, be it by price fixing or by the carving up of geographic markets.”<sup>155</sup>

“After five years of hard work, building on that of Mario Monti and Karel Van Miert, we can see the fingerprints of consumer welfare over everything in the Commission's competition system.”<sup>156</sup>

“All of us [...] know very well what our ultimate objective is: competition policy is a tool at the service of consumers. Consumer welfare is at the heart of our policy and its achievement drives our priorities and guides our decisions.”<sup>157</sup>

However, it appears also possible to envisage another explanation for the ‘rise of the consumer’: the increased emphasis placed on ‘the consumer’ may also be regarded as the result of the increased importance of ‘the consumer’ (and related ‘welfare’ issues) in *all* EU policy areas. From this point of view, any (potentially reconciling) effect of the introduction of ‘the consumer’ on the potentially conflicting traditional goals of EU

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<sup>154</sup> European Commission, Notice – *Guidelines on the application of Article 81(3) of the Treaty*, (2004/C101/08), Official Journal 2004 C101, 27/04/2004, para. 13.

<sup>155</sup> Mario Monti, *The Future for Competition Policy in the European Union* (extracts), Merchant Taylor's Hall London, 9 July 2001.

<sup>156</sup> Neelie Kroes, Opening address at conference: “Competition and Consumers in the 21st century”, Brussels, 21 October 2009.

<sup>157</sup> Joaquín Almunia, *Competition and consumers: the future of EU competition policy*, Speech, European Competition Day, Madrid, 12 May 2010.



competition policy would be nothing but an almost accidental byproduct of the general implementation of a supposedly higher goal in relation to all EU policy areas – and thus also with regard to EU competition policy – as such. This interpretation of ‘the rise of the consumer’ in EU competition policy is based on the observation that, ever since the Maastricht Treaty<sup>158</sup> ‘transformed’ the Treaty establishing the European Economic Community (EEC Treaty) into the Treaty establishing the European Community (EC Treaty), a positive and explicit requirement has existed for the European Community “to contribute to the attainment of a high level of consumer protection”, with the emphasis on the “high level of consumer protection” as the aim of its actions.<sup>159</sup> This particular emphasis placed on ‘the consumer’ became even more evident after the amendments made to the EC Treaty as a result of the Treaty of Amsterdam<sup>160</sup> which subsequently stated in Article 153 that

- “1. In order to promote the interests of consumers and to ensure a high level of consumer protection, the Community shall contribute to protecting the health, safety and economic interests of consumers, as well as to promoting their right to information, education and to organise themselves in order to safeguard their interests.
2. *Consumer protection requirements shall be taken into account in defining and implementing other Community policies and activities.*
3. The Community shall contribute to the attainment of the objectives referred to in paragraph 1 through:
  - (a) measures adopted pursuant to Article 95 in the context of the completion of the internal market;
  - (b) measures which support, supplement and monitor the policy pursued by the Member States. [...]”<sup>161</sup>

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<sup>158</sup> Treaty on European Union, Official Journal 1992 C191, 29/07/1992. The subsequently amended text of both the Treaty on European Union and the Treaty establishing the European Community can be found in the Official Journal 1992 C224, 31/08/1992.

<sup>159</sup> Article 129a EC Treaty, Official Journal 1992 C224, 31/08/1992.

<sup>160</sup> Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and related Acts, Official Journal 1997 C340, 10/11/1997.

<sup>161</sup> Article 153 EC Treaty, Official Journal 1997 C340, 10/11/1997 [emphasis added].

The so-called integration principle contained in Article 153 (2) EC Treaty has subsequently been interpreted by the Commission to require that “other EU policies, such as internal market, financial services, transport, energy, environment, competition, agriculture, external trade and more, [have to] systematically and specifically address consumer interests.”<sup>162</sup> Consequently, it appears possible to regard the recent ‘rise of the consumer’ in EU competition policy as the consistent and continuous implementation of the consumer protection aim as stated in the now obsolete EC Treaty. Moreover, given that the Treaty on the Functioning of the European Union has, in Articles 12 and 169 TFEU, embraced both the content and wording of Article 153 EC Treaty, this possible reading appears to continue to exist under the current legal regime, maybe even more so than under the provisions of the old EC Treaty: whereas the provision that “[c]onsumer protection requirements shall be taken into account in defining and implementing other Community policies and activities” (formerly contained in Article 153 (2) EC Treaty) only formed part of the Title “Consumer Protection” of the EC Treaty,<sup>163</sup> its equivalent provision Article 12 TFEU now forms part of the Title “Provisions having General Application” and might therefore be regarded as having gained in importance. However, it seems worth noting that such interpretation would come at a cost for EU competition policy insofar as this reading could be (mis)understood to mean that the rules of EU competition law, rather than having a standing in their own right, had now to be regarded

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<sup>162</sup> European Commission, Consumer Policy Strategy 2002-2006, COM(2002)208, 12; see also European Commission, EU Consumer Policy strategy 2007-2013: Empowering consumers, enhancing their welfare, effectively protecting them, COM(2007)99.

<sup>163</sup> Title XIV, Consolidated Version of the Treaty Establishing the European Community, Official Journal 2002 C325, 24/12/2002.

as forming part of, and potentially as being subordinate to, the area of consumer (protection) law.<sup>164</sup>

Finally, it is possible to envisage yet another explanation for the recent 'rise of the consumer' in EU competition policy: in contrast to the aforementioned possibility that the increased emphasis placed on 'the consumer' in EU competition policy is an almost accidental result of the overall re-orientation and broadening of all areas of EU policy towards consumer interests in general, the placing of the consumer "at the heart of competition enforcement"<sup>165</sup> might also be seen as the Commission's conscious and deliberate attempt to answer criticism in relation to the perceived insufficient use of economic analysis in its decisions. Put differently, the Commission's reform efforts and the subsequent 'rise of the consumer' could, by shifting the analytic focus from the traditional aims of EU competition policy to the (economic) concept of consumer welfare, also be the reflection of the Commission's aim to make "better use of economic analysis" in its work.<sup>166</sup> This possible reading of the 'rise of the consumer' would appear to be in line with the fact that EU competition policy has, for the last decade, been subject to major reforms (e.g. Regulation 1/2003,<sup>167</sup> marking the beginning of the so-called

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<sup>164</sup> Silke Möller, *Verbraucherbegriff und Verbraucherwohlfahrt im europäischen und amerikanischen Kartellrecht*, 31.

<sup>165</sup> Neelie Kroes, *Competition Policy and Consumers*, Speech, General Assembly of Bureau Européen des Unions de Consommateurs (BEUC), Brussels, 16 November 2006.

<sup>166</sup> See e.g. Neelie Kroes, *Speech, European Competition Policy – Delivering Better Markets and Better Choices*, London, 15 September 2005.

<sup>167</sup> Council Regulation (EC) No 1/2003, 16 December 2002, *On the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty*, Official Journal 2003 L001, 04/01/2003.

‘Modernisation Programme’) with the aim of strengthening the economic foundations of competition analysis.<sup>168</sup>

These different possible explanations for the ‘rise of the consumer’ in EU competition policy are likely to affect the outcome of the analysis of the Commission’s more economic approach conducted by this thesis: for example, if ‘the consumer’ had now to be considered the benchmark for *all areas* of EU policy, then the increased emphasis placed on the consumer by the Commission in relation to EU competition policy would be unlikely to raise concerns in relation to the more economic approach’s compatibility with the *lex lata* of the European Treaties and thus also in relation to the question of its ability to lead to the formation of incoherent competition policy for the software industry. The reason for this conclusion is, as ‘the consumer’ now features even more prominently than pre-Lisbon in Articles 12 and 169 TFEU, that the potential finding of ‘the consumer is the benchmark for all EU policy’ appears to suggest the introduction of what might be called a ‘policy unifying paradigm’ which was in line, rather than in conflict, with the other provisions of the European Treaties and which thus would (necessarily) have to be considered an additional objective of EU competition policy. Something similar would be likely to be the case if it transpired that the ‘rise of the consumer’ in EU competition policy was nothing but the attempt to ease the potential tension between the market integration imperative and the goal of protection of undistorted competition as the introduction of the consumer – given that the European Treaties place an emphasis on issues relating to ‘the consumer’ – could again be regarded as a unifying principle which would help the creation of coherent competition policy for the software

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<sup>168</sup> Lars-Hendrik Röller, Der ökonomische Ansatz in der europäischen Wettbewerbspolitik, in: Monopolkommission, Zukunftsperspektiven der Wettbewerbspolitik, 37.

sector. Something different however would be likely to apply if the Commission's increased emphasis on 'the consumer' was found to be aimed at replacing, rather than complementing, the aforementioned traditional goals of EU competition policy as this finding would, given the above drawn conclusion that according to the *lex lata* of the European Treaties these goals still had an important role to play in the formation of EU competition policy, call into question the compatibility of the Commission's more economic approach with the *lex lata*. Moreover, it might even be said that, as the existence of such a conflict was likely to negatively affect the coherence of any policy decision being taken, the existence of compatibility issues between the *lex lata* and the Commission's more economic approach would increase the likelihood of incoherent and inconsistent competition policy being created.

In view of these different effects on the evaluation of the Commission's more economic approach, both the following section of this Chapter as well as the next Chapter set out to further explore the diverging interpretations of the reasons for the 'rise of the consumer' in EU competition policy.

## **II.2. 'The Consumer' and 'Consumer Welfare' in EU Competition Policy**

The first possibility to be examined here is that of the introduction of 'the consumer' as the manifestation of a new benchmark which has to be observed in all areas of EU policy. This discussion however requires the consideration of two preliminary questions in relation to the use of 'the consumer' in EU competition policy which help both to properly delineate the Commission's more economic approach and to clarify the Commission's intentions behind it and thus assist in the evaluation of this thesis hypothesis that the Commission's more economic approach does not lend itself easily to the formation of coherent competition policy for

the software industry: firstly, whether or not the consumer and / or questions of his 'welfare'<sup>169</sup> can be an appropriate benchmark for competition policy; and secondly, what meaning is attached to the notion of 'the consumer'.

The following might help to illustrate the need to consider these preliminary questions: for example, if 'the consumer' is found to be an inappropriate benchmark for EU competition policy, it seems likely that the first two explanations for 'the rise of the consumer' mentioned above<sup>170</sup> can be discounted from the list of the Commission's possible motivations; after all, given the Commission's aim to add clarity and transparency to competition law analysis with its more economic approach, it appears unlikely that the Commission would intentionally choose to introduce an inappropriate benchmark – unless one implies a certain degree of 'stupidity' / ignorance on the part of the Commission (which this thesis does not do).

In addition, the examination of the meaning attached to 'the consumer' as applied in Commission documents and statements may also be considered as possessing a supportive function for the identification of what might be called the applicable enforcement standard of EU competition law. This examination aids the evaluation of this thesis' hypothesis with regard to the degree of coherence / clarity achieved by the Commission's recent reform efforts insofar that, if the Commission's increased emphasis of 'the consumer' had to be taken as the indication that only economic considerations of 'consumer welfare' form the guiding principle of EU

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<sup>169</sup> At this point of the analysis, the term 'consumer welfare' is used in a deliberately vague way, not in a specific and technical meaning – which it might or might not have.

<sup>170</sup> That is, the interpretation of the Commission's more economic approach either as the attempt to overcome potential conflicts between the two traditional goals of EU competition policy or as the expression of the generally increased importance of 'the consumer' in *all* areas of EU policy.

competition policy,<sup>171</sup> the lack of comprehensive treatment of ‘consumer welfare’ by the Commission would have, at the very least, to be met with incomprehension:

“[g]iven that one of the fundamental objectives of EC competition law relates to the maximisation of consumer welfare, [...] it [is] undeniably odd that neither consumer benefit nor consumer detriment have been given comprehensive treatment under either hard or soft EC competition law.”<sup>172</sup>

This rather damning evaluation of the handling of ‘consumer welfare’ in EU competition law and policy would appear to apply even with regard to newer official policy documents such as the 2008 *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*.<sup>173</sup> Furthermore, although this lack of clarity in relation to the meaning or role of consumer welfare is nothing new in the discourse of competition policy,<sup>174</sup> it is nonetheless regrettable because of its potential impact on both the application of competition law rules and the results of competition law

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<sup>171</sup> For example, European Commission, Antitrust: Guidance on Commission enforcement priorities in applying Article 82 to exclusionary conduct by dominant firms – frequently asked questions: “The Commission wants to make sure that it is protecting competition and consumer welfare, not (individual) competitors who do not deliver to consumers. Also dominant companies should be free to compete aggressively as long as this competition is ultimately for the benefit of consumers.”; Neelie Kroes, Making consumers’ right to damages a reality: the case for collective redress mechanisms in antitrust claims, Speech, Conference on collective redress for European consumers, Lisbon, 9 November 2007: “Consumer welfare is the standard of antitrust enforcement. The consumer is at the heart of competition law enforcement. Whether we are tackling abusive actions by dominant companies, breaking up cartels, vetting mergers, or assessing State aid – the potential harm to consumers is always at the heart of what we do. We are applying this ‘consumer welfare standard’ throughout our work, through a better use of economic analysis.”

<sup>172</sup> Philip Marsden / Peter Whelan, “Consumer detriment” and its application in EC and UK competition law, (2006) *European Competition Law Review* 569, 572.

<sup>173</sup> European Commission, 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, Official Journal 2009 C45, 24/02/2009.

<sup>174</sup> Gregory J. Werden, *Essays on Consumer Welfare and Competition Policy*, 1.

analysis in the European Union. For example, given that Article 102 TFEU prohibits, just as Article 82 EC Treaty did pre-Lisbon, the abuse of a dominant position “without any reference to competition”, likely effects on consumer welfare could be used under Article 102 TFEU as the “sole criterion” to determine what constitutes an abuse and hence to judge legality of conduct;<sup>175</sup> yet

“[i]f effects on ‘consumer welfare’ are the criterion for judging legality, it is vitally important to define what is meant by the term, in particular by specifying which consumers the law cares about. If the law cared about all consumers equally, the test for legality would focus on the impact of a practice on total surplus in the relevant market, with due consideration for the limitations of partial equilibrium analysis. But if the law cared only about some consumers, or some significantly more than others, a different criterion, possibly consumers’ surplus, would be appropriate.”<sup>176</sup>

Accordingly, any analysis of EU competition policy has to clarify *whose* (and *which*) interests have to be included in the *economic* calculus, i.e. to address the question of how wide the circle is to be drawn which ‘makes up’ the groups whose interests have to be taken into account with regard to the calculation of economic efficiency; in other words, it needs to be clear whose advantages and disadvantages have to be taken into consideration.<sup>177</sup> In relation to the investigation at hand this means asking the questions of how the Commission defines ‘the consumer’ and of how it understands the term ‘consumer welfare’. Depending on how the Commission understands these two terms (i.e. if the Commission understands both in strict accordance with economic theory or not) and depending on the extent to which ‘consumer welfare’ can be said to be the sole criterion in competition analysis, the conclusions could either point

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<sup>175</sup> Gregory J. Werden, *Essays on Consumer Welfare and Competition Policy*, 6.

<sup>176</sup> Gregory J. Werden, *Essays on Consumer Welfare and Competition Policy*, 6.

<sup>177</sup> See Adrian Künzler, *Effizienz oder Wettbewerbsfreiheit?*, 81.



towards the complete overhaul of EU competition policy or dispel such notions and thus assist in shedding light on the Commission's intentions. Consequently, in order to properly evaluate the Commission's more economic approach, it is not only necessary to ask if 'the consumer' can be an appropriate benchmark for EU competition law analysis and policy but also to examine the meaning attached to 'the consumer' has to be analysed in detail. The first point is addressed below in section II.2.1 of this Chapter, the second in section II.2.2. of this Chapter.

### **II.2.1. Questioning the Suitability of 'the Consumer' and his 'Welfare' as an Appropriate Benchmark for EU Competition Policy**

At first glance, the introduction of consumer benefits and/or welfare as the 'new' benchmark of competition analysis seems to pose no immediate problems. This is because, principally, competition law can "of course" be seen as "having a 'consumer protection' function" as the delivery of benefits to consumers might be considered its ultimate intention.<sup>178</sup> Yet despite this intention which might be ascribed to competition policy in general, the delivery of consumer benefits might not necessarily be the *outcome of the enforcement* of competition law; rather, although the enforcement of competition law can doubtlessly be said to be "safeguard[ing] the consumer interest", e.g. by blocking a cartel where the prohibition might lead to the reduction of prices or by "allowing an agreement which reduces production costs that yield lower prices",<sup>179</sup> such outcomes are far from certain:

"for instance, an agreement between two firms may lead to cost savings that are achieved by reducing certain services that some consumers value, simply to cut costs (e.g. shutting down local branches in favour of large out-of-town shops). This may reduce

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<sup>178</sup> Richard Whish, *Competition Law*, 19.

<sup>179</sup> Giorgio Monti, *EC Competition Law*, 100.

prices but inconvenience certain consumers who have further to travel to obtain the goods. How can one in this scenario decide what the best solution is for consumers?"<sup>180</sup>

Therefore, it might reasonably be asked if the question of 'the consumer' and his 'welfare' *should* direct the application and / or the entire development of competition law (and thus also indirectly influence the formation of competition policy) – not to mention the question of whether concerns for 'the consumer' actually *can* direct the overall direction of competition law and policy as it is questionable whether or not competition law and consumer protection law actually pursue the same aims:

"contrary to competition laws, consumer protection laws are first and foremost based on principles of fairness. While Article 82 [EC Treaty, now Article 102 TFEU] admittedly also contains elements of fairness it is submitted that its core aim is to prevent agreements and unilateral conduct that interfere with the competitive process and thereby produce inferior market outcomes in terms of prices, quality, output, variety, innovation, etc. Provisions of national consumer protection law that prohibit certain kinds of advertising or certain commercial practices such as 'cold calling' are not concerned with market outcomes but rather with protecting consumers against undue influences caused by certain commercial practices."<sup>181</sup>

In other words, competition law might not only be said to be 'uninterested' in 'the consumer' *as such* but, in view of the above quotes, it also appears to be ill-equipped to confer direct, i.e. concrete, benefits to consumers in the meaning of consumer (protection) law. Rather it would seem that in this respect, although consumer welfare (in a non-technical meaning of the term) might be considered a common purpose for both competition law and consumer law, the question which consumer

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<sup>180</sup> Giorgio Monti, EC Competition Law, 100; see also Pinar Akman, 'Consumer' versus 'Customer': the Devil in the Detail, CCP Working Paper 08-34.

<sup>181</sup> Eddy de Smijter / Lars Kjølbye, The Enforcement System under Regulation 1/2003, in: Jonathan Faull / Ali Nikpay, The EC Law of Competition, para. 2.61.

interests are protected and especially the way in which such assumed interests are supposed to be achieved by either area of law may be said to differ:

“[w]hile competition law and consumer law are designed to remedy market failures, they do so in slightly different ways. Competition law safeguards economic freedom so that consumer sovereignty can be exercised, while consumer law is associated with a wider, and deeper, range of measures to protect the consumer from dangerous products, unfair contract terms, lack of information, or abusive sales tactics. In other words, competition law regulates the market process in general, while consumer law regulates the specific transaction between seller and consumer.”<sup>182</sup>

Put differently, competition policy and consumer policy can be said to be concerned with different relationships and different commercial scenarios which suggests that competition law and consumer law also differ in their respective scopes of protection: whereas consumer law may be said to be primarily and traditionally concerned with the protection of natural persons who are undertaking transactions in a private (i.e. non-business) capacity, competition law rules generally affect this group indirectly but only in a reflex-like manner.<sup>183</sup> This point would seem to question the suitability of ‘the consumer’ as a benchmark for competition policy insofar that it is rather unlikely that consumers acquire *direct* benefits because of a competition law provision.

In addition, the above quotes could be seen as an indication that the European Commission might actually be less concerned about the (traditional) consumer than it was interested in avoiding criticism of its actions by using ‘the consumer’ as a cloak to advance other aims.<sup>184</sup> The

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<sup>182</sup> Giorgio Monti, *EC Competition Law*, 100 *et seq.*.

<sup>183</sup> Silke Möller, *Verbraucherbegriff und Verbraucherwohlfahrt im europäischen und amerikanischen Kartellrecht*, 149.

<sup>184</sup> See Silke Möller, *Verbraucherbegriff und Verbraucherwohlfahrt im europäischen und amerikanischen Kartellrecht*, 31.

emphasis placed on 'the consumer' and the increased reference to 'consumer welfare' could thus be considered a case of what is referred to in German as 'dem Kind einen Namen geben', i.e. a case of having to come up with a name for one's creation ('brain child'). Such interpretation of the increased emphasis placed upon 'the consumer' would also correspond with the aforementioned possibility that the 'rise of the consumer' could be nothing but a sign of the economic reorientation of EU competition policy in form of the Commission's more economic approach. From this point of view, the term 'consumer welfare' would point into the direction of what is known as welfare economics.

The appropriateness of 'the consumer' to act as a benchmark for EU competition policy is further put in question by the fact that certain incongruities in relation to 'the' consumer definition as used in EU documents not only appear to exist between the different language versions of the relevant EU provisions and guidelines but also surface between different areas of law.<sup>185</sup> This begs the question if 'the consumer', after all, is nothing but a 'phantom in the opera of the law',<sup>186</sup> i.e. an elusive concept which, due to a lack of consistency, is incapable of properly functioning as a benchmark for EU competition policy. Besides, statements to the effect that, ever since the rise of BSE, consumer protection is very much in fashion<sup>187</sup> or that "[t]he age of the consumer has arrived"<sup>188</sup> suggest that considerations for 'the consumer' in policy statements may be nothing but a buzz phrase which, given its

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<sup>185</sup> See discussion below in section II.2.2. of this Chapter.

<sup>186</sup> Meinrad Dreher, *Der Verbraucher – Das Phantom in den opera des europäischen und deutschen Rechts?*, (1997) *Juristenzeitung* 167, 170.

<sup>187</sup> Norbert Geis, *Das Lauterbarkeitsrecht in der rechtspolitischen Diskussion*, in: Erhard Keller / Clemens Plassmann / Andreas von Falck (eds.), *Festschrift für Winfried Tilmann*, 121, 128.

<sup>188</sup> Phil Evans, *The known knowns and known unknowns*, (2007) 17 *Consumer Policy Review* 48.

attractiveness, might be employed by politics in order to gather supporters for more or less sound reform plans.<sup>189</sup> It is contended here that, in view of the way in which the Commission generally emphasises ‘the consumer’ as their main concern in relation to EU competition policy,<sup>190</sup> such an assessment cannot be easily dismissed; at the very least, it appears possible that concerns for ‘the consumer’ might actually be of lesser importance to the European Commission than the constant emphasis of ‘the consumer’ being at the heart of its competition policy agenda would suggest. At any rate, the apparent elusiveness of ‘the consumer’ as a uniform concept which is capable of being uniformly applied across different areas of EU law and policy is also likely to have an impact on the question of what welfare standard is actually pursued by the Commission as, depending on the actual meaning attached to the term ‘consumer’, a welfare standard which differs from that of ‘strict’ consumer welfare (in the economic meaning of the term) might apply – regardless of the label attached to it by the Commission. That such a ‘misnomer’ is possible can be seen from Bork’s use of the term ‘consumer welfare’ which, despite carrying the label ‘consumer’, appears to mean ‘total welfare’ rather than ‘consumer welfare’ as Bork equates “society’s wealth”<sup>191</sup> with ‘consumer welfare’.<sup>192</sup>

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<sup>189</sup> Dieter Medicus, *Wer ist ein Verbraucher?*, in: Hans G. Leser (ed.), *Wege zum japanischen Recht – Festschrift für Zentaro Kitagawa*, 471, 484.

<sup>190</sup> See, for the field of competition policy, especially: Neelie Kroes, *Consumers at the heart of EU Competition Policy*, Speech, BEUC dinner (The European Consumers' Association), Strasbourg, 22 April 2008. Since 2007 there is also a special Commissioner for Consumer Affairs.

<sup>191</sup> Robert H. Bork, *The Antitrust Paradox – A policy at War with Itself*, 91.

<sup>192</sup> A similar interpretation of Bork’s statement can be found in e.g. Pinar Akman, ‘Consumer’ versus ‘Customer’: the Devil in the Detail, 9; John B. Kirkwood / Robert H. Lande, *The Fundamental Goal of Antitrust: Protecting Consumers, Not Increasing Efficiency*, (2008) 84 *Notre Dame Law Review* 191, 199-200 [with further references in footnote 30]; Stephen Martin, *The Goals of Antitrust and Competition*

“[c]onsumer welfare is greatest when society’s resources are allocated so that consumers are able to satisfy their wants as fully as technological restraints permit. Consumer welfare, in this sense, is merely another term for the wealth of the nation.”<sup>193</sup>

Such a definition of consumer welfare might probably best be described as “consumer welfare with a wink and a nod”<sup>194</sup> because it can be argued that, if it was to be defined in accordance with Bork’s understanding of the notion, ‘consumer welfare’ would not ‘do what it said on the tin’, i.e. not be primarily concerned with ‘the consumer’. Again, this observation makes it at least possible to conclude that, despite the Commission’s repeated emphasis of concerns for ‘the consumer’, it is not so much ‘the consumer’ but potentially other concerns which drive the current development of EU competition policy. Yet whilst the accumulation of the concerns voiced above would appear to make it unlikely that concerns for ‘the consumer’ are capable of serving as an appropriate benchmark for EU competition policy, the above discussion does not result in a definite conclusion in this respect. Consequently, the notion of ‘the consumer’ as applied in different areas of EU law and policy is examined in more detail below.

### **II.2.2. Examining the Notion of ‘the’ Consumer**

As indicated above, the examination of both the question of competition policy as a potentially subordinate area of consumer policy and the question of ‘the consumer’ as an appropriate benchmark for competition policy is dependant upon the notion of ‘consumer’: on the one hand, as consumer law traditionally only relates to “private individual[s] acting

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Policy, 32 *et seq.*; Steven C. Salop, Question: What is the real and proper antitrust welfare standard.

<sup>193</sup> Robert H. Bork, *The Antitrust Paradox – A policy at War with Itself*, 90.

<sup>194</sup> Stephen Martin, *The Goals of Antitrust and Competition Policy*, 32 *et seq.*.

otherwise than in the course of a business”<sup>195</sup>, i.e. to natural persons only,<sup>196</sup> the potential conclusion that this specific consumer notion was also the notion to be applied in the context of EU competition policy would have an impact on competition law analysis that is not to be underestimated; this is because such a conclusion would suggest that only such natural persons acting in a private capacity could be regarded as ‘consumers’ for the purposes of EU competition law and policy. For example, as both Article 101 and Article 102 TFEU mention ‘consumer’ in relation to either efficiency gains or the question of abuse, undertakings would not count with regard to either if ‘the consumer’ had to be understood in this particular way. In other words, what might otherwise have amounted to efficiency gains in the meaning of Article 101 TFEU, would no longer count as such; also, what might otherwise have amounted to an abuse recognised by Article 102 TFEU, would no longer be regarded as one.<sup>197</sup>

On the other hand, competition policy and law can be said to touch private individuals only marginally, i.e. in an indirect way.<sup>198</sup> This would seem to question the appropriateness of the use of ‘the consumer’ as a benchmark for EU competition policy as previously alluded to: why should ‘somebody’ who usually is not affected directly by potentially anti-

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<sup>195</sup> Oxford Dictionary of Business, “Consumer”; Oxford Dictionary of Law, “Consumer”.

<sup>196</sup> Martin Ebers, Common Structures in the Directives, in: Hans Schulte-Nölke / Christian Twigg-Flesner / Martin Ebers (eds.), *EC Consumer Law Compendium – The Consumer Acquis and its transposition in the Member State*, 453, 454.

<sup>197</sup> Having said this, this thesis does not evaluate the desirability of such an interpretation as it is solely concerned with the analysis of competition policy *de lege lata*, i.e. as it presents itself in view of the law as it currently stands. In this respect it might even be said that the focus of the investigation at hand is on the question whether or not EU competition policy now forms part of EU consumer policy.

<sup>198</sup> Hermann-Josef Bunte, *Kartellrecht mit neuem Vergaberecht*, 8.

competitive behaviour be considered a suitable benchmark for the legal evaluation of such behaviour?

### II.2.2.1. The Use of the Notion of ‘the Consumer’ in the European Union

How, then, is ‘the consumer’ used and defined in EU policy areas in general and in relation to EU competition policy in particular? To begin with the latter, although ‘the consumer’ features in various competition law provisions,<sup>199</sup> no concrete definition as to its meaning is given in any of these. If present at all, such ‘definitions’ might occasionally be found in the relevant soft law such as the guidance notes issued by the European Commission on Article 81 (3) EC Treaty [now Article 101 (3) TFEU] which defines ‘the’ consumer in relatively broad terms:

“[t]he concept of ‘consumers’ encompasses all direct or indirect users of the products covered by the agreement, including producers that use the products as an input, wholesalers, retailers and final consumers, i.e. natural persons who are acting for purposes which can be regarded as outside their trade or profession. In other words, consumers within the meaning of Article 81(3) are the customers of the parties to the agreement and subsequent purchasers. These customers can be undertakings as in the case of buyers of industrial machinery or an input for further processing or final consumers as for instance in the case of buyers of impulse ice-cream or bicycles.”<sup>200</sup>

According to this excerpt, it would appear that the Commission, at least in the context of Article 101 TFEU, applies a somewhat ‘sweeping’ notion of consumer which not only includes all customers of the parties to a cartel (regardless of whether these customers are acting in a private capacity or not) and final consumers but also all other parties to a supply chain *as well as* producers who are using the product in question as a preliminary

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<sup>199</sup> E.g. Article 101 (3) TFEU, Article 102 (b) TFEU and Article 2 (1) (b) Council Regulation No 139/2004 on the control of concentrations between undertakings (the EC Merger Regulation).

<sup>200</sup> European Commission, Notice – Guidelines on the application of Article 81(3) of the Treaty, (2004/C101/08), Official Journal 2004 C101, 27/04/2004, 97, para. 84.



product (“Vorprodukt”) and the subsequent purchasers of these products.<sup>201</sup> Accordingly, ‘the consumer’ as applied by the Commission in the context of Article 101 TFEU would seem to include both natural *and* legal persons who might, or might not, be acting in a private capacity. Something similar seems to apply in the context of Article 102 TFEU as indicated by the Commission’s *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings* which also describes ‘the consumer’ as something more than what might traditionally be called the *final* (i.e. private and individual) consumer:

“[t]he concept of ‘consumers’ encompasses all direct or indirect users of the products affected by the conduct, including intermediate producers that use the products as an input, as well as distributors and final consumers both of the immediate product and of products provided by intermediate producers. Where intermediate users are actual or potential competitors of the dominant undertaking, the assessment focuses on the effects of the conduct on users further downstream.”<sup>202</sup>

Consequently, these definitions might neither be said to correspond with the classical notion of consumer as “a natural person [...] who is acting for purposes which are outside some kind of business, commercial or trade activity”<sup>203</sup> nor can they be said to add clarity and certainty to the question as to who might be consumer for the purposes of competition law and policy; the implication that basically everybody might be considered a consumer is frankly not good enough, especially when ‘the consumer’ is

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<sup>201</sup> Michael Kling / Stefan Thomas, *Kartellrecht*, para. 185.

<sup>202</sup> European Commission, *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/C45/02), *Official Journal* 2009 C45, 24/02/2009, para. 19, footnote 2.

<sup>203</sup> Martin Ebers, *Common Structures in the Directives*, in: Hans Schulte-Nölke / Christian Twigg-Flesner / Martin Ebers (eds.), *EC Consumer Law Compendium – The Consumer Acquis and its transposition in the Member State*, 453, 454.

supposed to act as a benchmark for EU competition policy as such a notion does not add clarity to the actual proceedings;<sup>204</sup> not to mention that such all-inclusiveness might give rise to the argument that EU competition law does not protect competition but rather competitors.<sup>205</sup> This potential for confusion as to the ‘identity’ of ‘the consumer’ is further heightened by a look at some of the different language versions of Articles 101(3) and 102 TFEU and different language version of the relevant competition law guidance documents:<sup>206</sup>

	Article 101 (3) TFEU	Article 102 TFEU
Dutch	mits een billijk aandeel in de daaruit voortvloeiende voordelen de <i>gebruikers</i> ten goede komt – <b>meaning: user</b>	het beperken van de productie, de afzet of de technische ontwikkeling ten nadele van de <i>verbruikers</i> – <b>meaning: (final) consumer</b>
English	while allowing <i>consumers</i> a fair share of the resulting benefit	limiting production, markets or technical development to the prejudice of <i>consumers</i>
French	tout en réservant aux <i>utilisateurs</i> une partie équitable du profit qui en résulte – <b>meaning: user</b>	limiter la production, les débouchés ou le développement technique au préjudice des <i>consommateurs</i> – <b>meaning: (final) consumer</b>
German	die unter angemessener Beteiligung der <i>Verbraucher</i> an dem entstehenden Gewinn zur Verbesserung der Warenerzeugung oder -verteilung [...] beitragen – <b>meaning: (final) consumer</b>	der Einschränkung der Erzeugung, des Absatzes oder der technischen Entwicklung zum Schaden der <i>Verbraucher</i> – <b>meaning: (final) consumer</b>
Italian	pur riservando agli <i>utilizzatori</i> una congrua parte dell'utile che ne deriva – <b>meaning: user</b>	nel limitare la produzione, gli sbocchi o lo sviluppo tecnico, a danno dei <i>consumatori</i> – <b>meaning: (final) consumer</b>

<sup>204</sup> As mentioned above in section II.2.1. of this Chapter, this point is also important in the context of the economic analysis of allegedly anti-competitive behaviour insofar that it has an impact on the question of the welfare standard underlying EU competition policy.

<sup>205</sup> See for a discussion of this point: Eleanor M. Fox, “We Protect Competition, You Protect Competitors”, (2003) 26 World Competition 149.

<sup>206</sup> This part benefitted from discussions with Ass. iur. Anneke Güttler MES (Dutch), Sofia Cavandoli LLM (Italian) and Dr. Christine Riefa (French).

	Art. 81 (3) EC Guidelines	Art. 82 EC Guidelines
Dutch	<p>Het begrip “<i>gebruikers</i>” omvat <i>alle rechtstreekse of onrechtstreekse gebruikers</i> van de producten die door de overeenkomst worden gedekt, onder wie producenten die de producten als grondstof gebruiken, groothandelaren, detailhandelaren en <i>eindgebruikers</i>, d.w.z. natuurlijke personen die voor doeleinden handelen die niet als hun handel of beroep worden beschouwd. <i>Met andere woorden, de gebruikers in de zin van artikel 81, lid 3, zijn de klanten van de partijen bij de overeenkomst en de volgende kopers.</i> Deze afnemers kunnen ondernemingen zijn in het geval van afnemers van industriële uitrusting of grondstoffen voor verdere verwerking, dan wel <i>eindgebruikers</i> zoals bijvoorbeeld voor kopers van impulsifs of fietsen.</p>	<p>Het begrip “<i>gebruikers</i>” omvat <i>alle rechtstreekse of indirecte gebruikers</i> van de producten die door de gedraging worden getroffen, daaronder begrepen producenten van <i>halffabricaten</i> die de producten als grondstof gebruiken, maar ook distributeurs en <i>eindgebruikers</i> van zowel het directe product als producten van producenten van <i>halffabricaten</i>. Wanneer <i>tussengebruikers</i> daadwerkelijke of potentiële concurrenten van de onderneming met een machtspositie zijn, wordt het onderzoek toegespitst op de gevolgen van de gedragingen op gebruikers verder stroomafwaarts.</p>
Points to note	<p>The Dutch version of Art. 102 talks about “verbruikers” (i.e. consumers) but not “gebruikers” (i.e. users). The Art. 82 Guidelines however define “gebruikers” but not “verbruikers”.</p> <p>According to the Art. 81 (3) Guidelines, “gebruikers” are all “klanten” (i.e. customers) and “volgende kopers” (i.e. subsequent buyers).</p> <p>Both Guidelines distinguish “gebruikers” from “eindgebruikers” (i.e. final users); the Art. 82 Guidelines also distinguish “gebruikers” from “tussengebruikers” (i.e. intermediate users).</p>	
English	<p>The concept of “<i>consumers</i>” encompasses <i>all direct or indirect users</i> of the products covered by the agreement, including producers that use the products as an input, wholesalers, retailers and <i>final consumers</i>, i.e. natural persons who are acting for purposes which can be regarded as outside their trade or profession. <i>In other words, consumers within the meaning of Article 81(3) are the customers of the parties to the agreement and subsequent purchasers.</i> These customers can be undertakings as in the case of buyers of industrial</p>	<p>The concept of ‘<i>consumers</i>’ encompasses <i>all direct or indirect users</i> of the products affected by the conduct, including <i>intermediate producers</i> that use the products as an input, as well as distributors and <i>final consumers</i> both of the immediate product and of products provided by <i>intermediate producers</i>. Where <i>intermediate users</i> are actual or potential competitors of the dominant undertaking, the assessment focuses on the effects of the conduct on users further downstream.</p>

	machinery or an input for further processing or <i>final consumers</i> as for instance in the case of buyers of impulse ice-cream or bicycles.	
<i>Points to note</i>	<p>In the English version, both Article 101 (3) and 102 TFEU talk about “consumers”.</p> <p>The English version of the Art. 81 (3) guidelines states that “consumers” might be “customers” and “subsequent purchasers” – as opposed to the also mentioned “final consumers” which are defined as “natural persons” acting outside their trade.</p> <p>The Art. 82 Guidelines distinguishes “consumers” from the more specific “final consumer”, “intermediate producer” and “intermediate user”.</p>	
<b>French</b>	<p>La notion de “<i>consommateurs</i>” englobe <i>tous les utilisateurs, directs ou indirects</i>, des produits couverts par l'accord, y compris les producteurs qui utilisent les produits pour transformation, les grossistes, les détaillants et les <i>consommateurs finals</i>, c'est-à-dire les personnes physiques qui agissent à des fins étrangères à leur activité professionnelle ou commerciale. <i>Autre dit, les <u>consommateurs au sens de l'article 81, paragraphe 3, sont les clients des parties à l'accord et les acheteurs ultérieurs</u></i>. Ces clients peuvent être des entreprises achetant par exemple des machines industrielles ou des produits pour transformation ultérieure, ou des <i>consommateurs finals</i> effectuant par exemple l'achat d'une glace en vue de sa consommation immédiate ou l'acquisition d'une bicyclette.</p>	<p>La notion de “<i>consommateurs</i>” englobe <i>tous les utilisateurs directs ou indirects</i> des produits affectés par le comportement considéré, dont les <i>producteurs intermédiaires</i> qui utilisent les produits comme intrants, ainsi que les distributeurs et <i>consommateurs finals</i> à la fois du produit immédiat et des produits fournis par les <i>producteurs intermédiaires</i>. Lorsque les <i>utilisateurs intermédiaires</i> sont des concurrents actuels ou potentiels de l'entreprise dominante, l'appréciation porte essentiellement sur les effets de ce comportement sur les clients en aval.</p>
<i>Points to note</i>	<p>The French version of Art. 101 (3) TFEU speaks of “utilisateurs” (i.e. users), the respective guidelines however mention “consommateurs” (i.e. consumers) – although the former is used to define the latter.</p> <p>According to the Art 81 (3) Guidelines, “consommateurs” are “clients” (i.e. customers) and “acheteurs ultérieurs” (i.e. prospective/future buyers). Both Guidelines differentiate “consommateurs” from “consommateurs finals” (i.e. final consumers); the Art. 82 Guidelines further differentiate “producteurs intermédiaires” (i.e. intermediate producers) and “utilisateurs intermédiaires” (i.e. intermediate users).</p>	
<b>German</b>	<p>Der Begriff “<i>Verbraucher</i>” umfasst <i>alle Nutzer</i> der Produkte, auf die sich die Vereinbarung bezieht, einschließlich Produzenten, die die Ware als</p>	<p>Der Begriff “<i>Verbraucher</i>” bezieht sich auf <i>alle direkten und indirekten Benutzer</i> des Produkts, das Gegenstand des fraglichen Verhaltens ist, d. h. auch</p>

	<p>Vorprodukt benötigen, Großhändler, Einzelhändler und <b>Endkunden</b>, d. h. natürliche Personen, die außerhalb ihrer Geschäfts- oder Berufstätigkeit handeln. <b><u>Verbraucher im Sinne von Artikel 81 Absatz 3 sind also Kunden der Vertragsparteien und die späteren Käufer der Produkte.</u></b> Diese Kunden können Unternehmen sein, wie beim Kauf von Maschinen oder Vorleistungen zur Weiterverarbeitung, oder <b>Endkunden</b>, wie z. B. im Fall der Käufer von Speiseeis zum sofortigen Verkehr oder von Fahrrädern.</p>	<p><b>zwischengeschaltete Hersteller</b>, die das Produkt als Input benötigen, sowie Vertriebsunternehmen und <b>Endverbraucher</b> sowohl des unmittelbaren Produkts als auch der Produkte von <b>zwischengeschalteten Herstellern</b>. Handelt es sich bei den <b>zwischengeschalteten Benutzern</b> um bestehende oder potenzielle Wettbewerber des marktbeherrschenden Unternehmens, konzentriert sich die Würdigung auf die Auswirkungen des Verhaltens auf nachgelagerte Benutzer.</p>
<i>Points to note</i>	<p>In the German version, both Article 101 (3) and 102 TFEU mention “Verbraucher” (i.e. consumer). The German versions of the respective Guidelines define “Verbraucher” (i.e. consumer) as either “Nutzer” (i.e. user – Art. 81 (3)) or “Benutzer” (i.e. user – Art. 82). The Art. 81 (3) Guidelines state that “Verbraucher” encompass “Kunden” (i.e. customers) as well as “spätere Käufer” (i.e. subsequent purchasers). It also differentiates “Verbraucher” from “Endkunden” (i.e. final customers). The Art. 82 Guidelines differentiate “Verbraucher” from “zwischengeschalteten Herstellern” (i.e. intermediate producers), “Endverbraucher” (i.e. final consumers) and “zwischengeschalteten Benutzern” (i.e. intermediate users).</p>	
<b>Italian</b>	<p>Il concetto di “<b>utilizzatori</b>” comprende <i>tutti i fruitori, diretti o indiretti</i>, dei prodotti oggetto dell'accordo, inclusi i produttori che usano il prodotto quale materia prima, i distributori all'ingrosso, i dettaglianti e gli <b>utilizzatori finali</b>, ovvero sia le persone che operano per fini che possono essere considerati come non facenti parte delle loro attività commerciali o professionali. <b><i>In altre parole, gli utilizzatori ai sensi dell'articolo 81, paragrafo 3, sono i clienti delle parti dell'accordo ed i successivi acquirenti.</i></b> Questi clienti possono essere imprese, come nel caso degli acquirenti di macchinari industriali o di un fattore di produzione destinato ad</p>	<p>Il concetto di “<b>consumatori</b>” comprende <i>tutti gli utilizzatori, diretti o indiretti</i>, dei prodotti interessati dal comportamento, compresi <b>produttori intermedi</b> che utilizzano i prodotti come fattore di produzione, nonché i distributori e i <b>consumatori finali</b> sia del prodotto immediato che di prodotti forniti da <b>produttori intermedi</b>. Qualora gli <b>utilizzatori intermedi</b> siano concorrenti effettivi o potenziali dell'impresa dominante, la valutazione si concentra sugli effetti del comportamento sugli utilizzatori più a valle.</p>

	un'ulteriore trasformazione, o <i>consumatori finali</i> , come nel caso degli acquirenti di gelati per immediata consumazione o di biciclette.	
<i>Points to note</i>	<p>In Italian, Art. 101 (3) TFEU mentions “utilizzatori” (i.e. users) whereas Art. 102 talks about “consumatori” (i.e. consumers).</p> <p>The Art. 81 (3) Guidelines define “utilizzatori” as all “fruitori” (i.e. users) which are seen to encompass “clienti” (i.e. customers) and “successivi acquirenti” (i.e. subsequent purchasers). The Art. 81 (3) Guidelines further differentiate “utilizzatori” from “utilizzatori finali” (i.e. final users) and “consumatori finali” (i.e. final consumers).</p> <p>The Art. 82 Guidelines define “consumatori” as all “utilizzatori” (i.e. users) and differentiates “consumatori” from “produttori intermedi” (i.e. intermediate producers), “consumatori finali” (i.e. final consumers) and “utilizzatori intermedi” (i.e. final users).</p>	

Admittedly, the above cannot be said to amount to an exhaustive and complete comparative analysis of the notion of consumer as applied in the different language versions of the respective Guidelines and EU competition law provisions; rather than merely ‘comparing’ the different definitions of consumer, such a comparison would (as a minimum) also have to describe *and* consider the ‘environment’ of these definitions.<sup>207</sup> Although such analysis is beyond the scope of this thesis and despite the absence of such an in-depth analysis, these tables nonetheless demonstrate that the respective definitions of consumer lack sufficient congruity in the terminology employed: broadly speaking, “consumers” are considered to be the equivalent of “customers” and / or of “users”; furthermore, in the Guidelines regarding Articles 101 and 102 TFEU, a linguistic mishmash exists which seems to throw together different terms without any apparent consideration of whether or not these terms actually correspond, e.g. “intermediate users” and “intermediate producers” or “final consumers” and “final users”. At any rate, one would be hard-pressed not

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<sup>207</sup> Dieter Medicus, *Wer ist ein Verbraucher?*, in: Hans G. Leser (ed.), *Wege zum japanischen Recht – Festschrift für Zentaro Kitagawa*, 471, 480.

to agree with the statement that “[t]he exact definition of ‘consumer’ is unclear”<sup>208</sup> – and not just with regard to traditional consumer law.

#### **II.2.2.2. ‘The Consumer’ as A Legal Myth**

The above discussion suggests that ‘the consumer’ as a uniform notion is nothing but a legal myth insofar that ‘the law’ (in its entirety) appears to be less concerned with the uniform protection of a uniform, never changing group of persons and more with addressing different ‘problem scenarios’.<sup>209</sup> Furthermore, the above has indicated that something similar applies with regard to specific areas of law such as competition law as even in this distinct area, the notion of ‘the consumer’ does not apply consistent terminology and incorporates basically everything between the ‘user’ and the ‘final consumer’. Although this vagueness of terminology is, on the whole, regrettable, from this thesis’ perspective, this ‘flabbiness’ of terminology might however have one advantage: given that the notions of ‘the consumer’ contained in the relevant legal rules and documents apparently include more or less the complete demand side, it appears increasingly impossible to establish EU competition policy as an area which is subordinate to traditional consumer policy because these broad definitions do not adequately differentiate between what might be considered consumers in the traditional meaning and other types of potential customers. For almost the same reason, it also seems unlikely that all areas of EU policy are to be regarded as consumer policies because, again, the usage of ‘the consumer’ varies in different areas of law.<sup>210</sup> In

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<sup>208</sup> Jac G.J. Rikes, *European Consumer Law: Making Sense*, in: Christian Twigg-Flesner / Deborah Parry / Geraint Howells / Annette Nordhausen (eds.), *Yearbook of Consumer Law 2008 – Markets and the Law*, 3, 4.

<sup>209</sup> Dieter Medicus, *Wer ist ein Verbraucher?*, in: Hans G. Leser (ed.), *Wege zum japanischen Recht – Festschrift für Zentaro Kitagawa*, 471, 484.

<sup>210</sup> For example, the Council Directive 90/314/EEC of 13 June 1990 on package travel, package holidays and package tours (in Article 2 (2)) defines consumer as “the

addition, the vagueness attached to the notion of ‘the consumer’ in EU competition policy would also seem to pose insuperable problems for the suggestion that ‘the consumer’ is, or can be, an appropriate benchmark for competition policy: for example, the apparent lack of differentiation between consumers and other types of customers is likely to have an impact on the question if coherent competition policy can be created because, for this to happen, the notion of ‘the consumer’ has to be capable of being properly differentiated, otherwise the resulting notion may lack what might be called practical legal manageability; such manageability however cannot be said to exist when the applicable consumer notion in question is seemingly without contours (“weitgehend konturenloser allgemeiner Begriff des Verbrauchers”) because it is construed very broadly and intricately.<sup>211</sup> It is worth noting that, in this context, practical legal manageability does not necessarily mean that there should be *one*, universally applicable, notion of ‘the’ consumer for all areas of law – such a definition would only be feasible to achieve if there was one uniform concept which was applicable in all contexts.<sup>212</sup> Rather, as in view of the above discussion the establishment of such a universally applicable definition appears to be an impossibility, the point to be made here is that there should be *a* definite notion of ‘the consumer’ which was ‘*universally*’

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person who takes or agrees to take the package ('the principal contractor'), or any person on whose behalf the principal contractor agrees to purchase the package ('the other beneficiaries') or any person to whom the principal contractor or any of the other beneficiaries transfers the package ('the transferee')” – this can be either a natural or a legal person. On the other hand, the Directive 2002/65/EC of the European Parliament and of the Council of 23 September 2002 concerning the distance marketing of consumer financial services (in Article 2 (d)) defines consumer as “any natural person who, in distance contracts covered by this Directive, is acting for purposes which are outside his trade, business or profession.”

<sup>211</sup> Meinrad Dreher, *Der Verbraucher – Das Phantom in den opera des europäischen und deutschen Rechts?*, (1997) *Juristenzeitung* 167, 170, footnote 42.

<sup>212</sup> Dieter Medicus, *Wer ist ein Verbraucher?*, in: Hans G. Leser (ed.), *Wege zum japanischen Recht – Festschrift für Zentaro Kitagawa*, 471, 484.



applicable in *one distinct area* of law (here: EU competition law), if coherent policy for that particular area of law is to be achieved. Sadly however, with regard to EU competition law, the above discussion suggests that, because of the existing differences regarding the notion of ‘the consumer’ as applied in this context, this coherence is currently lacking. Consequently, the conclusion to be drawn in relation to the question if ‘the consumer’ in its traditional meaning as “a natural person [...] who is acting for purposes which are outside some kind of business, commercial or trade activity”<sup>213</sup> is at the heart of the Commission’s reform efforts has to be answered in the negative.

### **II.2.3. ‘The Rise of the Consumer’ as the Expression of Economic Reorientation?**

Yet despite the above-voiced concerns regarding the appropriateness of ‘the consumer’ to serve as a benchmark for EU competition policy, the fact remains that the Commission repeatedly underlines the importance of both ‘the consumer’ and ‘consumer welfare’ for, and in, its application of EU competition law. As the above discussion concluded that this emphasis was not to be regarded as the expression of the ‘fact’ that EU competition policy has become a subordinate part of consumer policy, the ‘rise of the consumer’ might however be explained with what might be called the economic re-orientation of EU competition policy.<sup>214</sup> With regard to the question of the relationship between this potentially new economic re-formulation of EU competition policy and the traditional

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<sup>213</sup> Martin Ebers, Common Structures in the Directives, in: Hans Schulte-Nölke / Christian Twigg-Flesner / Martin Ebers (eds.), *EC Consumer Law Compendium – The Consumer Acquis and its transposition in the Member State*, 453, 454.

<sup>214</sup> It may be questioned how ‘novel’ the introduction of an economic perspective is, see e.g.: Ulf Böge, *Der „more economic approach“ und die deutsche Wettbewerbspolitik*, (2004) *Wirtschaft und Wettbewerb* 726; Josef Drexl / Laurence Idot / Joël Monéger, Preface, in : Josef Drexl / Laurence Idot / Joël Monéger (eds.), *Economic Theory and Competition Law*, vii.

objectives of EU competition policy, the emphasis placed on ‘the consumer’ could be interpreted in two ways: on the one hand, the increased importance attached to ‘the consumer’ could be seen as the conscious effort on behalf of the Commission to reconcile the sometimes conflicting traditional aims of ‘single market integration’ and ‘protection of undistorted competition’ by accentuating the use of economics in competition law analysis through the emphasis on ‘consumer welfare’ in order to find some common, maybe even neutral, ground for these traditional aims. On the other hand, the introduction of the economic concept of ‘consumer welfare’ as the overall aim of EU competition policy could be considered a fundamental paradigm shift which, along the lines of Posner’s view that competition law is nothing but a branch of applied economics,<sup>215</sup> did not so much aim at the reconciliation of the conflicting traditional policy objectives but rather at their complete replacement by means of placing the purely economically defined and orientated goal of ‘consumer welfare’ at the centre of the Commission’s reform efforts.

At first glance, one might ask ‘Where is the difference between these possible interpretations?’ because, at the end of the day, *both* possibilities result in the increased importance of economics (and the use thereof) in EU competition law analysis as such. Yet the distinction is important as each possibility might lead to a different conclusion concerning the question of the compatibility of the Commission’s reform efforts with the current law, thereby also affecting its ability – or even: its likelihood – to result in the creation of coherent competition policy for the software industry: in case of the former, the Commission’s more economic approach would not so much be an attempt to basically overhaul the hard

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<sup>215</sup> Richard A. Posner, *The Problematics of Moral and Legal Theory*, 29. The Commission’s increased emphasis on efficiency considerations in relation to competition policy would appear to support such a reading.

law provisions of the European Treaties but rather lead to the introduction of what might be considered a further dimension / layer in terms of interpretation of the existing competition law provisions in line with the *lex lata* of the European Treaties, i.e. the traditional goals would not be replaced *per se* but simply interpreted in a slightly different way without disregarding the other Union goals expressed by the European Treaties. However in case of the latter, the Commission's recent efforts could be regarded as a thinly veiled attempt to replace key provisions of the European Treaties without observing the proper legislative procedure for such actions. In other words, the increased use of 'the consumer' and the augmented importance of 'consumer welfare' in EU competition policy could be considered an indication for the complete economic (re-)orientation and re-statement of EU competition policy and, in effect, also EU competition law.

In order to determine to which of these 'categories' the Commission's more economic approach belongs, it is necessary to closely examine both the way in which the Commission employs the notion of 'the consumer' in the particular context of EU competition policy and also to examine the 'bigger picture', i.e. the Commission's view on competition policy in general, as the use of *one* economic concept *alone* (such as 'consumer welfare') does not necessarily indicate the complete overhaul of what might be considered 'traditional' EU competition policy.

#### **II.2.4. 'The Consumer' and 'Consumer Welfare' According to the European Commission**

The evaluation of how 'the consumer' and 'consumer welfare' are used and understood by the European Commission requires a closer look at the relevant policy documents. The policy document with most relevance to this thesis is the *Guidance on the Commission's enforcement priorities in*

applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings [hereafter: *Article 82 Guidance*].<sup>216</sup> However, as the analysis also takes to the ‘bigger picture’ of EU competition policy into consideration, other policy documents such as the *Guidelines on the application of Article 81(3) of the Treaty* [hereafter: *Article 81(3) Guidelines*],<sup>217</sup> the *Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements*<sup>218</sup> and the *Guidelines on Vertical Restraints*<sup>219</sup> are also included in the examination below. All of these Guidance documents remain applicable to the relevant ‘new’ competition law provisions as contained in the Treaty on the Functioning of the European Union.<sup>220</sup>

In accordance with Commission speeches and / or press releases which advance consumer welfare as the overall objective of EC competition policy, the *Article 82 Guidance* appears to put ‘the consumer’ at the centre of the Commission’s enforcement efforts:

“the Commission will focus on those types of conduct that are most harmful to consumers. Consumers benefit from competition through lower prices, better quality and a wider choice of new or improved goods and services. The Commission, therefore, will direct its enforcement to ensuring that markets function properly and that

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<sup>216</sup> European Commission, 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, Official Journal 2009 C45 , 24/02/2009.

<sup>217</sup> European Commission, Communication from the Commission — Notice — Guidelines on the application of Article 81(3) of the Treaty, Official Journal 2004 C101 , 27/04/2004.

<sup>218</sup> European Commission, Commission Notice — Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements, Official Journal 2001 C003, 06/01/2001.

<sup>219</sup> European Commission, Commission notice - Guidelines on Vertical Restraints, Official Journal 2000 C291, 13/10/2000; *idem*, Commission notice - Guidelines on Vertical Restraints, SEC/2010/0411 final, 10/05/2010.

<sup>220</sup> See remarks on the Commission’s legislation website: <http://ec.europa.eu/competition/antitrust/legislation/legislation.html> (01/12/2010).

consumers benefit from the efficiency and productivity which result from effective competition between undertakings.”<sup>221</sup>

This notion of harmful impact on consumer and consumer welfare is further specified by the *Article 82 Guidance* in the following way:

“[t]he aim of the Commission's enforcement activity in relation to exclusionary conduct is to ensure that dominant undertakings do not impair effective competition by foreclosing their competitors in an anticompetitive way, thus having an adverse impact on consumer welfare, whether in the form of higher price levels than would have otherwise prevailed or in some other form such as limiting quality or reducing consumer choice. [...] the term ‘anticompetitive foreclosure’ is used to describe a situation where effective access of actual or potential competitors to supplies or markets is hampered or eliminated as a result of the conduct of the dominant undertaking whereby the dominant undertaking is likely to be in a position to profitably increase prices to the detriment of consumers. The identification of likely consumer harm can rely on qualitative and, where possible and appropriate, quantitative evidence. The Commission will address such anticompetitive foreclosure either at the intermediate level or at the level of final consumers, or at both levels.”<sup>222</sup>

On the face of these statements, it would appear that the Commission intends to (re-)interpret Article 102 TFEU to solely pursue a consumer protection function (in the sense that Article 102 TFEU is understood to be concerned with ‘consumer welfare’ only). Given that such an interpretation of the *Article 82 Guidance* would mean that all other potential policy objectives would be superseded, this construction of the Commission’s statements would point towards the aforementioned possibility that the Commission’s reform efforts are aimed at the complete

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<sup>221</sup> European Commission, 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, Official Journal 2009 C45, 24/02/2009, at I. 5.

<sup>222</sup> European Commission, 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, Official Journal 2009 C45, 24/02/2009, para 19.

overhaul of competition policy by the increased use of, and reliance on, economic theory. Such a reading of the Commission's intention would seem to also be in line with the EAGCP report "*An economic approach to Article 82*" which, in July 2005, lobbied explicitly for the complete replacement of the traditional goals in relation to what was then Article 82 EC Treaty<sup>223</sup> and whose gist also appears to have been endorsed by the subsequently published Commission's *DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses*.<sup>224</sup> Furthermore, both the EAGCP report and the *Article 82 Guidance* appear not only to employ 'the consumer' in the archetypical form of *homo oeconomicus*,<sup>225</sup> i.e. as an always rationally acting party whose sole

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<sup>223</sup> Jordi Gual / Martin Hellwig *et al.*, Report by the EAGCP - "*An economic approach to Article 82*", 8: "This question [what is to be meant by 'competitive harm'] in turn is linked to the question of what are the objectives of competition policy. In one tradition the objective of competition policy is defined as the protection of competition. This formula as such is not very helpful because it raises the further question of the standards by which the competition authority is to assess a given type of conduct in practice. If a particular type of conduct permits a company to succeed and to displace its competitors in the market, by what standard should the competition authority assess whether the conduct in question is detrimental to 'competition' or whether the conduct in question is legitimate and its prohibition by the authority would be detrimental to 'competition'? Ultimately, the assessment of competitive harm must be based on an assessment of how competition in the particular market works and what the practice in question means for market participants. [...] The standard for assessing whether a given practice is detrimental to 'competition' or whether it is a legitimate tool of 'competition' should be derived from the effects of the practice on consumers."

<sup>224</sup> European Commission DG Competition, *DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses*, at I.4: "With regard to exclusionary abuses the objective of Article 82 is the protection of competition on the market as a means of enhancing consumer welfare and of ensuring an efficient allocation of resources. Effective competition brings benefits to consumers, such as low prices, high quality products, a wide selection of goods and services, and innovation. Competition and market integration serve these ends since the creation and preservation of an open single market promotes an efficient allocation of resources throughout the Community for the benefit of consumers. In applying Article 82, the Commission will adopt an approach which is based on the likely effects on the market."

<sup>225</sup> See for a detailed explanation of the concept of *homo oeconomicus*: Horst Eidenmüller, *Effizienz als Rechtsprinzip*, 28 *et seq.*

intention is to maximise utility, but also to equate consumer welfare with allocative efficiency and thus, as is discussed in more detail in Chapter 3, rely on traditional neoclassical textbook economics. Accordingly and because of the fact that, as can be seen below, the Commission's documents emphasise its view that the traditional aims of 'protection of undistorted competition' and 'internal market' merely play a supportive role for the achievement of consumer welfare (and not the other way round), it seems reasonable to assume that the Commission's intention is not so much the reconciliation of these sometimes conflicting traditional aims of EU competition policy but rather the replacement of these objectives. For example, the Commission's *Article 81(3) Guidelines* state that

"The objective of Article 81 is to protect competition on the market as a means of enhancing consumer welfare and of ensuring an efficient allocation of resources. Competition and market integration serve these ends since the creation and preservation of an open single market promotes an efficient allocation of resources throughout the Community for the benefit of consumers."<sup>226</sup>

The same sentiment can be found in the Commission's *Guidelines on Vertical Restraints*:

"[t]he protection of competition is the primary objective of EC competition policy, as this enhances consumer welfare and creates an efficient allocation of resources. In applying the EC competition rules, the Commission will adopt an economic approach which is based on the effects on the market; vertical agreements have to be analysed in their legal and economic context. However, in the case of restrictions by object as listed in Article 4 of the Block Exemption Regulation, the Commission is not required to assess the actual effects on the market. Market integration is an additional goal of EC

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<sup>226</sup> European Commission, Notice – Guidelines on the application of Article 81(3) of the Treaty, (2004/C101/08), Official Journal 2004 C101 , 27/04/2004, para. 13. Similar can be found at para. 33 which reads: "The aim of the Community competition rules is to protect competition on the market as a means of enhancing consumer welfare and of ensuring an efficient allocation of resources."

competition policy. Market integration enhances competition in the Community. Companies should not be allowed to recreate private barriers between Member States where State barriers have been successfully abolished.”<sup>227</sup>

These sentiments have also been echoed in other documents such as speeches by members of DG competition or Commission press releases.<sup>228</sup> Furthermore, the *Article 81(3) Guidelines* stress the link between consumer welfare and allocative efficiency:

“[r]estrictions by object such as price fixing and market sharing reduce output and raise prices, leading to a misallocation of resources, because goods and services demanded by customers are not produced. They also lead to a reduction in consumer welfare, because consumers have to pay higher prices for the goods and services in question.”<sup>229</sup>

As further specified in paragraph 104 of the *Article 81(3) Guidelines*, a consequence of the shifted emphasis of policy objectives from the traditional aims to the consumer welfare objective is that the protection of competition is to be regarded only as a tool to achieve the now overarching goal of consumer welfare, with the effect that restrictions on competition are not necessarily (*per se*) objectionable but only insofar that they might have a detrimental effect on the efficiency of resource allocation and thereby also on consumer welfare:

“[t]he availability of new and improved products constitutes an important source of consumer welfare. As long as the increase in value stemming from such improvements exceeds any harm from a maintenance or an increase in price caused by the restrictive

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<sup>227</sup> European Commission, Notice – Guidelines on the application of Article 81(3) of the Treaty, (2004/C101/08), Official Journal 2004 C101 , 27/04/2004, para. 7.

<sup>228</sup> E.g. Neelie Kroes, European Competition Policy – Delivering Better Markets and Better Choices, Speech, London, 15 September 2005; Mario Monti, The Future for Competition Policy in the European Union (extracts), Merchant Taylor's Hall London, 9 July 2001; Joaquín Almunia, Competition and consumers: the future of EU competition policy, Speech, European Competition Day, Madrid, 12 May 2010.

<sup>229</sup> European Commission, Notice – Guidelines on the application of Article 81(3) of the Treaty, (2004/C101/08), Official Journal 2004 C101, 27/04/2004, para. 21.



agreement, consumers are better off than without the agreement and the consumer pass-on requirement of Article 81(3) is normally fulfilled. In cases where the likely effect of the agreement is to increase prices for consumers within the relevant market it must be carefully assessed whether the claimed efficiencies create real value for consumers in that market so as to compensate for the adverse effects of the restriction of competition.”<sup>230</sup>

In view of the above excerpts, this thesis submits that the ‘rise of the consumer’ is not due to the Commission’s wish to overcome the potential tension between the traditional policy goals of ‘protection of undistorted competition’ and ‘market integration’ but rather that it is the manifestation of the Commission’s intention to effect the complete overhaul of EU competition policy.

### **III. Conclusion**

This Chapter outlined and analysed the Commission’s current approach to competition policy as presented by its more economic approach. In particular, it considered whether the more economic approach has to be regarded as the attempt to effect the complete overhaul of EU competition policy, if it represents ‘old wine in new bottles’ (i.e. was substantially nothing more than some kind of rebranding of already existing goals), or if it has to be regarded as adding another (‘more economic’) interpretative dimension to traditional competition law analysis. In examining these different possibilities, this Chapter discussed both the question if ‘the consumer’ could be considered an appropriate benchmark for EU competition policy and, with regard to EU competition policy and other areas of EU policy, the question of the identity of ‘the consumer’, i.e. if a consumer notion exists that is universally applicable in relation to all areas of EU policy. The investigation concluded not only that such a universal

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<sup>230</sup> European Commission, Notice – Guidelines on the application of Article 81(3) of the Treaty, (2004/C101/08), Official Journal 2004 C101, 27/04/2004, 97, para. 104.

meaning across different EU policy areas could not be established but also that EU competition policy documents employed a heterogeneous rather than uniform notion of 'the consumer'. In the course of this investigation, this Chapter also concluded that, as the more economic approach largely equates the question of consumer welfare with the question of allocative efficiency, the Commission's use of consumer welfare as the new overall objective of EU competition policy follows traditional, neoclassically influenced textbook economics. Furthermore, the analysis of relevant Commission documents showed that the Commission considers the traditional goals of EU competition policy ('protection of undistorted competition' and 'internal market') to be only of minor importance, i.e. the Commission regards either of these objectives as mere tools to achieve consumer welfare.

Accordingly, this Chapter concluded that the Commission's more economic approach is intended to effect the complete overhaul of EU competition policy with the effect that the Commission considers the traditional policy goals to be of merely subsidiary importance, i.e. only relevant insofar as these traditional policy goals can be seen as supporting the achievement of consumer welfare. As will be substantiated in the following Chapters, this development is unlikely to result in the creation of coherent competition policy for the software industry because of, first, an apparent conflict between the Commission's understanding of what is to be regarded as the overriding goal of EU competition policy and the traditional objectives as contained in the European Treaties, and second, the Commission's particular understanding of economic theory which, as this thesis submits, makes the more economic approach an ill-suited approach to the creation of coherent and consistent competition policy for the software industry.

### **Chapter 3 – The Economics of the Commission’s ‘More Economic Approach’**

Chapter 2 focused on one key notion (‘the consumer’) of the Commission’s more economic approach and concluded that the Commission apparently intends to completely overhaul EU competition policy by replacing the traditional objectives of EU competition policy as contained in the European Treaties with the (economic) goal of consumer welfare. In the course of the examination, Chapter 2 indicated that this shift of focus leads to a conflict between enforcement practice and the *lex lata* of the European Treaties which this thesis submits is one factor why the Commission’s more economic approach is unlikely to result in the creation of coherent and consistent competition policy for the software industry.

This Chapter substantiates this submission by analysing the economic theory behind the Commission’s more economic approach. In doing so, it is argued that many of the pitfalls associated with the Commission’s more economic approach in relation to the software industry are connected with (or even hail from) the Commission’s peculiar use and understanding of economic theory or, to be more precise, from the Commission’s reliance on a static form of economic theory as it follows what might be called a neoclassical economic approach to competition law analysis. Before expanding on this assertion in more detail and with specific reference to the software industry in the subsequent chapters, the substantiation of this line of argument requires the consideration of two propaedeutic points: first, the question of what kind of economic theory the Commission is employing in its ‘more economic approach’; and, second, the introduction of some basic economic terminology and concepts. Both points are addressed and evaluated in this Chapter.

## **I. What Kind of Economic Theory Features in the Commission's 'More Economic Approach'?**

The question of what kind of economic theory features in the Commission's more economic approach might not be an obvious one to ask; indeed, this question might even be considered to be superfluous: does it actually matter which kind of economic theory features in the Commission's more economic approach? Moreover, given (as will be shown throughout the remainder of this thesis) that the Commission's focus is on issues of price and allocation, the Commission's more economic approach might straightaway be classified as belonging to the School of neoclassical economics which would appear to make any consideration of this question more or less pointless. Furthermore, as the discipline of economics can be defined as "the study of how societies use scarce resources to produce valuable commodities and distribute them among different people",<sup>231</sup> economic theory might therefore, generally speaking, be said to be always concerned with the question of maximisation of production and / or distribution, one might be tempted to conclude that this question indeed does not matter at all. Yet such an argument overlooks two points: the first being that more than one possible economic approach to competition law exists.<sup>232</sup> This indicates that there can be more than one 'take' on the said maximisation of production and / distribution issues; a fact which has implications for any evaluation of such issues. The second, and more important, point is that "it is necessary to have some idea of what we are [or, in the context of this thesis, what the Commission is] trying to maximise by the application of competition

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<sup>231</sup> Paul A. Samuelson / William D. Nordhaus, *Economics*, 4.

<sup>232</sup> Roger Van den Bergh, *The 'More Economic Approach' and the Pluralist Tradition of European Competition Law*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27, 28.

law”<sup>233</sup> because the evaluation of the Commission’s reform efforts with regard to questions such as ‘Is the Commission’s more economic approach in line with the goals of competition policy as expressed by the European Treaties?’ can only take place if the evaluator possesses an understanding of the standard(s) underlying the Commission’s approach.

As indicated in Chapter 2, the Commission regards consumer welfare as the new (and better) goal of EU competition policy which therefore is to be preferred over the supposedly out-dated, legalistic and formalistic goals of ‘market integration’ and ‘protection of undistorted competition’. In view of this shifted preference and the concomitant emphasis this shift places upon the importance of economic theory, it seems reasonable to assume that this preference also underlies its more economic approach. In economic theory, the issue of welfare forms part of the subject of welfare economics which is the “branch of microeconomics concerned with the efficiency of the company / the market / the economy”.<sup>234</sup> Put differently, the evaluation of a particular market outcome (i.e. the effects of either an intervention or a non-intervention in a given market situation) is dependant upon the economic efficiency of that said market outcome.<sup>235</sup> This means that, as outlined below in more detail in section II of this Chapter, in order to measure how well an industry or a market performs, a so-called welfare aggregate (known as ‘surplus’) of the different participants in a given ‘market’ is taken and judged for its economic efficiency; economic efficiency thus being the measure of the maximisation

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<sup>233</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-017.

<sup>234</sup> Luc Peeperkorn / Vincent Verouden, *The Economics of Competition*, in: Jonathan Faull / Ali Nikpay (eds.), *The EC Law of Competition*, para 1.23.

<sup>235</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 315.

of said welfare aggregate.<sup>236</sup> The Commission's endorsement of issues of economic welfare and economic efficiency as the focus of its competition policy could therefore be taken to mean that it subscribes to a welfare economic approach.

Yet, in contrast to the traditional focus of economists which is generally considered to be on total welfare,<sup>237</sup> the Commission has repeatedly indicated that it 'prefers' consumer welfare over both total and producer welfare.<sup>238</sup> These differences in approach to welfare issues could potentially be taken to suggest that, as the Commission does not seem to follow the 'traditional' focus of welfare economics, the Commission's approach is, after all, incapable of being considered a welfare economic approach which is usually understood to mean that the "welfare economic analysis of the effects of market power concentrates on the effects of efficiency, both allocative and technical efficiency, and therewith [on] the effect on total welfare [... which ...] is measured in terms of consumer surplus and company profits."<sup>239</sup> Although this 'definition' of a welfare economic approach implies that economic theory *as such* does not 'prefer' one type of surplus (consumer or producer) over the other, it does not *per*

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<sup>236</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 315; see also Adrian Künzler, *Effizienz oder Wettbewerbsfreiheit?*, 80-91.

<sup>237</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-017; Massimo Motta, *Competition Policy – Theory and Practice*, 20; Ulrich Schwalbe / Daniel Zimmer, *Law and Economics in European Merger Control*, 6.

<sup>238</sup> See e.g. Neelie Kroes, *European Competition Policy – Delivering Better Markets and Better Choices*, Speech, London, 15 September 2005.

<sup>239</sup> Luc Peeperkorn / Vincent Verouden, *The Economics of Competition*, in: Jonathan Faull / Ali Nikpay (eds.), *The EC Law of Competition*, para. 1.23. 'Technical efficiency' means 'productive efficiency', i.e. goods are produced as efficiently as possible, both in terms of resource allocation within a firm and technical productivity, see: Ulrich Schwalbe, *Das Effizienzkonzept der Wirtschaftstheorie*, in: Holger Fleischer / Daniel Zimmer (ed.), *Effizienz als Regelungsziel im Handels- und Wirtschaftsrecht*, 43, 49.

se exclude the possibility of having such preferences.<sup>240</sup> Consequently, the categorisation of *an* economic approach as a *welfare* economic approach is not changed by the fact that the analytical emphasis might be placed on consumer welfare (i.e. consumer surplus) rather than on total welfare; such a preference only implies that effects on consumer welfare will be valued higher than effects on total welfare or even producer welfare. Insofar that the Commission advocates consumer welfare as the overall goal of its more economic approach it can therefore be said to subscribe to a (neoclassical) welfare economic approach. This conclusion apparently not only confirms the preliminary interpretation of the Commission's more economic approach as a welfare economic approach in the preceding paragraph but also addresses the point raised above that any analysis of the Commission's more economic approach requires also the (pre-)determination of what is supposed to be maximised with its 'new' approach to the application of competition law: in view of the above 'definition' of a welfare economic approach, the aim would appear to be the maximisation of consumer surplus (i.e. consumer welfare<sup>241</sup>). This is a conclusion whose value is not to be under-estimated because, in order to make qualified and valid judgments about the achievement of such a goal or even about how to advance the accomplishment of such a goal, one needs to know not only what economic welfare is but also how it can be measured in a particular situation.<sup>242</sup>

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<sup>240</sup> See Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 313: "If politicians value consumer surplus more than producer surplus [...]"; see also Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-017.

<sup>241</sup> In welfare economics the terms 'surplus' and 'welfare' are used "synonymously"; Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-017, footnote 31.

<sup>242</sup> Adrian Künzler, *Effizienz oder Wettbewerbsfreiheit?*, 80.

In order to understand what this classification of the Commission's reform efforts means for its policy formation both in general and with regard to the software industry in particular and also to enable the analysis of the Commission's understanding and use of economic theory in the subsequent Chapters, it is necessary to introduce some basic economic terminology and economic concepts which feature in, and build the basis of, the Commission's more economic approach.

## **II. Introducing Some Basic Economic Concepts and Terminology**

As Drexl *et al.* have put it:

“[e]conomic theory has always been the basis of competition law. No competition law can be applied without a clear understanding by the enforcer or the judge of the economics of the market.”<sup>243</sup>

Consequently, the introduction of some economic key concepts and terminology appears advisable, especially as, by highlighting the links and relationships between these economic concepts and the concept of competition, the introduction to some basic terminology of economic theory prepares the ground for both the analysis and the critique of the Commission's current approach to competition policy in the software industry as discussed in the subsequent Chapters.

At this point, it is worth stressing that the intention of the explanation provided in this section is to alleviate the understanding of the analysis in subsequent Chapters, i.e. to make the discussion in these Chapters easier to follow, its intention is not to provide a complete course on economic theory; indeed, such an undertaking is beyond the scope of this thesis as it cannot provide on a few pages what economic specialist books address

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<sup>243</sup> Josef Drexl / Laurence Idot / Joël Monéger, Preface, in: Josef Drexl / Laurence Idot / Joël Monéger (eds.), *Economic Theory and Competition Law*, vii.



over hundreds of pages.<sup>244</sup> Rather, this section's purpose is to assist the substantiation of the hypothesis that the Commission's more economic approach does not lend itself easily to the creation of a coherent competition policy for the software industry by providing some (theoretical) underpinning for showing that the Commission's approach lacks what might be called 'sufficient links to economic reality'. This statement, however, calls for one last word of caution: when and where the subsequent Chapters 'bemoan' the lack of dynamics in the Commission's more economic approach,<sup>245</sup> this is not done with the intention of 'belittling' the Commission's approach *as such* but with the intention of highlighting the fact that the Commission's more economic approach focuses – as this thesis submits: unduly so – on a rather static understanding of, and approach to, the concept of competition which this thesis submits has a negative impact on the formation of a coherent competition policy for the highly dynamic software sector.

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<sup>244</sup> See, for example, Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*; Paul A. Samuelson / William D. Nordhaus, *Economics*.

<sup>245</sup> See Fritz Machlup, *Statics and Dynamics: Kaleidoscopic Words*, (1959) 26 *Southern Economic Journal* 91, 100: "For more than twenty years I have been telling my students that one of the widespread uses of "Statics" and "Dynamics" was to distinguish a writer's own work from that of his opponents against whom he tried to argue. Typically, "Statics" was what those benighted opponents have been writing; "Dynamics" was one's own, vastly superior theory.". See also John S. McGee, *Predatory Pricing Revisited*, (1980) 23 *Journal of Law & Economics* 289, 307: "Thirty-odd years ago, Fritz Machlup told his theory seminar about a technique some economists used in criticizing others' work. If they didn't like an argument, they denounced it as "static" rather than "dynamic," as of course it "should" be. All too often, a "static" model simply meant whatever the other fellow happened to be using. The critic, of course, preferred-but often did not reveal-his own dynamic analysis. [...] This practice is still with us. Williamson, for example, complains that static pricing models – like those used by Areeda-Turner – are inadequate to the task. Only dynamic models will do. Yet Williamson's models are not dynamic, either. In dynamic models, variables are dated, and future costs and revenues are discounted.".

## II.1. Consumer Surplus / Producer Surplus / Total Surplus

Both consumer surplus and producer surplus are economic concepts which, under a welfare economics approach, make it possible to evaluate the effects (i.e. gains and / or losses to consumers and / or producers) of an intervention or a non-intervention in a given market scenario, i.e. they are usually understood to provide means to measure the effects of (non-) intervention in a given market scenario.<sup>246</sup> Given the synonymous and interchangeable use of the terms 'surplus' and 'welfare' in welfare economics,<sup>247</sup> an economic approach which focuses on questions of consumer welfare can be said to concentrate on effects on consumer surplus.<sup>248</sup> Diagram 1 is a graphical illustration of the concepts of consumer surplus, producer surplus and total surplus; the latter being depicted by the grey area.

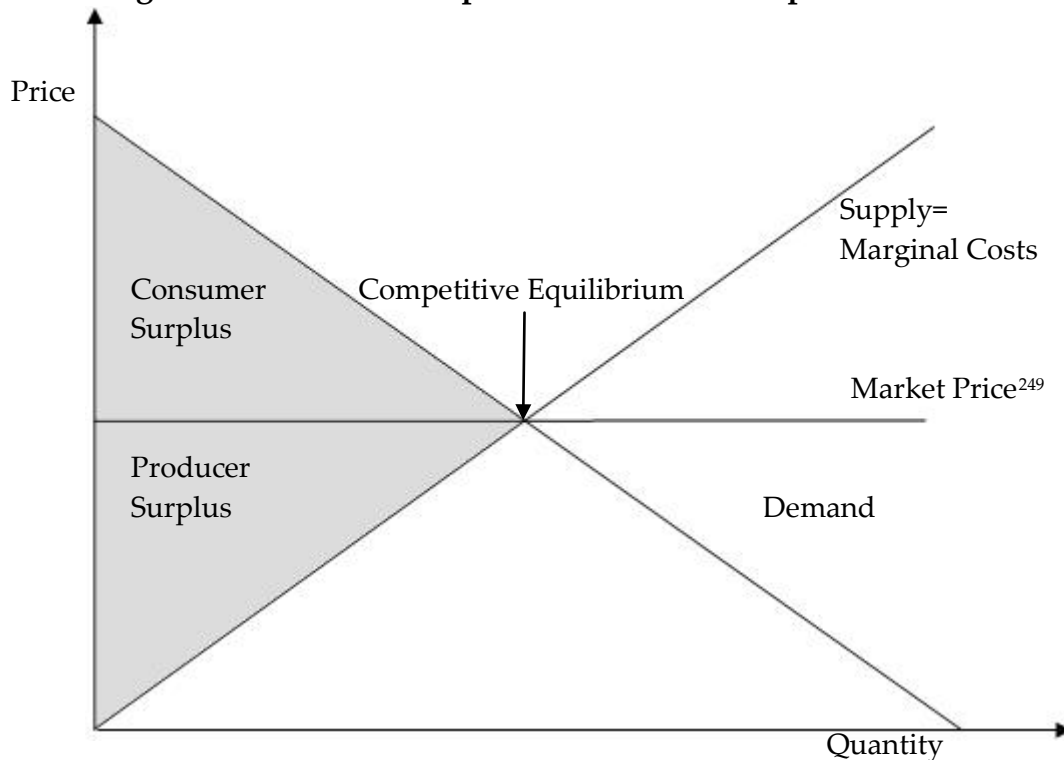
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<sup>246</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 311.

<sup>247</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-017, footnote 31.

<sup>248</sup> Ulrich Schwalbe / Daniel Zimmer, *Law and Economics in European Merger Control*, 6.

**Diagram 1: Consumer Surplus and Producer Surplus**



**Supply:** A measure for the quantities supplied by producers at different prices; thereby indicating the relation between price and quantities supplied.<sup>250</sup>

**Demand:** An indication of the quantities purchased by consumers at different prices; thereby illustrating the connection between the price to be paid for each unit and the quantity bought.<sup>251</sup>

<sup>249</sup> In a perfectly competitive market situation, the market price is determined by the interaction of supply and demand. This means that it will gravitate towards what might be called the equilibrium price; “[a]t any price other than [the equilibrium price] there will be a surplus or shortage in the market and forces will be set in motion to bring the price back to [the equilibrium price].”; E. Thomas Sullivan / Jeffrey L. Harrison, *Understanding Antitrust and Its Economic Implications*, 12.

<sup>250</sup> This measure works as follows: “On the supply side, the response to price changes is the opposite of demand behaviour. If prices increase, supply will equally increase; if prices fall, quantities supplied will decrease accordingly. [...] The curve slopes upwards because with higher prices firms are willing to increase their output in the short run as prices cover the higher production costs per unit. In the long run new firms which could not cover production costs at low market prices will enter the market.”, Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 21.

<sup>251</sup> Consequently, “[i]f the price of goods increases, the demand will fall; if the price decreases, the exchanged quantity will rise.”, Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 21.

In a nutshell, consumer surplus is “the aggregate measure of the surplus of all consumers.”<sup>252</sup> As such, it denotes “the net benefit consumers obtain by buying a certain good or service” which is nothing other than “the difference between their willingness to pay, sometimes called their reservation price, and the price actually paid.”<sup>253</sup> In other words, consumer surplus “is the total benefit from the consumption of a product, less the total cost of purchasing it”,<sup>254</sup> i.e. the “gain” achieved by consumers “from taking advantage of the market”.<sup>255</sup> Displayed graphically, the consumer surplus is represented by the triangular area under the demand curve and above the line representing the market price (see Diagram 1). Consequently, as it “measures the total net benefit to consumers”, the concept of consumer surplus allows theoretically for the measurement of the gain or loss to consumers resulting from some form of market intervention (or the lack thereof) by affording the potential to measure changes in consumer surplus,<sup>256</sup> i.e. the effects of a particular kind of market behaviour or regulatory (non-)intervention on consumer welfare.

The mirror image of consumer surplus is producer surplus which “measures the gain to producers generated by market transactions”:<sup>257</sup> just as consumer surplus measures the difference between the price that consumers are willing to pay and the actual market price, the producer surplus measures the difference between the revenue (i.e. the price actually received for a good) and the production costs for said good (i.e.

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<sup>252</sup> Massimo Motta, *Competition Policy – Theory and Practice*, 18; see also Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 132.

<sup>253</sup> Luc Peeperkorn / Vincent Verouden, *The Economics of Competition*, in: Jonathan Faull / Ali Nikpay (eds.), *The EC Law of Competition*, para. 1.25.

<sup>254</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 132.

<sup>255</sup> Keith N. Hylton, *Antitrust Law: Economic Theory and Common Law Evolution*, 3.

<sup>256</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 311.

<sup>257</sup> Keith N. Hylton, *Antitrust Law: Economic Theory and Common Law Evolution*, 3.

marginal costs).<sup>258</sup> Displayed graphically, producer surplus is represented by the triangular area above the supply curve up to the market price in Diagram 1. This area illustrates the fact that producers are said to have gained a surplus when the market price achieved is not only higher than the price the producers would have been willing to sell their product at but also higher than the producers' production costs.<sup>259</sup> Accordingly, just as is the case with consumer surplus, by measuring the gains or losses to producers, the concept of producer surplus allows theoretically for the evaluation of the (producer) welfare effects resulting from any form of market (non-)intervention,<sup>260</sup> i.e. the evaluation of how economically efficient is a given market scenario.

Taken together, consumer surplus and producer surplus form the "yardstick for measuring the efficiency of the market outcome" of a particular market scenario and thus allow for the comparison of "the social welfare consequences of the competitive equilibrium [i.e. the point at which demand equals supply<sup>261</sup>] and a market in disequilibrium [i.e. a situation in which the different forces at work are not in balance<sup>262</sup>]"<sup>263</sup> which then can be used as the justification for an intervention by an enforcement agency. As outlined in more detail in section II.2. of this Chapter, in the case of a market in equilibrium, total welfare is said to be

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<sup>258</sup> Alison Jones / Brenda Sufrin, *EU Competition Law*, 5; E. Thomas Sullivan / Jeffrey L. Harrison, *Antitrust and Its Economic Implications*, 15: "The reasoning is that the number of units a firm offers at a particular price depends on a comparison of the price offered with the marginal cost of producing an additional item. It will offer a particular unit as long as the addition of total cost (marginal cost) does not exceed the price offered. Thus, the firm's marginal cost curve also indicates the number of units that will be offered for sale at each price."

<sup>259</sup> Keith N. Hylton, *Antitrust Law: Economic Theory and Common Law Evolution*, 3.

<sup>260</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 311.

<sup>261</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 595.

<sup>262</sup> Paul A. Samuelson / William D. Nordhaus, *Economics*, 493.

<sup>263</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 23.

maximised, in the case of a market in disequilibrium, the market outcome is said to result in surplus losses.<sup>264</sup> By comparing the changes in consumer surplus and producer surplus in a given market situation (i.e. 'the effects' or 'market outcome'), the comparison allows for efficiency judgments, and thus also for policy adjustments, to be made: the further a particular market outcome is deemed to be 'away' from the outcome under the ideal of a market in equilibrium, the less economically efficient the respective outcome is held to be and the more it will be taken as an argument supporting a regulatory intervention by an enforcement agency. In this respect, the different types of 'surpluses' act as measures of the effects of intervention or non-intervention in a given market scenario and thus also as a measure for the economic efficiency of a particular market situation. However, given that economics can be defined as "the study of how societies use scarce resources to produce valuable commodities and distribute them among different people",<sup>265</sup> this poses the difficult question of what amounts to an efficient use of resources, production and goods.<sup>266</sup> This point is addressed below in section II.2. of this Chapter.

## **II.2. The Economic Models of Perfect Competition and Monopoly**

In addition to the general evaluation measures outlined above, a welfare economics analysis requires the existence of points of reference in order to draw any conclusions about how and when an intervention by an enforcement agency might lead to the maximisation of said measures, i.e. a more efficient market outcome. In other words, a welfare economics analysis requires the existence of benchmarks. This is because if, as for example is the case with the Commission's more economic approach, the

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<sup>264</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 23.

<sup>265</sup> Paul A. Samuelson / William D. Nordhaus, *Economics*, 4.

<sup>266</sup> Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 3.

aim of competition policy is (the maximisation of) consumer welfare, then the “application of competition law should be concerned with those market situations in which intervention on the part of competition authorities can improve consumer welfare.”<sup>267</sup> One might even go as far as saying that, from the perspective of welfare economics, the application of competition law not only *should be* concerned with situations where welfare can be improved but positively *has to be* concerned with these situations as otherwise any intervention in ‘the market’ by an enforcement agency could not only be criticised as being arbitrary but would also be likely to lead to the formation of an incoherent policy for the said market. The commonly used and most important points of reference in this context are the economic models of perfect competition and monopoly which – as either model lies at the opposite side of what might be called the efficiency spectrum – allow for a comparison of the respective market outcomes (i.e. the respective changes in consumer surplus, producer surplus and / or total surplus) with two very “different” and “extreme” economic models<sup>268</sup> in order to show why a certain situation might be considered “suboptimal”<sup>269</sup> in terms of efficiency and thus would justify a competition law regulatory intervention. As indicated above, this evaluation is undertaken by comparing the welfare effects (in form of the respectively resulting surpluses) of the respective market scenario with those of a perfectly competitive market and those of a monopolistic market:<sup>270</sup>

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<sup>267</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-009.

<sup>268</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-009.

<sup>269</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 19.

<sup>270</sup> See Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 369.

“[i]n one – perfect competition – consumer welfare is maximised and could not be improved upon even by an omniscient regulator. In the other – monopoly – consumer welfare is not maximised and could, in principle at least, be improved upon by regulatory intervention.”<sup>271</sup>

The following outlines these two economic models in more detail. It seems worth to point out from the outset that both models are “essentially static”<sup>272</sup> in character as they neither capture, nor are they able to capture, changes in the number of firms, in the number of consumers in the market, in the use of technology or in the range and number of available commodities.<sup>273</sup> The issue of either models’ static character is revisited in section III.2. of this Chapter.

### II.2.1. The Model of Perfect Competition

A perfectly competitive market is one which fulfils the following conditions:<sup>274</sup> first, there is a large number of both buyers and sellers in the market. Second, neither changes in the quantities bought or sold are so big relative to the total quantity traded so as to affect the market price nor are individual firms in the market large enough to affect such a change by individual actions. Third, the product traded is homogenous as buyers neither perceive quality or brand differences between the products, nor have a reason to prefer a particular seller; consequently, the purchase

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<sup>271</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-009.

<sup>272</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-036.

<sup>273</sup> See Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 16 [emphasis placed on the model of perfect competition]; Adrian Künzler, *Effizienz oder Wettbewerbsfreiheit*, 38 [emphasis placed on the model of perfect competition]; Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-036.

<sup>274</sup> See e.g. Ernest Gellhorn / William E. Kovacic, *Antitrust Law and Economics*, 53; Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 19 *et seq.*; Jonathan Faull / Ali Nikpay (eds.), *The EC Law of Competition*, paras. 1.54 – 1.60; Alison Jones / Brenda Sufrin, *EU Competition Law*, 7 *et seq.*; E. Thomas Sullivan / Jeffrey L. Harrison, *Understanding Antitrust and Its Economic Implications*, 8.



decision is made on the basis of price alone. Fourth, both buyers and sellers have perfect information about market prices, costs and the goods, i.e. there full transparency exists in relation to the market transaction. Fifth, entry into and exit out of the market occurs instantaneously and competitors can do so without any barriers, i.e. freely.

As mentioned above, the model of perfect competition exemplifies the idea of a market in which efficiency is maximised.<sup>275</sup> Accordingly, it lies at the 'ideal' end of the spectrum of possible market outcomes because, in a perfectly competitive market, all benefits deriving from the exchange of goods have been realised<sup>276</sup> which means that the efficiency of the market "cannot [...] be improved by the application of competition rules."<sup>277</sup> In other words, the concept of perfect competition refers to "a situation in which it is impossible to introduce a change to make at least one person better off without making another person worse off."<sup>278</sup> Such a situation is also referred to as a competitive equilibrium "because all suppliers and demanders are price takers"<sup>279</sup> which means that both the individual seller and the individual buyer / demander are "insignificant in relation to the market as a whole" and thus have "no influence on the product's price."<sup>280</sup> Consequently, the competitive equilibrium illustrates the maximum state of welfare to be obtained in a market scenario.<sup>281</sup> In graphical terms, in addition to illustrating the different types of economic surplus, Diagram 1 above also shows the welfare properties of a perfectly competitive market as it depicts a market in competitive equilibrium. The model of perfect

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<sup>275</sup> Alison Jones / Brenda Sufrin, EU Competition Law, 7.

<sup>276</sup> See Ulrich Schwalbe / Daniel Zimmer, Kartellrecht und Ökonomie, 12.

<sup>277</sup> Alison Jones / Brenda Sufrin, EU Competition Law, 7.

<sup>278</sup> Roger J. Van den Bergh / Peter D. Camesasca, European Competition Law and Economics: A Comparative Perspective, 23.

<sup>279</sup> Robert S. Pindyck / Daniel L. Rubinfeld, Microeconomics, 595.

<sup>280</sup> Alison Jones / Brenda Sufrin, EU Competition Law, 7.

<sup>281</sup> Adrian Künzler, Effizienz oder Wettbewerbsfreiheit, 37.

competition is thought to highlight the “beneficial welfare consequences of competition”<sup>282</sup> insofar that it exemplifies the maximisation of total welfare “because resources are put to their highest valued use and output is optimal”,<sup>283</sup> i.e. it displays both allocative and productive efficiency.<sup>284</sup>

### **Terminology: Allocative and Productive Efficiency**

*Allocative efficiency* (also known as Pareto efficiency<sup>285</sup>) is said to exist when all available resources are *distributed* in the economically most efficient way, i.e. “in [such] a way that it is not possible to make anyone better off without making someone else worse off”<sup>286</sup> which generally means that “it is impossible to conceive a better outcome for society at large.”<sup>287</sup> An economy is considered to be allocatively efficient if it, in view of its resources and technology, “provides its consumers with the most desired set of goods and services”.<sup>288</sup> This means that “the allocation in a competitive equilibrium is economically efficient.”<sup>289</sup> However, it is worth noting that the criterion of allocative efficiency does not pass judgment about normative questions such as the fairness of an allocation.<sup>290</sup>

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<sup>282</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 19.

<sup>283</sup> Ernest Gellhorn / William E. Kovacic, *Antitrust Law and Economics*, 53.

<sup>284</sup> Ulrich Schwalbe, *Das Effizienzkonzept der Wirtschaftstheorie*, in: Holger Fleischer / Daniel Zimmer (eds.), *Effizienz als Regelungsziel im Handels- und Wirtschaftsrecht*, 43, 49.

<sup>285</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 21; Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 3; Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 590.

<sup>286</sup> Richard Whish, *Competition Law*, 4.

<sup>287</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 21.

<sup>288</sup> Paul A. Samuelson / William D. Nordhaus, *Economics*, 157 *et seq.*.

<sup>289</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 596.

<sup>290</sup> Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 4; Paul A. Samuelson / William D. Nordhaus, *Economics*, 158. See also Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 597 *et seq.*.

***Productive efficiency*** (sometimes also referred to as technical efficiency<sup>291</sup>) relates to the use of inputs and of production factors associated with the production of goods, i.e. it measures if goods are *produced* as efficiently as possible, both in terms of resource allocation within a firm and technical productivity.<sup>292</sup> In other words, productive efficiency is characterised by an absence of “slack” in the production process.<sup>293</sup> Accordingly, “[p]roductive efficiency occurs when an economy cannot produce more of one good without producing less of another good”.<sup>294</sup> It is consequently said to be “achieved because a producer is unable to sell above cost (if he did his customers would immediately desert him) and he will not of course sell below it (because then he would make no profit).”<sup>295</sup> The criterion of productive efficiency carries with it two implications: first, “that output is maximised by using the most effective combination of inputs” and; second, “that more efficient firms, which produce at lower costs, should not be prevented from taking business away from less efficient ones.”<sup>296</sup> In terms of welfare, productive efficiency means that as little as necessary of society’s wealth is used in the production process.<sup>297</sup>

To conclude, the model of perfect competition leads to what might be called the ‘mathematisation of competition theory’<sup>298</sup> as it illustrates an ideal theoretical economic situation in which welfare is maximised and thus un-improvable / imperfectible by regulatory intervention from a welfare economics perspective. As such, it highlights the optimal functioning of a market economy which then can be referred to as a

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<sup>291</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 29; Ulrich Schwalbe, *Das Effizienzkonzept der Wirtschaftstheorie*, in: Holger Fleischer / Daniel Zimmer (ed.), *Effizienz als Regelungsziel im Handels- und Wirtschaftsrecht*, 43, 49; Alison Jones / Brenda Sufrin, *EU Competition Law*, 8.

<sup>292</sup> Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 9.

<sup>293</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 29.

<sup>294</sup> Paul A. Samuelson / William D. Nordhaus, *Economics*, 13.

<sup>295</sup> Richard Whish, *Competition Law*, 5.

<sup>296</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 29.

<sup>297</sup> Richard Whish, *Competition Law*, 5.

<sup>298</sup> Adrian Künzler, *Effizienz oder Wettbewerbsfreiheit*, 37.

yardstick / point of reference / benchmark for the creation of an efficiency oriented competition policy.<sup>299</sup>

## II.2.2. The Economic Model of Monopoly

The economic model of monopoly shares the theoretical foundations of the concept of perfect competition insofar that it is also based on a number of restrictive assumptions.<sup>300</sup> Yet, as the polar opposite of the concept of perfect competition, it lies at the opposite end of the efficiency spectrum and thus exemplifies a market in (gross) disequilibrium.<sup>301</sup> Accordingly, it describes a market situation which differs completely from a perfectly competitive market, the main difference being that one seller supplies a particular good to the entire market,<sup>302</sup> i.e. it refers to a situation in which there is neither actual nor potential competition<sup>303</sup> as the “monopolist is the market and completely controls the amount of output offered for sale.”<sup>304</sup> This means that, under monopolistic market conditions, the monopolist as the incumbent in the market has an influence on the market outcome: the monopolist is considered to be a price setter because he (as the only supplier of a particular good) is able to influence the market price for said product either directly by means of price setting or indirectly by

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<sup>299</sup> See Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 12-17.

<sup>300</sup> These assumptions are: the homogeneity and uniqueness of goods, the existence of perfect information, the existence of a large number of buyers, the non-existence of transaction costs, the existence of substantial barriers to entry into the market and also that exit from the market is difficult. See Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 24; Ernest Gellhorn / William E. Kovacic, *Antitrust Law and Economics*, 58.

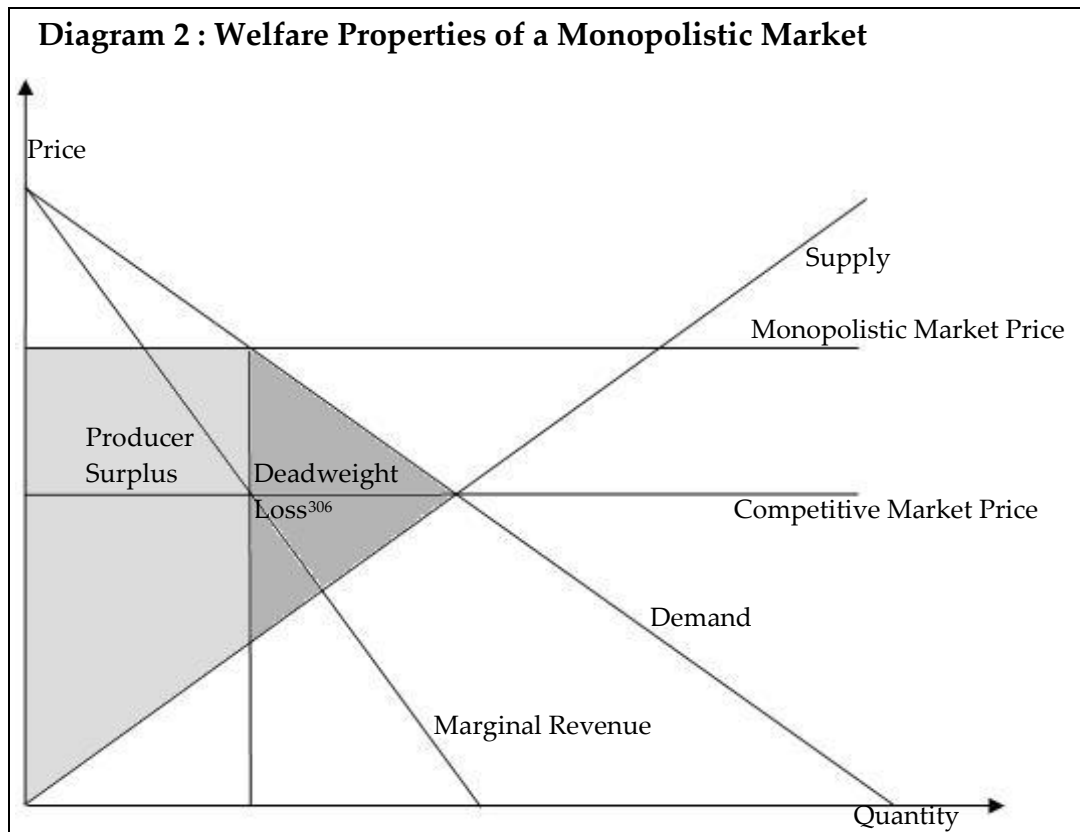
<sup>301</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 349.

<sup>302</sup> Ernest Gellhorn / William E. Kovacic, *Antitrust Law and Economics*, 58.

<sup>303</sup> Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 23 *et seq.*; Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 20.

<sup>304</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 350 [original emphasis].

means of the quantities produced.<sup>305</sup> Diagram 2 depicts the model of monopoly in graphic terms.



From the perspective of welfare economics and as illustrated by Diagram 2, a monopoly is considered to be economically inefficient because it results in a deadweight loss caused by a misallocation of resources by the monopolist:<sup>307</sup>

“[t]he reason is simple. For the competitive seller marginal revenue is the same at all output levels, and always equals the market price.

<sup>305</sup> Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 20; see also Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 24.

<sup>306</sup> The term ‘deadweight loss’ describes the net loss of total surplus, i.e. an inefficiency, in a given market as “the loss of consumer surplus [...] is not turned into profit for the producer.”; Alison Jones / Brenda Sufrin, *EU Competition Law*, 9. See also: Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 313.

<sup>307</sup> E. Thomas Sullivan / Jeffrey L. Harrison, *Understanding antitrust and its economic implications*, 21.

How much she produces has no impact on price and is determined by the shape of her marginal cost curve. The monopolist, on the other hand, finds marginal revenue always less than price because her demand curve slopes downward. If only a single price is charged, every expansion of output requires a price reduction (reducing her average revenue); therefore, the last unit sold produces less revenue than the preceding sale. A monopolist who cannot discriminate in her pricing among customers and who expands output will have to accept a lower price, not just on the additional units but on all units sold. The monopolist can obtain additional sales only by lowering the price charged on her entire output. [...] In making this choice [i.e. either to reduce output or to lower the price], the monopolist will maximize profits at less than the competitive output level – namely, where marginal revenue equals marginal cost. Thus, contrary to the competitive result, the monopolist will maximize profits by restricting output and setting price above marginal cost.”<sup>308</sup>

In other words, because a monopolist will set its output so that marginal costs equal marginal revenue, the monopolist will offer a smaller quantity at a higher price as would be the case in a perfectly competitive market; however, a price above marginal costs leads to an inefficient allocation because not all possible benefits deriving from the exchange of goods have been realised.<sup>309</sup> This inefficient allocation is due to the fact that

“some consumers who would have paid the competitive (marginal cost) price are deprived of the product. Some of the consumer surplus identified in Fig. 1.1 [a perfectly competitive market] is therefore transferred to the producer as monopoly profit but some is lost altogether.”<sup>310</sup>

In addition to being allocatively inefficient, a monopoly is also likely to exhibit productive inefficiency because a monopolist firm is not only said to have less incentives to get rid of “[m]anagerial slack”<sup>311</sup> and thus does not operate its production in the most resource and cost efficient way

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<sup>308</sup> Ernest Gellhorn / William E. Kovacic, *Antitrust Law and Economics*, 60.

<sup>309</sup> Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 23.

<sup>310</sup> Alison Jones / Brenda Sufrin, *EU Competition Law*, 9.

<sup>311</sup> Massimo Motta, *Competition Policy – Theory and Practice*, 47.

possible (so-called x-inefficiency<sup>312</sup>) but also because “the market will not operate any selection and an inefficient firm is as likely to survive as an efficient one.”<sup>313</sup> The issue of productive inefficiency caused by monopoly not only highlights the point famously made by Hicks that monopolists are under no pressure to innovate / act as “[t]he best about all monopoly profits is a quiet life”<sup>314</sup> (which might be paraphrased with ‘No need to bother with efficiency.’) but also places further emphasis on the overall function of the model of monopoly as “an analytically useful theoretical construct”<sup>315</sup> for competition analysis because it highlights an economic situation which could (theoretically) be improved by regulatory intervention and which could thus be referred to as a yardstick / point of reference / benchmark for the creation of competition policy. Whether or not either of these models might actually be “a sound basis for policy decisions”<sup>316</sup> is another question and, while important, is not directly addressed here but in subsequent Chapters.

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<sup>312</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-012; Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 24; Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 29.

<sup>313</sup> Massimo Motta, *Competition Policy – Theory and Practice*, 47.

<sup>314</sup> J. R. Hicks, *Annual Survey of Economic Theory: The Theory of Monopoly*, (1935) 3 *Econometrica* 1, 8. Hicks proceeded this evaluation by stating that “ [i]t seems not at all unlikely that people in monopolistic positions will very often be people with sharply rising subjective costs; if this is so, they are likely to exploit their advantage much more by not bothering to get very near the position of maximum profit, than by straining themselves to get very close to it.”

<sup>315</sup> Lawrence A. Sullivan, Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 33.

<sup>316</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-002. Bishop and Walker question the suitability of these models in this respect.

### III. The Usefulness of Economic Models and Economic Theory for Competition Policy

As alluded to in the explanation of the models of perfect competition and monopoly above, both models might be considered to provide, by means of a general mathematisation of competition theory, analytically useful theoretical constructs for the efficiency evaluation of a given market scenario which might, theoretically, serve as useful points of reference for the formation of an efficiency oriented competition policy. In short, models such as perfect competition and monopoly seem to allow for what might be called “bright-line tests – [i.e.] simple rules supposedly based on economic analysis”<sup>317</sup> for the purpose of facilitating competition law analysis insofar that this apparent mathematisation of competition theory seems to enable the respective regulator to reach seemingly precise regulatory conclusions. However, it should be noted that the seeming precision of these models is only due to the fact that both omit certain competitive realities including the evolutionary character of market processes, innovation, technological progress or changes in demand.<sup>318</sup> Neither model is anything other than a theoretical and artificial construct designed to illustrate the functioning of a (simplified) market economy.<sup>319</sup> Put differently, while these models might provide “useful starting points for analysing the effectiveness of competition [,] neither of them provides

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<sup>317</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129.

<sup>318</sup> Adrian Künzler, *Effizienz oder Wettbewerbsfreiheit*, 37. Künzler calls this omission “Ausblendung wettbewerblicher Realitäten”. As Kerber points out, this seeming precision is partially due to the fact that “[a]llocation theory [which underlies welfare economics] assumes the existence of sets of factors of production (resources), production functions (technologies), products and preferences, which do not change.”, Wolfgang Kerber, *Should competition law promote efficiency?*, in: Josef Drexler / Laurence Idot / Joël Monéger, *Economic Theory and Competition Law*, 93, 96.

<sup>319</sup> Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 13.



a sound basis for policy decisions”<sup>320</sup> as market situations which fulfil the conditions of either perfect competition or monopoly rarely exist in real markets.<sup>321</sup> Accordingly, both models might be ‘accused’ of some *Realitätsferne*, i.e. a certain loss of touch with reality: for example, neither model takes account of “the interaction between [...] firms in the market” which can be considered a “critical” factor in the efficiency assessment of competition.<sup>322</sup> This ‘omission’ would, *inter alia*, seem to raise the question of the usefulness of such aspects of economic theory for competition law analysis.

### III.1. The Issue of (Economic) Conceptualisation

Following on from these observations, the first issue to be addressed in this context is that of (economic) conceptualisation, i.e. the use of, and reliance on, economic concepts in competition law assessment. Although there appears to be, at first glance, nothing wrong with economic models (such as the ones described above) *in general* or their use in competition law analysis *as such* because they can “help in understanding the injury that can arise from market power”,<sup>323</sup> it is submitted that the increased use of, and reliance on, both economic theory and economic models might lead to an over-simplification of a – often complex – real-life competitive scenario. Furthermore, such reliance is likely to lead to the – as this thesis

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<sup>320</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-002.

<sup>321</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-009; Lawrence A. Sullivan, Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 34; Richard Whish, *Competition Law*, 7-8.

<sup>322</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-002.

<sup>323</sup> Lawrence A. Sullivan, Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 34. As Sullivan and Grimes point out, this is due to the fact that these models “allow for rigorous mathematical proofs that help explain the workings of competitive or noncompetitive markets”, *ibid.*.

submits: erroneous – perception that the answer to all competition law assessment questions is to be found in economic theory and that all such problems can be solved by the discipline of economics alone. This reliance and the potential misperception which it implies can be explained by the importance and usefulness of conceptualisation for the analysis of complex issues:

“[c]oncepts liberate our thinking by enabling the universal to be abstracted from the particular. Concepts impose an order on the chaos of reality, enabling the rational resolution of disputes to take place.”<sup>324</sup>

In other words, *something* (e.g. the market concept) that was originally intended to assist in the illumination of a complex issue (e.g. the question of a competitive injury) has taken over and this ‘thing’ now almost leads a life of its own. This situation very much resembles the case of Goethe’s *Zauberlehrling* (‘The Sorcerer’s Apprentice’) who, in the absence of the Master Sorcerer, sets out to try his hand at magic himself – with disastrous consequences as the magic powers which he evokes are beyond his ability to control: ‘Die ich rief, die Geister Werd ich nun nicht los’.<sup>325</sup> A similar point might be made in relation to the current use of certain economic concepts in competition law analysis which have seemingly become so powerful, so unquestioned, that they appear difficult (or even impossible) to ‘tame’. For example, it would seem that (both in the United States and the European Union), the exercise of market definition has been reduced to a ‘one size fits all’ economic routine which draws heavily on the assumptions underlying the model of the perfectly competitive market

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<sup>324</sup> John J. Flynn, *Antitrust Policy and the Concept of a Competitive Process*, (1990) 35 *New York Law School Law Review* 893.

<sup>325</sup> Johann Wolfgang von Goethe, *Der Zauberlehrling*, in: Johann Wolfgang von Goethe, *Die Gedichte, Lyrisch, Jubiläums-Ausgabe*, 8. Band, 221, 224. This passage translates as “Spirits that I have called, my commands now ignore.”, i.e. the apprentice is unable to rid himself of the spirits he invoked [own translation].

and which appears to act as some kind of general predeterminator of the outcome of a particular competition case.<sup>326</sup> Understandably, this development has led to the perception that competition law analysis, as it has apparently become “more identifiable with a single economic model”, has also become “more coherent”.<sup>327</sup> This thesis argues that this evaluation still applies; this assertion will be substantiated *passim* in the remainder of this thesis.

Yet such a perception is not only misleading, it may also be dangerous because of its potential to lead to assessment errors: although conceptualisation by means of an economic concept such as ‘the market’ can be considered a useful tool insofar as it might help to keep antitrust analysis within seemingly comprehensible boundaries, it may also lead to a loss of precision in the competitive assessment of a real-life scenario; the problem is that the simplification of complex real-life issues by means of economic theory (such as that underlying welfare economics) is likely to create a false sense of security by generating a sense of certainty that does not actually exist in the situation to be regulated. For example, as Nelson and Wilson have pointed out:

“[t]he orthodox theory of consumer behavior posits that consumers have well-established preference orderings over all possible commodity bundles (and, indeed, in all time periods and all possible states of the world). But how do I know whether I will like a new product if I have never tried it? If I try it, will it make me sick? How do I know? Available information is fragmentary and experts disagree. Regarding collective choices, the situation is similar. How do I know how much improvement in air quality I will get under different legislative proposals? Do I know how much the possible improvements might mean to my enjoyment of life or my life

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<sup>326</sup> Frederick M. Rowe, *The Decline of Antitrust and the Delusions of Models: The Faustian Pact of Law and Economics*, (1983-84) 72 *Georgetown Law Journal* 1511, 1563. See also Louis Kaplow, *Why (Ever) Define Markets?*, (2010) 124 *Harvard Law Review* 437.

<sup>327</sup> Herbert Hovenkamp, *The Antitrust Enterprise – Principle and Execution*, 7.

expectancy? [...] things always are changing in ways that could not have been fully predicted, and [...] adjustments always are having to be made to accommodate to or exploit those changes. [...] adjustments and accommodations, whether private or public, in general do not lead to tightly predictable outcomes. For better or for worse, economic life is an adventure.”<sup>328</sup>

Accordingly, as it may be said that “the economy refuses to be captured by a single set of axioms from which all truths can be deduced”,<sup>329</sup> a regulator who proceeds in ignorance or even wilful disregard of this *caveat* / qualification might risk the mishandling and misapplication of economic theory and, thereby, also the commission of errors in the competition law assessment.<sup>330</sup> In this respect, the problem would appear to be twofold: first, the methodology which informs economic concepts as applied in competition analysis is inherently vague and imprecise because “economic theory is necessarily general and abstract”.<sup>331</sup> Second, there appears to be a tendency on the part of regulators, judges and counsel to “favor simple “bright-line” tests” in competition analysis”.<sup>332</sup> As the following sets out to demonstrate, either of these issues may be considered to have a negative impact on the usefulness of economic theory for the purpose of competition law analysis and thus also for the creation of coherent and consistent competition policy with regard to dynamic economic sectors such as the software industry.

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<sup>328</sup> Richard R. Nelson / Sidney G. Winter, *An Evolutionary Theory of Economic Change*, 369 *et seq.*.

<sup>329</sup> W. Brian Arthur in: Robert Delorme / Geoffrey M. Hodgson, *Complexity and the economy: an interview with W. Brian Arthur*, in: John Finch / Magali Orillard (eds.), *Complexity and the Economy – Implications for Economic Policy*, 17, 27.

<sup>330</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129, *passim*.

<sup>331</sup> Walter Adams / James W. Brock, *Antitrust, Ideology, and the Arabesques of Economic Theory*, (1995) 66 *University of Colorado Law Review* 257, 260.

<sup>332</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129, 130.

### III.1.1. The Vagueness and Abstractness of Economic Theory

With regard to the former issue, the vagueness, abstractness and generality of economic theory contrasts with the “normative process”<sup>333</sup> that is competition *law* analysis and which neither can, nor should, take place in the abstract or be dictated by over-reliance on an economic theory induced simplification. Consequently, while forceful in terms of its general explanatory (and persuasive) powers, an economic concept such as e.g. ‘the market’ has to be considered of little practical value for the *legal* – i.e. essentially normative – assessment of a perceived competitive injury because, as outlined above in section II. of this Chapter, such concepts generally neglect the reality of economic life in whatever industry / economic sector is scrutinised: for example, how is a regulator to know (let alone understand) what s/he is actually regulating without reliable information as to what actually constitutes the regulatory object ‘market’? How are the regulatory efforts to be assessed if a reliable definition of the regulatory object is missing? Are all ‘markets’ the same, i.e. is regulating ‘the market’ for potatoes the same as regulating ‘the market’ for high-technology products; do both (or even all) markets share the same general characteristics upon which assessment can be placed or take place? Especially with regard to the point of characteristics, it might reasonably be asked if – just as the use of too little economic theory in EU competition law analysis might have led to questionable results in earlier cases – the

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<sup>333</sup> John J. Flynn, *Antitrust Policy, Innovation Efficiencies, and the Suppression of Technology*, (1997-98) 66 *Antitrust Law Journal* 487, 501: “[S]orting out permissible conduct from that which ‘ought’ to be forbidden is a normative process, one which depends upon basic assumptions about the purposes of laws designed to maintain competition. It may be relatively straightforward to identify conduct as not ‘honestly industrial’ where it clearly reflects a conspiracy to exclude competing technology from a market, or collusion between competitors to delay the introduction of new technology, but condemning unilateral conduct by a monopolist as unlawful is a far more complex matter.”.

use of a 'market' definition which is based upon static economic concepts in a highly dynamic industry such as the software sector might not lead to equally undesirable results? Rather, might it not be that such an approach is likely to disregard factors which do not feature in a neoclassical (welfare) economic approach to competition law analysis because they are missed out in economic models such as the ones described above?

At this point, it seems worth mentioning that the scepticism regarding the usefulness of economics as the guiding principle of competition law which is expressed here hails neither from a dislike of economic theory nor from a dislike of change – law is a living thing and change is both necessary and indispensable for its continuing utility, upkeep and development. Furthermore, it would be dubious to deny the importance of the insights that economic theory can offer for the formation of competition policy,<sup>334</sup> and indeed, such denial is neither the intention of, nor the motivation for, this thesis. Rather, the scepticism voiced above is rooted in an acknowledgment of what competition law analysis needs and an awareness of what economic theory can and cannot achieve.<sup>335</sup>

“economic theory alone is not [...] a precise operational algorithm for mechanistically obtaining conclusions. Economic theory in and of itself is not dispositive of central antitrust issues, nor is it a pseudo-

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<sup>334</sup> The importance of economics is generally not doubted in the academic (legal) literature and has, in fact, been acknowledged for a number of years. See e.g. Ulf Böge, *Der „more economic approach“ und die deutsche Wettbewerbspolitik*, *Wirtschaft und Wettbewerb* 2004, 726; Arndt Christiansen, *Die „Ökonomisierung“ der EU-Fusionskontrolle: Steigt dadurch die Rechtssicherheit?*, *Beitrag für den 4. Workshop „Ordnungsökonomik und Recht“*, Freiburg, October 2004; Ulrich Immenga, *Der „more economic approach“ als Wettbewerbspolitik*, *Wirtschaft und Wettbewerb* 2006, 463; Lawrence Anthony Sullivan, *Antitrust*, 1 *et seq.*

<sup>335</sup> “Above all, resolving antitrust issues calls for judgment: And that judgment is – and must be – informed as much by socio-political values as it is by economic facts and theory, because the interpretation of statutes, and the operational policies derived from their application to concrete cases, ultimately are determined by the kind of society a nation prefers.”, Walter Adams / James W. Brock, *Antitrust, Ideology, and the Arabesques of Economic Theory*, (1995) 66 *University of Colorado Law Review* 257, 327.

scientific reference to such concepts as “Pareto optimality”, “allocative efficiency” and “consumer welfare”. Couched in generalities and long-run tendencies, economic theory is fraught with indeterminacy and vagueness when applied to particular cases and issues. It does not provide a set of precise, bright-line demarcations for reflexively identifying monopolization or corporate mergers which may substantially lessen competition or tend to create a monopoly. By its very nature, economic theory is incapable of providing the fact-specific conclusions which it is the central purpose of antitrust proceedings to establish. It is glaringly indeterminate at critical junctures, while implicitly assuming as known that which it is the purpose of the proceedings to find.”<sup>336</sup>

At any rate, the above suggests that the implementation of ‘more’ economic theory into the assessment of a potential competitive injury neither automatically equals ‘more sound’ nor ‘better’ competition analysis because such improvements are not “necessarily” achieved “by each additional injection of economics.”<sup>337</sup> This suggestion is also advanced by this thesis.

### **III.1.2. The Preference for Bright-line Tests: the Case of the Market**

#### **Concept**

With regard to the second issue raised above in the introduction to section II of this Chapter – that of the seeming tendency to prefer ‘bright-line’ tests in the assessment process – it might be argued that such a tendency is likely to have a crippling effect on the usefulness of economics in competition law analysis because of such bright-line tests’ potential to lead to the mishandling of economic testimony and the misapplication of economic analysis.<sup>338</sup> Take, for example, the case of market definition

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<sup>336</sup> Walter Adams / James W. Brock, *Antitrust, Ideology, and the Arabesques of Economic Theory*, (1995) 66 *University of Colorado Law Review* 257, 326-327.

<sup>337</sup> Corwin D. Edwards, *Use and Abuse of Economics in Antitrust Litigation*, (1962) 20 *A.B.A. Antitrust Section* 38.

<sup>338</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129, 130.

which generally “is thought to be a crucial step in the analysis of market power” and thus also in the analysis of dominance, and which can be considered as having “become a necessary part of every antitrust case”.<sup>339</sup> In relation to the European Union, this importance is demonstrated by e.g. the Commission’s *Notice on the definition of relevant market for the purposes of Community competition law* :

“2. [...]he objective of defining a market in both its product and geographic dimension is to identify those actual competitors of the undertakings involved that are capable of constraining those undertakings' behaviour and of preventing them from behaving independently of effective competitive pressure. *It is from this perspective that the market definition makes it possible inter alia to calculate market shares that would convey meaningful information regarding market power for the purposes of assessing dominance or for the purposes of applying Article 85 [now Article 101 TFEU]. [...]*

4. The definition of the relevant market in both its product and its geographic dimensions often has *a decisive influence on the assessment of a competition case. [...]*

10. The concept of relevant market is closely related to the objectives pursued under Community competition policy. For example, under the Community's merger control, the objective in controlling structural changes in the supply of a product/service is to prevent the creation or reinforcement of a dominant position as a result of which effective competition would be significantly impeded in a substantial part of the common market. *Under the Community's competition rules, a dominant position is such that a firm or group of firms would be in a position to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers. Such a position would usually arise when a firm or group of firms accounted for a large share of the supply*

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<sup>339</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129, 137. See also Robert G. Harris / Thomas M. Jorde, *Antitrust Market Definition: An Integrated Approach*, (1984) 72 *California Law Review* 1, 4 *et seq.*; Office of Fair Trading, *The role of market definition in monopoly and dominance inquiries*, para. 2.4; see also Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, 3-001: “The economic concept of market power [...] lies at the centre of the economic assessment of competition policy issues. This is true whether the investigation is made under Article 81, Article 82, or the Merger Guidelines, and whether the investigation is in Europe or in North America.”.



*in any given market, provided that other factors analysed in the assessment (such as entry barriers, customers' capacity to react, etc.) point in the same direction.*

11. The same approach is followed by the Commission in its application of Article 86 of the Treaty [now Article 102 TFEU] to firms that enjoy a single or collective dominant position. Within the meaning of Regulation No 17, the Commission has the power to investigate and bring to an end abuses of such a dominant position, which must also be defined by reference to the relevant market. [...]”<sup>340</sup>

This passage from the Commission's *Notice on the definition of relevant market for the purposes of Community competition law* would appear to reinforce the importance of the concept of 'the market' as the main component of the legal assessment of an alleged competitive injury in the European Union because, according to the above, without a clearly defined 'market', a violation of EU competition law neither will nor can be established.<sup>341</sup> Moreover, given that 'the market' is essentially an economic concept (which means that the establishment of 'market power' is necessarily informed by theories about the economic and political function of 'the market'),<sup>342</sup> this *Notice* might also be understood as reinforcing the importance of economic theory for the *legal* assessment of an alleged violation of competition law. Indeed, the procedure of how to define 'the (relevant) market' for the purpose of EU competition law as contained in the *Notice* (and in it especially paragraphs 15 to 19) seems to largely correspond with what might be considered 'the common approach' to defining 'the market' as applied in neoclassical economic theory:

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<sup>340</sup> European Commission, Commission Notice on the definition of relevant market for the purposes of Community competition law, Official Journal 1997 C372, 09/12/1997 [footnotes omitted, emphasis added].

<sup>341</sup> See Office of Fair Trading, *The role of market definition in monopoly and dominance inquiries*, para. 2.5; Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 4-001.

<sup>342</sup> Lawrence A. Sullivan / Wolfgang Fikentscher, *On the Growth of the Antitrust Idea*, (1998) 16 *Berkeley Journal of International Law* 197.

“[t]he ‘relevant market’ [is the market which] encompasses all products which buyers consider to be ‘good substitutes’ (products among which they readily shift in response to variations in the product’s relative prices), as well as all of the geographic areas among which buyers are readily able to shift their purchases. In theory, the measure for determining this product and geographic substitutability is the “cross-price elasticity of demand,” defined as the percentage change in the quantity of one product demanded in response to a given percentage change in the price of related products. Where the cross-price elasticity of demand is high, buyers readily shift their purchases among the products in response to changes in their relative prices. The products and regions are good substitutes and, therefore, are considered to be in the same relevant market.”<sup>343</sup>

As mentioned above, there is nothing wrong *in general* with the use of an economic concept such as ‘the market’ in competition law analysis because such deployment might assist the *legal* assessment of a potential anti-competitive injury. This contention however both presupposes and implies that *economic* concepts are not be elevated beyond their status as aids in an essentially legal evaluation as “competition law is not simply applied economics”,<sup>344</sup> i.e. that they are not be used as a shorthand for the actual legal assessment of an alleged violation of competition law. For example, with regard to the use of the aforementioned economic concept of ‘the market’, it should be remembered, on the one hand, that the fact that an undertaking enjoys a huge market share is neither an irrebuttable proof of dominance nor, indeed (as further discussed in Chapter 4), of an

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<sup>343</sup> Walter Adams / James W. Brock, *Antitrust, Ideology, and the Arabesques of Economic Theory*, (1995) 66 *University of Colorado Law Review* 257, 312; see also William G. Shepherd, *Public Policies Toward Business*, 154 *et seq.*; Luc Peeperkorn / Vincent Verouden, *The Economics of Competition*, in: Jonathan Faull / Ali Nikpay (eds.), *The EC Law of Competition*, paras. 1.130-1.163.

<sup>344</sup> Roger Van den Bergh, *The ‘More Economic Approach’ and the Pluralist Tradition of European Competition Law*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27, 33.

abuse of such a position;<sup>345</sup> and on the other hand, that the process of defining ‘the’ market for competition law purposes is nothing but an (intellectual) “way of organizing the facts that one [i.e. regulators and / or counsel] will have to take into account.”<sup>346</sup> Yet it would seem that this primary purpose is increasingly forgotten as the establishment of market boundaries has become “the substantively important decision in any attempt to identify pockets of market power” because “the fact of finding high market shares is sometimes taken to be tantamount to uncovering the existence of market power”,<sup>347</sup> i.e. the establishment of ‘the market’ has become “an end in itself – the principal, indeed sometimes almost the only, matter to be analyzed.”<sup>348</sup> Such a development suggests a dependence and (over-)reliance on an economic concept which (at least with regard to a bright-line test for competition law analysis based upon ‘the market’) might be considered problematic for several reasons: first, regarding the reliance on the market concept, the use of the market share

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<sup>345</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129, 137. He continues to state that “[m]onopoly power is the power profitably to raise prices above (or reduce quality below) the competitive level for a significant period of time. In other words, it is the power to raise prices above (or reduce quality below) the competitive level for a significant period of time without having business bid away by competitors, including new entrants. Market share is, at best, a very rough indicator of this. A small market share suggests that competitors would not have to do much to bid away business; a large market share suggests the opposite. Yet neither suggestion need be true, even in a properly defined market. A small share can be consistent with power if there are reasons that competitors cannot expand; more important, a large share can simply represent greater efficiency or product quality on the part of the alleged monopolist.”. See also Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, paras. 3-012 - 3-015 and 4-003.

<sup>346</sup> Franklin M. Fisher / Daniel L Rubinfeld, *U.S. v. Microsoft – an economic analysis*, (2001) 46 *Antitrust Bulletin* 1, 8; see also P. A. Geroski, *Thinking creatively about markets*, (1998) 16 *International Journal of Industrial Organization* 677, 678.

<sup>347</sup> Paul Geroski / Rachel Griffith, *Identifying Anti-Trust Markets*, *The Institute for Fiscal Studies*, WP03/01, 3.

<sup>348</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129, 130.

as the “standard” for competition law analysis might be considered ill-advised because such an approach “assumes that market definition can be easily and unambiguously performed.”<sup>349</sup> Second, another problem might be seen in the fact that “a screening test based on market power assumes that economic effects – and only economic effects – count”<sup>350</sup> because an approach to competition law analysis which focuses on the neoclassically defined ‘market’ can be said to disregard potentially important factors which are outside the neoclassical economics ‘box’.<sup>351</sup>

### III.1.2.1. ‘Market Definition’ as an Unambiguous Process?

With regard to the question of the reliance on the concept of ‘the market’, it might be said that such unambiguity of ‘the market’ does not necessarily exist because the arrival at ‘*the*’ market in a particular case is very much a question of how this definition process is approached.<sup>352</sup> Rather, one might consider the process of market definition quite a malleable – and maybe even biddable – concept because, even if the boundaries of a particular

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<sup>349</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129, 138.

<sup>350</sup> Robert Pitofsky, *Antitrust in the Next 100 Years*, (1987) 75 *California Law Review* 817, 826.

<sup>351</sup> See Maurice E. Stucke, *Does the Rule of Reason Violate the Rule of Law?*, (2009) 42 *University of California Davis Law Review* 1375, 1426-1427.

<sup>352</sup> See Maurice E. Stucke, *Does the Rule of Reason Violate the Rule of Law?*, (2009) 42 *University of California Davis Law Review* 1375, 1425, who points out that “[m]arket power and liability [...] hinge on how broadly the fact-finder defines the relevant antitrust market.”. Pitofsky has voiced similar concerns: “[...] the measurement of market power, which requires the definition of relevant product and geographic markets, is the most elusive and unreliable aspect of antitrust enforcement. A defense based on the absence of market power is only as valid and reliable as the measurement process itself. While techniques for measuring market power are probably more reliable and more sophisticated than they have been in previous years, one should nevertheless be cautious about adopting market power as a screening device that will dominate all aspects of antitrust enforcement.”, Robert Pitofsky, *Antitrust in the Next 100 Years*, (1987) 75 *California Law Review* 817, 825. – Furthermore, the measure of ‘market share’ is not conclusive evidence for the existence of market power; see e.g. Office of Fair Trading, *The role of market definition in monopoly and dominance inquiries*, paras. 2.8 – 2.9.

'market' have been 'firmly' established, this 'market' can still be made to appear bigger or smaller so as to "bloat" or "shrink" the respective market shares of the scrutinised undertaking.<sup>353</sup> With regard to the legal assessment of an alleged competitive injury, such ambiguity might have serious consequences:

"[a] difficulty with market definition is that in the end you have to define the market, obviously, and where you have some rather close questions and the court says, 'Okay, we are going to stop here and we are not going to include anything past that,' even though the conclusion is not at all clear, then you arrive at a market and get a huge market share. And that market looks a lot more impressive than it really is from an economic standpoint when you realize that you have excluded from the market some rather significant competitive checks."<sup>354</sup>

This problem is e.g. demonstrated by what has become known as the *Cellophane Fallacy*,<sup>355</sup> i.e. the fact that the market definition may include

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<sup>353</sup> Frederick M. Rowe, *Market as Mirage*, (1987) 75 *California Law Review* 991, 992. Among other examples, Rowe refers to the US Supreme Court's decisions in *DuPont and Grinnell*: "DuPont escaped breakup by convincing the Court that it held not a monopolistic seventy-five percent of the cellophane market, but only a modest twenty percent of the market for 'flexible packaging materials' comprising other 'reasonably interchangeable' products. But in *Grinnell*, the Court broke up the obscure Grinnell companies, holding that they monopolized eighty-seven percent of the market of 'accredited central station protective services' as distinct from other home or industrial alarms." - The question of 'the market' is also fiercely contested in the European Union, see e.g. European Court of Justice, *Hilti AG v Commission of the European Communities*, 2 March 1994, case C-53/92 P; European Court of Justice, *Hugin Kassaregister AB and Hugin Cash Registers Ltd v Commission of the European Communities*, 31 May 1979, case 22/78.

<sup>354</sup> Donald F. Turner, *The Role of the "Market Concept" in Antitrust Law*, (1980) 49 *Antitrust Law Journal* 1145, 1147.

<sup>355</sup> As explained by Arezzo, "[t]he Cellophane fallacy is named after the American case *United States v E.I. du Pont de Nemours & Co.* 351 U.S. 377 (1956) where the Supreme Court wrongly defined the relevant market measuring cross-elasticity of demand from the monopolistic price set by du Pont. Indeed, the Court did not realize that because du Pont was already exercising its market power, the price the Court took into account to measure cross-elasticity of demand was not the competitive price. Clearly, the higher the benchmark price, the greater will be the degree of cross-elasticity of demand: this, in turn, will lead to a broader market definition and, consequently, will lessen the chances that the firm will be found dominant.", see Emanuela Arezzo, *Is there a Role for Market Definition and Dominance in an effects-*

false substitutes if the focus is placed on the question of price alone.<sup>356</sup> Accordingly, it would appear that the adoption / transfer of economic content does not necessarily offer “a comprehensive process for defining markets.”<sup>357</sup> Furthermore, it might be said that the (unreflected) transfer of economic theory into the process of defining ‘the market’ has led to competition analysis’ being faced with a number of “vexing problems”:<sup>358</sup>

“[f]irst, economic theory does not specify how closely substitutable the products and regions must be in order to constitute good substitutes. Second, economic theory fails to specify precisely how high the cross-price elasticity of demand must be in order to justify placing products and geographic regions in the same relevant market. Third, economic theory cannot indicate precisely where the boundaries between relevant markets lie – where one relevant market ends, and another begins. Finally, economic theory does not indicate precisely how many buyers must behave as if the products in question are sufficiently good substitutes to justify classifying them in the same relevant market: Must every buyer behave as if the products are in the same market? Must ‘most’ buyers? Or must a numerical majority of buyers?”<sup>359</sup>

These problems also appear to exist in relation to the Commission’s *Notice on the definition of relevant market for the purposes of Community competition*

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based Approach?, in: Mark-Oliver Mackenrodt / Beatriz Conde Gallego / Stefan Enchelmaier (eds.), *Abuse of dominant position: new interpretation, new enforcement mechanisms?*, 21, 26. See also on this problem Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, paras. 4-017 - 4-022; Alison Jones / Brenda Sufrin, *EU Competition Law*, 72-74.

<sup>356</sup> Joanna Goyder / Albertina Albors-Llorens, *Goyder’s EC Competition Law*, 309 *et seq.*

<sup>357</sup> Robert G. Harris, Thomas M. Jorde, *Antitrust Market Definition: An Integrated Approach*, (1984) 72 *California Law Review* 1, 5, quoting Stigler, *The Economists and the Problem of Monopoly*, (1982) 72 *American Economic Review* 1, 19: “Except for casual flirtation with cross elasticities of demand and supply, the determination of markets has remained an undeveloped area of economic research at either the theoretical or empirical level.”

<sup>358</sup> Walter Adams / James W. Brock, *Antitrust, Ideology, and the Arabesques of Economic Theory*, (1995) 66 *University of Colorado Law Review* 257, 312.

<sup>359</sup> Walter Adams / James W. Brock, *Antitrust, Ideology, and the Arabesques of Economic Theory*, (1995) 66 *University of Colorado Law Review* 257, 312 *et seq.*

*law*:<sup>360</sup> as further discussed in the remainder of this section, the fact that the Commission tends “in practice”<sup>361</sup> to mainly focus on the question of demand substitutability “in the short term”<sup>362</sup> does not persuasively invite the conclusion that the Commission’s approach offers a comprehensive and unambiguous process for defining markets. In addition, such a focus on short-term demand side substitutability might prove to be especially problematic with regard to the software industry as this approach

“fails to recognise that product innovation is the key in new economy industries: the main competitive constraint faced by producers of existing goods and services comes from new, superior products, whose time of introduction is, however, uncertain.”<sup>363</sup>

Consequently, it is submitted that the continuing reliance on the simplistic market concept in EU competition policy as expressed by the Commission’s more economic approach may – as substantiated in Chapter 4 – not only leads to potentially questionable results but also to the formation of an inconsistent decisional practice and hence an incoherent competition policy.<sup>364</sup>

### **III.1.2.2. Divorce of Policy from Reality?**

With regard to the concerns relating to the potential exclusion of non-economic effects in the competitive assessment by means of (over-) emphasising the issue of market power (as mentioned in section II.1.2. of

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<sup>360</sup> European Commission, Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law, Official Journal 1997 C372, 09/12/1997.

<sup>361</sup> Christian Ahlborn / David Evans / Atilano Jorge Padilla, Competition Policy in the New Economy: Is European Competition Law up to the Challenge?, (2001) European Competition Law Review 156, 161.

<sup>362</sup> European Commission, Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law, Official Journal 1997 C372, 09/12/1997, para. 16.

<sup>363</sup> Christian Ahlborn / David Evans / Atilano Jorge Padilla, Competition Policy in the New Economy: Is European Competition Law up to the Challenge?, (2001) European Competition Law Review 156, 161.

<sup>364</sup> See also Alison Jones / Brenda Sufrin, EU Competition Law, 65.

this Chapter above), it may be said that such omission might, in turn, lead to the “divorce of policy from reality”<sup>365</sup> as such an approach is likely to reinforce the unrealistic assumptions underlying a neoclassically conceptualised static market. For example, the reliance on a static market concept might be considered as having given rise to the “near universal acceptance” of a static definition of market power which “equates” market power with the (inelastic) power to raise or maintain prices above the competitive price level.<sup>366</sup> This static notion of market power has found its way into the Commission’s more economic approach:

“[t]he Commission considers that an undertaking which is capable of profitably increasing prices above the competitive level for a significant period of time does not face sufficiently effective competitive constraints and can thus generally be regarded as dominant. In this Communication, the expression “increase prices” includes the power to maintain prices above the competitive level and is used as shorthand for the various ways in which the parameters of competition — such as prices, output, innovation, the variety or quality of goods or services — can be influenced to the advantage of the dominant undertaking and to the detriment of consumers.”<sup>367</sup>

In other words, the Commission’s take on market definition appears to be based upon neoclassical price-theory; this, in turn, means that competition analysis under the more economic approach is build upon

“simplistic, and often inaccurate, assumptions about the world [which imply] that all buyers and sellers maximize utility (or profits), that information and other transaction costs of exchange are

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<sup>365</sup> John J. Flynn, *Antitrust Policy and the Concept of a Competitive Process*, (1990) 35 *New York Law School Law Review* 893; see also Robert G. Harris, Thomas M. Jorde, *Antitrust Market Definition: An Integrated Approach*, (1984) 72 *California Law Review* 1, 7 *et seq.*

<sup>366</sup> Lawrence A. Sullivan / Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 30 *et seq.*; see also Alison Jones / Brenda Sufrin, *EU Competition Law*, 61.

<sup>367</sup> European Commission, *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*, Official Journal 2009 C045, 24/02/2009, para. 10 [footnotes omitted].



inconsequential [...], and that all markets are auction markets, in which the identity of buyers and sellers does not matter to either party”.<sup>368</sup>

Yet, as mentioned before, such conditions do rarely (if at all) exist in the real world. Furthermore, as pointed out by Allendesalazar *et al.* in the context of the Commission’s *Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law*,

“[o]f course, this [i.e. the neoclassical approach to market definition] begs the question of what *is* the competitive price level? And how can it be determined? These questions are hard if not impossible to answer.”<sup>369</sup>

Consequently, it is submitted here – and further discussed in Chapter 4 – that the Commission’s apparent acceptance of a static understanding of both the market concept itself and the related notion of market power is unlikely to result in a coherent competition policy for the software industry as the adoption of such static concepts might be regarded as the harbinger of an inadvisable divorce between EU competition policy and economic reality. For example, it appears questionable if the Commission is, with regard to both its expertise in a particular industry sector and the availability of the necessary information to make such a calculation, in the best (or at least in a *well qualified*) position to determine the competitive price.<sup>370</sup> This problem is likely to be intensified “in the absence of close

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<sup>368</sup> Robert G. Harris, Thomas M. Jorde, *Antitrust Market Definition: An Integrated Approach*, (1984) 72 *California Law Review* 1, 5 *et seq.*. Admittedly, Harris and Jorde did not make this statement in relation to the Commission’s more economic approach but rather with regard to neoclassical economic analysis in general; however, this thesis submits that, given the apparent neoclassical orientation of the more economic approach, it is equally applicable to the Commission’s reform efforts.

<sup>369</sup> Rafael Allendesalazar / Paloma Martínez-Lage / Roberto Vallina, *Oligopolies, Conscious Parallelism and Concertation*, in: Claus-Dieter Ehlermann / Isabela Atanasiu (eds.), *European Competition Law Annual 2006: Enforcement of Prohibition of Cartels*, 119, 122, footnote 13.

<sup>370</sup> Jung makes a similar point with regard to an undertaking’s marginal costs, see Christian Jung, *Marktmachtkonzept*, in: Martin Nettesheim (ed.), *Grabitz / Hilf - Das Recht der Europäischen Union, EGV Artikel 82*, para.26.

competitors” as this will make it “often impossible to tell what the competitive price would have been.”<sup>371</sup> This lack of accurate information might also be considered to be of particular importance in relation to the software industry: first, the question of the competitive price is “always likely to be a problem in relation to products introduced into the ‘new’ economy” because, in addition to the possible disparities between different sectors as to which and how much information is ‘readily’ available, the application of the so-called SSNIP test (i.e. the ‘Small but Significant Non-transitory Increase in Price’ test as outlined in the *Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law*<sup>372</sup>) might not be possible “at all” as the product for which ‘the market’ has to be defined has yet to enter the said ‘market’.<sup>373</sup> Second, as discussed in Chapter 5, the particular characteristics of software – and here especially the complexity of technology involved and its intangibility – may make it even more difficult to collect relevant and accurate price data. Consequently, it might be said that in “a rapidly changing economy, economic theory is often a step or two behind the wave.”<sup>374</sup> Moreover, the static market concept, when applied to a highly globalised and innovation based sector, such as the software industry, which is characterised by factors not featuring in neoclassical economic analysis, might be seen as even more lacking in explanatory power than in a less dynamic environment:

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<sup>371</sup> Valentine Korah, *An Introductory Guide to EC Competition Law and Practice*, 116.

<sup>372</sup> European Commission, *Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law*, Official Journal 1997 C372, 09/12/1997, para. 14. The SSNIP test is explained and further discussed in Chapter 4 below.

<sup>373</sup> Richard Whish, *Competition Law*, 34.

<sup>374</sup> Lawrence A. Sullivan / Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 20.

“[f]or example, as the information-based economy advances, many markets are becoming clusters of interconnected units. The power of computer chips doubles every eighteen months, the value of networks increases exponentially with increases in the number of users, and the need for compatibility of communication devices and input and output devices evokes a need for industrywide standards. If standards are proprietary, they can yield power that can be leveraged, perhaps throughout large segments of interrelated markets. Economists are only beginning to fully understand the resulting “network externalities,” and both the antitrust and intellectual property laws have yet to fully integrate either the new market realities or the emerging economic insights. Also, while economists have for decades been explaining the size and vertical links of firms in terms of maximizing scale economies and minimizing transaction costs, they have scarcely begun to think about whether, in an economy in which all players at every vertical level can be in instant communication, cost minimization can be achieved by further horizontal and vertical disaggregation, rather than through horizontal and vertical mergers.”<sup>375</sup>

As addressed in more detail in Chapter 6, the fact that the incorporation of ‘unchartered’ new economic insights might be difficult does not mean that such incorporation should not be attempted at all, in particular, if the non-consideration of new insights will reinforce the static economic theory and thereby exacerbate the aforementioned potential gap between regulatory policy and economic reality. Rather, this evaluation suggests the need for further research not only into “innovation processes in competition itself but also [into] how appropriate tests for competition law practice can be designed.”<sup>376</sup>

In addition, the use of the market share standard as the basis for the competitive assessment might be seen as potentially having “perverse effects on firms that are approaching the crucial share as a result of

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<sup>375</sup> Lawrence A. Sullivan / Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 20.

<sup>376</sup> Wolfgang Kerber, *Competition, Innovation, and Maintaining Diversity through Competition Law*, 24.

competing on the merits.”<sup>377</sup> In other words, instead of fostering the process of competition and innovation, the result achieved by a competition policy which over-emphasises the importance of a static economic concept such as ‘the market’ might be the exact opposite of what the European Treaties have set out as the goals of the European Union,<sup>378</sup> in particular the achievement of a “balanced economic growth”, “a highly competitive social market economy” and the promotion of “scientific and technological advance”.<sup>379</sup> This is because it is highly questionable whether an undertaking would willingly shoulder the great efforts and prospective high costs involved in, and potentially needed for, the development of new products if such development efforts (given the undertaking’s potentially high market share in any such ‘new’ product market) are likely to trigger an investigation for competition law violation by the European Commission, irrespective of the said undertaking’s actual behaviour. This ‘danger’ for undertakings operating in the European Union can only be heightened by the fact that the Commission enjoys “considerable discretion in selecting” the relevant market.<sup>380</sup> Recent Commission decisions would appear to support this impression: for example, the Commission’s decision in *Microsoft*<sup>381</sup> creates the impression that Microsoft, in relation to both the questions of distributing their

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<sup>377</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129, 138. See also James Killick / Assimakis Komninos, *Schizophrenia in the Commission’s Article 82 Guidance Paper: Formalism Alongside Increased Recourse to Economic Analysis*, (2009) *Global Competition Policy* 1, 9 [who voice similar concerns]; Damien Geradin, *Is the Guidance Paper on the Commission’s Enforcement Priorities in Enforcing Article 102 TFEU Useful?*, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 46, 58.

<sup>378</sup> See the discussion in Chapter 1.

<sup>379</sup> Article 3 (3) TEU.

<sup>380</sup> Valentine Korah, *An Introductory Guide to EC Competition Law and Practice*, 130.

<sup>381</sup> European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 *Microsoft*.

browser or media player together with their operating systems as well as the question of the alleged refusal to supply information relating to its group server operating system software, would have been investigated pretty much regardless of their actual conduct.<sup>382</sup> Whilst it is acknowledged that the Commission's evaluation in *Microsoft* was at least partially influenced by case law,<sup>383</sup> and also that the decision ostensibly took some less 'neoclassical textbook economics' based aspects into account,<sup>384</sup> it is submitted that this decision might be considered almost a 'one-off' as subsequent Commission decisions in the high technology sector (such as *Intel*<sup>385</sup>) would appear to be characterised more by static, rather than dynamic, economic theory.<sup>386</sup> As discussed in greater detail in

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<sup>382</sup> European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 *Microsoft*, see in particular paras. 429 *et seq.*, 542 *et seq.*, 779 *et seq.* and 978 *et seq.*

<sup>383</sup> See e.g. European Court of Justice, Judgment of 9 November 1983, *NV Nederlandsche Banden Industrie Michelin v Commission of the European Communities*, case 322/81, at para. 57: "A finding that an undertaking has a dominant position is not in itself a recrimination but simply means that, irrespective of the reasons for which it has such a dominant position, the undertaking concerned has a special responsibility not to allow its conduct to impair genuine undistorted competition in the common market. "; European Court of Justice, Judgment of 13 February 1979, case 85/76, *Hoffmann-La Roche v Commission of the European Communities*, at para. 91: "The concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition."

<sup>384</sup> See the Commission's arguably more dynamically orientated evaluation of the question if *Microsoft* could be considered dominant in accordance with Article 102 TFEU in section 5.2, European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 *Microsoft*.

<sup>385</sup> European Commission, Commission Decision relating to a proceeding under Article 82 of the EC Treaty and Article 54 of the EEA Agreement, 13 May 2009, COMP/C-3/37.990 – *Intel*, see in particular section 3 "Dominance".

<sup>386</sup> In this context, it might be interesting to note that, at para. 916 of its decision in *Intel*, the Commission states that, although not applicable in the investigation at hand, "[t]he Commission [...] takes the view that this Decision is in line with the

Chapter 4, the adverse impact of this tendency on the question of legal certainty is not to be taken lightly.

### **III.1.3. The Usefulness of (Economic) Conceptualisation**

In view of the above discussion, it would appear that the answer to the question of the usefulness of economic conceptualisation, as featured in the Commission's current approach to competition law, is tending to be more in the negative than in the positive: as discussed in Section III.1. of this Chapter, while the tendency to use economic concepts allows the regulators to reach seemingly precise conclusions by means of mathematisation, this 'gain' comes at the price of the increased danger of separating competition policy from economic reality. In fact, one might even ask whether, rather than leading to a meaningful solution, such procedure does not achieve the exact opposite, i.e. instead of giving substance to concepts such as 'competition', such an approach could be accused of depriving the said concept of much needed normative content. In the context of competition law, a concept's ability to convey normativity is important because of the legislator's 'wish' and need to regulate conduct – how is a regulator or an undertaking to know what is, and what is not, permissible conduct under the respective competition law rules if the rules in question are essentially reduced to economic concepts which do not, and cannot, carry any normative meaning?

In this respect, the above-discussed model of perfect competition might serve as a case in point as this economic model is nothing but an abstract concept and therefore little more than an 'empty shell'.<sup>387</sup> Indeed, the theory underlying this particular model might even be accused of

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orientations set out in the guidance paper." As discussed in Chapter 4, this Guidance Paper is characterised by static economic considerations.

<sup>387</sup> Barry J. Rodger / Angus MacCulloch, *Competition Law and Policy in the EC and UK*, 9.

“hollowness”.<sup>388</sup> Moreover, given that the application of price theory as per the perfect competition model, is likely to result in basing the concept of competition as applied in competition law analysis on the assumption of how ‘the market’ “ought to function” rather than the question of “actual market competitiveness” (i.e. how it *actually* functions),<sup>389</sup> it might be argued that the transfer of such neoclassically defined economic concepts into the process of legal competitive assessment reinforces both the abstraction from a real world scenario and the problems associated therewith. Furthermore, from the legal perspective, an almost unreflected transfer of such economic concepts into the legal context can rarely be considered helpful as “what one sees by relying exclusively on the neoclassical model is the artificial light of the model, not the reality it is intended to illuminate.”<sup>390</sup> Accordingly, although ‘perfect competition’ is a theoretical model which might be of some use “in gaining an understanding of resource allocation and efficiency”, the above discussion has attempted to show that it is of little practical value for the purpose of *actual* competition law analysis as it neglects other factors which are outside the immediate supply and demand equation but which may be vital for both reality and antitrust analysis.<sup>391</sup> Such partial ‘illumination’ is likely to have an adverse impact on the way competition analysis is conducted by negatively affecting its outcome:

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<sup>388</sup> John J. Flynn / James F. Ponsoldt, *Legal Reasoning and the Jurisprudence of Vertical Restraints: The Limitations of Neoclassical Economic Analysis in the Resolution of Antitrust Disputes*, (1987) 62 *New York University Law Review* 1125, 1131.

<sup>389</sup> E. Thomas Sullivan, *On Nonprice Competition: An Economic and Marketing Analysis*, (1983-1984) 45 *University of Pittsburgh Law Review* 771, 774 *et seq.* [original emphasis].

<sup>390</sup> John J. Flynn / James F. Ponsoldt, *Legal Reasoning and the Jurisprudence of Vertical Restraints: The Limitations of Neoclassical Economic Analysis in the Resolution of Antitrust Disputes*, (1987) 62 *New York University Law Review* 1125, 1139.

<sup>391</sup> Donghyun Park, *The Meaning of Competition: A Graphical Exposition*, (1998) 29 *The Journal of Economic Education* 347.

“[t]he legal policymaker who carries only welfare economics [in this context, welfare is identified with efficiency] in his bag of tools is a little like the doctor who has only a stethoscope. He may be able to diagnose part of the problem, but he may not get all of it. In any event, he will be unable to do much about it except tell the patient that the condition will probably take care of itself.”<sup>392</sup>

Consequently, it appears not only questionable if, from the perspective of (EU) competition law, ‘anything’ can be won with an approach to competition law which uses the model of perfect competition as its point of departure but also how useful (economic) conceptualisation is for the legal evaluation of an alleged violation of (EU) competition law. This conclusion is further substantiated in Chapter 4.

### **III.2. The Issue of Economic Efficiency**

The second issue to be addressed in the context of ‘the usefulness of economic theory for competition analysis’ is that of economic efficiency: as alluded to above, neoclassical economic models such as monopoly and perfect competition are “essentially static”<sup>393</sup> in character as they neither capture, nor are they able to capture, changes in the number of firms, in the number of consumers in the market, in the use of technology or in the range and number of available commodities.<sup>394</sup> In essence, this inaptitude

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<sup>392</sup> Herbert Hovenkamp, *Positivism in Law & Economics*, (1990) 78 *California Law Review* 815, 851. This quote very much mirrors an evaluation by Keynes that “[e]conomists set themselves too easy, too useless a task if in tempestuous seasons they can only tell us that when the storm is long past the ocean is flat again.”, John Maynard Keynes, *A Tract on Monetary Reform*, 80. – At this point, it might be also worth mentioning that “[e]conomists have traditionally focused on social welfare” and that economists “do not make a value judgement between consumers and producers and so treat €1 of gain to either group of being of equal importance.”, see Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-017.

<sup>393</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-036.

<sup>394</sup> See Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 16 [emphasis placed on the model of perfect competition]; Adrian Künzler, *Effizienz oder Wettbewerbsfreiheit*, 38 [emphasis placed on the model of perfect competition];



means that, with regard to the question of economic efficiency, these models only allow for the assessment of static efficiency considerations such as allocative and productive efficiency.<sup>395</sup> For example, as Schwalbe and Zimmer have pointed out with regard to the model of perfect competition,

“consumer and firm behaviour is analysed within a given framework, the focus being placed exclusively on equilibrium. The theory abstracts from time and thus from possible adaptation processes that may lead to an equilibrium. In other words, the model [of perfect competition] is static and non-temporal and it abstracts from dynamic aspects of any kind, such as market entry and exit, innovations, technological progress, or the development of new goods. This restriction is quite serious, in particular with regard to questions of dynamic efficiency, where such changes are of central importance.”<sup>396</sup>

This relative importance of such changes for the purpose of competition law analysis results from the fact that changes in the analytical framework are the central aspect of the issue of dynamic efficiency which – in contrast to the concepts of allocative and productive efficiency which are concerned with static scenarios – refers to the inherently dynamic question of “how well a market delivers innovation and technological progress.”<sup>397</sup> Accordingly it might be argued that, as the criterion of dynamic efficiency measures a firm’s “ability and [...] incentives to increase productivity and innovate, developing new products or reducing

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Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-036.

<sup>395</sup> Ulrich Schwalbe / Daniel Zimmer, *Law and Economics in European Merger Control*, 11-20; *idem*, *Kartellrecht und Ökonomie*, 12-25; see also Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, paras. 2-009 – 2-016.

<sup>396</sup> Ulrich Schwalbe / Daniel Zimmer, *Law and Economics in European Merger Control*, 14; *idem*, *Kartellrecht und Ökonomie*, 16.

<sup>397</sup> Alison Jones / Brenda Sufrin, *EU Competition Law*, 9; see also Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 16.

production costs which can yield greater benefits to consumers”,<sup>398</sup> the concept of dynamic efficiency encapsulates aspects which, if incorporated into the competition law assessment process, would appear to allow for a more reality based competition law analysis than any supposedly economic approach which actually focuses on static factors which do not exist in the real world. In other words, the inclusion of dynamic aspects of an industry / economy in the competitive assessment would seem to ensure that the assessment is more in line with the aforementioned reality of economic life as an adventure.<sup>399</sup> In addition, as the question of technological progress can be considered as being especially important in the context of the software industry where innovation takes centre stage,<sup>400</sup> it might be said that “ignoring the importance of innovation is an inappropriate way of approaching competition problems in the new economy”<sup>401</sup> which suggests that the omission of the issue of dynamic efficiency by the Commission’s more economic approach is unlikely to lead to the creation of either a more coherent competition policy for the software sector or, in view of the argumentation in section III.1. of this Chapter above, a more consistent decisional practice.

This conclusion is based on the following considerations: although it is acknowledged that the question of dynamic efficiency might not be easily

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<sup>398</sup> Giorio Monti, *EC Competition Law*, 45. See also Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 30; Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 10; Massimo Motta, *Competition Policy: Theory and Practice*, 55.

<sup>399</sup> Richard R. Nelson / Sidney G. Winter, *An Evolutionary Theory of Economic Change*, 370.

<sup>400</sup> Alison Jones / Brenda Sufrin, *EU Competition Law*, 16.

<sup>401</sup> Roger Van den Bergh, *The ‘More Economic Approach’ and the Pluralist Tradition of European Competition Law*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27, 34; see also Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-036.

incorporated into competition analysis,<sup>402</sup> and also that a potential trade-off ('Zielkonflikt') might exist between the concepts of productive and allocative efficiency and the concept of dynamic efficiency,<sup>403</sup> the focus on static efficiency considerations in the form of price and quantity might be seen as leading to an undue "focus on price competition between firms *given* current costs and current product offerings"<sup>404</sup> and therefore also to an incomplete competition analysis:

"in many dynamic competitive environments firms compete not only on prices, but also on innovation. This innovation can take the form of product innovation or cost innovation. For instance, firms can compete not by pricing a given product lower than their rivals, but by carrying out research and development and so being able to sell a product that no other firm supplies (for instance, because it is patented). Alternatively, firms may not take costs as given but may instead compete through cost innovations to be the lowest cost provider of a product. Furthermore, firms may react to the commercial actions of rivals by expanding capacity and / or introducing new products."<sup>405</sup>

Furthermore, the apparent disregard and / or neglect of dynamic efficiency considerations by the Commission's current economic approach to competition law might be seen as strengthening the argument that "a lot of economics is missing in the [Commission's] 'more economic

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<sup>402</sup> As Linge points out, this is because "dynamic benefits are hard to measure and to weigh against static efficiency considerations."; Gisela Linge, Competition Policy, Innovation, and Diversity, 9. See also Joseph F. Brodley, The economic goals of antitrust: Efficiency, consumer welfare and technological progress, (1987) 62 New York University Law Review 1020.

<sup>403</sup> For example, an efficient allocation might result in zero profits on part of a firm which might lead to said firm's inability to sufficiently invest into research and development which again results in dynamic inefficiency of the economic development; Ulrich Schwalbe / Daniel Zimmer, Kartellrecht und Ökonomie, 12. See also Roger J. Van den Bergh / Peter D. Camesasca, European Competition Law and Economics: A Comparative Perspective, 29-31; Gisela Linge, Competition Policy, Innovation, and Diversity, 19-22.

<sup>404</sup> Simon Bishop / Mike Walker, The Economics of EC Competition Law: Concepts, Application and Measurement, para. 2-036.

<sup>405</sup> Simon Bishop / Mike Walker, The Economics of EC Competition Law: Concepts, Application and Measurement, para. 2-036.

approach’.”<sup>406</sup> Put differently, if (as represented by the Commission) ‘economic efficiency’ is to be the guiding principle of competition policy and practice, then, surely, the applied notion of economic efficiency should be the most comprehensive, most inclusive and least selective notion of economic efficiency, i.e. one that incorporates not only the static aspects of allocative and productive efficiency but also the dynamic aspects of efficiency.

In this context, mention might e.g. be made of the introduction of the ‘Significant Impediment to Effective Competition’ criterion (the so-called ‘SIEC test’<sup>407</sup>) as the guiding principle in the evaluation of mergers. Although this example relates to the evaluation of the competitive impact of mergers rather than those of an alleged abuse of a dominant position under Article 102 TFEU, it is submitted that this neglect of dynamic efficiency considerations in the economic assessment of competition scenarios is inherent in the Commission’s more economic approach as similar might be said of the ‘Small-but-Significant-Non-transitory-Increase-in-Price’ test (the so-called SSNIP test) whose focus is also on price effects<sup>408</sup> and which the Commission applies in relation to mergers and Article 101 and 102 TFEU cases alike.<sup>409</sup> This submission is based on the consideration that, while the introduction of the SIEC test has

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<sup>406</sup> Roger Van den Bergh, *The ‘More Economic Approach’ and the Pluralist Tradition of European Competition Law*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27, 33.

<sup>407</sup> See European Commission, Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation) which states in Article 2(3) that a “concentration which would significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market.”.

<sup>408</sup> See e.g. Luc Peepers / Vincent Verouden, *The Economics of Competition*, in: Jonathan Faull / Ali Nikpay (eds.), *The EC Law of Competition*, paras. 1.143 – 1.148.

<sup>409</sup> European Commission, Commission Notice on the definition of relevant market for the purposes of Community competition law, Official Journal 1997 C372, 09/12/1997.

ostensibly led to the increased use of economic analysis in the evaluation of mergers and acquisitions, it has not substantially changed the fact that the economic analysis of mergers still seem to neglect the dynamic aspects of competition because the simulation models applied as parts of the SIEC test not only “mainly refer to short-term price effects” but are also incapable of reflecting “important non-price aspects of competitive processes”.<sup>410</sup>

To conclude, the above discussion of economic efficiency issues suggests that the apparent neglect of dynamic aspects and the apparent focus on static efficiency considerations by the Commission’s more economic approach is unlikely to foster either a consistent decisional practice or a coherent competition policy, especially when the investigated ‘market’ (e.g. the software industry) is characterised by dynamic properties. This suggestion is further developed in Chapter 4.

#### **IV. Conclusion**

This Chapter introduced and analysed some of the key concepts of economic theory featuring in the Commission’s more economic approach. In particular, this Chapter dealt with some points which are relevant to the argument that many of the pitfalls associated with the more economic approach for the software industry are connected with (or even hail from) the Commission’s reliance on a particularly static form of economic theory: first, this Chapter asked the question of what kind of economic theory the Commission is employing in its ‘more economic approach’ and concluded that the Commission’s more economic approach follows a welfare economics paradigm. Second, this Chapter introduced some basic

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<sup>410</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 53. See also Mike Walker, *The potential for significant inaccuracies in merger simulation models*, (2005) 1 *Journal of Competition Law and Economics* 473; Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 214.

economic terminology and concepts with the intention to facilitate the understanding of what this classification of the Commission's reform efforts means for its policy formation and also to enable the analysis of the Commission's understanding and use of economic theory in the subsequent Chapters. In doing so and by reference to Commission decisions such as *Microsoft*<sup>411</sup> and *Intel*,<sup>412</sup> it sought to substantiate the argument that the Commission's more economic approach does not lend itself easily to the creation of a coherent and consistent competition policy for the software industry because the Commission's approach lacks what might be called 'sufficient links to economic reality' as it is characterised by a reliance on static neoclassical economic theory. Furthermore, in evaluating the basic economic models which feature in the Commission's recent reform efforts as a welfare economics approach, this Chapter concluded that the Commission's approach might be accused of neglecting dynamic efficiency considerations and also of presenting a case of "'omitted' economics"<sup>413</sup> which might negatively impact upon its efforts to modernise and to improve the quality of competition assessment in the European Union. The specific implications of these points are addressed in the following Chapters.

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<sup>411</sup> European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 Microsoft.

<sup>412</sup> European Commission, Commission Decision relating to a proceeding under Article 82 of the EC Treaty and Article 54 of the EEA Agreement, 13 May 2009, COMP/C-3/37.990.

<sup>413</sup> Roger Van den Bergh, The 'More Economic Approach' and the Pluralist Tradition of European Competition Law, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27, 34.

## **Chapter 4 – Analysing the *Ökonomisierung*<sup>414</sup> of EU Competition Policy: Manifestation, Effects and Problems**

So far, Chapters 1 and 2 have identified the goals of EU competition policy as presented, on the one hand, by the European Treaties and, on the other hand, as presented by the Commission's more economic approach: whereas Chapter 1 concluded that the traditional goals of 'protection of undistorted competition' and 'internal market' still had to be considered the guiding principles of current EU competition policy, Chapter 2 delineated the Commission's reform efforts and deduced that the Commission's more economic approach was aimed at the replacement of the traditional objectives through the (economic) goal of consumer welfare. Chapter 3 duly followed this outline of the Commission's more economic approach with, first, an introduction to the basic economic concepts which underlie the Commission's reform efforts and, second, with an evaluation of those economic models which might be regarded as possessing a benchmark quality for the purpose of competition law analysis and policy. Furthermore, in outlining some concerns in relation to the usefulness of economic theory for (EU) competition policy, Chapter 3 prepared the ground for the more detailed analysis of the attempted *Ökonomisierung* of EU competition policy by means of the Commission's more economic approach.

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<sup>414</sup> The term *Ökonomisierung* refers to the process of making something to be exclusively founded on economic principles; see Ulrich Immenga, *Ökonomie und Recht in der europäischen Wettbewerbspolitik*, (2006) *Zeitschrift für Wettbewerbsrecht* 346, 358; see also Josef Drexler, *Die neuer Gruppenfreistellungsverordnung über Technologietransfer-Vereinbarungen im Spannungsfeld von Ökonomisierung und Rechtssicherheit*, (2004) *Gewerblicher Rechtsschutz und Urheberrecht – Internationaler Teil* 716; Arndt Christiansen, *Die „Ökonomisierung“ der EU-Fusionskontrolle: Mehr Kosten als Nutzen?*, (2005) *Wirtschaft und Wettbewerb* 285. This thesis adopts this term in relation to the Commission's more economic approach.

This more detailed analysis is undertaken in this and the following Chapter: whilst the latter focuses on some of the (economic) key characteristics of the software industry, the former addresses questions of more general importance for the hypothesis that the Commission's more economic approach does not foster the creation of coherent competition policy for the software industry. The points addressed in this Chapter concern, first, the ways in which the Commission's more economic approach manifests itself in relation to the overall goal of EU competition policy and in relation to the concept of competition and; second, the implications of the Commission's attempted *Ökonomisierung* for legal certainty and normativity in the area of EU competition law. In short, by discussing the effects and problems of the more economic approach, this Chapter questions the *general* suitability of the Commission's *Ökonomisierung* efforts to create coherent competition policy. In so doing, this Chapter lays the foundations for the discussion in Chapter 5 where it is submitted that certain *specific* characteristics of the software industry basically render the Commission's more economic approach unsuitable for the formation of coherent competition policy in this sector.

### **I. The Manifestation of the *Ökonomisierung* of EU Competition Policy**

As outlined before, this thesis argues that many of the pitfalls associated with the Commission's more economic approach regarding its ability to create coherent competition policy for the software industry can be traced back to the Commission's peculiar use and understanding of economic theory in relation to what some consider to be the 'usual' or 'normal' development of the said industry.<sup>415</sup> It is therefore necessary to further

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<sup>415</sup> See e.g. David S. Evans / Richard Schmalensee, *Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries*, esp. 18-28, NBER Working Paper 8268.



scrutinise the way in which economic theory as currently featuring in the Commission's more economic approach manifests itself before substantiating this submission with particular reference to the software industry in Chapter 5. Consequently, this section sets out to demonstrate that the Commission's recent attempts at the *Ökonomisierung* of EU competition policy are not in line with the traditional goals and in particular with the objective of the protection of undistorted competition, i.e. that the Commission's recent reform efforts as exemplified by its 'more economic approach' have to be considered incompatible with the *lex lata* of European competition law. In this respect, this section contends that the increased disregard of 'protection of undistorted competition' as a primary objective of competition law is likely to cause problems for the execution of competition law analysis in, and the formation of coherent competition policy for, the software industry. In doing so, this section sets out to substantiate the hypothesis that the shortcomings of the Commission's reform efforts are largely due to the fact that the Commission's more economic approach – as this thesis submits: unduly – emphasises the question of the (neoclassically defined) market and, consequently, suffers from being too static an approach to meaningfully reflect the dynamic nature of competition as a process. In particular, it is submitted here that this reading of the Commission's more economic approach in its present form becomes evident both in relation to the Commission's attempted introduction of consumer welfare as the overall goal of EU competition policy and in relation to the Commission's understanding of the concept of competition.

## I.1. Manifestation – Part 1: the Commission’s Approach to the Goal(s) of EU Competition Policy

The first point to be addressed in relation to the manifestation of the attempted *Ökonomisierung* of EU competition policy concerns the Commission’s approach to, and understanding of, the goal(s) of EU competition policy. One important document in this respect and with regard to this thesis’ thematic scope is the relatively recently issued *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*<sup>416</sup> [hereafter: *Guidance Paper*].

Originally<sup>417</sup> published on the Commission website on December 3, 2008, and on February 24, 2009, in the Official Journal,<sup>418</sup> the *Guidance Paper* might be regarded as “the culmination of many years of work by the Commission and the Member States’ competition authorities”.<sup>419</sup> As such, it may potentially be regarded as marking “the end”<sup>420</sup> of the review of Article 102 TFEU; a process which may be considered as having been started in 2005 with the publication of the staff *Discussion Paper on the application of Art. 82 to exclusionary abuses*<sup>421</sup> [hereafter: *Discussion Paper*].

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<sup>416</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, Official Journal 2009 C45, 24/02/2009.

<sup>417</sup> See Alison Jones / Brenda Sufrin, *EU Competition Law*, 276.

<sup>418</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, Official Journal 2009 C45, 24/02/2009. According to Jones / Sufrin, this was due to some minor amendments, see Alison Jones / Brenda Sufrin, *EU Competition Law*, 276.

<sup>419</sup> Martin Andreas Gravengaard / Niels Kjaersgaard, *The EU Commission guidance on exclusionary abuse of dominance - and its consequences in practice*, (2010) 31 *European Competition Law Review* 285.

<sup>420</sup> Liza Lovdahl Gormsen, *The European Commission's priority guidelines on Article 82 EC*, (2009) 14 *Communications Law* 83.

<sup>421</sup> European Commission, *Discussion Paper on the application of Art. 82 to exclusionary abuses*, December 2005; see also European Commission, *Competition:*

The publication of the *Discussion Paper* – which can be regarded as the reaction to increased criticism of the approach to the former Article 82 EC Treaty<sup>422</sup> – resulted in the reception of more than one hundred submissions and was followed by a public hearing in June 2006 and more public debate.<sup>423</sup> Irrespective of an evaluation if the *Guidance Paper* marks indeed the end of the review process of Article 102 TFEU, the *Guidance Paper* can – if nothing else – at least be regarded as one manifestation of the Commission’s more economic approach insofar that it “is intended to contribute to the process of introducing a more economics based approach in European competition law enforcement”.<sup>424</sup>

Although, in accordance with its title, only dealing with exclusionary, but not exploitative abuses under Article 102 TFEU, the *Guidance Paper* has been described as “a significant shift in approach away from a formalistic approach”<sup>425</sup> or at least as “a further push towards an effects-based approach”.<sup>426</sup> Such an evaluation corresponds with the Commission’s own view of the *Guidance Paper*: that it “sets out an economic and effects-based approach to exclusionary conduct under EC antitrust law” which the

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Commission publishes discussion paper on abuse of dominance (IP/05/1626), 19 December 2005.

<sup>422</sup> Meinrad Dreher / Michael Adam, Abuse of dominance under reform - sound economics and established case law, (2007) 28 European Competition Law Review 278.

<sup>423</sup> European Commission, Antitrust: consumer welfare at heart of Commission fight against abuses by dominant undertakings, 3 December 2008, IP/08/1877.

<sup>424</sup> European Commission, Antitrust: Guidance on Commission enforcement priorities in applying Article 82 to exclusionary conduct by dominant firms – frequently asked questions, 3 December 2008, MEMO/08/761.

<sup>425</sup> Martin Andreas Gravengaard / Niels Kjaersgaard, The EU Commission guidance on exclusionary abuse of dominance - and its consequences in practice, (2010) 31 European Competition Law Review 285; see also Philip Lowe, The European Commission Formulates its Enforcement Priorities as Regards Exclusionary Conduct by Dominant Undertakings, *Global Competition Policy* (February 2009), 3: “reflects a move away from a form-based approach to [Article 102 TFEU]”.

<sup>426</sup> James Kavanagh / Neil Marshall / Gunnar Niels, Reform of Article 82 EC – Can the Law and the Economics be Reconciled?, in: Ariel Ezrachi (ed.) *Article 82 EC: Reflections on its Recent Evolution*, 1, 2.

Commission considers “to be in line with our [i.e. the Commission’s] approach to restrictive business practices and merger control, and to recent individual cases of abuses of dominant position.”<sup>427</sup> In reality, this ‘mission statement’ translates into a relatively short document (it encompasses 90 paragraphs and, in the Official Journal, spans 14 pages); a fact which may have contributed to its somewhat mixed reception in the literature.<sup>428</sup>

By its own account, the *Guidance Paper* only contains an outline of “the enforcement priorities that will guide the Commission’s action in applying Article 82 [now Article 102 TFEU] to exclusionary conduct by dominant undertakings”<sup>429</sup> and “is not intended to constitute a statement of the law”.<sup>430</sup> Regardless of this qualification however the Commission views the *Guidance Paper* as the first “comprehensive guidance to stakeholders [...] as to how the Commission uses an effects-based approach to establish its enforcement priorities under Article 82 [now 102 TFEU] in relation to

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<sup>427</sup> European Commission, Antitrust: consumer welfare at heart of Commission fight against abuses by dominant undertakings, 3 December 2008, IP/08/1877.

<sup>428</sup> See e.g. James Kavanagh / Neil Marshall / Gunnar Niels, Reform of Article 82 EC – Can the Law and the Economics be Reconciled?, in: Ariel Ezrachi (ed.) Article 82 EC: Reflections on its Recent Evolution, 1; Derek Ridyard, The European Commission’s Article 82 Guidelines: Some Reflections on the Economic Issues, (2009) European Competition Law Review 230; Martin Andreas Gravengaard / Niels Kjaersgaard, The EU Commission guidance on exclusionary abuse of dominance - and its consequences in practice, (2010) 31 European Competition Law Review 285; Ariel Ezrachi, The Commission’s Guidance on Article 82 EC and the Effects Based Approach – Legal and Practical Challenges, in: Ariel Ezrachi (ed.) Article 82 EC: Reflections on its Recent Evolution, 51; Anne C. Witt, The Commission’s guidance paper on abusive exclusionary conduct - more radical than it appears?, (2010) 35 European Law Review 214; see also the discussion below in section II.2.2. of this Chapter.

<sup>429</sup> European Commission, Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 2.

<sup>430</sup> European Commission, Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 3

exclusionary conduct.”<sup>431</sup> As such, it contains an introduction and a section setting out the *Guidance Papers*’ purpose.<sup>432</sup> This is followed by a section explaining the Commission’s general approach to exclusionary conduct – with a focus on market power, foreclosure leading to consumer harm (‘anti-competitive foreclosure’), price-based exclusionary conduct and objective justifications.<sup>433</sup> The *Guidance Paper* concludes the outline of the Commission’s intended approach with a section detailing some specific forms of abuse: exclusive dealing, tying and bundling, predation, and refusal to deal and margin squeeze.<sup>434</sup> According to the Commission, the purpose of this outline is twofold: first, the *Guidance Paper*

“is intended to provide greater clarity and predictability as regards the general framework of analysis which the Commission employs in determining whether it should pursue cases concerning various forms of exclusionary conduct and to help undertakings better assess whether certain behaviour is likely to result in intervention by the Commission under Article 82.”<sup>435</sup>

Second, its intention is to set out “the Commission's determination to prioritise those cases where the exclusionary conduct of a dominant undertaking is liable to have harmful effects on consumers”,<sup>436</sup> i.e. that “the Commission will focus on those types of conduct that are most

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<sup>431</sup> European Commission, Antitrust: consumer welfare at heart of Commission fight against abuses by dominant undertakings, 3 December 2008, IP/08/1877.

<sup>432</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, paras. 1-8.

<sup>433</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, paras. 9-31.

<sup>434</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, paras. 32-90.

<sup>435</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 2.

<sup>436</sup> European Commission, Antitrust: consumer welfare at heart of Commission fight against abuses by dominant undertakings, 3 December 2008, IP/08/1877.

harmful to consumers.”<sup>437</sup> In short, the *Guidance Paper* seemingly affirms the above drawn conclusion that the Commission sees consumer welfare as the new and supposedly better overall goal of EU competition policy:

“[c]onsumers benefit from competition through lower prices, better quality and a wider choice of new or improved goods and services. The Commission, therefore, will direct its enforcement to ensuring that markets function properly and that consumers benefit from the efficiency and productivity which result from effective competition between undertakings.”<sup>438</sup>

Whilst it is acknowledged that this passage, at first glance, might not necessarily be regarded as presenting “a strong case for the assumption that the maximisation of consumer welfare is the exclusive objective of art.102 TFEU”,<sup>439</sup> it is argued here that, on closer examination, the *Guidance Paper* might nonetheless be taken as the affirmation of the Commission’s aim to establish consumer welfare – i.e. as the Commission understands this concept – as the overall objective of EU competition policy.<sup>440</sup> In this context, although the mentioning of consumers and businesses in the same

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<sup>437</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 5.

<sup>438</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 5.

<sup>439</sup> Anne C. Witt, The Commission's guidance paper on abusive exclusionary conduct - more radical than it appears?, (2010) 35 European Law Review 214, 219.

<sup>440</sup> This reading of the *Guidance Paper* would appear to be supported by the former Director-General Philip Lowe who stated that the *Guidance Paper* outlines that the “key to this analysis [i.e. an examination of potentially exclusionary conduct under Article 102 TFEU] is whether the dominant’s company’s behaviour is likely to restrict competition in such a way as to have harmful effects on consumers,” in other words, that the *Guidance Paper* makes it clear “that the trigger for enforcement action is likely harm to consumers.”, Philip Lowe, The European Commission Formulates its Enforcement Priorities as Regards Exclusionary Conduct by Dominant Undertakings, Global Competition Policy (February 2009), 3-4. See also Axel Gutermuth, Article 82 Guidance: A Closer Look at the Analytical Framework and the Paper’s Likely Impact on European Enforcement Practice, Global Competition Policy (February 2009), who observed that “[t]he focus on consumer harm is the cornerstone of the *Guidance Paper*.”, *ibid.*, 4.

breath as the intended beneficiaries of Article 102 TFEU enforcement<sup>441</sup> could be taken as an indication for the watering down of a consumer welfare standard,<sup>442</sup> it is suggested that the *Guidance Paper's* particular reference to, and use of, the concept of consumer welfare might rather be seen as the affirmation of the finding made in Chapter 2 that 'the consumer' as applied by the Commission is not confined to natural persons only but also includes businesses. Moreover, it is submitted that this apparent throwing together of businesses and consumers alike without further clarification as to the actual meaning of either term in the *Guidance Paper* is important insofar as, as further discussed in section II. of this Chapter, it suggests the existence of "an intellectual incoherence at the heart of the *Guidance Paper*"<sup>443</sup> which might have even worse consequences for the formation of coherent competition policy than the possibility of a 'mere' weakening of the Commission's apparent intention to align the enforcement of EU competition law with the consumer welfare objective as such incoherence (if found to exist) would make the creation of consistent and / or coherent competition policy highly unlikely or even impossible. In addition, whilst consumer welfare might not always be explicitly addressed by the *Guidance Paper*, 'the consumer' and his welfare might nonetheless be considered as providing the central theme of the *Guidance Paper*: for example, paragraphs 5, 6 and 7 of the *Guidance Paper*

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<sup>441</sup> See para. 1 of the *Guidance Paper*: "Article 82 is the legal basis for a crucial component of competition policy and its effective enforcement helps markets to work better *for the benefit of businesses and consumers.*" [emphasis added].

<sup>442</sup> See Anne C. Witt, *The Commission's guidance paper on abusive exclusionary conduct - more radical than it appears?*, (2010) 35 *European Law Review* 214, 218 – 220. Without prejudice to Witt's actual opinion whether this development might be a good or a bad thing, one cannot help the impression that Witt regards the *Guidance Paper* in effect as the weakening of the consumer welfare standard as the overall goal of EU competition policy.

<sup>443</sup> James Killick / Assimakis Komninou, *Schizophrenia in the Commission's Article 82 Guidance Paper: Formalism Alongside Increased Recourse to Economic Analysis*, *Global Competition Policy* (February 2009), 2.

appear to explicitly link the Commission's enforcement efforts with the aim of delivering benefits to 'the consumer' and thereby also seems to reinforce the Commission's ostensible aim to introduce consumer welfare as the overall objective of EU competition policy.<sup>444</sup> This theme continues throughout the *Guidance Paper* and the 'consumer welfare' aim seems to be further reinforced in paragraph 19 of the *Guidance Paper* which states that

"[t]he aim of the Commission's enforcement activity in relation to exclusionary conduct is to ensure that dominant undertakings do not impair effective competition by foreclosing their competitors in an anticompetitive way, thus having an adverse impact on consumer welfare, whether in the form of higher price levels than would have otherwise prevailed or in some other form such as limiting quality or reducing consumer choice. In this document the term "anticompetitive foreclosure" is used to describe a situation where effective access of actual or potential competitors to supplies or markets is hampered or eliminated as a result of the conduct of the dominant undertaking whereby the dominant undertaking is likely to be in a position to profitably increase prices to the detriment of consumers."<sup>445</sup>

Accordingly, this thesis submits that, despite the lack of an explicit and continued declaration that consumer welfare is the only enforcement standard that matters, the *Guidance Paper* can still be seen as the manifestation of the Commission's ongoing quest to install consumer welfare as the overall goal of EU competition policy and as its main enforcement criterion in the context of Article 102 TFEU. Furthermore, it is submitted that, as discussed in more detail in section I.2. of this Chapter,

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<sup>444</sup> Para. 5 states that "the Commission will focus on those types of conduct that are most harmful to consumers. Consumers benefit from competition through lower prices, better quality and a wider choice of new or improved goods and services. The Commission [...] will direct its enforcement to ensuring [...] that consumers benefit from the efficiency and productivity which result from effective competition between undertakings."; para. 6 refers to consumers in the context of 'competing on the merits' and para. 7 deals with the Commission's enforcement of Article 102 TFEU where "[c]onduct [...] is directly exploitative of consumers".

<sup>445</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, Official Journal 2009 C45, 24/02/2009, para. 19 [emphasis added].



the *Guidance Paper's* remarks in relation to the concept of consumer welfare can be regarded as another manifestation of the Commission's (over-)reliance on static economic theory. This is because, in contrast to the previously published *Discussion Paper* which did feature such a differentiation,<sup>446</sup> the *Guidance Paper* seems to adopt what might be considered "the accepted definition of consumer welfare, which does not distinguish between consumer welfare and allocative efficiency".<sup>447</sup> This would seem to substantiate the assertion made in Chapter 3 that, at least with regard to the application of Article 102 TFEU, the Commission follows a rather traditional textbook understanding of (neoclassical) economic theory which is characterised by underlying static assumptions; in other words, the Commission's favoured policy goal of consumer welfare manifests itself as being of a static, rather than a dynamic nature. This impression is not dispelled by the Commission's acknowledgment that

"[c]ompetition is a dynamic process and an assessment of the competitive constraints on an undertaking cannot be based solely on the existing market situation. The potential impact of expansion by actual competitors or entry by potential competitors, including the threat of such expansion or entry, is also relevant."<sup>448</sup>

Moreover, despite this seemingly general recognition that 'competition' is a dynamic process and the fact that it thus might be considered to

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<sup>446</sup> European Commission, Discussion Paper on the application of Art. 82 to exclusionary abuses, December 2005.

<sup>447</sup> Orit Dayagi-Epstein, The Evolution of the Notion of Consumer Interest in Light of the Modernisation of Article 82 EC, in: Ariel Ezrachi (ed.), *Article 82 EC: Reflections on its Recent Evolution*, 67, 76. See also European Commission, Discussion Paper on the application of Art. 82 to exclusionary abuses, December 2005, para. 4 (page 4): "With regard to exclusionary abuses the objective of Article 82 is the protection of competition on the market as a means of enhancing consumer welfare and of ensuring an efficient allocation of resources." [emphasis added].

<sup>448</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 16.

therefore show “much more economic sophistication” than previous Commission documents,<sup>449</sup> the *Guidance Paper* seems, to a large extent, to continue to draw to on static economic theory. This tendency can, for example, be detected in relation to the *Guidance Paper*’s outline of the assessment of market power in paragraph 11:

“[t]he Commission considers that an undertaking which is capable of profitably increasing prices above the competitive level for a significant period of time does not face sufficiently effective competitive constraints and can thus generally be regarded as dominant. In this Communication, the expression “increase prices” includes the power to maintain prices above the competitive level and is used as shorthand for the various ways in which the parameters of competition - such as prices, output, innovation, the variety or quality of goods or services - can be influenced to the advantage of the dominant undertaking and to the detriment of consumers.”<sup>450</sup>

Again, despite mentioning ‘innovation’ and other factors in the above quoted passage, the criteria outlined in the remainder of the *Guidance Paper* appear to be mainly based on static economic models as it may be said that “technical progress is either excluded or is of a very simple form” and the *Guidance Paper* “primarily concentrates on questions of existence and properties of equilibria on specific markets” and therefore largely disregards questions of dynamic efficiency.<sup>451</sup> Although Schmidt made this point in relation to the Commission’s use and understanding of economic theory in general and before the publication of the *Guidance*

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<sup>449</sup> Giorgio Monti, Article 82 EC: What Future for the Effects-based Approach?, (2010) 1 *Journal of European Competition Law & Practice* 2, 3.

<sup>450</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C 45, 24/02/2009, para. 11 [emphasis added].

<sup>451</sup> See Ingo L. O. Schmidt, The Suitability of the More Economic Approach for Competition Policy: Dynamic v Static Efficiency, (2007) *European Competition Law Review* 408. See also Roger Van den Bergh, The ‘More Economic Approach’ and the Pluralist Tradition of European Competition Law, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27, 28, who voices a similar opinion as Schmidt.

*Paper*, it is submitted that this point also applies in relation to the Commission's *Guidance Paper*; even a careful reading of the *Guidance Paper* does not lead to the conclusion that the Commission's understanding and / or use of (static) economic theory has changed in any material way to incorporate dynamic aspects of competition. Indeed, the 'withdrawal' of the distinction between allocative efficiency and consumer welfare formerly featuring in the *Discussion Paper* may be seen as affirming this view: whereas the *Discussion Paper* could, by differentiating between the economic concepts of consumer welfare and allocative efficiency – even if not as a complete move away from a static economic approach to competition law – at least be regarded as a move into the 'right' direction, i.e. away from an elementary textbook understanding and use of (neoclassical) economic theory, the *Guidance Paper* seems to have reversed this apparent change of direction by removing the said differentiation. Furthermore, the remarks contained in the *Guidance Paper* might even be understood to mean that the criterion of 'market power' has now to be regarded as the key (or even: main) requirement for the finding of dominance,<sup>452</sup> and thereby may reinforce the problems associated with the use of static economic theory. Although it is acknowledged that the *Guidance Paper's* outline in this respect might at least partially be due to case law, the 'fact' remains that the *Guidance Paper* appears to over-emphasise the role of market power which not only detracts the assessment focus from that which this thesis submits really matters – i.e. the process of competition rather than the question of 'the market' and its structure – but also, in doing so, appears to substantiate the contention of

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<sup>452</sup> See Anne C. Witt, *The Commission's guidance paper on abusive exclusionary conduct - more radical than it appears?*, (2010) 35 *European Law Review* 214, 222.

this thesis that the Commission's more economic approach is afflicted with a persistent reliance on static considerations.

Consequently, despite the *Guidance Paper's* overall economic flavour, the above would appear to substantiate the assertions made in Chapter 3 that the Commission's reform efforts follow a neoclassical economic approach to competition law analysis because the supposedly 'more' economic approach as presented by the *Guidance Paper* appears to remain one which "fails to go beneath the surface of economic theory".<sup>453</sup> In other words, the *Guidance Paper* might be regarded as yet another manifestation of the fact that the Commission seems content to neglect insights from modern, dynamic economic theories and to persistent in clinging to a more static version of economic theory.<sup>454</sup> The effects of this conclusion are addressed in section II. of this Chapter.

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<sup>453</sup> Nicolas Petit, *The Commission Guidance Notice on Article 82 EC – A More Economic Approach of Abuses of Dominance*, Presentation at the OCCP Seminar on Dominance and New Technologies, Warsaw, 8 July 2009, slide 18. Elsewhere, Petit has stated that "on close examination a number of concepts of the Communication, which exhibit a clear economic texture, do not seem to be taken seriously. To focus on the most salient only, we believe that the analysis of consumer harm is particularly unsatisfactory. Whilst, from the outset, the Commission's Guidance claims that consumer welfare is a pivotal objective in Article 82 EC enforcement, the Guidance's provisions on the factors and methods relevant to the assessment of consumer harm remain extremely murky and sometimes redundant.", see Nicolas Petit, *From Formalism to Effects? – The Commission's Communication on Enforcement Priorities in Applying Article 82 EC*, (2009) 32 *World Competition* 485, 503.

<sup>454</sup> The Commission might even be 'accused' of a certain sloppiness in putting together its Priority Guidance; para. 12 reads: "The assessment of *dominance* will take into account the competitive structure of the market, and in particular the following factors: [...] constraints imposed by the existing supplies from, and the position on the market of, actual competitors (the market position of the *dominant undertaking* and its competitors)." [emphasis added]. As Petit has pointed out, "[i]n other words, the Commission pretends it will systematically review whether there is dominance, but meanwhile implies that this three stages approach is entirely redundant, because it has already reached this finding. A strong candidate for the 2009 worst antitrust law prize?", see: Nicolas Petit, *Lapsus. This "lapsus" does not only exist in the English language version of the Priority Guidance but is also present in the German, Dutch, French and Italian language versions.*

## I.2. Manifestation – Part 2: Analysing the Commission’s Understanding of ‘Competition’

The second point to be discussed in relation to the manifestation of the Commission’s attempted *Ökonomisierung* of EU competition policy concerns the Commission’s understanding of the concept of competition. Given that Chapter 1, *inter alia*, concluded that the *meaning of ‘competition’* in EU competition policy is to be found in the *rationale for* EU competition policy, the establishment of the meaning attached to the concept of competition by the Commission’s more economic approach requires the consideration of what the Commission regards as the rationale for EU competition policy. This is because the Commission’s understanding of the concept of competition might be seen as another manifestation of its more economic approach, i.e. as a reflection of its theoretical basis and main beliefs. In this regard, statements by Commission officials – such as the then Commissioner for Competition Kroes – are instructive:

“[c]ompetition policy serves one goal – to make sure that markets can operate as efficiently as possible to deliver these outcomes [Kroes talked about “profits of improved market operation being passed on for the good of individuals and society in general” and “a high standard of social cohesion and welfare” in the preceding paragraphs.] for our citizens. [...] Our aim is simple: to protect competition in the market as a means of enhancing consumer welfare and ensuring an efficient allocation of resources.”<sup>455</sup>

In view of this statement and those referred to in the associated footnote, it would appear that the Commission proceeds on the assumption that

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<sup>455</sup> Neelie Kroes, Speech, European Competition Policy – Delivering Better Markets and Better Choices, European Consumer and Competition Day, London, 15 September 2005. See also Joaquín Almunia, Competition Policy: State of Play and Future Outlook, speech, European Competition Day, Belgium Brussels, 21 October 2010; Alexander Italianer, Safeguarding and promoting competition in the age of digital convergence, Speech, 6th International Competition Forum Seoul; Joaquín Almunia, How competition policy contributes to competitiveness and social cohesion, Speech, Europa 2011 - Regulação e Competitividade Lisbon, 14 January 2011.

'competition' possesses only an instrumental function rather than that it has a value as such. This reading of the Commission's view also seems to be supported by statements made by Lowe, the then Commission's Director General for Competition, who repeatedly<sup>456</sup> voiced the opinion that

"competition is not an end in itself, but an instrument for achieving public interest objectives, notably consumer welfare. [...] Only competition, and not economic nationalism of whatever overt or covert form, allows the emergence of firms capable of succeeding in global markets. If preserving competition is the letter of competition law enforcement, making markets work better is the leitmotiv of an active competition policy."<sup>457</sup>

On the face of these statements, it would appear that the answer to the question 'What is the Commission's rationale for its approach to competition policy?' is 'economic considerations' in general and concerns for 'economic efficiency' and 'consumer welfare' in particular, whereby 'consumer welfare' and '(allocative) economic efficiency' are usually equated. In view of the above quoted statements, the Commission might therefore be seen as employing "some of the semantics of the Chicago

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<sup>456</sup> See e.g. Philip Lowe, *Consumer Welfare and Efficiency – New Guiding Principles of Competition Policy?*, Speech, 13th International Conference on Competition and 14th European Competition Day, Munich, 27 March 2007: "I think that probably most of you here would agree that the aim of competition policy is to protect competition on the market as a means of enhancing consumer welfare. And you would probably also follow me if I said that consumer welfare and economic efficiency are closely related. An economy is operating at maximum efficiency when society is squeezing the greatest value – the highest level of welfare – out of its scarce resources. [...] consumer welfare and efficiency are the new guiding principles of EU competition policy. Whilst the competitive process is important as an instrument, and whilst in many instances the distortion of this process leads to consumer harm, its protection is not an aim in itself. The ultimate aim is the protection of consumer welfare, as an outcome of the competitive process."

<sup>457</sup> Philip Lowe, *Speech, Preserving and Promoting Competition: a European Response*, St Gallen Competition Law Forum, St Gallen, 11 May 2006.

School”<sup>458</sup> but more importantly, this focus on specific economic considerations might also be understood as a manifestation of the fact that the Commission’s rationale for competition policy differs from the rationale offered by the European Treaties. Whereas Chapter 1 deduced that the rationale for competition policy was to be found in the desire to achieve a certain degree of economic unification among European countries in order to ensure and strengthen peace and liberty in Europe – with the effect that the concept of competition as contained in the European Treaties is to be regarded as an *institution* without a specific meaning attached to it – both Commission documents and statements by Commission officials seem to suggest that the concept of competition is regarded by the Commission as an *instrument* which is understood in rather narrow, and specific, neoclassical economic terms. As this thesis submits that the Commission’s present understanding of the concept of competition not only stands in marked contrast to that conveyed by the European Treaties but also that this ‘difference of opinions’ has a detrimental impact on the formation of coherent and consistent competition policy for the software industry, the following analyses in more detail how the Commission’s seeming interpretation of the concept of competition manifests itself.

### **I.2.1. An Outline of the Commission’s Understanding of the Concept of Competition**

It would appear that the Commission regards ‘competition’ as a means to achieve first and foremost economic goals, in particular consumer welfare

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<sup>458</sup> Clifford A. Jones, Foundations of competition policy in the EU and USA: conflict, convergence and beyond, in: Hanns Ullrich (ed.), The Evolution of European Competition Law – Whose Regulation, Which Competition?, 17, 33.

and economic efficiency. This impression is created because the concept of competition is understood as

“a basic mechanism of the market economy and [it] encourages companies to provide consumers products that consumers want. It encourages innovation, and pushes down prices.”<sup>459</sup>

In other words, the Commission seems to view the concept of competition in purely instrumental terms and not in intrinsic terms: competition so conceptualised is seen as an economic tool rather than an objective itself, hence, competition is not valued for its own sake. This view would not necessarily need to be at odds with the conclusion drawn above that the European Treaties view the concept of competition in terms of behaviour if the Commission employed this ‘economic tool’ as a means of assessing the effectiveness of competition primarily in relation to the question of the undertaking’s actual behaviour in the competitive arena rather than in relation to the evaluation of the structure of ‘the market’. However, Commission decisions such as *Microsoft*<sup>460</sup> – in which a considerable part of the analysis (60 pages) was not only devoted to the question of ‘the relevant market’ and ‘dominance’ but which also frequently linked the question of abuse with the legally distinct question of possession of market share – suggest that this is not the case. This impression is also supported by the Commission’s *Guidance Paper*<sup>461</sup> which pays particular regard to the “competitive structure of the market”<sup>462</sup> and which, rather than placing an emphasis on the question of the actual behaviour of the

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<sup>459</sup> European Commission, website of the Commissioner for Competition, at: [http://ec.europa.eu/competition/antitrust/overview\\_en.html](http://ec.europa.eu/competition/antitrust/overview_en.html) (26/06/2009).

<sup>460</sup> European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 Microsoft.

<sup>461</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009.

<sup>462</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 12.



undertaking allegedly in breach of EU competition law provisions, discusses the question of market share as an indicator “of the market structure and of the relative importance of the various undertakings active on the market” in some detail;<sup>463</sup> this lengthy discussion creates the impression that the question of the existence of ‘competition’ in ‘the market’ is predestined by the investigation of the structure of ‘the market’. The Commission’s apparent understanding of the concept of competition as displayed by this decision and in these documents might be considered a further manifestation of its tendency to favour a more economic approach which is mainly based on static neoclassical economic theory. Furthermore, as Katsoulacos has pointed out,<sup>464</sup> the *Guidance Paper* neither defines what is meant by the concept of ‘competition’ (on the merits) to which it repeatedly refers<sup>465</sup> nor what is meant by the concept of ‘the competitive process’ which the Commission intends to protect.<sup>466</sup> Moreover, given that the Commission’s focus appears to be on a structural approach to ‘the market’ as an indicator for the existence of competition rather than being concerned with what might be called the concept of ‘competition as such’ (if viewed in terms of the scrutinised parties’ behaviour), the Commission’s more economic approach appears to translate into a mechanistic approach to the concept of competition insofar that the Commission’s concerns for the efficiency / effectiveness of the said

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<sup>463</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C 45, 24/02/2009, paras. 13-15 and 20.

<sup>464</sup> Yannis Katsoulacos, Some Critical Comments on the Commission’s Guidance Paper on Art. 82 EC, Global Competition Policy (February 2009), 4.

<sup>465</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, paras. 1 and 6.

<sup>466</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C 45, 24/02/2009, para. 6.

'market' transpire as the main driving force behind its more economic approach. In other words, the *Guidance Paper* might be seen as the reflection of the fact that the Commission seems to be more concerned with the "maintenance of an *effective competition structure*"<sup>467</sup> rather than the *process* of competition itself: the concept of competition, it seems, is thus understood by the Commission purely in structural terms, rather than as a behavioural concept.<sup>468</sup> Furthermore, the 'efficiency' of the competitive structure seems to be measured purely in terms of numbers, rather than actual outcomes of the process of competition. Again, this reading of the Commission's apparent understanding of competition is consistent with the conclusion drawn in Chapter 3 that the economic theory featuring in the Commission's more economic approach is mainly of a static neoclassical nature because, as Boy has pointed out,

"[i]n a structuralist conception of competition, which is quite close to the idea of pure and perfect competition, the emphasis is on the causal relation between the structure of the market and the level of the economic well-being. Business arrangements which are monopolistic or oligopolistic are thus considered *a priori* as barely compatible with collective efficiency. The atomised structure of the market would, on the contrary, allow for the decentralisation of the decision making by economic actors and the dispersion of power. In this analysis, indicators of market concentration would allow us to assume anticompetitive behaviour."<sup>469</sup>

In accordance with this observation, the Commission seems content to think not only that the number of (potential) actors in a 'market' is a *direct*

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<sup>467</sup> European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 Microsoft, para. 842 [emphasis added].

<sup>468</sup> Roger Van den Bergh, The 'More Economic Approach' and the Pluralist Tradition of European Competition Law, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27, 34.

<sup>469</sup> Laurence Boy, Abuse of market power: controlling dominance or protecting competition?, in: Hanns Ullrich (ed.), *The Evolution of European Competition Law – Whose Regulation, Which Competition*, 201, 204 [original emphasis].

*indicator for* the existence of ‘competition’ but also that the number of (potential) actors is *positively linked to* the taking place of ‘effective competition’ and, consequently, the Commission appears to conclude that “fringe competition”<sup>470</sup> cannot be considered to represent *good enough* competition.<sup>471</sup> Again, this reading of the Commission’s seeming understanding of the concept of competition appears to be supported by its landmark *Microsoft* decision where a particular emphasis was placed on the number of (potential) competitors in ‘the market’ insofar that the Commission – in relation to the question of dominance in the server market – considered Microsoft’s market shares to be of crucial importance to the question whether or not ‘effective competition’ was taking (or could take) place:

“the positive feedback loop protects Microsoft’s high market shares in the client PC operating system market from effective competition from a potential new entrant. [...] As regards competitors, the fringe competition constituted by Linux is a case in point. Linux, which has been developed under the open source model, can be technically pre-installed on PCs at virtually no cost by OEMs. Whilst the first versions of Linux were fairly difficult to use for non-technicians, the product is widely considered to have matured at the end of the 1990s and now there is no significant difference in terms of ease of use between Windows and most commercial Linux operating systems.

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<sup>470</sup> European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 Microsoft, para. 434. According to the OECD’s Glossary of Statistical Terms, the term ‘fringe competition’ denotes a (market) situation in which “the dominant firm faces a number of small competitors, referred to as a competitive fringe. The competitive fringe sometimes includes potential entrants. Thus the dominant firm may be a monopolist facing potential entrants. [...] Like a monopolist, the dominant firm faces a downward sloping demand curve. However, unlike the monopolist, the dominant firm must take into account the competitive fringe firms in making its price/output decisions. It is normally assumed that the dominant firm has some competitive advantage (such as lower costs) as compared to the fringe.”, at: <http://stats.oecd.org/glossary/detail.asp?ID=3199>.

<sup>471</sup> See also European Commission, Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C 45, 24/02/2009, para. 20.

*Microsoft's financial performance on the market, however, does not seem to have been affected by the emergence of such a rival. Microsoft has not substantially altered its pricing policy and business model, and it has remained very successful. [...] Microsoft further argues that "a number of enterprise customers responding to the Commission's recent Article 11 requests stated that they are in the process of migrating away from Windows server operating systems to [...] alternative solutions, particularly NetWare, SAMBA running on Linux and network attached storage devices." [...] It is true that some of the organisations that responded to the Commission's 2003 market enquiry use non-Microsoft solutions for work group server operating systems. This, however, is simply an indication that Microsoft's competitors may not yet have been eliminated from the market. [The footnote reference at this point reads: "The mere existence of one customer that chooses not to use Microsoft's product would in any case not disprove a finding that all effective competition has been eliminated."] However, the relevant question is not whether all competitors have already been eliminated but whether there is a risk of elimination of competition. It is therefore more appropriate to look not only at whether there are customers that rely on alternatives to Windows, but also to quantify this use and its evolution."<sup>472</sup>*

These passages both reflect and reinforce the earlier drawn conclusion that, as per the Commission's more economic approach, the concept of competition is regarded as a question of 'market structure'. Moreover, these passages also appear to support the above assertion that the Commission considers 'competition' to be merely an economic tool without any intrinsic value as these excerpts create the impression that the actual behaviour of an undertaking which is alleged to have violated competition law is only of secondary (if any) importance to the Commission's understanding of the concept of competition. These impressions also appear to be supported by the *Guidance Paper* which, as addressed *passim* in the remainder of this Chapter, seems to place a particular emphasis on the issue of (statically conceptualised) market

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<sup>472</sup> European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 Microsoft, paras. 459, 461 and 630 *et seq.* [footnotes partially omitted, emphasis added].

power in the assessment process. Consequently, it is submitted that the Commission views the concept of competition in structural terms which may be – and as this thesis submits: in essence, is – divorced from the question of the undertaking’s actual behaviour in ‘the market’.

### **I.2.2. Challenging the Commission’s Understanding of the Concept of Competition**

The above argued that the Commission’s more economic approach manifests itself in an understanding of the concept of competition which appears to differ from the understanding offered by the European Treaties. It is submitted here that this ‘difference of opinions’ between the legislative foundations of, and the current regulatory approach to, EU competition policy is not only unfortunate in theory but also in practice because, given that the Commission’s approach might be said to be based upon unrealistic theoretical and static economic foundations, this difference is likely to result in an incoherent approach to EU competition policy. This submission is based on the following considerations regarding the suitability of the number of competitors as an indicator for the existence of ‘effective’ competition and regarding the suitability of the ‘size’ of an undertaking’s market share as an indicator for the *abuse* of a dominant position.

#### **I.2.2.1. The Correlation between the Number of Competitors and the Existence of Competition**

It is impossible to deny the general importance of economic theory for the application of competition law,<sup>473</sup> and indeed, it is not the intention of this

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<sup>473</sup> See Ingo Schmidt, *Wettbewerbspolitik und Kartellrecht*, 2; Robert Earl Stemmons, *The Adoption and Confusion of Microeconomic Theory and Policy in Antitrust Law*, (1986) 51 *Missouri Law Review* 239: “In relatively recent years abstract economic theory has grown increasingly prominent in the legal analysis of antitrust cases.”.

thesis to do so. A similar point might be made with regard to the importance of economic theory for the concept of competition because the concept of competition, as applied in the legal context, is an ‘open *nomen juris*’,<sup>474</sup> i.e. a legal term which requires further interpretation. It is therefore not surprising that current approaches to competition policy attempt to furnish the concept of ‘competition’ with substantive meaning derived from economic theory. From this point of view, the adoption of economic content could even be considered a good idea insofar as such adoption would appear to introduce what might be called the rigour and structure of mathematical formulae into competition law analysis.<sup>475</sup> Indeed, it may even be said that such guidance is not necessarily ‘a bad thing’ as the influence and input of economics could merely be seen as a factor which makes competition law distinctive and different from other legal areas; after all,

“the subjects with which antitrust deals have always been central to the social science of microeconomics. Economics is dedicated to explaining the production, distribution and consumption of wealth. Microeconomic theory focuses on the workings or dysfunctions of the market system, precisely the system antitrust is intended to preserve and protect. Competition and the kinds of industrial structures that stimulate competition are also explicit subjects of a related branch of economics, that of industrial organization.”<sup>476</sup>

Consequently, economic theory might be seen as providing analytical boundaries to the legal assessment process of a potential anti-competitive injury which would seem to help to keep the analysis of a complex

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Furthermore, standard textbooks of competition law usually ‘introduce’ readers to the subject matter by explaining the underlying economic concepts: see e.g. Alison Jones / Brenda Sufrin, *EU Competition Law*, 1-35; Lawrence A. Sullivan / Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 19-80.

<sup>474</sup> Hermann-Josef Bunte, *Kartellrecht mit neuem Vergaberecht*, 4.

<sup>475</sup> See John J. Flynn, *The Role of Rules in Antitrust Analysis*, (2006) *Utah Law Review* 605 and 614 *et seq.*

<sup>476</sup> Lawrence A. Sullivan / Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 19.

competitive scenario within seemingly manageable, i.e. ‘workable’, boundaries. In this respect, given the apparent lack of a legal definition of the concept of competition, the adoption of *economic* content could indeed be taken to mean that the number of competitors in a given ‘market’ was an indicator for the non-existence of effective competition in the said arena: this is because ‘competition’ in economics is usually defined as a particular market structure which is based on the underlying assumptions of a specific economic model;<sup>477</sup> the said model usually taking the form of the concept of ‘perfect competition’ which thus becomes the normative and descriptive basis for most economic approaches to competition law analysis.<sup>478</sup> In view of the discussion of Commission’s present understanding of the concept of competition in section I.2.1. of this Chapter above, the Commission would appear to also adhere to this idea. However, for the reasons discussed below, such adherence is likely to lead the formation of incoherent competition policy – especially, as outlined in Chapter 5, in the context of the software industry.

For instance, it should be noted that the extemporised adoption of economic content is not without potential problems, especially if it is the case that either ‘the law’ or a policy making body import or transfer an economic concept which possesses a specific meaning in economic theory into the differently functioning and differently focused legal context. This is because the

“[e]conomic and legal approaches [to the goals of competition law] are structurally different. Economic approaches are often using formal models which are to demonstrate welfare effects of different

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<sup>477</sup> Jesse W. Markham, Foreword, in: Eugene M. Singer, *Antitrust Economics – Selected Legal Cases and Economic Models*, VI; Paul J. McNulty, *Economic Theory and the Meaning of Competition*, (1968) 82 *Quarterly Journal of Economics* 639, 644.

<sup>478</sup> Alan J. Meese, *Market Failure and Non-Standard Contracting: How the Ghost of Perfect Competition Still Haunts Antitrust*, (2005) 1 *Journal of Competition Law and Economics* 21, 89.

goals of competition law (e.g. maximisation of total welfare vs. maximisation of consumer welfare). Legal approaches may – from a constitutional perspective – view goals of competition law as sub-goals. They have to be defined in a manner that they best fit into [what could, under the pre-Lisbon regime, be called] the constitutional set of goals.”<sup>479</sup>

This structural divergence arguably also exists between the Commission’s present understanding of the concept of competition in Article 102 TFEU and that of the *lex lata* of the European Treaties: whereas the latter, in view of the discussion in Chapter 1, can be described as investing the concept of competition with a normative meaning in accordance with the above quote; the former, given that the Commission’s analytical focus appears to be on a neoclassically approached ‘market’ and a neoclassically understood concept of consumer welfare,<sup>480</sup> might be seen as furnishing the concept of competition with a more narrow, exclusively (neoclassical) economic meaning. It is however questionable whether the *economic* concept of competition – especially if the said concept is defined in accordance with neoclassical economic theory – can satisfy the normative needs placed upon the concept of competition in the legal context as the *lex lata* of the European Treaties is neither solely concerned with economic efficiency considerations nor, indeed, economic welfare considerations. Moreover, basing one’s *legal* understanding of the concept of competition on the static theoretical (neoclassical) economic assumptions of the perfectly competitive market can be seen as reinforcing the – as this thesis

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<sup>479</sup> Christian Kirchner, Goals of Antitrust and Competition Law Revisited, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 7, 8. As previously outlined in Chapter 1, this thesis contends that, despite the rewording and partial relocation of the pre-Lisbon constitutional goals of the European Union, the goals of EU competition policy have remained unchanged.

<sup>480</sup> As manifested in various Commission documents such as its *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings* and its *Notice on the definition of relevant market for the purposes of Community competition law*.



argues: questionable – practice that the number of competitors is an, or even the most, important indicator of effective or ineffective competition in a given ‘market’ because, under the model of perfect competition, the issue of the number of competitors might indeed be considered as one of the defining “characteristics” of effective competition.<sup>481</sup> Whilst this understanding of the concept of competition might be said to correspond with the way in which economists usually see ‘competition’ – that is “as a situation or ‘market form’” founded on the notion and assumptions of the perfectly competitive market – such an economic approach leaves little (if any) room to regard ‘competition’ as anything other than the description of a particular market structure which, in turn, might be seen as reinforcing the importance of the number of competitors for the evaluation of the effectiveness and / or existence of ‘competition’.<sup>482</sup> Consequently, this thesis submits that, whilst the conceptual simplification of a competitive scenario by means of a statically approached market concept might, at first glance, seem illuminating and helpful for the identification of effective competition, a second glance is likely to result in a different evaluation. Rather, it would seem that an analysis based on such conceptual simplification is likely to lead to an overly restricted meaning not only of ‘the market’ but also, and more importantly, of the concept of competition itself. Furthermore, it can be argued that such conceptualisation is misleading because it focuses

“one’s vision of the values and rules related to a particular dispute too narrowly, [thereby] blinding one to a fuller understanding of the complexity involved in a dispute. In law, economics, and every other intellectual discipline, concepts can so capture one’s capacity for

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<sup>481</sup> Mark Addleson, General Equilibrium and ‘Competition’: On Competition as Strategy, (1984) 52 South African Journal of Economics 156, 157.

<sup>482</sup> Mark Addleson, General Equilibrium and ‘Competition’: On Competition as Strategy, (1984) 52 South African Journal of Economics 156, *passim*.

reflective thought that they cause a divorce of policy from reality, and conclusions from their consequences. In so doing, concepts take on a life of their own, detached from the policy responsible for their birth, the reality which has guided and molded their growth, and the consequences of their application in a particular case.”<sup>483</sup>

This potential to mislead competition law analysis would again appear to reinforce the afore-made assertion that the ‘number of heads’ in a given ‘market’ can, from the legal perspective, be considered neither an indicator nor a guarantee for competition to take place, let alone a ‘proof’ that such competition is ‘effective’. But even if one was to disregard these problems associated with (economic) conceptualisation, it is worth remembering that, even from the perspective of economic theory, the process of defining ‘the market’ can only be considered a *contributing* but not the *defining* factor in the quest for what might be regarded as “an approximately correct solution” of a competition law assessment because “[n]o one method [of defining the market] will always work, and in certain settings it may be true that no method would yield unambiguous results.”<sup>484</sup> Accordingly, approaching the concept of competition by means of counting the number of competitors in a ‘market’ might be considered counterproductive from the perspective of competition policy because such a number-crunching procedure might be seen as reinforcing the static assumptions underlying the concept of a perfectly competitive ‘market’ when, in fact, the *process of competition* should be considered as being concerned with dynamic events. Moreover, one might even think an approach to competition law analysis which seems to emphasise the importance of such numbers to the detriment of the question of an undertaking’s actual behaviour as contradictory to the Commission’s

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<sup>483</sup> John J. Flynn, *Antitrust Policy and the Concept of a Competitive Process*, (1990) 35 *New York Law School Law Review* 893.

<sup>484</sup> Michael L. Glassman, *Market Definition as a Practical Matter*, (1980) 49 *Antitrust Law Journal* 1155, 1165 *et seq.*.

continuous claim that its competition policy is now based on “sound economics”<sup>485</sup> because more than one economic approach to competition law can be said to exist.<sup>486</sup>

Furthermore, such a number-crunching approach to ‘the market’ and thus also to the concept of competition might, in the European Union, also be regarded as standing in marked contrast to the way in which the European Treaties appear to use the concept of ‘the market’: as a social construct, i.e. as a lively “*mercatum*” and not as an abstract term of economic theory.<sup>487</sup> This understanding of the usage of ‘the market’ would also appear to be in line with the concept of competition as a ‘sub-goal’ of the Union’s wider policy objectives as presented by the European Treaties, i.e. the “economic goals of the European Union and [...] ‘constitutional goals’ like ‘the rule of law’, ‘legal certainty’ and ‘legitimacy of law-making’.”<sup>488</sup> The economic goals are specified by Article 3(3) TEU as including the establishment of an internal market, “the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, [...] a high level of protection and improvement of the quality of the environment”, the promotion of

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<sup>485</sup> See Neelie Kroes, Preliminary Thoughts on Policy Review of Article 82, Speech, Fordham Corporate Law Institute, New York, 23 September 2005; *idem*, Building a Competitive Europe – Competition Policy and the Relaunch of the Lisbon Strategy, Speech, Bocconi University, Milan, 7 February 2005.

<sup>486</sup> Roger Van den Bergh, The ‘More Economic Approach’ and the Pluralist Tradition of European Competition Law, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27, 28.

<sup>487</sup> Fritz Rittner / Michael Kulka, *Wettbewerbs- und Kartellrecht*, Einleitung para. 25 and § 6 paras. 43-45. Although Rittner and Kulka make this statement in relation to the former EC Treaty, this thesis submits that, in view of the arguments presented in Chapter 1 in relation to the continuation of the overall goals of EU competition policy, the use and meaning of ‘the market’ as applied by the post-Lisbon European Treaties remains unchanged.

<sup>488</sup> Christian Kirchner, *Goals of Antitrust and Competition Law Revisited*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 7, 8.

“scientific and technological advance” as well as the promotion of “economic, social and territorial cohesion, and solidarity among Member States.”<sup>489</sup> Thus, if read in conjunction with the relevant competition law provisions (i.e. the Treaty on the Functioning of the European Union and Protocol No. 27), it would appear that ‘competition’ as used in the European Treaties is seen as a much wider and more inclusive concept than a concept whose meaning is reduced (and restricted) to the mere counting of competitors. Moreover, it would seem that this view is also consistent with the conclusion drawn in Chapter 1 that ‘competition’ in the light of the European Treaties is a behavioural concept which reflects the normative *legal* values of the European Union and that, consequently, it had to be acknowledged that

“[t]heoretical economic constructions provide no panacea for the detection and adjudication of antitrust violations. While monopoly is essentially and ultimately an economic phenomenon, what comprises a contravention of federal law cast in subjective terms is essentially and ultimately a problem in jurisprudence. More specifically, what comprises a substantial injury to competition or a tendency toward monopoly is for the courts [...] to decide. Contemporary economics provides no answer to this question; it simply identifies the relevant evidence for the case at hand, and provides a framework within which more consistent decisions can be reached in accordance with the law as presently framed.”<sup>490</sup>

Consequently, basing the concept of competition as applied in competition law analysis solely on, and judging it merely within, economically defined parameters such as the quantification of competitors could be seen as effectively removing the normative legal content which the concept of competition requires in view of the overall goals of European Treaties; this is because so restrictive an approach to the concept of competition cannot

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<sup>489</sup> Article 3 (3) Treaty on European Union, Official Journal 2010 C 83, 30/03/2010.

<sup>490</sup> Jesse W. Markham, Economics and Antitrust Law Administration, (1955) 4 Journal of Public Law 127, 137.

convey anything meaningful in relation to the question whether competition is actually taking place in 'the market', let alone if it can be considered 'effective', at a given point in time. Furthermore, even the existence of only a limited number of competitors *as such* does neither allow for the positive proof that 'competition' is impossible as such nor for the positive proof that 'competition' is not taking place. In this context and in lieu of other examples, mention should be made of Open Source software projects such as MySQL, Firefox or Linux which started off as (more or less) 'one-man-projects' and all of which have, despite the fact that similar software products by other and bigger actors were already present in their respective 'markets', become 'major players' which can, in their own right, be considered either as enjoying respectable market shares themselves or as exerting some other relevant form of competitive pressure on their respective competitors.<sup>491</sup> Given that some of the 'markets' entered by Open Source software projects such as the above were originally occupied by companies which might be considered (quasi-)monopolists at the point of these projects' starting,<sup>492</sup> these developments might be seen as contradicting the assumption that fringe competition in a (software) 'market' cannot become what the Commission, according to above discussion, would seem to regard as 'real' or 'effective' competition. Furthermore, the developments in the software sector in general may be regarded as supporting the argument that the number of competitors in a given 'market' is neither a guarantee nor an indicator that (effective)

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<sup>491</sup> See further on this: Till Jaeger / Axel Metzger, *Open Source Software – Rechtliche Rahmenbedingungen der Freien Software*, paras. 15-17. It is however acknowledged that some of these projects have, after what might be considered initial commercial 'independence', received the (financial or other) backing of 'big players' such as IBM or Hewlett-Packard.

<sup>492</sup> Such as e.g. Microsoft, in relation to Internet browser software, with its Internet Explorer or, in relation to operating systems, with its MS-DOS or Windows distributions.

competition is taking place; not to mention the seemingly simple but actually quite complex question of what number of (potential) competitors might be considered as being optimal in order to make ‘competition’ efficient.<sup>493</sup> Rather, whilst it is certainly true that for ‘competition’ to take place, a number of (potential) competitors need to be in, or about to enter, ‘the market’, it is unlikely that the number of players as such accurately indicates the existence or likelihood of successful or effective ‘competition’ in ‘the market’:

“[t]o be sure, in order to understand what is happening in any competitive situation we have to identify who is competing with whom, and hence how many competitors there are: but the counting of heads in itself does not permit us to conclude that people are competing. Only once we have reason to believe that the condition of rivalry and the attempt of rivals to attain some (predetermined and mutually exclusive) goal is fulfilled, is it appropriate to identify the extent of this rivalry. The number of heads evident in any situation does not indicate whether these conditions are fulfilled.”<sup>494</sup>

In this respect, it is possible to disagree with the Commission’s conclusions regarding the existence of ‘competition’ in the relatively recent case of *Microsoft*<sup>495</sup> because it might equally be argued that the existence of *one actual* competitor in a given ‘market’ was an indicator that the process of competition was ‘starting to pick up’, i.e. that this competitor was the first of possibly more, *new* entrants. The game console

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<sup>493</sup> See Wolfgang Kerber, Competition, innovation and maintaining diversity through competition law, in: Josef Drexler / Wolfgang Kerber / Rupprecht Podzun (eds.), Competition Policy and the Economic Approach – Foundations and Limitations, 173, 190 *et seq.*.

<sup>494</sup> Mark Addleson, General Equilibrium and ‘Competition’: On Competition as Strategy, (1984) 52 South African Journal of Economics 156, 159.

<sup>495</sup> The Commission’s decision in *Microsoft* conveys the impression, by extensive discussion of Microsoft’s competitors and their market shares in different ‘markets’, that it is only the number of parties in the market which shapes competition. See European Commission, Commission Decision of 24/03/2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 Microsoft, para. 631 and paras. 491–514; see also statements by Philip Lowe, *supra*, in section I.2. of this Chapter.

industry might be seen as a case in point for such possible developments.<sup>496</sup> In addition, the fact that one competitor has ‘managed’ to enter ‘the market’ could be regarded as evidence either for a general reduction of whatever barriers to entry might earlier have existed or that overcoming such obstacles was, after all, possible. Without wishing to suggest that the mere presence of one competitor (or even the potentiality of such occurrence) *as such* is positive proof for the ease of entry, the fact that only one competitor exists at a given point in time should not be taken to mean that competition is (seriously) inhibited to the extent that either no ‘competition’ is taking place or that it is ‘ineffective’ – at least not if the concept of competition is not approached in merely static / structural terms, i.e. reduced to basically the question of ‘allocative efficiency’. In this respect, the Commission’s emphasis on the importance of quantification (as e.g. expressed in its decision in *Microsoft*) in order to establish whether or not ‘effective’ competition exists in a given ‘market’ might be seen as consistent with the above-voiced concerns relating to the dangers of simplifying competition law analysis by means of economic concepts. The economic concept of an oligopoly, i.e. a “market structure in which there are only a few suppliers, at least two while the maximum number of companies is not clearly determined”,<sup>497</sup> might be regarded as a classic example for this submission as

“the very existence of an oligopoly does not entail a less competitive industry or market. Day-to-day business experience proves that, in some oligopolistic markets, competition is intense and fierce.”<sup>498</sup>

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<sup>496</sup> See Peter Buxmann / Heiner Diefenbach / Thomas Hess, *Die Softwareindustrie: Ökonomische Prinzipien, Strategien, Perspektiven*, 35-37.

<sup>497</sup> Luc Peepkorn / Vincent Verouden, *The Economics of Competition*, in: Jonathan Faull / Ali Nikpay (eds.), *The EC Law of Competition*, para. 1.76.

<sup>498</sup> Rafael Allendesalazar / Paloma Martínez-Lage / Roberto Vallina, *Oligopolies, Conscious Parallelism and Concertation*, in: Claus-Dieter Ehlermann / Isabela

The same point about the dangers of ‘counting the heads’ in order to establish the existence of ‘competition’ (or the lack thereof) in a given ‘market’ may again be made in relation to the software industry:<sup>499</sup> here too, it might well be asked if what is ‘fringe competition’<sup>500</sup> at one point in time could not, in due course, become ‘centre-stage competition’ or why it might not lead to the opening of other new software ‘markets’; indeed, a sector such as the software industry characterised by a high level of innovation would appear to be particularly suited for such developments.<sup>501</sup> Whilst this line of argument is somewhat reminiscent of an argument made (in a different context) by John Maynard Keynes<sup>502</sup> and is thus, admittedly, not without potential problems, the fact is that the static approach to competition law analysis inherent in the Commission’s more economic approach has to be considered equally flawed, if not more so, when applied to dynamic industries. The Commission views the concept of competition in static structural terms;<sup>503</sup> these structures however reflect only a fraction of economic life *as is*. Consequently, this approach to the concept of competition could be taken to mean that the Commission’s understanding of ‘competition’ focuses only on one

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Atanasiu (eds.), *European Competition Law Annual 2006: Enforcement of Prohibition of Cartels*, 119, 121 *et seq.* [footnote omitted].

<sup>499</sup> In this context it might be worth mentioning Google’s attempt to ‘challenge’ Microsoft in the area of application software ‘Google Docs’ (<http://www.google.com/google-d-s/intl/en/tour1.html>) or Google’s introduction of a new browser ‘Chrome’ (<http://www.google.com/chrome>) (05/05/2010).

<sup>500</sup> See e.g. consideration of ‘fringe competition’ in European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 Microsoft, paras. 434 and 461.

<sup>501</sup> Again, undertakings such as Google and Facebook might be considered examples of this possibility.

<sup>502</sup> John Maynard Keynes, *A Tract on Monetary Reform*, 80: “But this *long run* is a misleading guide to current affairs. *In the long run* we are all dead.” [emphasis in the original].

<sup>503</sup> See e.g. ‘Arguments of the Parties’ in relation to the question of ‘elimination of competition’ in Microsoft, Court of First Instance, *Microsoft Corp. v Commission of the European Communities*, 17 September 2007, case T-201/04, paras. 437 – 478 for some instructive insights in this respect.



particular – maybe, in view of the ‘long run’ argument referred to above, even insignificant – point in time as captured by the statically approached ‘market’, especially if the said ‘market’ is ‘defined’ in a way which only allows for an evaluation of (statically approached) productive and allocative efficiency. Moreover, it would appear that the greater the emphasis placed by the Commission on the question of ‘the market’ (by repeatedly stressing its economically defined structural aspects), the less important the question of the actual behaviour of undertakings operating in that ‘market’ will become, thereby risking the effective removal of the factors ‘reality’ and ‘(legal) normativity’ from what might be considered the ‘competitive equation’. Yet especially the factor ‘normativity’ might be considered important if competition law is to remain more than just a “branch of applied economics”:<sup>504</sup> as pointed out by Harris and Jorde more than 25 years ago, although competition law is generally “concerned with promoting a competitive economy, thereby advancing the goal of economic efficiency”, i.e. consumer welfare, it also “protect[s] and preserve[s] other social and political values”.<sup>505</sup> It is the contention of this thesis that this ‘non-exclusivity’ of economic efficiency / consumer welfare as a goal of EU competition policy still applies today.<sup>506</sup> Consequently, although an economic approach focused on static efficiency considerations might theoretically allow for the establishment of bright-line tests for competition law assessment (as discussed in Chapter 3), the accuracy of the findings resulting from the application of such tests would still, in view of the above discussion, appear to be questionable and of doubtful

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<sup>504</sup> As opined by Richard A. Posner, *The Problematics of Moral and Legal Theory*, 229.

<sup>505</sup> Robert G. Harris, Thomas M. Jorde, *Antitrust Market Definition: An Integrated Approach*, (1984) 72 *California Law Review* 1, 8.

<sup>506</sup> Of a similar opinion: Daniel Zimmer, *Protection of Competition v. Maximizing (Consumer) Welfare*, presentation, Symposium ‘Structure and Effects in EU Competition Law - Studies on Exclusionary Conduct and State Aid’, Max-Planck-Institute for Private Law, Hamburg 23<sup>rd</sup> - 24<sup>th</sup> January 2009.

utility for the formation of coherent competition policy; this is even more so if the scrutinised sector in question is subject to high levels of dynamic development which, as discussed in Chapter 5, are likely to further complicate competition law assessment.

### **I.2.2.2. The Correlation between ‘Market Share’ and the Abuse of a Dominant Position**

In addition to seemingly suggesting a direct and positive connection between the number of undertakings operating in a given ‘market’ and the existence of (effective) competition, the Commission’s approach to the concept of competition appears also to reduce the question of abuse (which, it is submitted, should essentially be a question of behaviour and normativity) to what might be called a ‘mere formality’ as the finding of an abuse appears to be more or less predetermined by the size of the scrutinised undertaking’s market share.<sup>507</sup> As one commentator, discussing the Commission’s *Guidance Paper*, has put it:

“[t]he Guidance is inherently suspicious of dominance. That is clear. The Commission does not find dominance itself to be an offence, but dominance certainly is a factor that bleeds across to the abuse analysis itself. Thus the Commission relies on case law to state that: “Experience suggests that the higher the market share and the longer the period of time over which it is held, the more likely it is that it

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<sup>507</sup> This would appear to be also the opinion of Killick and Komninos who, with regard to the Commission’s *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings* state that “there [i.e. in the Guidance Paper] are in our view, far too many presumptions working against the dominant company.”, James Killick / Assimakis Komninos, *Schizophrenia in the Commission’s Article 82 Guidance Paper: Formalism Alongside Increased Recourse to Economic Analysis*, *Global Competition Policy* (February 2009), 6. In this context, it is worth pointing out that the Guidance Paper seems to equate ‘dominance’ with ‘market power’, the latter of which might be considered as being highly dependent upon the question of market share, see European Commission, *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, *Official Journal* 2009 C45, 24/02/2009, paras. 9-15.

constitutes an important preliminary indication of the existence of a dominant position and, in certain circumstances, of possible serious effects of abusive conduct, justifying an intervention by the Commission under Article 82.” (Guidance, para. 15)

To some eyes most of this paragraph may seem intuitively correct. To others, it may be surprising, particularly the point about a relatively stable dominant position being an ‘important preliminary indication ... of possible serious effects of abusive conduct’. Dominance, after all, can also be attributed to success. Market share relates to sales, and thus, presumably to demand for the product. It seems rather chilling for an authority to suggest that the longer that you attract more customers and more sales from your rivals the more likely it is a ‘preliminary indication’ that you are abusing a dominant position. Surely that can’t be what is intended. Yet there it is in black and white.”<sup>508</sup>

Whilst it is acknowledged that the Commission’s approach in this respect might, at least partially, be ascribable to traditional case law insofar that it might be regarded as the reflection of the European Courts’ concept of “special responsibility”,<sup>509</sup> it is suggested that this approach might also be attributed to the Commission’s particular understanding of what makes a ‘modern and sound economic approach’ to competition law analysis. However, regardless of such niceties of attribution, such practice is likely to have a negative impact on the formation of coherent and consistent

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<sup>508</sup> Philip Marsden, Some outstanding issues from the European Commission’s Guidance on Article 82: Not-so-faint echoes of Ordoliberalism, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 64, 74 *et seq.*.

<sup>509</sup> This concept goes back to the European Court of Justice’s ruling in *NV Nederlandsche Banken-Industrie Michelin v Commission of the European Communities*, 9<sup>th</sup> November 1983, case 322/81 which stated at para. 57 that “[a] finding that an undertaking has a dominant position is not in itself a recrimination but simply means that, irrespective of the reasons for which it has such a dominant position, the undertaking concerned has a special responsibility not to allow its conduct to impair genuine undistorted competition on the common market.” It has become an inherent part of case law relating to Article 102 TFEU, see e.g. *Court of First Instance, Irish Sugar plc v Commission of the European Communities*, 7<sup>th</sup> October 1999, case T-228/97, para. 112; *Court of First Instance, Microsoft Corp. v Commission of the European Communities*, 17<sup>th</sup> September 2007, case T-201/04, para. 229; *European Court of Justice, France Télécom SA v Commission of the European Communities*, 2<sup>nd</sup> April 2009, case C-202/07 P, para. 105.

competition policy for *inter alia* the software industry, accordingly, the wisdom of such seeming causal ‘linkages’ between market share and the finding of an abuse of a dominant position appears dubious.

This submission is based on the following line of thought: according to Article 102 TFEU, an anti-competitive behaviour (i.e. an abuse) triggers a legal consequence if, and only if, the undertaking which is caught ‘red-handed’ also occupies a dominant position. The actual economic evaluation of the scrutinised undertaking’s position in ‘the market’ is, in turn, very much dependent upon how ‘the market’ has been defined in the particular case. This procedure however, given that the currently favoured approach to defining ‘the market’ in the European Union can be considered as being based upon the static economic model of perfect competition, would appear to reinforce the concerns voiced above in relation to the concept of competition as seemingly understood by the Commission,<sup>510</sup> that is that a concept which should be behavioural in nature (i.e. the concept of abuse) has become confused with a concept which is structural in nature and a static one at that (i.e. the concept of market share). Put differently, it is suggested that this seeming combination of the concept of competition and the concept of ‘the market’ has led to an over-emphasis of mainly static economic theory in both the formation and subsequent interpretation of competition policy with the effect of narrowing down the meaning of the concept of competition to the detriment / disadvantage of the normative *legal* character of competition policy.

For example, apart from the fact that “[f]rom a purely economic point of view, [...] no clear-cut criterion [exists] where unproblematic market

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<sup>510</sup> See Chapter 3, under section III.1.2.

power ends and problematic market dominance begins”<sup>511</sup>, it is debatable if the calculation of an undertaking’s market share can be done accurately. Rather, market definition should only be considered a contributing factor in the quest for what might be regarded as “an approximately correct solution” (in terms of delineating ‘the market’) because “[n]o one method will always work, and in certain settings it may be true that no method would yield unambiguous results.”<sup>512</sup> In addition, the problem of accurately defining ‘the market’ (and therefore also that of accurately determining an undertaking’s market share) might be considered as being exacerbated by the fact that the task of defining ‘the’ market can be approached either in a mechanistic fashion (i.e. counting the number of criteria satisfied) or in a more technical-economic fashion (i.e. focusing on the data that represents one single economic criterion which is supposed to be the decider of market definition);<sup>513</sup> this makes defining the market an even more malleable and arbitrary process.<sup>514</sup> It is submitted that an approach which focuses on a statically defined ‘market’ is likely to disregard the fact that “[m]arkets and market behaviour are simply too complex and economic theory too limited” to “unambiguously resolve the issue of market definition in most cases” and thus also to ignore the fact that a particular market share is not necessarily an indication that

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<sup>511</sup> Wolfgang Kerber, Comment, in: Hanns Ullrich (ed.), *The Evolution of European Competition Law – Whose Regulation, Which Competition*, 111, 119 [footnote omitted].

<sup>512</sup> Michael L. Glassman, *Market Definition as a Practical Matter*, (1980) 49 *Antitrust Law Journal* 1155, 1165 *et seq.*.

<sup>513</sup> See Michael L. Glassman, *Market Definition as a Practical Matter*, (1980) 49 *Antitrust Law Journal* 1155 *et seq.*.

<sup>514</sup> The possible arbitrariness of defining ‘the market’ in accordance with the Commission’s *Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law* is also referred to by Valentine Korah, *An Introductory Guide to EC Competition Law and Practice*, 116.

enforcement action is warranted.<sup>515</sup> Referring again to the so-called *Cellophane Fallacy* as the classic example of how / where the process of market definition might 'go wrong', *the* correct delineation of 'the market' in a competition scenario might even be an impossible thing to achieve because 'the market' can always be defined in more than one way; a fact which, given that the potential finding of a violation of competition law is usually connected to the question of 'the market',<sup>516</sup> will clearly have an impact on the results of such an analysis. This however does not mean that one should 'retreat' to a statically defined market just because it 'effectively', theoretically, and maybe even practically, seems to guarantee equal treatment for *any* undertaking accused of anti-competitive behaviour or because such a procedure is convenient from the respective enforcement agency's perspective. Indeed, such an approach might be considered to result in an even greater 'injustice' than that which would be caused by accepting that no method is flawless because the individual treatment of each scenario in an equally flawed manner does not mean that the results achieved by such procedure are unquestionable or even correct. At any rate, these 'musings' in relation to the task of defining 'the market' might be seen as supporting the afore-made submission that the seeming equation of the question of whether an abuse has taken place with an undertaking's market share is of questionable wisdom: if the underlying 'market' – in relation to which the size of the scrutinised undertaking's market share is calculated – is not without doubts about its accuracy, how can it be expected that an undertaking's actual share of that 'market' is determined accurately?

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<sup>515</sup> Robert G. Harris, Thomas M. Jorde, *Antitrust Market Definition: An Integrated Approach*, (1984) 72 *California Law Review* 1, 8.

<sup>516</sup> See e.g. Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, Chapter 4.

### I.2.3. An Unfortunate Mixture of Behaviour and Structure

The above discussion of the Commission's more economic approach in relation to the concept of competition suggests that the Commission's ostensible procedure of tying down the concept of competition as applied in the *legal* context to a particular *economic* understanding is "unfortunate"<sup>517</sup> insofar that the result of this 'marriage' appears to be a regrettable mixture of a behavioural concept (competition) with a structural one (market) which leaves both lawyers and economists alike with an ambiguous concept.<sup>518</sup> Although it might be said that this 'merger' is in line with aspects of traditional economic theory,<sup>519</sup> it should also be remembered that, despite the fact that the concept of competition increasingly appears to have become identified with a particular market structure, "[t]here is a qualitative difference between market structure and conduct; defining the market and defining competition are not the same."<sup>520</sup> Consequently, it is submitted that, despite the emphasis placed on 'the market' in current competition law analysis, the insights offered by 'the market' for the determination of an actionable abuse of a dominant position have to be considered to be limited. Put differently, it would seem that the Commission's reform efforts have – insofar as they appear to have emphasised the seeming connections between the number of competitors and the presence or absence of competition in a given 'market' and also between the determinators of an undertaking's market share and the

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<sup>517</sup> George J. Stigler, *Perfect Competition, Historically Contemplated*, (1957) 65 *The Journal of Political Economy* 1, 6.

<sup>518</sup> See Paul J. McNulty, *Economic Theory and the Meaning of Competition*, (1968) 82 *Quarterly Journal of Economics* 639, *passim*.

<sup>519</sup> Ernest Gellhorn / William E. Kovacic, *Antitrust Law and Economics*, 52: "Economic theory traditionally concludes that the structure of an industry affects its behavior and, ultimately, its performance."

<sup>520</sup> E. Thomas Sullivan, *On Nonprice Competition: An Economic and Marketing Analysis*, (1983-1984) 45 *University of Pittsburgh Law Review* 771, 774.

subsequent finding of an abuse – tended to cause, rather than resolve, conceptual problems for EU competition policy. This is because the Commission's approach appears to have resulted in forcing the behavioural concept of competition into the structural straitjacket of the market concept. This evaluation is further examined in the following section.

## **II. The Effects of the Commission's More Economic Approach for EU Competition Policy**

The discussion concerning the various ways in which the Commission's reform efforts may be said to manifest themselves in its approach to EU competition policy concluded that, in essence, the attempted *Ökonomisierung* does not so much introduce more modern, i.e. more dynamically orientated, economic theory into EU competition law analysis but rather reinforces the existing questionable reliance on a more static strand of economic theory. In order to support the argument presented by this thesis that many problems associated with the Commission's more economic approach in relation to the software industry are connected with (or even hail from) the Commission's continuing reliance on a particularly static form of economic theory, this section examines some of the effects which the seemingly increased reliance on such a static branch of economic theory might have for EU competition policy.

### **II.1. The Issue of Normativity**

In this context, particular mention should be made of the normative concerns which this thesis submits are likely to arise as a consequence of the Commission's understanding of, and approach to, the economic concept of 'the market' as a basis for its competition policy. Admittedly, a market based approach to competition law analysis is nothing 'unusual'



and even appears to be common practice in most countries / jurisdictions insofar that regulation of competitive scenarios involving dominance is commonly directed at, and orientated in relation to, 'the market' which means that the assessment of a potential dominance violation of competition law usually also involves defining the 'relevant market'.<sup>521</sup>

However, it is submitted that such a market based approach can lead to normative concerns with regard to the formation of competition policy if – as is seemingly the case with the Commission's more economic approach – 'the market' in question is based on neoclassical economic foundations, i.e. it is approached in a static manner, rather than in one which allows for a the express consideration of dynamic aspects. In particular, it is argued that the reliance on a neoclassically approached 'market' as the basis for competitive assessment can be seen as the pursuit of a course of action which is likely to result in the removal from the evaluation process of that which, from the legal perspective, might be regarded as the 'real' normative issues – insofar that 'the law' is not solely concerned with questions of economic efficiency when assessing an alleged violation of competition law. This submission is based on the consideration that the purposes of the use of the market concept in competition law analysis and in economics are different: in competition law analysis, the assessment emphasis is on a normative question – such as 'is a particular action lawful?' or 'is a particular behaviour legal?' – i.e. a question which is concerned with the formation of value judgments about a particular

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<sup>521</sup> See e.g. Lawrence A. Sullivan / Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, Chapters 1-2 (with regard to the United States of America); Richard Whish, *Competition Law*, Chapters 9-11; Mark Furse, *Competition Law of the EC and UK*, Chapters 11-20 (with regard to the United Kingdom); Michael Kling / Stefan Thomas, *Kartellrecht*, Chapters 10-21; Hermann-Josef Bunte, *Kartellrecht mit neuem Vergaberecht*, Chapters 8-13 (with regard to Germany); Ingo Schmidt, *Wettbewerbspolitik und Kartellrecht*, Chapters 10-12 (with regard to France, Austria and Switzerland).

behaviour. In economics however, rather than being concerned with assessing the legal (normative) quality of an action, the market concept is used to conceptualise rather complex economic relationships and variable variables that may exist within an industry and which reflect a process of commercial activity – such as buying and selling – that forms the basis of capitalist systems / economies. It is however not used by economists to make value judgements about individual interactions *as such*,<sup>522</sup> but to show the abstract interaction of abstract buyers and abstract sellers in terms of its abstracted efficiency effects as e.g. symbolised by the model of perfect competition which exemplifies a (theoretical) situation of allocative and productive efficiency.<sup>523</sup>

Put differently, law and legal policies such as competition policy can be regarded as having a normative function insofar that they can be considered ‘tools of social engineering’<sup>524</sup> because they indicate how people should behave, thereby lay down what is good, and what is bad, behaviour and thus indicate how to regulate a certain behaviour in accordance with the values a society prefers. Accordingly it might be said that, even if it was theoretically possible to invest interactions such as those exemplified by the market concept with normative qualities<sup>525</sup> and to

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<sup>522</sup> See Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 597-600.

<sup>523</sup> Ulrich Schwalbe, *Das Effizienzkonzept der Wirtschaftstheorie*, in: Holger Fleischer / Daniel Zimmer (ed.) *Effizienz als Regelungsziel im Handels- und Wirtschaftsrecht*, 43, 49.

<sup>524</sup> See e.g. John Rawls, *A Theory of Justice*, 259 *et seq.*: “[A]n economic system is not only an institutional device for satisfying existing wants and needs but a way of creating and fashioning wants in the future. How men work together now to satisfy their present desires affects the desires they will have later on, the kind of persons they will be [...]. Since economic arrangements have these effects, and indeed must do so, the choice of these institutions involves some view of human good and of the design of institutions to realise it. The choice must, therefore, be made on moral and political as well as on economic grounds. Considerations of efficiency are but one basis of decision and often relatively minor at that.”

<sup>525</sup> Richard A. Posner, for example, advocates ‘wealth maximisation’ as a value, see e.g.: Richard A. Posner, *The Economics of Justice*, *passim*. It is however questionable if

decide from such investments how to regulate a certain economic sector / industry so as to promote the ‘good’ and prevent the ‘bad’, the problem would still be that neoclassically defined models are likely to miss out on many factors that lie outside their limited micro-economic perspective. In this respect, the point to be made here is that ‘the market’ (or even an analysis based upon this neoclassically approached economic concept) neither tells us anything about any of these values, nor indeed about anything other than statically approached economic notions of efficiency. Indubitably, approaching the *legal* assessment of an alleged violation of competition law from the neoclassically defined *economic* concept of ‘the market’ allows for what might be called a “bright-line test, [i.e.] simple rules supposedly based on economic analysis”<sup>526</sup> for the purpose of competition law analysis because,

“[b]y defining anticompetitive behavior solely in terms of price and output, the Chicago model [<sup>527</sup>] arguably furnishes enforcement authorities with simple quantitative tests that remove the guesswork from antitrust adjudication. Its mathematical simplicity presumably frees courts from the need to hazard qualitative judgments about the supposed norms of business competition or the inchoate effects of corporate size on the body politic. In addition, [...] by defining expanded output and lower prices as the exclusive measure of welfare, [it has been contended that] their methodology avoids the problems associated with weighing and balancing the conflicting

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‘wealth’ has such normative qualities; see Ronald M. Dworkin, *Is Wealth a Value?*, (1980) 9 *Journal of Legal Studies* 191; Anthony T. Kronman, *Wealth Maximization as a Normative Principle*, (1980) 9 *Journal of Legal Studies* 227. Similar observations can be made in relation to EC competition policy: the ‘consumer welfare’ objective – because of its seemingly inseparable connection with ‘the market’ – exemplifies this point.

<sup>526</sup> Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129.

<sup>527</sup> As pointed out by Kerber and Vezzoso, the underlying theoretical foundations of the Commission’s reform efforts can be traced back to the teachings of the Chicago School; Wolfgang Kerber / Simonetta Vezzoso, *EU Competition Policy, Vertical Restraints, and Innovation: An Analysis from an Evolutionary Perspective*, (2005) 28 *World Competition* 507, 510. See also Gisela Linge, *Competition Policy, Innovation, and Diversity*, 55 *et seq.*.

interests of different market segments, such as consumers and small business.”<sup>528</sup>

Although this simplification might be considered an analytical advantage insofar that it provides a seemingly definite and relatively easy way of conducting competition law analysis, it should however be noted that this approach, from the legal perspective, might be considered as falling somewhat short of the mark as it would appear to leave out a rather sizeable – normative – chunk of the legal assessment of an alleged violation of competition law. One reason for this ‘omission’ might be a difference of focus between the subject *law* and the subject *economics* insofar that the laws which are concerned with the assessment of competitive scenarios

“may be characterized and should be understood as limitations upon the exercise of [...] government created contract and property rights (including intellectual property rights) in the light of the normative ends assumed to be purposes of antitrust policy.”<sup>529</sup>

In view of the discussion of the goals of EU competition policy as presented by the European Treaties in Chapter 1 which concluded that, irrespective of the Commission’s efforts to effect the total economic (re-)orientation of EU competition policy, there was still more to the objectives of EU competition policy than just the goal of consumer welfare, this statement would also appear to be applicable in relation to the relevant laws of the European Union:

“European competition policy is instrumental insofar as according to Article 3 Lit g EC (“a system ensuring that competition in the internal market is not distorted”) it is meant to serve the more general objectives as set forth in Article 2 EC, such as “high level of protection and improvement of the quality of the environment” and

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<sup>528</sup> Michael S. Jacobs, *An Essay on the Normative Foundations of Antitrust Economics*, (1995) 74 *North Carolina Law Review* 219, 231.

<sup>529</sup> John J. Flynn, *Antitrust Policy, Innovation Efficiencies, and the Suppression of Technology*, (1997-98) 66 *Antitrust Law Journal* 487, 491 *et seq.*

“the raising of the standard of living and quality of life”, besides all the other policies listed in Article 3 EC. A number of so-called integration clauses (“Querschnittsklauseln”) in the Treaty (Articles 6, 127 para. 2, 151 para. 4, 153 para. 2, 157 para. 3 EC) demand that certain non-competition objectives shall be taken into account in pursuing other Community policies. Only with regard to industrial policy the Treaty contains a reservation in so far as competition may not be distorted by any Community measure (Article 157 para. 3 subpara. 2 EC). [...] [O]ne has to take into account the fact that, concerning the application of the basic freedoms of the EC-Treaty (free movement of goods, services, and capital etc., Art. 28, 29, 49, 56 EC), Community law obliges Community and national judges to weigh the competing demands of the objectives of the freedoms on the one hand and public policy objectives pursued by the Member States on the other. National judges cannot abstain from this weighing procedure by reference to the notion of justiciability. Indeed, the case law of the Court of Justice gives some indications that the respective standards directing the weighing process in the field of competition law and with regard to the basic freedoms are essentially the same.”<sup>530</sup>

As outlined in Chapter 1, this thesis contends that the fundamental position (in terms of the overall policy goals) of the European Treaties has not been changed by the coming into force of the Lisbon Treaty. It is submitted that the same applies in relation to Roth’s comments above, especially given that the integration clauses and the relevant basic freedoms mentioned in above quote continue to exist in the revised texts of the European Treaties.<sup>531</sup> Conversely, this interpretation of the European Treaties would seem to indicate that the normative purposes of competition law as contained in the *lex lata* of the European Treaties still

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<sup>530</sup> Wulf-Henning Roth, The “More Economic Approach” and the Rule of Law, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 37, 41f.

<sup>531</sup> The former Article 6 EC Treaty is now contained in Article 11 TFEU, Article 127 EC Treaty (old) is now Article 147 TFEU, Article 151 EC Treaty (old) is now Article 167 TFEU, Article 153 (2) EC Treaty (old) is now Article 12 TFEU and Article 157 EC Treaty old is now Article 173 TFEU. See Table of Equivalences, at: [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:0361:0388:EN:PDF\(12/02/2011\)](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:0361:0388:EN:PDF(12/02/2011)).

need to be reflected in competition law analysis and not just 'glossed over' by some sort of an 'economics-infused escape route' along the lines of the Commission's more economic approach. Moreover, it might even be argued that the Commission's more economic approach, by introducing the consumer welfare objective as the sole purpose of competition law, essentially feigns that the *Ökonomisierung* leads to a fairer, more just and more justiciable competition policy insofar that it purports that its 'more economic' approach increases transparency and predictability; however, as addressed *passim* in the remainder of this Chapter, this is not the case. Accordingly, it is maintained that an approach which solely focuses on economic efficiency considerations falls well short of the *lex lata* which arguably contains and advocates the inclusion and relevance of more objectives than consumer welfare alone. Admittedly, basing competition law analysis on a simplified and simplifying economic concept such as the neoclassically approached 'market' seems to ease the evaluation process insofar that it 'easily' provides an answer to the question of whether a market structure exhibits economic efficiency. However, such economics focused analysis does not automatically enable the conclusion that an undertaking has actually *legally abused* its dominant position as this conclusion involves the *normative* assessment of a *behaviour* which necessitates an evaluation based on criteria which do not, and cannot, form part of the theoretical market models underlying the Commission's approach to economic analysis of a competitive scenario. This is because

"competition defines the market, not vice versa; [...] no market can contain competition among modern multi-product firms; [...] *the* market is a still snapshot in frozen time, unable to sense change or innovation; [...] the process of competition defies quantification; and

hence [...] the concept of a finite, objectively defined market is an ever-receding mirage.”<sup>532</sup>

In addition, it should be remembered that almost all economic assumptions are contestable or even counterfactual insofar as “their verification requires the evaluation of facts which do not or cannot appear in real markets and thus defy any systematic testing efforts”<sup>533</sup> – a neoclassically approached market definition which is based on the highly restrictive assumptions of the model of perfect competition might be regarded as a prime example for such contestability / counterfactuality: for instance, the exercise of defining the ‘relevant market’ can arguably, “at best”, only “give some information on short-run monopoly power [i.e. dominance]” but such “market definition-market share exercises can shed no light at all on long-run monopoly power [...] unless one adopts a particularly limited form of the “size is power” model”.<sup>534</sup> However, if the explanatory powers of a market based approach to competition law analysis have to be considered as already limited when it comes to the *economic* evaluation of a competitive situation, how can such an approach be expected to provide meaningful answers in relation to the *legal* – and thus, in view of the discussion in previous Chapters, also more complex – assessment of a particular behaviour? Rather, it might be concluded that “the fetish of a finite measurable market to serve as a competitive predictor is inherently delusive in application”.<sup>535</sup>

This evaluation of the explanatory properties of the market concept would appear to hold true even in the context of welfare economics, i.e. a branch of economics which economists consider allows for a ‘normative

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<sup>532</sup> Frederick M. Rowe, *Market as Mirage*, (1987) 75 *California Law Review* 991, 995.

<sup>533</sup> Michael S. Jacobs, *An Essay on the Normative Foundations of Antitrust Economics*, (1995) 74 *North Carolina Law Review* 219, 251 *et seq.*

<sup>534</sup> Richard Schmalensee, *On the Use of Economic Models in Antitrust: The RealLemon Case*, (1979) 127 *University of Pennsylvania Law Review* 994, 1044.

<sup>535</sup> Frederick M. Rowe, *Market as Mirage*, (1987) 75 *California Law Review* 991, 995.

evaluation' of markets and economic policy: although the second theorem of welfare economics states that efficiency does not need to conflict with equity considerations, it does not say which allocation is *per se* socially desirable; the second welfare theorem only states that, under certain conditions, targeted intervention in a market (such as redistribution measures) can achieve any desired Pareto efficient outcome as a competitive equilibrium.<sup>536</sup> The evaluation of a market outcome as socially desirable depends on values outside 'the market', i.e. on parameters and / or characteristics which are not (and cannot) be captured by a statically approached market concept based on neoclassical assumptions.

To conclude, the Commission's attempted *Ökonomisierung* of EU competition policy can be seen as raising significant normative concerns for competition law analysis insofar that this approach, by focusing on static efficiency considerations, can not only be said to exclude 'the bigger picture' (e.g. relevant public policy considerations<sup>537</sup>) from the actual evaluation process but it can also be said to essentially disregard the fact that competition law analysis is not so much concerned with a market structure but with a particular behaviour; in other words, the analytical process is concerned with the formation of value judgements about the said behaviour and not solely with the question whether a particular market structure leads, in theory, to allocative and productive efficiency. This conclusion seems to suggest that the seemingly increased tendency on part of the Commission to base the answer to an essentially normative question – 'Has a particular behaviour caused an actionable anti-competitive injury?' – solely upon (neoclassically influenced) economic

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<sup>536</sup> Robert S. Pindyck / Daniel L. Rubinfeld, *Microeconomics*, 597-600; Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 17.

<sup>537</sup> Wulf-Henning Roth, *The "More Economic Approach" and the Rule of Law*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 37, 41 *et seq.*.



theory in is, to put it mildly, problematic. As advanced in this Chapter, one reason for this might be seen in the differences which can be said to exist between the reality and the often quite restrictive theoretical assumptions underlying a particular economic concept (such as ‘the market’). A consequence of these differences is that it is difficult to apply abstract economic theory underlying these concepts to a real competitive scenario without risking erroneous conclusions as an

“economist’s theoretical positions, once accepted, are often difficult or impossible to apply to actual markets – or can be applied to them only with considerable risk of error – because factual indeterminacies cannot be resolved, or can be resolved only at excessive cost. To the law, it avails nothing to conclude that a particular legal intervention will yield greater allocative efficiency in a market characterized by a tight oligopoly, especially when barriers to entry are substantial, if there is no satisfactory technique for determining whether a particular set of firms do constitute a “tight oligopoly” or whether entry barriers exceed the threshold that the theoretical position deems crucial.”<sup>538</sup>

To apply economic theory regardlessly would appear to risk creating, rather than solving, problems in the application of competition law because such an approach might be considered as disregarding the fact that competition law is, first and foremost, law and thus a primarily a normative discipline. Yet whilst it might be regarded as the original ‘law and ... discipline’, it is neither ‘economics and ...’ nor “applied economics”. Consequently it might be said that, if competition law

“is [...] to remain a system of law, not a system of applied economics, it must be responsive to values other than allocative efficiency [...a]nd it must be open to influences other than economics. [...] Thinking and writing about the law as though rational resource allocation were the only goal can only lead to confusion.”<sup>539</sup>

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<sup>538</sup> Lawrence A. Sullivan / Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 21.

<sup>539</sup> Lawrence Anthony Sullivan, *Antitrust*, 11.

Accordingly, any further 'injection' of economics into competition law analysis should only be treated as an addition to the *legal* assessment as any other treatment of such addition is likely to result in a loss of much needed normativity in the actual assessment process of a potential anti-competitive injury. This would appear to be also the case with regard to the Commission's more economic approach which pursues consumer welfare, in the neoclassical meaning of the term, as its main goal to the detriment of the traditional goals as outlined in the European Treaties. In this respect, it is submitted that the Commission's seeming reliance on a static form of economic theory as embodied in its understanding of, and approach to, the economic concept of 'the market' risks the *de facto* establishment of a competition policy which is at odds with its normative purpose as presented by the *lex lata* of the European Treaties.

## II.2. The Issue of Legal Certainty

As has been argued *passim* in Chapters 2 and 3, the Commission apparently intends to align its competition policy more or less completely with economic principles with the effect that more traditional goals are considered to be only of lesser, if not to say no, importance.<sup>540</sup> In view of the different positions in relation to the overall goal(s) of EU competition

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<sup>540</sup> See e.g., in relation to the question of State Aid: Neelie Kroes, Competition policy in a Lisbon context – the State of Play, Speech at the German Bundestag – Europaausschuss, Berlin, 6<sup>th</sup> July 2006: "We are overhauling all our rules in order to firmly ground them in rigorous economic analysis and to improve the speed, transparency and predictability of their application."; with regard to EC competition policy in general: Mario Monti, A reformed competition policy: achievements and challenges for the future, Speech at the Center for European Reform, Brussels, 28 October 2004: "[A] major trend of this mandate has been to ensure that competition policy is fully compatible with economic learning. Furthermore, competition policy is an instrument to foster economic growth, to promote a good allocation of resources and to strengthen the competitiveness of the European industry for the benefit of the citizens. These objectives would only be randomly achieved, at the expense of numerous errors, if we were to ignore economic thinking and market dynamics."

policy as outlined in previous Chapters, the intended *Ökonomisierung* would seem to go beyond the 'simple' addition of another layer to the teleological interpretation of existing *legal* rules because the Commission's more economic approach might be regarded as the abrogation of the overall goals of competition law contained in the European Treaties and, thus, also as the distinct change of both normative direction and content of EU competition law. Although putting such intention into practice would appear to require the complete overhaul of the relevant legislation,<sup>541</sup> it might be argued that, given the various guidelines issued by the Commission which are ostensibly aimed at furthering its course of the *Ökonomisierung* of EU competition policy, such a *de facto* overhaul has already started to take place.<sup>542</sup> The first question to be asked in this context is therefore whether the Commission is actually able to effect such (essentially) normative changes by means of guidelines and guidance documents, i.e. it is questionable whether the relevant Commission measures possess the necessary legal quality to achieve the complete *legislative* overhaul of EU competition policy.<sup>543</sup> Furthermore, and following on from this point, it should also be asked what implications the

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<sup>541</sup> See Ulrich Immenga, *Ökonomie und Recht in der europäischen Wettbewerbspolitik*, (2006) *Zeitschrift für Wettbewerbsrecht* 346, 365. Dreher and Adam present an argument along similar lines by stating that an "application regime cannot override the legal norm itself, no matter how economically appreciable the results would be"; Meinrad Dreher / Michael Adam, *The more economic approach to Art. 82 EC and the legal process*, (2006) *Zeitschrift für Wettbewerbsrecht* 259, 265. This point is further discussed in this section below.

<sup>542</sup> Guidelines and guidance notices issued by the Commission in recent years in the area of competition law have been characterised by the Commission's more economic approach; this 'trend' is likely to continue. See Rainer Bechtold, *Faktische Rechtssätze – Zur Bedeutung von Bekanntmachungen, Leitlinien und Mitteilungen der Kommission für die Auslegung europäischen und deutschen Kartellrechts*, in: Gerda Müller / Eilert Osterloh / Torsten Stein, *Festschrift für Günter Hirsch zum 65. Geburtstag*, 223, 225.

<sup>543</sup> Admittedly, this point relates to *all* areas of competition policy and not just to software industry specific competition policy alone. However, given its overall impact, this point is also important in relation to the software industry.

*Ökonomisierung* is likely to have for legal certainty in the area of competition law.

For the purpose of this thesis, these queries relating to the Commission's abilities in this respect are important because the answers to these questions can be considered to have an impact on this thesis' hypothesis that the Commission's more economic approach does not lend itself easily to the creation of coherent and consistent competition policy for the software industry: if it was found that the Commission, by means of guidelines and guidance notes, was able to bring about the *de facto* overhaul of EU competition law analysis, this finding would point towards the existence of a conflict between European competition law *practice* (i.e. the Commission's approach to the application of competition law) and European competition law *theory* (i.e. the objectives of competition law as per European Treaties). Such a conflict, if present, could hardly be considered beneficial with regard to the formation of competition policy for any industry – and, in view of the characteristics of the software industry as outlined in Chapter 5 below, still less for the software industry – as the resulting confusion as to the actual *status quo* of 'the law' for undertakings and regulators would, in all likelihood, result in legal uncertainty manifested as incoherent competition policy and enforcement practice; this again would have detrimental effects for all parties concerned. Put differently, legal certainty would suffer if the Commission could effect a complete overhaul of EU competition policy by issuance of notices and similar documents, because, by so doing, it could practically 'make the law' as it saw fit. By the same token however, even if the Commission was (correctly) shown to be incapable of changing 'the law' contained in the European Treaties, confusion as to the actual legal position would still, in all likelihood, reign supreme; in fact, legal uncertainty would be greater in this case because the potential finding of

incapability would magnify any existing conflict between Commission competition law *practice* (i.e. enforcement practice) and the European Treaties' competition law *theory* (i.e. the objectives of competition law as per the *lex lata*) as, in this case, the overriding question would be 'what may a potentially dominant undertaking lawfully do?'. In other words, the problem is predicting correctly what such an undertaking may do lawfully so as to avoid a breach of Article 102 TFEU.

### II.2.1. Commission Guidelines as Measures to 'overhaul' EU Competition Law?

At first glance, the answer to the question if Commission guidelines are capable of effecting a normative change seems quite simple and to be in the negative because, as rules of application (i.e. administrative notices designed to clarify administrative principles),<sup>544</sup> Commission guidelines should be incapable of changing EU (competition) law. However, such a conclusion might potentially be premature as, although Commission guidelines do not form part of secondary legislation,<sup>545</sup> they can be said to possess normative *effect* at least insofar that the Commission itself may be bound in practice by its own guidelines.<sup>546</sup>

*“although those measures [i.e. guidelines] may not be regarded as rules of law which the administration is always bound to observe, they nevertheless form rules of practice from which the administration may not depart in an individual case without giving reasons that are compatible with*

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<sup>544</sup> Rainer Bechtold, Faktische Rechtssätze aus Brüssel – Zur Bedeutung von Bekanntmachungen, Leitlinien und Mitteilungen der Kommission für die Auslegung europäischen und deutschen Kartellrechts, in: Gerda Müller / Eilert Osterloh / Torsten Stein, Festschrift für Günter Hirsch zum 65. Geburtstag, 223, 225.

<sup>545</sup> Marc Schweda, Die Bindungswirkung von Bekanntmachungen und Leitlinien der Europäischen Kommission, (2004) *Wirtschaft und Wettbewerb* 1133, 1135.

<sup>546</sup> Michael Baron, Bedeutung von Leitlinien / Bekanntmachungen, in: Eugen Langen / Hermann-Josef Bunte, Kommentar zum deutschen und europäischen Kartellrecht, Band 2, Europäisches Kartellrecht, Art. 2 FKVO Nr. 139/2004, paras. 27 *et seq.*; Rainer Bechtold / Wolfgang Bosch / Ingo Brinker / Simon Hirsbrunner, EG-Kartellrecht Kommentar, Art. 1 VO 1/2003, para. 35.

*the principle of equal treatment. [...] In adopting such rules of conduct and announcing by publishing them that they will henceforth apply to the cases to which they relate, the institution in question imposes a limit on the exercise of its discretion and cannot depart from those rules under pain of being found, where appropriate, to be in breach of the general principles of law, such as equal treatment or the protection of legitimate expectations. It cannot therefore be precluded that, on certain conditions and depending on their content, such rules of conduct, which are of general application, may produce legal effects.”<sup>547</sup>*

Yet, even though Commission guidelines might, because of their self-committing effect, be desirable in order to guarantee equal treatment of different cases,<sup>548</sup> their potential to bring about such a practical legal effect might still be considered insufficient to effect a change of the actual legal character of such guidelines because, according to the case law of the European Court of Justice, Commission “guidelines [...] are designed, whilst complying with higher-ranking law, to specify the criteria which the Commission intends to apply when exercising its discretion.”<sup>549</sup> It should be noted that the European Court of Justice emphasises the point of *compliance with* higher-ranking law and thus, by way of omission, seems to exclude the possibility that such guidelines might lead to the *replacement of* such higher-ranking law. Consequently, although Commission guidelines can, in view of the above, be said to essentially possess the same *practical* effect as legal norms, they have to be regarded as being devoid of normative *character* comparable to that possessed by legal

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<sup>547</sup> European Court of Justice, *Dansk Rørindustri and Others v. Commission of the European Communities*, 28 June 2005, Case C-189/02 P, paras. 209 and 211 [emphasis added].

<sup>548</sup> Rainer Bechtold, *Faktische Rechtssätze aus Brüssel – Zur Bedeutung von Bekanntmachungen, Leitlinien und Mitteilungen der Kommission für die Auslegung europäischen und deutschen Kartellrechts*, in: Gerda Müller / Eilert Osterloh / Torsten Stein, *Festschrift für Günter Hirsch zum 65. Geburtstag*, 223, 225.

<sup>549</sup> European Court of Justice, *Scandinavian Airlines System AB v. Commission of the European Communities*, Case T-241/01, 18 July 2005, para. 64.

norms,<sup>550</sup> which means that, in essence, Commission guidelines only “offer an interpretation of the law.”<sup>551</sup> Moreover, as Pohlmann has pointed out, the existence of legally binding Commission guidelines would represent an obstacle for the further development of EU competition law insofar that such a legally binding effect was likely to result in the multiplication of possibly wrong evaluations on the part of the Commission and thereby also lead to the reduction of the national competition authorities’ willingness to reach conclusions which dissent from the Commission’s assessment guidance.<sup>552</sup> Any evaluation of Commission guidelines to the opposite effect, i.e. that such guidelines are actually legally binding on national courts and authorities,<sup>553</sup> would consequently elevate these guidelines above their ‘natural’ status of administrative notices,<sup>554</sup> i.e. over their status as measures solely intended to offer guidance and to aid orientation.<sup>555</sup> Accordingly, whilst Commission guidelines can be said to possess limited legal effect only inasmuch as they can be understood as a means of normative construction / interpretation,<sup>556</sup> their legal quality does not extend to the ability to “alter the legal framework.”<sup>557</sup> Consequently,

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<sup>550</sup> Ulrich Immenga, *Ökonomie und Recht in der europäischen Wettbewerbspolitik*, (2006) *Zeitschrift für Wettbewerbsrecht* 346, 365.

<sup>551</sup> Liza Lovdahl Gormsen, *Why the Commission’s Enforcement Priorities on Article 82 EC should be withdrawn*, (2010) *31 European Competition Law Review* 45, 46.

<sup>552</sup> Petra Pohlmann, *Keine Bindungswirkung von Bekanntmachungen und Mitteilungen der Europäischen Kommission*, (2005) *Wirtschaft und Wettbewerb* 1005, 1009.

<sup>553</sup> This opinion is advanced by Marc Schweda in his article *Die Bindungswirkung von Bekanntmachungen und Leitlinien der Europäischen Kommission*, (2004) *Wirtschaft und Wettbewerb* 1033.

<sup>554</sup> Fritz Rittner / Michael Kulka, *Wettbewerbs- und Kartellrecht*, § 7 para. 98; Petra Pohlmann, *Keine Bindungswirkung von Bekanntmachungen und Mitteilungen der Europäischen Kommission*, (2005) *Wirtschaft und Wettbewerb* 1005.

<sup>555</sup> Rainer Bechtold / Wolfgang Bosch / Ingo Brinker / Simon Hirsbrunner, *EG-Kartellrecht Kommentar*, Art. 1 VO 1/2003, para. 35.

<sup>556</sup> Ulrich Immenga, *Leitlinien als Instrument europäischer Wettbewerbspolitik*, 13.

<sup>557</sup> European Court of Justice, *Judgment Joined Cases C-189/02 P, C-202/02 P, C-205/02 P to C-208/02 P and C-213/02 P, Dansk Rørindustri and Others v. Commission of the European Communities*, para. 205.

Commission guidelines in relation to EU competition law provisions have to be regarded as subordinate to the actual competition law provisions contained in the European Treaties with the effect that such guidelines cannot be considered to possess the legal quality necessary to effect the overhaul of EU competition law.

This is an important conclusion to be drawn as it supports one assertion previously made by this thesis: given that the discussion of the policy objectives in Chapters 1 and 2 concluded that the respective positions taken by the Commission and the European Treaties differed, the fact that Commission guidelines cannot effectuate a change of the law also means that the Commission's more economic approach has to be regarded as contradicting the *lex lata* as contained in the European Treaties. It is unlikely that this 'contradiction' will have a beneficial impact on the formation of coherent competition policy. The above-voiced fears that the Commission's more economic approach is likely to have a negative impact on the question of legal certainty would thus seem to be justified.

## **II.2.2. The Impact of the Commission's Guidance on Enforcement**

### **Priorities on Legal Certainty**

The conclusion that the Commission's attempted *Ökonomisierung* of EU competition policy is likely to negatively impact on legal certainty in this area would also appear to be supported by the relatively recently issued *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*.<sup>558</sup> Although this submission, in view of the *Guidance Paper's* alleged

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<sup>558</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, Official Journal 2009 C45, 24/02/2009.



“intellectual incoherence”<sup>559</sup> mentioned in section I.1. of this Chapter, might not come as a surprise, it still necessitates some further explanatory remarks.

For a start, it is necessary to establish if, and to what extent, unintelligibility actually exists in the *Guidance Paper* and, thereby, also to substantiate how any such ‘obscurity’ may impact on legal certainty. In addition, further explanation is necessary because the *Guidance Paper* might be ‘accused’ of a certain “ambiguity” regarding its “true nature”,<sup>560</sup> i.e. regarding whether it is to be classified as Commission *guidelines* or mere *guidance notes*, which might further aggravate any existing incoherence as regards content. This classification can be considered important because of its potential impact on the question of what (legal) effect the *Guidance Paper* may produce, especially if it deviates from either the European Treaties or established case law: for instance, if the *Guidance Paper* was found to be of the same legal nature as Commission *guidelines*, this finding could reasonably be assumed to support the assertion that the Commission’s more economic approach is likely to cause legal uncertainty as, in this case, the *Guidance Paper* could be said to produce the same legal effects as other Commission *guidelines*.<sup>561</sup> But even if the *Guidance Paper* was found to be of lesser legal quality than actual *guidelines* – for example, if it was exactly ‘what it said on the tin’: “enforcement priorities” – the result for legal certainty could again be detrimental because, although the Commission is perfectly within its remit to issue ‘enforcement priorities’

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<sup>559</sup> James Killick / Assimakis Komninos, *Schizophrenia in the Commission’s Article 82 Guidance Paper: Formalism Alongside Increased Recourse to Economic Analysis*, *Global Competition Policy* (February 2009), 2.

<sup>560</sup> Damien Geradin, Chapter 2: *Is the Guidance Paper on the Commission’s Enforcement Priorities in Enforcing Article 102 TFEU Useful?*, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 46, 61.

<sup>561</sup> See e.g. European Commission, *Guidelines on the application of Article 81(3) of the Treaty*, Official Journal 2004 C101, 27/04/2004.

notices *as such*,<sup>562</sup> the *Guidance Paper* might still cause confusion for undertakings, counsel and national enforcement agencies as to which standards they should best follow: those outlined by the European Treaties and case law or those underlying the Commission's more economic approach?<sup>563</sup>

Admittedly, at first glance, the answer to this question would appear to be relatively clear and in favour of the first option. However, in view of the fact that the Commission can be regarded not only as "the moving power of the Union's activities"<sup>564</sup> but also that it enjoys a rather considerable 'margin of appreciation' in its decision making which the Courts, when reviewing a Commission decision, usually treat "with a degree of self-restraint",<sup>565</sup> the answer for the undertaking is less clear. In fact, the Courts' apparent reluctance to tread on the Commission's discretionary powers might even add to any confusion potentially caused by the *Guidance Paper*, regardless of whether this confusion is caused by the *Guidance Paper's* content or its classification: although the Courts' self-restriction does not necessarily mean that Commission decisions are exempt or, at least, as good as exempt from judicial review, it should be noted that this review is limited to a more formal check of the Commission's interpretation of technical and economic data.<sup>566</sup> This means

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<sup>562</sup> Court of First Instance, *Automec Srl v Commission of the European Communities*, 18 September 1992, Case T-24/90, para. 77.

<sup>563</sup> See Ariel Ezrachi, *The Commission's Guidance on Article 82 EC and the Effects Based Approach – Legal and Practical Challenges*, in: Ariel Ezrachi (ed.) *Article 82 EC: Reflections on its Recent Evolution*, 51, 60.

<sup>564</sup> P. S. R. F. Mathijsen, *A Guide to European Union Law*, 106.

<sup>565</sup> Richard Whish, *Competition Law*, 287. See also Luis Ortiz Blanco / Konstantin J. Jörgens, *Antitrust Rules (Articles 81 and 82 EC)*, in: Luis Ortiz Blanco (ed.), *EC Competition Procedure*, paras. 15.17 and 15.23.

<sup>566</sup> Nils Wahl, *Standard of Review – Comprehensive or Limited?*, 1, in: Claus-Dieter Ehlermann / Mel Marquis (eds.), *European Competition Law Annual 2009: Evaluation of Evidence and its Judicial Review in Competition Cases*; Luis Ortiz

that, where the Commission's decision is deemed to fall within its 'margin of appreciation' regarding economic matters, the European Courts examine an appealed decision only with regard to "whether the evidence put forward is factually accurate, reliable and consistent", "whether that evidence contains all the relevant data that must be taken into consideration in appraising a complex situation and whether it is capable of substantiating the conclusions drawn from it [...]." <sup>567</sup> Moreover, it would appear that the self-restraint of the European Courts is even greater where the scrutinised undertaking operates in a technologically complex sector such as the software industry. For example, the Court of First Instance (as it was then) observed in Microsoft that its

"review of complex economic appraisals made by the Commission is necessarily limited to checking whether the relevant rules on procedure and on stating reasons have been complied with, whether the facts have been accurately stated and whether there has been any manifest error of assessment or a misuse of powers [...]. [...] Likewise, in so far as the Commission's decision is the result of complex technical appraisals, those appraisals are in principle subject to only limited review by the Court, which means that the Community Courts cannot substitute their own assessment of matters of fact for the Commission's [...]." <sup>568</sup>

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Blanco / Konstantin J. Jörgens, *Antitrust Rules (Articles 81 and 82 EC)*, in: Luis Ortiz Blanco (ed.), *EC Competition Procedure*, paras. 15.17 and 15.23.

<sup>567</sup> Court of First Instance, *Microsoft Corp. v Commission of the European Communities*, 17 September 2007, Case T-201/04, para. 89; see also European Court of Justice, *Commission v Tetra Laval*, 15 February 2005, Case C-12/03 P, para. 39.

<sup>568</sup> Court of First Instance, *Microsoft Corp. v Commission of the European Communities*, 17 September 2007, Case T-201/04, paras. 87-88; see also Court of First Instance, *Kish Glass & Co. Ltd v Commission of the European Communities*, 30 March 2000, Case T-65/96, para. 64; European Court of Justice, *Remia BV and others v Commission of the European Communities*, 11 July 1985, Case 42/84, para. 34; European Court of Justice, *British-American Tobacco Company Ltd and R. J. Reynolds Industries Inc. v Commission of the European Communities*, 17 November 1987, joined cases 142 and 156/84, para. 62; Order of the President of the European Court of Justice, *Commission of the European Communities v Laboratoires pharmaceutiques Trenker SA*, 11 April 2001, Case C-459/00 P (R), paras. 82-83; Court of First Instance, *A. Menarini - Industrie Farmaceutiche Riunite Srl v Commission of the European Communities*, 3 July 2002, Case T-179/00, paras. 44-45; Court of First

With regard to the issue of legal certainty, this apparent self-restriction imposed by the European Courts has to be considered unfortunate because “the boundary between those issues which are said to involve complex economic assessment leading to less intensive judicial review and those subject to full appellate scrutiny is not altogether clear”<sup>569</sup> which might be seen as further adding to the legal uncertainty for undertakings. In addition, it might not always be clear to the Court which economic assessment is to be classified as ‘normal’ – and thus subject to full judicial review – and which is to be regarded as ‘complex’ – and therefore only subject to a more limited judicial review, let alone how to identify the relevant criteria for such differentiation:<sup>570</sup>

“[t]he importance of understanding this distinction is, of course, all the greater since the Commission has announced its “more economic approach”. The greater the extent to which Commission decisions as to the anti-competitive nature of certain behaviour in individual cases are based on its economic assessments of the consequences of that behaviour, the greater will be the need to clarify how broad, or narrow, is the scope of the Court’s review of those assessments.”<sup>571</sup>

One might consider this need for properly differentiating between ‘complex’ and ‘normal’ economic assessment to be even greater because subjecting a Commission decision only to limited judicial review “leaves room for discretion and errors in the [Commission’s] appraisal as long as

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Instance, *Alrosa Company Ltd v Commission of the European Communities*, 11 July 2007, Case T-170/06, para. 108.

<sup>569</sup> Peter Roth / Vivien Rose, Bellamy & Child – European Community Law of Competition, para. 13.227.

<sup>570</sup> Nicholas Forwood, *The Commission’s ‘More Economic Approach’ – Implications for the role of the EU Courts, the Treatment of Economic Evidence and the Scope of Judicial Review*, 5, in: Claus-Dieter Ehlermann / Mel Marquis (eds.), *European Competition Law Annual 2009: Evaluation of Evidence and its Judicial Review in Competition Cases*.

<sup>571</sup> Nicholas Forwood, *The Commission’s ‘More Economic Approach’ – Implications for the role of the EU Courts, the Treatment of Economic Evidence and the Scope of Judicial Review*, 5 *et seq.*, in: Claus-Dieter Ehlermann / Mel Marquis (eds.), *European Competition Law Annual 2009: Evaluation of Evidence and its Judicial Review in Competition Cases*.

these errors are not manifest.”<sup>572</sup> Moreover, as Wahl has rightly pointed out, “[t]he fact that the EU courts rarely (if ever) admit that there has been an error, although not a manifest error, in the appraisal of the Commission cannot be taken as indicating that such errors are never found.”<sup>573</sup> Two more points might be raised in this context: first, that the self-restraint exercised by the European Courts in relation to economic assessment might lead to the ‘reinforcement’ not only of economically erroneous Commission decisions but also of an enforcement approach which might be considered inconsistent with the *lex lata*. This reinforcement is due to the fact that the self-imposed limitation opens up the possibility for

*“double renvoi, meaning that the Commission (and the defence) would rely for the integrity of the Commission’s process on the Courts reviewing even economic facts; while the Courts would say that they will not interfere with the Commission’s decisions, because of a perceived “discretion” of the Commission over “complex economics”. That appears unacceptable in the world of “modern” competition law, where economics play such an important role.”*<sup>574</sup>

In this respect, it might well be asked what it is that makes an economic assessment a ‘complex’ one rather than a ‘normal’, non-complex economic assessment: surely, the grounds for such classification cannot lie in the fact alone that the Commission’s assessment is one “which requires the consideration of (possibly esoteric) economic arguments and the

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<sup>572</sup> Nils Wahl, Standard of Review – Comprehensive or Limited?, 4, in: Claus-Dieter Ehlermann / Mel Marquis (eds.), European Competition Law Annual 2009: Evaluation of Evidence and its Judicial Review in Competition Cases.

<sup>573</sup> Nils Wahl, Standard of Review – Comprehensive or Limited?, 4, in: Claus-Dieter Ehlermann / Mel Marquis (eds.), European Competition Law Annual 2009: Evaluation of Evidence and its Judicial Review in Competition Cases.

<sup>574</sup> John Ratliff, Judicial Review in EC Competition Cases Before the European Courts: Avoiding *double renvoi*, 10, in: Claus-Dieter Ehlermann / Mel Marquis (eds.), European Competition Law Annual 2009: Evaluation of Evidence and its Judicial Review in Competition Cases [original emphasis].

examination of economic evidence [...] even though it may make the task of the judge extremely difficult or burdensome.”<sup>575</sup>

In addition, the seemingly self-imposed limitation upon the European Courts’ powers to review a Commission decision has to be considered unfortunate because this self-restraint is, on the part of the Courts, suggestive of a certain amount of ‘delegation’ to the Commission as to how the substantive standards for the application of Article 102 TFEU are to be defined; a fact which might be considered “inconsistent” with the principle that the interpretation of European law falls within the sole realm of the European Courts (Article 19 TEU).<sup>576</sup> More importantly however, such delegation opens up the possibility for a divergence between the enforcement standards contained in the *Guidance Paper* and those of traditional EU competition law which, in turn, is likely to lead to an increase in legal uncertainty for undertakings as to how ‘the law’ should be, and may be, interpreted.<sup>577</sup> At any rate, the leeway<sup>578</sup> granted

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<sup>575</sup> Nicholas Forwood, *The Commission’s ‘More Economic Approach’ – Implications for the role of the EU Courts, the Treatment of Economic Evidence and the Scope of Judicial Review*, 10, in: Claus-Dieter Ehlermann / Mel Marquis (eds.), *European Competition Law Annual 2009: Evaluation of Evidence and its Judicial Review in Competition Cases*.

<sup>576</sup> Jean-Yves Art / Pablo Ibáñez Colomo, *Judicial review in Article 102 TFEU*, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 120, 135.

<sup>577</sup> This is also likely to lead to an increase in compliance costs for all parties concerned because this divergence may add to the assessment costs, both at the stage prior to any potential Commission investigation or decision and also later at the stage of a potential judicial review.

<sup>578</sup> See for example, European Court of Justice, *Pedro IV Servicios SL v Total España SA*, 2 April 2009, C-260/07, para. 36: “While it is indeed true that the block exemption regulations apply in so far as agreements contain restrictions on competition caught by Article 81(1) EC, it is nevertheless often more practical to ascertain first whether those regulations apply to a given agreement, in order to avoid – if those regulations do apply – a complex economic and legal assessment to determine whether the conditions for the application of Article 81(1) EC are met.” This passage, as Forwood has rightly pointed out, might reasonably be interpreted to mean that an Art. 101(3) assessment always involves complex economic analysis and “thus [Article 101 (3) cases] by implication would be subject only to a marginal

by the European Courts to the Commission in relation to the application of Article 102 TFEU by means of its ‘margin of appreciation’ is regrettable as it can only add to any legal uncertainty for undertakings potentially caused by the *Guidance Paper*, especially if the *Guidance Paper* is shown to be inconsistent with either established case law or the *lex lata* of the European Treaties.

### II.2.2.1. The Intellectual Incoherence of the Guidance Paper

As mentioned before, the *Article 82 Guidance* is, by its own account, not “intended to constitute a statement of the law”,<sup>579</sup> rather, its intention is

“to provide greater clarity and predictability as regards the general framework of analysis which the Commission employs in determining whether it should pursue cases concerning various forms of exclusionary conduct and to help undertakings better assess whether certain behaviour is likely to result in intervention by the Commission under Article 82 [now Article 102 TFEU].”<sup>580</sup>

Yet, despite some favourable voices in the literature,<sup>581</sup> several points made by the *Guidance Paper* would seem to favour a different evaluation of

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review.”; Nicholas Forwood, *The Commission’s ‘More Economic Approach’ – Implications for the role of the EU Courts, the Treatment of Economic Evidence and the Scope of Judicial Review*, 6, in: Claus-Dieter Ehlermann / Mel Marquis (eds.), *European Competition Law Annual 2009: Evaluation of Evidence and its Judicial Review in Competition Cases*.

<sup>579</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, Official Journal 2009 C45, para. 3.

<sup>580</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, Official Journal 2009 C45, 24/02/2009, para. 2.

<sup>581</sup> Martin Andreas Gravengaard / Niels Kjaersgaard, *The EU Commission guidance on exclusionary abuse of dominance - and its consequences in practice*, (2010) 31 *European Competition Law Review* 285; Philip Lowe, *The European Commission Formulates its Enforcement Priorities as Regards Exclusionary Conduct by Dominant Undertakings*, (2009) *Global Competition Policy*, February issue. It should however be noted that Lowe, at the point of making his comments, was the Director General of the Directorate General for Competition. See also Nicolas Petit, *From Formalism to Effects? The Commission’s Communication on Enforcement Priorities in Applying Article 82 EC*, (2009) 32 *World Competition* 485. Petit’s assessment of

this document: that, given what has been called “an intellectual incoherence at the heart of the Guidance Paper”,<sup>582</sup> the Commission, by issuing this guidance document, has achieved the exact opposite of its stated aim and increased legal uncertainty in relation to Article 102 TFEU. For example, the *Guidance Paper* purports that, “[i]n applying Article 82 [now Article 102 TFEU] to exclusionary conduct by dominant undertakings, the Commission will focus on those types of conduct that are most harmful to consumers”<sup>583</sup> which, at first glance, would appear to constitute a definite declaration of intent on the part of the Commission and, thus, could be understood to actually clarify enforcement procedure for all parties. However, such an evaluation may be too optimistic: on the one hand, it might reasonably be questioned if, in view of the analysis in the preceding Chapters of this thesis, such a consumer welfare focused approach to the application of Article 102 TFEU is consistent with the *lex lata*.<sup>584</sup> On the other hand, even if the *Guidance Paper*’s focus on consumer welfare was to be regarded as generally consistent with traditional jurisprudence, it might also be asked if the *Guidance Paper* has added much clarity to the question of what such a consumer welfare approach actually entails – the *Guidance Paper* neither contains, nor indicates the existence of,

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the *Guidance Paper* is “mixed”: he concludes that, whilst the *Guidance Paper* “marks a welcome economic sophistication of the Commission’s Article 82 EC enforcement policy”, it is still “unsatisfactory” in parts; *ibid.*, 503.

<sup>582</sup> James Killick / Assimakis Komninos, *Schizophrenia in the Commission’s Article 82 Guidance Paper: Formalism Alongside Increased Recourse to Economic Analysis*, *Global Competition Policy* (February 2009), 2.

<sup>583</sup> European Commission, *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, *Official Journal* 2009 C45, 24/02/2009, para. 5.

<sup>584</sup> Liza Lovdahl Gormsen, *Why the Commission’s Enforcement Priorities on Article 82 EC should be withdrawn*, (2010) 31 *European Competition Law Review* 45, 47; Anne C. Witt, *The Commission’s guidance paper on abusive exclusionary conduct - more radical than it appears?*, (2010) 35 *European Law Review* 214, 216; Bernhard Heitzer, *What kind of benefits? Consumer welfare as a standard of competition policy*, Speech, *European Competition Day*, Paris, 18 November 2008.



a “plausible consumer harm theory” which would support the Commission’s claimed intention to achieve clarity and predictability,<sup>585</sup> instead the Commission appears to ‘water down’ its own previously proclaimed enforcement yardstick of consumer welfare by stating that

“[t]he emphasis of the Commission's enforcement activity in relation to exclusionary conduct is on safeguarding the competitive process in the internal market and ensuring that undertakings which hold a dominant position do not exclude their competitors by other means than competing on the merits of the products or services they provide. In doing so the Commission is mindful that what really matters is protecting an effective competitive process and not simply protecting competitors.”<sup>586</sup>

In view of the excerpts referred to above, it may not come as a surprise that the reception of the *Guidance Paper* in the literature has not always been favourable; for example, it has been commented that, given a lack of guidance as to what amount to either ‘competition on the merits’, how the ‘competitive process’ is to be understood or how / when exclusionary practices will / can be deemed to lead to consumer harm, “[t]he Paper is not as clear as it should be on what the Commission’s substantive standard will be.”<sup>587</sup> Put differently, a close examination of the *Guidance Paper* cannot dispel the impression that

“it is not the customer that the Commission is concerned about but the dominant firm’s competitors, who will thus have less ‘shelf space’ for which to compete when more of demand is tied up with exclusivity arrangements. This may in turn harm the customer, and

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<sup>585</sup> James Killick / Assimakis Komninos, *Schizophrenia in the Commission’s Article 82 Guidance Paper: Formalism Alongside Increased Recourse to Economic Analysis*, *Global Competition Policy* (February 2009), 7. See also Federico Etro / Ioannis Kokkoris, *Toward an Economic Approach to Article 102*, in: Federico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 4, 35.

<sup>586</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, C(2009) 864 final, para. 6.

<sup>587</sup> Yannis Katsoulacos, *Some Critical Comments on the Commission’s Guidance Paper on Art. 82 EC*, *Global Competition Policy* (February 2009), 4 *et seq.*.

lead it to accept terms from the dominant firm that it would rather not. Still, these indirect effects are not expressly considered or examined in the Guidance. Nor is there any analysis of what consumers want (other than the obvious point that they want some of the ‘must stock’ items). What actually succeeds in getting onto a given retailer’s shelves is affected by advertising, brand, price and ultimately the quality and perceived value of the product to the end-user. These factors are not considered in the Guidance. It just seems odd and rather chilling to normal business operations to cast exclusive purchasing in such a pejorative light. Of course, one shouldn’t be naïve: exclusive purchasing commitments can and do exclude rivals for the length of the contract. However, a policy document that supposedly prioritises abuses that most harm consumers should actually set out and apply some test for consumer harm, rather than assume that such harm is likely when retailers and their largest suppliers agree exclusive deals.”<sup>588</sup>

In other words, instead of outlining a convincing consumer welfare / consumer harm based test in order to assess whether an undertaking’s behaviour in ‘the market’ has resulted in a violation of Article 102 TFEU, the *Guidance Paper* assesses the question of “detrimental impact on consumer welfare [...] through the prism of likely anticompetitive foreclosure” without requiring evidence of actual or likely negative consumer harm, thereby – as this particular approach “emphasizes effects on competitors [...] rather than consumers” – setting “the bar at a relatively low level for potential complainants” and of course for the enforcers.<sup>589</sup> The formulation of such a *competitor* based standard as the *de facto* basis for the Commission’s enforcement of Article 102 TFEU can however not be regarded as adding clarity to the question if, and when, an

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<sup>588</sup> Philip Marsden, Some outstanding issues from the European Commission’s Guidance on Article 82: Not-so-faint echoes of Ordoliberalism, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 64, 77, at: <http://www.intertic.org/BookPapers/oxford.pdf> (13/01/2011).

<sup>589</sup> Yves Botteman / Kenneth P. Ewing, *Guidance on Enforcement Priorities Regarding Exclusionary Abuses: A comparative Overview*, *Global Competition Policy* (February 2009), 6. See also Yannis Katsoulacos, *Some Critical Comments on the Commission’s Guidance Paper on Art. 82 EC*, *Global Competition Policy* (February 2009).

undertaking's behaviour has to be considered as resulting in *consumer* harm to warrant a competition law intervention on behalf of the Commission. This is because, even if there is evidence that competitors have left 'the market',<sup>590</sup> "one cannot judge from the fact that they [i.e. the competitors] have left the market whether the dominant company's conduct was legal or illegal."<sup>591</sup> In this respect, the outline of the Commission's more economic approach as contained in the Guidance Paper would appear to support the above drawn conclusion that the Commission views 'competition' in structural terms.

The ambiguities of the *Guidance Paper* do not end here. For example, similar unclear statements can be found in relation to the test of the "as efficient competitor"<sup>592</sup> which the Commission proposes to use this test in relation to alleged pricing abuses: paragraph 23 of the *Guidance Paper* states that "the Commission will normally only intervene where the conduct concerned has already been or is capable of hampering competition from competitors which are considered to be as efficient as the dominant undertaking"<sup>593</sup> which would seem to suggest that the Commission's intention behind the introduction of this test is, so-to-speak, to 'separate the wheat from the chaff' in terms of which cases / allegations the Commissions will pursue. So far, this is a clear enough statement. Yet,

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<sup>590</sup> Which the *Guidance Paper* considers to constitute "possible evidence of actual foreclosure", European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, (2009/C45/02), Official Journal 2009 C45, 24/02/2009, para. 20.

<sup>591</sup> John Temple Lang, Article 82 EC – The Problems and The Solution, 12, presentation, Conference "Ten Years of Mercato Regole", Milan, 30 June 2009.

<sup>592</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 23.

<sup>593</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 23.

as Ridyard has rightly pointed out, the *Guidance Paper* fails to delineate both the actual content and the actual application of this ‘as efficient competitor’ test as it, at several places, does not outline how the Commission will actually “take into account” a less efficient competitor<sup>594</sup> or the common costs<sup>595</sup> when assessing anticompetitive foreclosure.<sup>596</sup> This vagueness suggests that the Commission does not intend “always to follow the ‘as efficient competitor’ test”;<sup>597</sup> this might not only lead to “confusion” as to when it might, and when it might not, be relied upon by the Commission but this vagueness might also damage legal certainty for undertakings.<sup>598</sup> As Temple Lang, with reference to para. 24 of the *Guidance Paper*,<sup>599</sup> has pointed out,

“[t]he dominant company has no way of knowing when the Commission would do this [i.e. take into account the ‘not yet as efficient’ competitor’], or which company might be thought likely to become as efficient, or how much of a price umbrella to provide, or

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<sup>594</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 24.

<sup>595</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 26.

<sup>596</sup> Derek Ridyard, The European Commission's Article 82 Guidelines: Some Reflections on the Economic Issues, (2009) *European Competition Law Review* 230, 233 *et seq.* Note however, that Ridyard's article appears to contain some mistakes in relation to the numbering of the paragraphs discussed therein: para. 23 of the *Guidance Paper* is referred to as “22”, para. 24 as “23”, para. 26 as “25” and para. 30 as “29”; the force of his arguments is however not affected by this oversight.

<sup>597</sup> John Temple Lang, Article 82 EC – The Problems and The Solution, 9, presentation, Conference “Ten Years of Mercato Regole”, Milan, 30 June 2009.

<sup>598</sup> Ariel Ezrachi, The Commission's Guidance on Article 82 EC and the Effects Based Approach – Legal and Practical Challenges, in: Ariel Ezrachi (ed.) *Article 82 EC: Reflections on its Recent Evolution*, 51, 54.

<sup>599</sup> Para. 24 of the *Guidance Paper* states that “the Commission recognises that in certain circumstances a less efficient competitor may also exert a constraint which should be taken into account when considering whether a particular price-based conduct leads to anticompetitive foreclosure. The Commission will take a dynamic view of this constraint, given that in the absence of an abusive practice such a competitor may benefit from demand-related advantages, such as network and learning effects, which will tend to enhance its efficiency.”

for how long. [...] The dominant company would need to raise its prices to all its customers, since it would not know which customer the not-yet-efficient rival was trying to sell to, or what the rivals break-even point would be at any time.”<sup>600</sup>

These potential uncertainties for an undertaking in relation to its pricing conduct are likely to negatively impact on its ability to accurately self-assess and thus to comply with EU competition law; in this respect, the *Guidance Paper* might be considered as being fraught with “inherent uncertainties”,<sup>601</sup> especially as such assessment difficulties would also appear to exist in relation to other assessment criteria outlined in the *Guidance Paper*: for example, with regard to conditional rebates, the assessment of which the *Guidance Paper* discusses with reference to “contestable” and “non-contestable” portions of demand,<sup>602</sup> it is questionable if even a dominant undertaking is able “to assess these variables accurately and to obtain [the relevant] information from its existing and potential competitors”;<sup>603</sup> a fact which has relatively recently,

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<sup>600</sup> John Temple Lang, Article 82 EC – The Problems and The Solution, 10, presentation, Conference “Ten Years of Mercato Regole”, Milan, 30 June 2009. Similar concerns are also voiced by Damien Geradin, Is the Guidance Paper on the Commission’s Enforcement Priorities in Enforcing Article 102 TFEU Useful?, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 46, 57 *et seq.*.

<sup>601</sup> Ariel Ezrachi, The Commission’s Guidance on Article 82 EC and the Effects Based Approach – Legal and Practical Challenges, in: Ariel Ezrachi (ed.) *Article 82 EC: Reflections on its Recent Evolution*, 51, 54.

<sup>602</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, paras. 37-45, but especially para. 39.

<sup>603</sup> Ariel Ezrachi, The Commission’s Guidance on Article 82 EC and the Effects Based Approach – Legal and Practical Challenges, in: Ariel Ezrachi (ed.) *Article 82 EC: Reflections on its Recent Evolution*, 51, 54; see also Damien Geradin, Chapter 2: Is the Guidance Paper on the Commission’s Enforcement Priorities in Enforcing Article 102 TFEU Useful?, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 46, 57 *et seq.*.

albeit in a different context, also been pointed out by what is now the General Court.<sup>604</sup> As a consequence, it is to be feared, as

“the Guidance Paper contains so many caveats and possible exceptions that even [a] dominant firm carefully assessing their conduct under the analytical frameworks provided by this paper would remain exposed to enforcement actions.”<sup>605</sup>

In other words, it would appear that, instead of adding clarity and, ultimately, also legal certainty to the assessment process for all parties concerned, i.e. undertakings, counsel and (national) enforcement authorities, the *Guidance Paper* actually magnifies, rather than eliminates, confusion as to what conduct might, or might not, trigger an investigation and eventual liability for anticompetitive behaviour in accordance with Article 102 TFEU. Furthermore, in view of the discussion above, not only would it appear to be impossible to agree with the evaluation of the *Guidance Paper* as “on balance” increasing the transparency and predictability of how the Commission might enforce Article 102 TFEU,<sup>606</sup> but it seems also difficult to disagree with the conclusion that the *Guidance Paper* contains too many presumptions which work against the dominant

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<sup>604</sup> Court of First Instance, *Deutsche Telekom AG v Commission of the European Communities*, 10 June 2008, Case T-271/03, para. 192: “If the lawfulness of the pricing practices of a dominant undertaking depended on the particular situation of competing undertakings, particularly their cost structure – information which is generally not known to the dominant undertaking – the latter would not be in a position to assess the lawfulness of its own activities.”

<sup>605</sup> Damien Geradin, *Is the Guidance Paper on the Commission’s Enforcement Priorities in Enforcing Article 102 TFEU Useful?*, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 46, 58. Geradin has pointed out, in footnote 156, that the *Guidance Paper* contains the term ‘generally’ eighteen times and the term ‘in principle’ five times. To this list, one might also add the use of ‘normally’ (fourteen times), ‘usually’ (four times) and ‘in certain circumstances’ (two times).

<sup>606</sup> As opined by Martin Andreas Gravengaard / Niels Kjaersgaard, *The EU Commission guidance on exclusionary abuse of dominance - and its consequences in practice*, (2010) 31 *European Competition Law Review* 285, 304.

undertaking:<sup>607</sup> mere presumptions, however, cannot be considered a sound basis for competitive assessment.

### II.2.2.2. The Legal Quality of the Guidance Paper

The above discussion concluded that, regardless of its legal nature, the content of the *Guidance Paper* is not only *unlikely* to increase legal certainty in relation to the enforcement of Article 102 TFEU but that it is also likely to increase legal *uncertainty* in this respect. Accordingly, in view of these conclusions, one might assume that a further examination of *Guidance Paper's* true legal character was unnecessary. However, for reason of completeness of the argument presented by this thesis, it seems nonetheless worthwhile to, at least briefly, also discuss the question of the *Guidance Paper's* legal nature with regard to its likely impact on legal certainty.

As mentioned above, the *Guidance Paper* states that it “is not intended to constitute a statement of the law and [that it] is without prejudice to the interpretation of Article 82 by the Court of Justice or the Court of First Instance of the European Communities”;<sup>608</sup> rather, its intention is to set out “the enforcement priorities that will guide the Commission's action in applying Article 82 to exclusionary conduct by dominant undertakings.”<sup>609</sup> In fact, in so doing, the *Guidance Paper* would seem to pose no particular

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<sup>607</sup> As opined by James Killick / Assimakis Komninos, *Schizophrenia in the Commission's Article 82 Guidance Paper: Formalism Alongside Increased Recourse to Economic Analysis*, *Global Competition Policy* (February 2009), 6.

<sup>608</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, *Official Journal* 2009 C45, 24/02/2009, para. 3. See also Anne C. Witt, *The Commission's guidance paper on abusive exclusionary conduct - more radical than it appears?*, (2010) 35 *European Law Review* 214, 218, who expresses a similar view.

<sup>609</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, *Official Journal* 2009 C45, 24/02/2009, para. 2.

concerns as to its legal quality insofar that, as observed by the General Court in *Automec*, the Commission is generally entitled to prioritise its tasks as

“in the case of an authority entrusted with a public service task, the power to take all the organizational measures necessary for the performance of that task, including setting priorities within the limits prescribed by the law where those priorities have not been determined by the legislature is an inherent feature of administrative activity. This must be the case in particular where an authority has been entrusted with a supervisory and regulatory task as extensive and general as that which has been assigned to the Commission in the field of competition. Consequently, the fact that the Commission applies different degrees of priority to the cases submitted to it in the field of competition is compatible with the obligations imposed on it by Community law.”<sup>610</sup>

At first glance, the Commission’s *Guidance Paper* would seem to fall within these prescribed limits: first, its title *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings* is “suggestive of assistance and advice, rather than rules”;<sup>611</sup> second, it contains the explicit *proviso* that it does not intend to constitute a statement of the law. Accordingly, on the face of it, it would appear possible to argue that the *Guidance Paper* is incapable to negatively impact on legal certainty in relation to the enforcement of Article 102 TFEU as it is not only ‘suggestive’ of being of a lesser legal quality than ‘proper’ Commission guidelines but also expressly purports to be ‘without prejudice’ to case law.

Yet despite the aforementioned self-imposed *provisos*, closer analysis reveals the existence of a certain “ambiguity regarding the true nature of the *Guidance Paper*” as the *Guidance Paper* outlines a number of principles

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<sup>610</sup> Court of First Instance, *Automec Srl v Commission of the European Communities*, 18 September 1992, Case T-24/90, para. 77.

<sup>611</sup> Anne C. Witt, *The Commission's guidance paper on abusive exclusionary conduct - more radical than it appears?*, (2010) 35 *European Law Review* 214, 218.



which one would normally expect to find in substantive Commission guidelines:<sup>612</sup> for example, the *Guidance Paper's* outline of potential efficiency justifications under Article 102 TFEU<sup>613</sup> bear a rather strong resemblance as regards content with the outline of efficiency gains under Article 101(3) TFEU as per the Commission's *Guidelines on the application of Article 81(3) of the Treaty*.<sup>614</sup> Moreover, it might even be said that "the language adopted in its substantive remarks is indistinguishable from that used in the guidelines outlining the Commission's interpretation of art.101 TFEU and the Merger Regulation".<sup>615</sup> Viewed together with the fact that the *Guidance Paper*, as it also uses the terms 'enforcement principles' and 'general enforcement standard', seems to employ the term 'enforcement priorities' inconsistently,<sup>616</sup> one might therefore conclude that the title is a misnomer and that the *Guidance Paper* constitutes "in effect substantive guidelines."<sup>617</sup> In this respect, it might not be surprising that the *Guidance Paper's* label as 'enforcement priorities' has been called "a false dichotomy".<sup>618</sup>

The conclusion that the *Guidance Paper* is, *de facto*, substantive guidelines would appear to be supported by the detailed explanation offered in

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<sup>612</sup> Damien Geradin, *Is the Guidance Paper on the Commission's Enforcement Priorities in Enforcing Article 102 TFEU Useful?*, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 46, 61.

<sup>613</sup> European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, Official Journal 2009 C45, 24/02/2009, paras. 28-31.

<sup>614</sup> European Commission, *Guidelines on the application of Article 81(3) of the Treaty*, Official Journal 2004 C101, 27/04/2004, paras. 40-58.

<sup>615</sup> Anne C. Witt, *The Commission's guidance paper on abusive exclusionary conduct - more radical than it appears?*, (2010) 35 *European Law Review* 214, 232.

<sup>616</sup> Giorgio Monti, *Article 82 EC: What Future for the Effects-Based Approach?*, (2010) 1 *Journal of European Competition Law & Practice* 2, 5.

<sup>617</sup> Liza Lovdahl Gormsen, *Why the Commission's Enforcement Priorities on Article 82 EC should be withdrawn*, (2010) 31 *European Competition Law Review* 45, 46 [original emphasis].

<sup>618</sup> Liza Lovdahl Gormsen, *Why the Commission's Enforcement Priorities on Article 82 EC should be withdrawn*, (2010) 31 *European Competition Law Review* 45, 46.

relation to some of the *Guidance Paper's* key concepts: for example, the statement that “[d]ominance entails that these competitive constraints are not sufficiently effective and hence that the undertaking in question enjoys substantial market power over a period of time”<sup>619</sup> might be taken to mean that “the Commission intends to pursue only undertakings that hold market power within the neo-classical sense of the term, [thereby applying] a concept that is narrower than the Court's traditional understanding of dominance” which is *de facto* a deviation from traditional EU case law.<sup>620</sup> In this respect, it would appear that the Commission is stretching (or at least trying to do so) its remit beyond the admissible boundaries, i.e. beyond the limits prescribed by law;<sup>621</sup> Commission guidelines are however “rules of practice” but not “rules of law” and it is not the Commission’s task to create law.<sup>622</sup>

Furthermore, regardless of the fact that *Guidance Paper* does not, as argued above, contain a plausible consumer harm theory, its purported focus on ‘effects on consumer welfare’ would appear to restrict the scope of Article 102 TFEU to a meaning much narrower than that of traditional European jurisprudence.<sup>623</sup> Of course, competition law – and thus also Article 102

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<sup>619</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 10.

<sup>620</sup> Anne C. Witt, The Commission's guidance paper on abusive exclusionary conduct - more radical than it appears?, (2010) 35 European Law Review 214, 230.

<sup>621</sup> See on the question of the Commission’s having to observe the boundaries of law when issuing enforcement priorities: Court of First Instance, *Automec Srl v Commission of the European Communities*, 18 September 1992, Case T-24/90, para. 77; European Court of Justice, *Dansk Rørindustri and Others v. Commission of the European Communities*, 28 June 2005, Case C-189/02 P, paras. 205-211; European Court of Justice, *JCB Service v Commission of the European Communities*, 21 September 2006, Case C-167/04 P, paras. 207-209.

<sup>622</sup> Alison Jones / Brenda Sufirin, *EU Competition Law*, 278; Liza Lovdahl Gormsen, Why the Commission’s Enforcement Priorities on Article 82 EC should be withdrawn, (2010) 31 European Competition Law Review 45, 49.

<sup>623</sup> Liza Lovdahl Gormsen, Why the Commission’s Enforcement Priorities on Article 82 EC should be withdrawn, (2010) 31 European Competition Law Review 45, 46-49; to

TFEU – serves *inter alia* consumer welfare;<sup>624</sup> however, the *Guidance Paper* seems to reduce the application of Article 102 TFEU “de facto” to conduct which results in direct ‘consumer’ harm.<sup>625</sup> In this respect, it seems impossible to conclude that, whilst this particular approach to the enforcement of Article 102 TFEU might “not necessarily be judicially approved”, it is unlikely to “be judicially disapproved because it does not seem to seem to stray outside the scope of Article 82 [now 102 TFEU].”<sup>626</sup> Rather, it might, in view of the above-mentioned *de facto* limitation of Article 102 TFEU, reasonably be asked if this particular effects-based approach is fully reconcilable with the case law.<sup>627</sup> This divergence between traditional European jurisprudence and the Commission’s approach to the enforcement of Article 102 TFEU would again point in the direction of the *Guidance Paper*’s being effectively substantive guidelines. This is an unfortunate conclusion to be drawn with regard to the *Guidance Paper*’s likely impact on legal certainty as it throws up the question what legitimate expectations the *Guidance Paper* may create: legitimate expectations as to the Commission’s interpretation of the law (as is the case with substantive guidelines) or legitimate expectations as to how the

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the same effect: Bernhard Heitzer, What kind of benefits? Consumer welfare as a standard of competition policy, Speech, European Competition Day, Paris, 18 November 2008.

<sup>624</sup> See e.g. Bernhard Heitzer, What kind of benefits? Consumer welfare as a standard of competition policy, Speech, European Competition Day, Paris, 18 November 2008; Daniel Zimmer, Protection of Competition v. Maximizing (Consumer) Welfare, presentation, Symposium ‘Structure and Effects in EU Competition Law - Studies on Exclusionary Conduct and State Aid’, Max-Planck-Institute for Private Law, Hamburg 23<sup>rd</sup> - 24<sup>th</sup> January 2009.

<sup>625</sup> Anne C. Witt, The Commission's guidance paper on abusive exclusionary conduct - more radical than it appears?, (2010) 35 European Law Review 214, 216.

<sup>626</sup> This is however the conclusion reached by Giorgio Monti, Article 82 EC: What Future for the Effects-Based Approach?, (2010) 1 Journal of European Competition Law & Practice 2, 8.

<sup>627</sup> See for a brief discussion of this point: Frances Dethmers / Heleen Engelen, Fines under article 102 of the Treaty on the Functioning of the European Union, (2011) 32 European Competition Law Review 86, 94.

Commission will prioritise its enforcement actions (as is the case with 'enforcement priorities')? In this context, it has also been wondered "how national competition authorities and undertakings in the market are supposed to treat the Guidance Paper as enforcement priorities when it is *in effect* substantive guidelines offering an interpretation of the law."<sup>628</sup> Given the *Guidance Paper's* apparent hybrid – might one even go as far as saying: schizophrenic? – character, neither the answer to this question nor to the former are easy to give. Moreover, as the *Guidance Paper* deviates in parts quite substantially from the traditional case law approach to the enforcement of Article 102 TFEU, undertakings would appear to be confronted with the additional problem of what is now to be understood as the 'correct' legal position: the traditional Article 102 TFEU jurisprudence or the new principles advanced by the Commission? At any rate, the above discussion suggests that the *Guidance Paper's* ambiguity as to its legal nature is unlikely to increase legal certainty in relation to the enforcement of Article 102 TFEU.

### **III. Conclusion**

This Chapter has, on the one hand, analysed the Commission's more economic approach with regard to the ways in which this new approach manifests itself and, on the other hand, with regard to the effects and problems the more economic approach may, in its present form, cause in the context of Article 102 TFEU; in so doing, a particular emphasis was placed, throughout the Chapter, on the Commission's *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings* as a relatively recent

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<sup>628</sup> Liza Lovdahl Gormsen, Why the Commission's Enforcement Priorities on Article 82 EC should be withdrawn, (2010) 31 European Competition Law Review 45, 50 [original emphasis].

example of the Commission's efforts to effect the *de facto* overhaul EU competition policy.

In relation to the question of how the attempted *Ökonomisierung* has manifested itself, the analysis focused on the ways in which the Commission's attempted *Ökonomisierung* becomes evident in relation to the Commission's approach to the overall goal(s) of EU competition policy and in relation to the Commission's understanding of the concept of competition. With regard to the Commission's approach to the goal(s) of EU competition policy, the analysis concluded that the Commission's more economic approach appears to neglects dynamic aspects of economic theory; with regard to the Commission's understanding of the concept of competition, the examination concluded that the Commission views 'competition' in structural terms, rather than in behavioural terms. In this context, the discussion suggested that this structural approach to the concept of competition has to be considered "unfortunate"<sup>629</sup> insofar that it results in a regrettable mixture of a behavioural concept ('competition') with a structural one ('market') which not only leaves both lawyers and economists alike with an ambiguous concept,<sup>630</sup> but which is also limited as to what insights it can offer for the legal determination of an actionable abuse of a dominant position.

In relation to the question of the effects and problems caused by the more economic approach, the examination focused on the issues of normativity and legal certainty: with regard to the more economic approach's potential effects on normativity, it was suggested that the Commission's more economic approach is likely to result in normative concerns insofar that

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<sup>629</sup> George J. Stigler, *Perfect Competition, Historically Contemplated*, (1957) 65 *The Journal of Political Economy* 1, 6.

<sup>630</sup> See Paul J. McNulty, *Economic Theory and the Meaning of Competition*, (1968) 82 *Quarterly Journal of Economics* 639, *passim*.

this approach, by focusing on static efficiency considerations, can be said not only to exclude ‘the bigger picture’ (e.g. relevant public policy considerations<sup>631</sup>) from the actual evaluation process but also to essentially disregard the fact that competition law analysis is not so much concerned with a market structure but with a particular behaviour within ‘the market’. Moreover, the analysis reasoned that competition law analysis is more concerned with the formation of value judgements about an allegedly anticompetitive behaviour rather than with the question whether a particular market structure leads, in theory, to allocative and productive efficiency; accordingly, it was concluded that any further ‘injection’ of economics into competition analysis should be treated only as an addition to the *legal* assessment process as treating such an ‘injection’ otherwise is likely to result in a loss of normativity. In this respect, the Chapter concluded that the Commission’s seeming reliance on a static form of economic theory as embodied in its understanding of, and approach to, the economic concept of ‘the market’ risks the *de facto* establishment of a competition policy which is at odds with its normative purpose as presented by the *lex lata* of the European Treaties.

Unfortunately, the negative evaluation of the Commission’s more economic approach continued with regard to the analysis of its impact on legal certainty and here especially in relation to the Commission’s *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*: the discussion not only concluded that the *Guidance Paper* is characterised by

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<sup>631</sup> Wulf-Henning Roth, The “More Economic Approach” and the Rule of Law, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 37, 41 *et seq.*.

“an intellectual incoherence”<sup>632</sup> and fraught with “inherent uncertainties”<sup>633</sup> but also that it exhibits a certain “ambiguity”<sup>634</sup> as to its true legal nature, all of which were found to negatively effect legal certainty for undertakings, counsel and (national) enforcement authorities. In addition, the analysis concluded that the leeway granted to the Commission by the European Courts in relation to the application of Article 102 TFEU by means of its ‘margin of appreciation’ was likely to increase the legal uncertainty caused by either the *Guidance Paper’s* ambiguous content or its ambiguous legal nature. Consequently, the discussion submitted that, instead of adding clarity to the assessment process for all parties concerned, the *Guidance Paper* actually magnifies confusion as to what conduct might, or might not, trigger an investigation and eventual liability for anticompetitive behaviour in accordance with Article 102 TFEU. In other words, the above analysis demonstrated that the publication of the *Guidance Paper* as a manifestation of the more economic approach has introduced a range of theoretical and practical problems for the future application of, and compliance with, Article 102 TFEU and is thus unlikely to result in the creation of coherent and consistent competition policy. The specific implications of these conclusions for the software industry will be addressed in the following Chapter.

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<sup>632</sup> James Killick / Assimakis Komninos, *Schizophrenia in the Commission’s Article 82 Guidance Paper: Formalism Alongside Increased Recourse to Economic Analysis*, *Global Competition Policy* (February 2009), 2.

<sup>633</sup> Ariel Ezrachi, *The Commission’s Guidance on Article 82 EC and the Effects Based Approach – Legal and Practical Challenges*, in: Ariel Ezrachi (ed.) *Article 82 EC: Reflections on its Recent Evolution*, 51, 54.

<sup>634</sup> Damien Geradin, *Is the Guidance Paper on the Commission’s Enforcement Priorities in Enforcing Article 102 TFEU Useful?*, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 46, 61, at: <http://www.intertec.org/BookPapers/oxford.pdf> (13/01/2011).

## **Chapter 5 – The Commission’s More Economic Approach and the Software Industry**

So far, this thesis has discussed the problems which may, in general terms, be associated with the Commission’s more economic approach. After the discussion and analysis of the attempted *Ökonomisierung* of EU competition law analysis by means of the Commission’s more economic approach, the discussion in the previous Chapters concluded not only that the Commission’s recent reform efforts have to be considered as inconsistent with the *lex lata* of the European Treaties but also, in Chapter 4, that the Commission’s focus on static economic theory in its approach to competition law enforcement is likely to negatively affect legal certainty and normativity for competition law analysis. This Chapter now links these points to the software industry; it thereby concentrates on the question why the previously raised issues might be said to be exacerbated in the context of the software industry. In particular, it is argued that the abovementioned problems caused by factual indeterminacies for competition law assessment in general are intensified by the characteristics of the software industry and that these characteristics represent a problem for the Commission’s more economic approach in its present form insofar that its static theoretical foundation and its resulting shortcomings are even more exposed in a dynamic environment such as the software industry. In so doing, this Chapter provides the linkage between the identification of general problems with the Commission’s more economic approach in the previous Chapters and the suggestion of a different approach to EU competition law assessment in relation to Article 102 TFEU in Chapter 6. Put differently, it substantiates the call for a more sophisticated economic approach to competition law analysis.



## I. Competition Law Analysis in the Software Industry

In accordance with the above outline of this Chapter, this part introduces the question of why the problems caused by the afore-mentioned factual indeterminacies may be intensified in the context, and to the detriment, of the software industry. One potential, and maybe even obvious, explanation in this respect might be

“that software is different. It is different from information goods in terms of its economic properties: although it shares some characteristics with information goods, with material goods, and even with services, it mixes these characteristics in unique ways. It requires a different legal perspective, as evidenced by the increasing attention given to software-specific issues in legislation and the courts, including patents, copyrights, civil liberties, and antitrust. It is distinctive among technologies and in its industrial and business challenges in numerous ways.”<sup>635</sup>

A number of – potentially contradicting – conclusions may be inferred from this statement: for instance, if one accepts this statement to be an accurate and correct description of the nature of software, then the conclusion might not be easily dismissed that this distinctiveness warrants an equally distinctive competition law treatment which might range from a software industry specific (*'sui generis'*) set of rules – in order to reflect this differentness – to the demand that this industry should be exempt from any competition law scrutiny because the said differentness might be considered to thwart the enforcer's current efforts and abilities to capture the different facets of software. By the same token however, it would also appear possible to conclude that the suggested distinctiveness might not so much cause a problem for the quite broadly phrased competition law provisions *as such* but might rather constitute a problem for the *actual*

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<sup>635</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, Preface, xii. See also Peter Buxmann / Heiner Diefenbach / Thomas Hess, *Die Softwareindustrie: Ökonomische Prinzipien, Strategien, Perspektiven*, 1.

regulatory approach, especially if the said regulatory approach was characterised by an inflexible and inelastic theoretical (economic) foundation. Consequently, rather than accepting the above statement that software is different at face value, this part evaluates its correctness by examining how 'different' software, and thus also the software industry, actually is, i.e. where it (if at all) might differ from other economic sectors, and, if such differences are found to exist, how these differences may relate to the problems discussed in the previous Chapters. In other words, this Chapter addresses the question what the perceived distinct characteristics of the software industry might mean for both the application of EU competition law and the formation of coherent competition policy in this economic sector.

Before doing so, a final point seems worth reiterating: this thesis neither advocates the abolition of economic theory in competition analysis in general nor, indeed, in the particular context of the software industry, even though it questions the suitability of the Commission's more economic approach in its present form to create coherent and consistent competition policy for the software industry. Rather, this thesis suggests, in accordance with Katz and Shapiro, that "old economics" is still able to guide the formation of competition policy in the so-called new economy, even though economists and lawyers alike might be considered to be still on a learning curve when it comes to the question of "how to analyze many of these [new economy] issues".<sup>636</sup> Indeed, there appears to be some merit in the suggestion that the problems which confront competition law analysis in the new economy do not differ from those encountered by enforcement agencies "in the many other contexts where law and cutting

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<sup>636</sup> Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 2 *et seq.*.

edge science or engineering meet”.<sup>637</sup> for example, while ‘software’ might be highly differentiated, the same can be said of breakfast cereals,<sup>638</sup> although it has to be acknowledged that breakfast cereals do not necessarily / easily fall into the categories of ‘cutting edge science’ or engineering, the basic issues in relation to the question of differentiation remain the same. – This line of argument may be considered the common thread running through this Chapter as the analysis which follows below is guided by the question what the characteristics of the software industry are which may, or may not, complicate the legal assessment of an allegedly anti-competitive conduct. Furthermore, by looking at ‘the market’ and in particular the question of ‘Dominance’ as an indicator of how the problems associated with the Commission’s more economic approach may manifest themselves, this Chapter substantiates the hypothesis that the Commission’s unduly static more economic approach does not lend itself easily to the creation of coherent competition policy for the software industry because, as discussed below, this particular industrial sector exhibits certain (economic) factors which cannot be sufficiently captured by the Commission’s currently advocated approach. In doing so, the argument is advanced that the fact that an economic analysis might – for whatever reason – be difficult should not be taken to mean that it should not be attempted at all.<sup>639</sup> In other words, this Chapter prepares the ground for this thesis’ ultimate submission that ‘greater sensitivity’ in relation to competition law analysis is needed if coherent

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<sup>637</sup> Lawrence A. Sullivan, *Is Competition Policy Possible In High Tech Markets?: An Inquiry Into Antitrust, Intellectual Property, And Broadband Regulation As Applied To “The New Economy”*, (2001) 52 *Case Western Reserve Law Review* 41, 47.

<sup>638</sup> Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 11.

<sup>639</sup> See Wolfgang Kerber, *Competition, Innovation, and Maintaining Diversity through Competition Law*, 24. This point is revisited in Chapter 6.

and consistent competition policy is to emerge for high technology sectors such as the software industry.<sup>640</sup>

### **I.1. An Outline of the Software Industry**

Having offered this reassurance and before analysing the afore-mentioned differences in detail, it is necessary to look at the overall picture that is 'the software industry'. This preliminary overview is essential for two reasons: first, the consideration of the 'bigger picture' allows for a better understanding of the fundamental differences which may be said to exist between this sector and more traditional, smokestack industries. In other words, the 'bigger picture' allows for an evaluation of the correctness of the above-made assertion that 'software is different' and, thus, also facilitates the evaluation of the Commission's more economic approach in relation to the software industry as it might be said that

"[t]he software industry cannot be fully appreciated outside the context of what precedes and what follows development. Conceptualising what it does, the needs it serves, and its effects is an important prerequisite for understanding its development. Many issues follow software development, including provisioning, operations, use, maintenance and upgrade, customer service, and coordinated organizational changes and management challenges. [...] The software industry is itself very complex, with many complementary products necessary to form a systems solution and complex alliances and standardization processes needed to meet the needs of numerous stakeholders. Together, the software suppliers, standardization bodies, content suppliers, service providers, and end-user organizations form a complex web of relationships."<sup>641</sup>

Second, such an introduction to the software industry aids, by outlining the 'complicating' factors, the explanation of why a market-focused approach to competition law analysis as currently favoured by the

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<sup>640</sup> Of a similar opinion: Willow A. Sheremata, "New" issues in competition policy raised by information technology industries, (1998) 43 Antitrust Bulletin 547, 548.

<sup>641</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, Preface, xi *et seq.*.

Commission cannot be considered a good idea in this sector, especially if the said 'market' is approached statically. In so doing, this preliminary introduction sets the scene for the argument that the characteristics of the software industry result in the accentuation of the problems identified in the previous Chapters.

### **I.1.1. Software as 'Superior Implementation for Functionality'**

One factor to be considered in this context is the intangible nature of software<sup>642</sup> which is likely to make the process of defining 'the market' more problematic as the intricacies of software development can be said to be even more complex than, for example, those of the afore-mentioned automobile industry.<sup>643</sup> To begin with, "software is not manufactured into a [tangible] product", instead, it may be regarded as "a superior implementation for functionality" which is more or less independent from the hardware on which it is used as "it can [either] be bundled with a product as it is initially", "be sold separately and deployed to hardware that is already in use", "be installed initially" or "be added later"; in other

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<sup>642</sup> In a nutshell, the term 'software' collectively refers to all programs written in a programming language and which are intended to solve problems / fulfil tasks; see Anne Katrin Sohns, *Monopolisierungstendenzen bei Netzwerksgütern*, 116. As such, they consist of a list of instructions which contain logical loops and which are processed by hardware; see Andreas Gröhn, *Netzwerkeffekte und Wettbewerbspolitik*, 1.

<sup>643</sup> Robert Pitofsky, *Antitrust Analysis in High-Tech Industries: A 19<sup>th</sup> Century Discipline Addresses 21<sup>st</sup> Century Problems*, (1999) 4 *Texas Review of Law & Politics* 129, 131: "For example, defining relevant markets (i.e., identifying those firms that compete so closely with other firms that they can substantially influence the exercise of market power) is difficult enough under any circumstances. But it can become far more difficult in high-tech industries such as biotechnology, where products that might curtail the market power of a dominant incumbent firm are not in existence yet and will not reach the market for several years. Or in the cable industry, where the essential question is when satellite transmission will become a real competitive force in the cable market. Similar problems arise with respect to telecommunications, a sector of the market where many believe local operating companies will eventually become competitive by offering electric utilities through their existing grid and electricity wires into the home. Each of these issues raises questions in the realm of science and technology that will often be difficult to address."

words, “[i]t can be static” (i.e. unchanged) or “changed and upgraded later”.<sup>644</sup> Furthermore, software may be considered “highly differentiated” and different software products may exhibit “overlap[s] in functionality”, i.e. intersections as to what function(s) a particular piece of software is intended to perform, which may range from complete functional overlaps to only “partial” ones; this again is likely to have an impact on how ‘the market’ for a particular piece of software is, can or should be defined.<sup>645</sup> These functional intersections may complicate the actual process of defining ‘the market’ for purposes of competition law analysis in relation to a particular piece of software insofar that such overlaps throw up questions as to which ‘competing’ piece of software might, or should, be considered a substitute for the purpose of competition law assessment. At any rate, as a consequence of these functional properties, one might consider “the market for software [to be] irrevocably and profoundly different from the market for material products.”<sup>646</sup>

### **I.1.2. Does Software equal Software?**

Another factor which might be regarded as further complicating both the legal and the economic assessment in the software industry is the fact that, due to advances in computer sciences and information technologies, “hardware design has increasingly come to resemble software programming” causing the boundaries between the functionality which is dealt with by hardware and that which is addressed by software to become more fluid.<sup>647</sup> This is likely to further exacerbate the problems associated with the process of defining ‘the market’ as outlined in Chapter

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<sup>644</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 23.

<sup>645</sup> Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 11.

<sup>646</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 23.

<sup>647</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 23; see also Anne Katrin Sohns, *Monopolisierungstendenzen bei Netzwerksgütern*, 117.

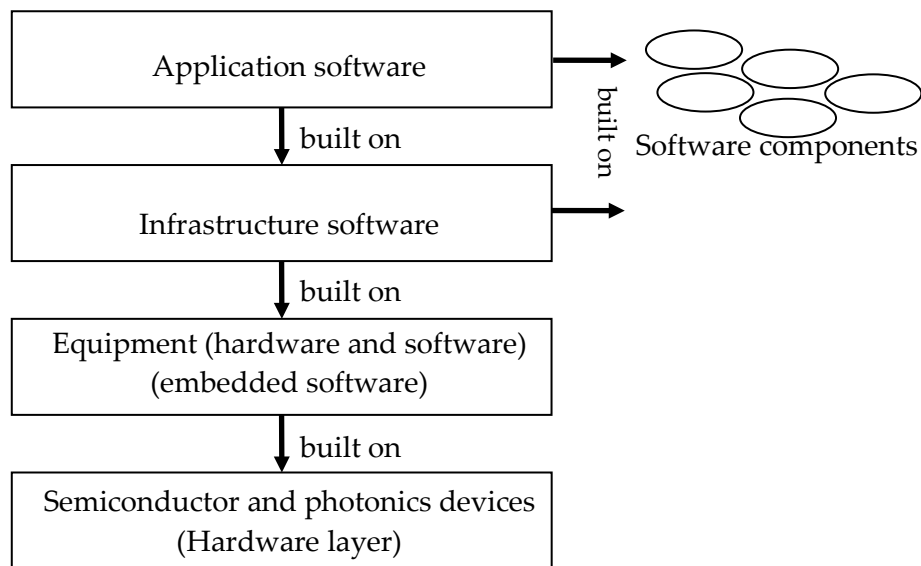
3 in the context of the software industry as it adds to the complications of where to start and how to generally approach the process of market definition in relation to a particular piece of software.<sup>648</sup> Additionally, in view of the remarks made above in relation to software as a superior implementation for functionality, it has to be said that one type of software is not necessarily *like* another type of software which is again likely to add to the previously discussed problems associated with market delineation in general. Moreover, as depicted by Diagram 3 below, software can be divided into different layers which allows for the further classification of software into embedded, infrastructure, component and application software; again, these differences are likely to result in added difficulties for defining 'the market' for the purpose of competition law analysis in this particular industry: the arrows in Diagram 3 exemplify the respective interfaces between the layers, i.e. they illustrate the fact that, in order for software to perform its intended particular 'function', software which forms part of a higher layer requires certain 'services' or information from the respective subjacent layer.<sup>649</sup>

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<sup>648</sup> See discussion in section III.1.2.1. of Chapter 3 above.

<sup>649</sup> See on this point: Hans-Peter Gumm / Manfred Sommer, Einführung in die Informatik, 69 *et seq.*.

**Diagram 3: Layers of complementary supporting software**<sup>650</sup>



**Application software:** software “which provides capabilities specific to the context of the end-user or end-user organization. This software builds on capabilities of the infrastructure software, which in turn builds on the capabilities of the equipment.”<sup>651</sup> The RealAudio Player or email programs such as Thunderbird or MS Outlook are examples for application software.

**Component software or software components:** “ready-to-use elements of functionality that can be purchased and incorporated into the application [software] as is, without modification. [...] They do not themselves constitute a complete application, and can be independently upgraded or replaced after deployment [...]”<sup>652</sup> An ActiveX control such as a download manager is an example of a software component.

**Infrastructure software:** software which provides e.g. a computer’s system programs (in other words: its software infrastructure) on which application software can be run.<sup>653</sup> One example of infrastructure software is operating system software (such as MAC OS X or Windows Vista).

<sup>650</sup> This diagram and the associated explanation is based upon “Figure 2.4” and accompanying text in David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 24-26.

<sup>651</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 25. See also Anne Katrin Sohns, *Monopolisierungstendenzen bei Netzwerksgütern*, 140-144, 148-150.

<sup>652</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 25 *et seq.*

<sup>653</sup> See David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 25. See also Anne Katrin Sohns, *Monopolisierungstendenzen bei Netzwerksgütern*, 127-129.



**Embedded software:** software which permanently resides inside a device (such as a ROM – “read only memory”), which is specific to the architecture of this device and which controls the low-level functioning of said device. Embedded software is “largely indistinguishable from the supporting hardware.”<sup>654</sup> The BIOS (“basic input output system”) of a computer is an example of embedded software.

On the one hand, Diagram 3 indicates that the functionality (or capability) of a product is achieved through the addition of another layer at the top rather than through the modification of a ‘subordinate’, already existing layer.<sup>655</sup> On the other hand, Diagram 3 implies that, in order to achieve such new functionality and to make any new layer work, a software developer needs to know the layer’s interface upon which he plans to ‘build’ his own software layer. In other words, anyone who wants to write, say application software such as Firefox or Microsoft Word for a particular infrastructure software such as MAC OS X or Microsoft Vista, will need to have access to the said interface as otherwise the new application layer will not ‘fit’ properly on top of the subordinate layer. In view of both the intangibility of software and the possible description of software as ‘implemented functionality’ which might or might not display overlaps between the functionality of different pieces of software, this layer architecture may also impact on the way in which ‘the market’ for a particular software product is, can or should be defined. This is because such classification into different layers throws up a number of potentially difficult questions: can the individual layers be clearly identified and distinguished?<sup>656</sup> Where and how are the lines between these layers to be

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<sup>654</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 26. See further Anonymous, “Embedded System”, in: *ITWissen – Das große Online Lexikon für Informationstechnologie*.

<sup>655</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 24.

<sup>656</sup> Even relatively recent ‘software specific’ EU legislation cannot be considered as resolving these difficulties, see e.g. Directive 2009/24/EC of the European Parliament

drawn? Should all software 'belonging' to a particular layer be considered as forming 'the market' for another piece of software forming part of the same layer? Does a partial overlap suffice to make a piece of software 'belong' to a particular 'market' or must the overlap be complete? If a partial overlap is considered to be sufficient, how 'big', i.e. how complete, has the overlap to be? Who is to draw these boundaries, that is to say who has got the necessary expertise to clearly and unambiguously identify the different layers? And, maybe more importantly, who is to say that a software developer is not allowed to incorporate a certain functionality into any layer he chooses? The European Commission? Competitors – actual and / or potential? Customers – all 'types' of customers or just 'final' consumers? – At any rate, these musings show that 'the market' for a particular piece of software might not just affect / encompass one particular layer of software but that it might also extend vertically across different layers. As a consequence, the process of accurately appreciating and then defining 'the market' for the purposes of competition law analysis is likely to be even more difficult in the context of the software industry than in more traditional economic sectors.

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and of the Council of 23 April 2009 on the legal protection of computer programs (Codified version), Official Journal 2009 L111, 05/05/2009. [I am grateful to Professor Rowland for this suggestion.].

## **I.2. The Question of Competition Law Enforcement in the Software Industry**

The aforementioned plethora of factual indeterminacies encountered by competition law analysis in the context of the software industry could, quite naturally, be taken to mean that regulatory non-intervention was the 'only way to go' for enforcement agencies in this sector as the aforementioned potential assessment difficulties might be considered either to be too high to be overcome by the regulator or to make the software industry too special, i.e. too inaccessible, for 'old-fashioned' competition law intervention.<sup>657</sup> Accordingly, the argument could be – and has been – made that competition laws which were originally designed to deal with industries manufacturing predominantly physical goods are both unable and ill-suited to deal with issues arising in industries whose principal output is intellectual property,<sup>658</sup> not to mention the 'fact' that the to-be-scrutinised undertakings "arguably" employ "an even brighter and more hardworking cadre of top talent" than the enforcement agencies.<sup>659</sup> In other words, it might be maintained that competition law was neither subtle nor flexible enough to cope with the finer points of this industry because it may be said that competition law

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<sup>657</sup> See pro competition law intervention: Mario Monti, Competition in the New Economy, Speech at the 10<sup>th</sup> International Conference on Competition, Berlin 21 May 2001.

<sup>658</sup> See, for example, David J. Teece / Mary Coleman, The meaning of monopoly: antitrust analysis in high-tech industries, (1998) 43 Antitrust Bulletin 801. Further scepticism in this respect has been voiced e.g. by Christian Ahlborn / David Evans / Atilano Jorge Padilla, Competition Policy in the New Economy: Is European Competition Law up to the Challenge?, (2001) 22 European Competition Law Review 156; and Cento Veljanovski, E.C. Antitrust in the New European Economy: Is the European Commission's View of the Network Economy Right?, (2001) 22 European Competition Law Review 115.

<sup>659</sup> David J. Teece / Mary Coleman, The meaning of monopoly: antitrust analysis in high-tech industries, (1998) 43 Antitrust Bulletin 801, 845.

“is a hammer, not a scalpel. It is a blunt instrument that can have a powerful impact but only against something very much like a nail – it cannot be used effectively against small imperfections, to nip and tuck so that the economy can be shaped just so.”<sup>660</sup>

From the perspective of this ‘only suitable for crude imperfections’ argument, it could further be argued that such an approach was also in accordance with the above made observations about the characteristics of the software industry as these characteristics may be – and, indeed, have been – read to mean that any monopoly in such high-tech industries is short-lived,<sup>661</sup> with the effect that any intervention represented by competition law regulation would be both unnecessary and undesirable.<sup>662</sup> In other words, a ‘hands off’ competition policy for the software industry could be based on the assertion that the dynamics operating in a ‘market’ such as the software industry not only disposed of unwanted market abuses more quickly and efficiently than any regulatory authority could but also that a policy of non-interference would be less likely to cause as many or as severe mistakes as one might expect from governmental regulation.<sup>663</sup>

“if an economic institution survives long enough to be studied by scholars and stamped out by law, it probably should be left alone,

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<sup>660</sup> Ronald A. Cass / Keith N. Hylton, *Preserving Competition: Economic Analysis, Legal Standards and Microsoft*, (1999) 8 *George Mason Law Review* 1.

<sup>661</sup> See, for example, David J. Teece / Mary Coleman, *The meaning of monopoly: antitrust analysis in high-tech industries*, (1998) 43 *Antitrust Bulletin* 801; Richard Schmalensee, *Antitrust Issues in Schumpeterian Industries*, (2000) 90 *The American Economic Review* 192.

<sup>662</sup> David J. Teece / Mary Coleman, *The meaning of monopoly: antitrust analysis in high-tech industries*, (1998) 43 *Antitrust Bulletin* 801, 803: “ The opportunities for the agencies to harm competition are far greater than their opportunities to improve competition in sectors where there is rapid innovation, given the poor [...] state of society’s understanding of the economics of innovation.”

<sup>663</sup> Frank H. Easterbrook, *The Limits of Antitrust*, (1984) 63 *Texas Law Review*, 1, 15.

and if an economic institution ought to be stamped out, it is apt to vanish by the time the enforcers get there.”<sup>664</sup>

Accordingly it might be said that “the best approach” any regulator of ‘competition’ could adopt in relation to high technology sectors such as the software industry was “forbearance”.<sup>665</sup>

### **I.2.1. Questioning the Call for Non-Intervention**

However, it is suggested that both this line of argumentation and the consequent approach to competition law intervention in high technology sectors (resulting basically in non-intervention) may be flawed: although a high technology context may certainly be regarded as “put[ting] extreme pressure at the joints of existing antitrust rules”<sup>666</sup> insofar that, in relation to the actual process of competition law enforcement, “[t]he combination of intellectual property, network externalities, and rapid growth in consumer demand creates difficult questions involving the ascertainment and measurement of monopoly”,<sup>667</sup> the realisation that competition law analysis in e.g. the software industry is likely to involve more complexities than more traditional industrial sectors should not be taken as the encouragement “to abandon the field altogether.”<sup>668</sup> Furthermore, while there is some truth in the assertion that “[l]aw time is not real time” insofar that any competition law investigation may (inevitably?)

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<sup>664</sup> Frank H. Easterbrook, *Ignorance and Antitrust*, in: Thomas M. Jorde / David J. Teece (eds.), *Antitrust, Innovation, and Competitiveness*, 119.

<sup>665</sup> Cento Veljanovski, *E.C. Antitrust in the New European Economy: Is the European Commission’s View of the Network Economy Right?*, (2001) 22 *European Competition Law Review* 115.

<sup>666</sup> William Kovacic, *Antitrust After Microsoft: Upgrading Public Competition Policy Institutions for the New Economy*, (2001) 32 *University of West Los Angeles Law Review* 51, 54.

<sup>667</sup> Richard A. Posner, *Antitrust in the New Economy*, (2001) 68 *Antitrust Law Journal* 925, 938.

<sup>668</sup> Robert Pitofsky, *Antitrust Analysis in High-Tech Industries: A 19<sup>th</sup> Century Discipline addresses 21<sup>st</sup> Century Problems*, (1999) 4 *Texas Review of Law & Politics* 129, 133.

experience a certain time lag in comparison to the scrutinised, constantly evolving, new economy 'market',<sup>669</sup> this should, again, not be taken to indicate that – so-to-speak – the pendulum swings only one way. Rather, just as it would be foolish to deny the possibility that competition law investigation and enforcement might result in negative effects for a firm operating in an high technology sector,<sup>670</sup> it would be equally foolish to deny the possibility that abstaining from competition law intervention might not also lead to negative effects for firms operating in the new economy. In fact, it might be said that, although

“it is unlikely that any dominant firm will eclipse competition [in the new economy] for fifty years to the extent and in the way that Alcoa dominated the aluminum market in the first half of the twentieth century [...] [m]arket dominance for “only” fifteen or twenty years can take enormous resources out of the economy and, by excluding innovative new entrants, foreclose alternative paths of technical development.”<sup>671</sup>

Several points may be regarded as speaking in favour of the correctness of this assertion: first, intellectual property rights might be used in attempts to keep (potential) competitors out of a certain 'market';<sup>672</sup> a fact which certainly warrants and requires a certain amount of regulatory 'supervision' of industries which are dependent upon intellectual property

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<sup>669</sup> Richard A. Posner, *Antitrust in the New Economy*, (2001) 68 *Antitrust Law Journal* 925, 938 *et seq.*

<sup>670</sup> “First, an antitrust case involving a new economy firm may drag on for so long relative to the changing conditions of the industry as to become irrelevant, ineffectual. Second, even if the case is not made obsolete by passage of time, its pendency may cast a pall over parties to and affected by the litigation, making investment riskier and complicating business planning.”, Richard A. Posner, *Antitrust in the New Economy*, (2001) 68 *Antitrust Law Journal* 925, 938 *et seq.*

<sup>671</sup> Robert Pitofsky, *Antitrust and Intellectual Property: Unresolved Issues at the Heart of the New Economy*, (2001) 16 *Berkeley Technology Law Journal* 535, 541 *et seq.*

<sup>672</sup> Robert Pitofsky, *Antitrust and Intellectual Property: Unresolved Issues at the Heart of the New Economy*, (2001) 16 *Berkeley Technology Law Journal* 535, 541. See to the same effect: Dan Eklöf, *The Microsoft Case – at the Heart of the IP/Antitrust Intersection*, in: Ariel Ezrachi (ed.), *Article 82 EC: Reflections on its Recent Evolution*, 99, 102.

rights. Second, industries characterised by a heavy reliance on intellectual property rights usually also display strong network effects so that “factors as brand name recognition and reputation for reliability can create substantial advantages for incumbents, further impeding market entry by new competitors.”<sup>673</sup> Such (intangible) factors might therefore be said to directly impact on the incumbent undertaking’s ability, inclination or even willingness to engage in what may, or may not, be considered anti-competitive behaviour and thus are also likely to impact on the regulatory evaluation of the said incumbent’s conduct in ‘the market’. Third and finally, it should be remembered that “practices illegal under the antitrust laws such as exclusionary conduct or intimidation tactics available to only very large firms can themselves impede entry by more efficient challengers”;<sup>674</sup> a fact which might be important given the cumulative existence of certain characteristics – such as the aforementioned network effects and intellectual property rights – in the software industry as these characteristics may abet an undertaking’s ability to engage in such (illegal) practices. Without wishing to advocate a ‘big is bad’ approach to competition law enforcement, the business behaviour of the scrutinised firms in competition law cases such as *AKZO Chemie BV v Commission*<sup>675</sup> suggests that there is a certain truth in the assertion that ‘big players’ may sometimes be inclined to use their respective size to their advantage by engaging in – from the perspective of competition law: potentially illegal – business practices directed at the removal of potential and / or actual competitors from ‘the market’. From this point of view, it would also

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<sup>673</sup> Robert Pitofsky, *Antitrust and Intellectual Property: Unresolved Issues at the Heart of the New Economy*, (2001) 16 *Berkeley Technology Law Journal* 535, 541 *et seq.*

<sup>674</sup> Robert Pitofsky, *Antitrust and Intellectual Property: Unresolved Issues at the Heart of the New Economy*, (2001) 16 *Berkeley Technology Law Journal* 535, 542.

<sup>675</sup> European Court of Justice, *AKZO Chemie BV v Commission of the European Communities*, C-62/86, 3<sup>rd</sup> July 1991.

appear possible to argue that good and bad business practices are likely to be the same whatever the industry; moreover, it appears unlikely that “plain old anti-competitive dirty tricks” will suddenly become legally acceptable business behaviour just because the context is the so-called new economy; it is more likely that ‘dirty tricks’ will remain ‘dirty tricks’ regardless of the industrial sector in which they are taking place.<sup>676</sup> Consequently, a complete removal of such industries from the radar of competition law appears ill-advised. This conclusion, albeit sometimes with the call for smaller or bigger adjustments to the application of competition law in high technology sectors such as the software industry, also seems the overall opinion of the literature.<sup>677</sup> It is also the general position followed by this thesis.

### **I.2.2. The Applicability of Competition Law in the New Economy**

The conclusion however that competition law *should* be applied to industries operating in the so-called new economy does not necessarily say anything about the question whether or not – in its current state – (EU) competition law *can* be applied to such sectors as it does not answer the question of whether a doctrinal problem, i.e. a problem inherent in competition law doctrine, exists which might effectively prevent competition law enforcement in such high technology sectors. While, at first glance, this question does not seem to be directly connected to this thesis’ hypothesis that the Commission’s more economic approach in its current form does not lend itself easily to the creation of coherent competition policy for the software industry, it is, nonetheless, an

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<sup>676</sup> Mark Cooper, Antitrust as Consumer Protection in the New Economy: Lessons from the Microsoft Case, (2001) 52 Hastings Law Journal 813, 815.

<sup>677</sup> See e.g. Richard A. Posner, Antitrust Law, 286; Luc Peeperkorn / Vincent Verouden, The Economics of Competition, in: Jonathan Faull / Ali Nikpay (eds.), The EC Law of Competition, paras. 1.123- 1.128; Mario Monti, Competition in the New Economy, Speech at the 10<sup>th</sup> International Conference on Competition, Berlin 21 May 2001.



important point to make as the existence of such a doctrinal problem would prevent the application of (EU) competition law to the software industry *ad absolutum*. Accordingly, the question addressed here is whether or not (EU) competition law as it currently stands is capable of accommodating the different challenges which might be posed by e.g. the software industry.

*Prima facie*, i.e. if judged solely by the number of court proceedings / regulatory investigations in relation to new economy firms,<sup>678</sup> the answer to this question would appear to be in the affirmative; it certainly appears to be the view of the European Commission.<sup>679</sup> Yet despite (or maybe even because) the fact that competition law investigations of firms operating in the new economy take place, it has been argued that, in relation to high technology sectors, the enforcement of competition law

“is being rendered increasingly superfluous by dispersion in the sources of innovation and the associated growth in international competition. So long as [...] markets remain open to global competition, antitrust may soon become an expensive ornament that more often than not gets in the way of competition [...]. The basis of our argument is that technological innovation drives competition, that the sources of innovation are remarkably diverse, and the antitrust laws which we have inherited are informed by static

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<sup>678</sup> To name but a few: Court of First Instance, *Microsoft Corp. v Commission of the European Communities*, T-201/04, 17 September 2007; *Intel Corp. v Commission of the European Communities*, T-286/09 [appeal against Commission decision COMP/37990 of 13 May 2009, pending]; European Commission, Commission probes allegations of antitrust violations by Google, [case COMP/39740].

<sup>679</sup> Mario Monti, *Competition in the New Economy*, Speech at the 10<sup>th</sup> International Conference on Competition, Berlin 21 May 2001: “The general nature of the competition rules gives them an important advantage over most other legal rules, because they apply to the factual circumstances of a particular case, no matter how quickly industries develop or change. This allows them to keep pace with technological developments, in a way that more specific regulatory framework cannot. The competition rules stay the same, but the application of these rules is remarkably adaptable to changing circumstances.”.

theories of market performance and therefore as likely to throttle innovation as to stimulate it.”<sup>680</sup>

This alleged differentness of ‘competition’ in new economy industries poses the question whether the mere ‘fact’ that innovation is present in – or even dominates – an industry necessarily means that competition law analysis encounters different problems than in more traditional industrial sectors; in other words, the question is whether ‘competition’ in these new economy industries is sufficiently different from ‘competition’ in more traditional industries in order to be regarded as an insurmountable *doctrinal* obstacle to the application of competition law to the new economy.

This thesis, while generally agreeing with the opinion that sectors such as the software industry pose an analytical challenge for competition law enforcement,<sup>681</sup> does not subscribe to the suggestion that a change of the industrial context might lead to the non-applicability of competition law with regard to certain industries. The reasons for this thesis’ relative hostility towards the view that competition law enforcement has, or should have, no place in the new economy are manifold: to begin with, it appears questionable whether ‘competition’ might – *quasi* ‘all of a sudden’ – be considered basically unimportant just because the economic sector in which a particular behaviour occurs is one characterised by innovation; rather, ‘competition’ might be considered to “be especially important” in such ‘markets’ in order to enable the advancement of knowledge,

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<sup>680</sup> Thomas M. Jorde / David J. Teece, *Antitrust Policy and Innovation: Taking Account of Performance Competition and Competitor Cooperation*, (1991) 147 *Journal of institutional and theoretical economics* 118, 118 *et seq.*. Similar statements can be found in Stan J. Liebowitz / Stephen E. Margolis, *Winners, Losers Microsoft – Competition and Antitrust in High Technology*, *passim*.

<sup>681</sup> Of the same opinion: William Kovacic, *Antitrust After Microsoft: Upgrading Public Competition Policy Institutions for the New Economy*, (2001) 32 *University of West Los Angeles Law Review* 51, 54.

technology and discovery.<sup>682</sup> In addition, it would appear not only that the problems encountered by competition law analysis in high technology sectors do not differ substantially from those encountered in smoke-stack industries (as, even in these industries, competition law analysis frequently encounters problems associated with the interface between “law and cutting edge science or engineering”<sup>683</sup>) but also that the process of ‘competition’ in the new economy is not substantially different from the way in which firms operating in more traditional sectors compete (as anti-competitive behaviour such as e.g. price-fixing agreements or discriminatory prices is likely to occur whatever the industrial context<sup>684</sup>). In this respect, although it is true that “[i]t may be that the conventional notion that competition is always a stimulant and monopoly is always a narcotic does not apply exactly the same way in high-tech industries” which may call for new analytical approaches,<sup>685</sup> and “that antitrust in innovative, quickly changing industries must be carefully applied”,<sup>686</sup> the same might be said with regard to the application of competition law in other sectors, given the potentially detrimental effect an ‘overly enthusiastic’ application of competition law might have for firms

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<sup>682</sup> Robert Pitofsky, *Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property*, (2001) 68 *Antitrust Law Journal* 913, 919.

<sup>683</sup> Lawrence A. Sullivan, *Is Competition Policy possible in High Tech Markets?: An Inquiry into Antitrust, Intellectual Property, and Broadband Regulation as applied to “The New Economy”*, (2001) 52 *Case Western Reserve Law Review* 41, 47. In a similar vein: William Kovacic, *Antitrust After Microsoft: Upgrading Public Competition Policy Institutions for the New Economy*, (2001) 32 *University of West Los Angeles Law Review* 51, 54.

<sup>684</sup> See Robert Pitofsky, *Antitrust Analysis in High-Tech Industries: A 19th Century Discipline addresses 21st Century Problems*, (1999) 4 *Texas Review of Law & Politics* 129, 130: “[...] it is essential to acknowledge that high-tech industries are different and enforcement must take those differences into account. That does not mean there will not be old fashioned predatory strategies or cartel behaviour from time to time in high-tech industries; indeed, I am confident that does occur.”

<sup>685</sup> Robert Pitofsky, *Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property*, (2001) 68 *Antitrust Law Journal* 913, 918.

<sup>686</sup> Franklin M. Fisher, *Innovative Industries and Antitrust: Comments on The Microsoft Antitrust Case*, (2001) 1 *Journal of Industry, Competition and Trade* 41, 52.

operating and / or other parties (such as consumers) in the scrutinised sectors by curtailing the way in which they might be able to conduct business. Consequently, the problems encountered by competition law analysis in a new economy context would not so much appear to be of a *doctrinal*<sup>687</sup> but more of an *institutional*<sup>688</sup> nature insofar that these difficulties might rather be connected with the availability of “adequate technical resources” in the respective enforcement agencies and their ability to conduct their investigations quickly in order “to cope effectively with a very complex business sector that changes very rapidly” than with the underlying competition law rules.<sup>689</sup> For example, with regard to Article 102 TFEU, none of the explicit examples of what might be considered an abuse under this provision – i.e. “directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions; [...] limiting production, markets or technical development to the prejudice of consumers; [...] applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; [or] 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

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<sup>687</sup> Meaning that competition law in its current state and by its very nature is incapable of being applied to new economy industries.

<sup>688</sup> Meaning that it is a problem originating from the way in which the enforcement agencies apply the existing rules.

<sup>689</sup> Richard A. Posner, *Antitrust in the New Economy*, (2001) 68 *Antitrust Law Journal* 925. See also William Kovacic, *Antitrust After Microsoft: Upgrading Public Competition Policy Institutions for the New Economy*, (2001) 32 *University of West Los Angeles Law Review* 51, 53: “The challenges for antitrust enforcement posed by rapid economic change today may have less to do with the basic adaptability of concepts than the effectiveness of the institutions responsible for devising and implementing the concepts. The design and capability of institutions entrusted with implementing statutory commands substantially determine the effectiveness of an antitrust regime or other forms of economic regulation. Sustaining an antitrust system suited for fast-changing economic conditions requires periodic upgrades to analytical principles and implementing institutions, alike.”.

connection with the subject of such contracts”<sup>690</sup> – are limited to occurring only in non high technology ‘markets’. In fact, it might even be said that

“[t]he general nature of the competition rules gives them an important advantage over most other legal rules, because they apply to the factual circumstances of a particular case, no matter how quickly industries develop or change. This allows them to keep pace with technological developments, in a way that more specific regulatory framework cannot. The competition rules stay the same, but the application of these rules is remarkably adaptable to changing circumstances.”<sup>691</sup>

In other words, rather than being due to a ‘fault’ inherent in the existing competition law provisions, it might be argued that the problems in relation to competition law analysis in high technology industries are home-made / self-inflicted insofar that they may be traced back to what might be called a certain reluctance on the part of the regulatory body (in the case of this thesis: the European Commission) to think outside of the box which is represented by text-book neoclassical economic theory and to employ more dynamic economic theories rather than with the respective competition law provisions as such.

Furthermore, recent investigations such as *Microsoft*,<sup>692</sup> *Intel*<sup>693</sup> and *Google*<sup>694</sup> – all of which were concerned with the investigation of a certain allegedly anti-competitive behaviour, irrespective of whether the allegations were ultimately, or are going to be, held to be true – suggest two things which speak in favour of this argument: first, they imply that “[t]he problem with high technology monopolies and joint ventures stems not from their

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<sup>690</sup> Article 102 *lit.* (a) – (d) TFEU.

<sup>691</sup> Mario Monti, Competition in the New Economy, Speech at the 10<sup>th</sup> International Conference on Competition, Berlin 21 May 2001.

<sup>692</sup> Court of First Instance, *Microsoft Corp. v Commission of the European Communities*, T-201/04, 17 September 2007.

<sup>693</sup> European Commission, Commission Decision COMP/C-3 /37.990 – Intel, 13<sup>th</sup> May 2009.

<sup>694</sup> European Commission, Antitrust: Commission probes allegations of antitrust violations by Google.

existence but from their conduct”.<sup>695</sup> Second, these (partially still ongoing) investigations also imply that, as submitted before, anti-competitive behaviour is not only likely to occur whatever the industry but also that the classification of a particular conduct as anti-competitive under (EU) competition law rules is, generally speaking, not substantially ‘hindered’ by the fact that the alleged perpetrator operates in a high-technology sector such as the software industry – in the sense that a change of the industrial context will result in the absolution of any, otherwise potentially to be classified as anti-competitive, behaviour of the scrutinised firm. Moreover, it might be said that “the abandonment of any intervention conserves and politically approves existing distortions and power distributions”<sup>696</sup> regardless of the industry and thus causes potentially more damage than regulatory intervention. In addition, just because the application of competition law in a dynamic industry might involve a more complex analytical process than competition law analysis in the context of a more mature and more static industrial sector should not mean that this analysis should not be attempted at all. Rather, although it might not always be clear that and, if so, how competition law intervention “might improve matters”,<sup>697</sup> refraining from competition law enforcement in certain economic sectors might result in equally detrimental, if not worse, consequences as the declaration that competition

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<sup>695</sup> Thomas A. Piraino, A Proposed Antitrust Approach to High Technology Competition, (2002) 44 William and Mary Law Review 65, 73.

<sup>696</sup> Oliver Budzinski, Monoculture versus diversity in competition economics, (2007) 32 Cambridge Journal of Economics 295, 313 *et seq.*.

<sup>697</sup> David J. Teece / Mary Coleman, The meaning of monopoly: antitrust analysis in high-technology industries, (1998) 43 Antitrust Bulletin 801, 815. For further critical discussion of the pros and cons of competition law intervention, see e.g. Geoffrey A. Manne / Joshua D. Wright, Innovation and the Limits of Antitrust, (2010) 6 Journal of Competition Law & Economics 153; *idem*, Google and the Limits of Antitrust: The Case against the Case against Google, (2011) 34 Harvard Journal of Law & Public Policy 171; Jerry A. Hausman / J. Gregory Sidak, (2009) 5 Journal of Competition Law & Economics 411.

law had no place in the new economy would “provide [firms operating in this sector with] a license to destroy competition under the excuse that a firm is innovative.”<sup>698</sup>

Consequently, it would not merely be a pity if new economy industries were to be excluded from the realm of competition law but rather it would be, as even Posner has admitted, “a mistake [...] because there is a pretty solid theoretical basis for concern both that some new-economy firms would find it in their rational self-interest to employ such [anti-competitive] practices and that natural market forces would not undo those practices in time to avoid significant social costs.”<sup>699</sup> At any rate, the above has demonstrated that, with regard to the applicability of (EU) competition law to an economic sector such as the software industry, no doctrinal problem exists. Accordingly, this thesis submits that (EU) competition law not only *is capable of being applied* to the software industry but also that it *should be applied* to this particular sector.

## **II. The More Economic Approach in the Context of the Software Industry**

In view of the suggestion that it is not so much the existence of certain characteristics of the software industry as such but rather their occurrence in an accumulated fashion which is likely to cause problems for the creation of competition policy in relation to this industrial sector, the analysis now turns to the discussion of these characteristics and the question of at which stage they might complicate the process of competition law analysis under Art. 102 TFEU. For reasons of space, this analysis concentrates on the question of ‘Dominance’ in order to show that

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<sup>698</sup> Franklin M. Fisher, *Innovative Industries and Antitrust: Comments on The Microsoft Antitrust Case*, (2001) 1 *Journal of Industry, Competition and Trade* 41, 52.

<sup>699</sup> Richard A. Posner, *Antitrust Law*, 286.

the Commission's reliance on static neoclassical economic theory does not easily lend itself to the creation of coherent competition policy for the software sector. In doing so, it is submitted that the software industry displays certain characteristics which aggravate the already inherently difficult process of assessing 'Dominance', i.e. that the cumulative occurrence of these features adds further difficulties to the already existing complexity of the assessment process: for example, the software industry can be said to be characterised by "very rapid technological change, the creation and exploitation of intellectual property rights, the need for complementary products to work together, and a high degree of technical complexity".<sup>700</sup> The discussion below sets out to demonstrate that these characteristics, at various stages of the assessment process, are all likely to have an aggravating impact upon the establishment of 'Dominance', thereby ultimately supporting this thesis' contention that the Commission's more economic approach is likely to lead to problems for the creation of coherent competition policy for the software industry. In a way therefore, Teece and Coleman's assertion that "[t]he very nature of competition, the definition of industries, the basis of competitive advantage, the effects of "restrictive" practices and the nature of economic rents are all different in the context of innovation" might not be so 'wrong' after all – but just not quite to the effect that Teece and Coleman seem to suggest:<sup>701</sup> rather than advocating the abolition of regulatory intervention into high technology sectors such as the software industry, this thesis calls for the 'fine-tuning' of the Commission's use of economic theory in order to not only create coherent competition policy for the software sector but

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<sup>700</sup> Alison Jones / Brenda Sufrin, *EU Competition Law*, 57.

<sup>701</sup> David J. Teece / Mary Coleman, *The meaning of monopoly: antitrust analysis in high-technology industries*, (1998) 43 *Antitrust Bulletin* 801, 847. Unlike Teece and Coleman, this thesis does not advocate that high-technologies industries should be exempt from competition law investigation.



also to avoid the creation of what might potentially be called ‘arbitrary’ competition policy for this economic sector. In doing so, it is submitted that the Commission’s current use of economic theory appears to ‘gloss over’, i.e. seemingly pays insufficient attention to, some important specific features of the software industry; a fact which, as the following discussion sets out to demonstrate, is likely to be particularly noticeable in relation to the establishment of ‘Dominance’ under Article 102 TFEU.

### **II.1. The Two Stage Test for the Determination of ‘Dominance’ under Article 102 TFEU**

The European Court of Justice has repeatedly defined what ‘Dominance’ under Article 102 TFEU means;<sup>702</sup> although these definitions sometimes vary slightly in their respective wording, their gist is always more or less the same:

“[t]he dominant position referred to in Article 86 of the Treaty [now Article 102 TFEU] relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of its consumers. Such a position does not preclude some competition, which it does where there is a monopoly or a quasimonopoly, but enables the undertaking which profits by it, if not to determine, at least to have an appreciable influence on the conditions under which that competition will develop, and in any case to act largely in disregard of it so long as conduct does not operate to its detriment.”<sup>703</sup>

In other words, the assessment of ‘dominance’ for the purposes of Article 102 TFEU is the “assessment of whether the firm under investigation faces

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<sup>702</sup> See e.g. European Court of Justice, *United Brands v Commission of the European Communities*, Case 27/76, 14 February 1978, para. 65; European Court of Justice, *Hoffmann-La Roche & Co. AG v Commission of the European Communities*, 13 February 1979, Case 85/76, Summary para. 4; Court of First Instance, *British Airways v Commission of the European Communities*, T-219/99, 17 December 2003, para. 189.

<sup>703</sup> European Court of Justice, *Hoffmann-La Roche & Co. AG v Commission of the European Communities*, 13 February 1979, Case 85/76, Summary para. 4.

significant competitive constraints.”<sup>704</sup> Almost by necessity, this assessment cannot take place “in a vacuum” but requires the delineation of what might be called ‘contextual boundaries’.<sup>705</sup> Consequently, the determination of a dominant position is “essentially” a process which is split into two stages: market definition being the first issue to be decided and the question of an undertaking’s market power being the ‘follow-on’ issue to be determined.<sup>706</sup> It appears reasonable to assume that the intention behind this test is to ease the process of determining ‘Dominance’ under Article 102 TFEU, to add structure and predictability to the procedure and, thus, to guarantee equal treatment of allegedly dominant undertakings. In view of the ongoing controversies surrounding both stages however, it seems equally reasonable to assume that these undeniably noble goals might not have been achieved. For example, the first stage of determining dominance – the issue of market definition – might be regarded as the worst handled aspect of competition law enforcement.<sup>707</sup> This damning appraisal is, at least in part, a reflection of

“the fact that the critical issues in relevant market definition – (1) what products are sufficiently close substitutes to compete effectively in each other’s market (definition of “relevant product market”); (2) what firms are sufficiently proximate to others in spatial terms to compete effectively (definition of “relevant geographic market”); and (3) what substitute sources of supply can be diverted promptly and economically to offer effective competition (“supply

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<sup>704</sup> Robert O’Donoghue / A. Jorge Padilla, *The Law and Economics of Article 82 EC*, 63.

<sup>705</sup> Peter Roth / Vivien Rose, Bellamy & Child – *European Competition Law*, para. 10.016 *et seq.*.

<sup>706</sup> Peter Roth / Vivien Rose, Bellamy & Child – *European Competition Law*, para. 10.016 *et seq.*.

<sup>707</sup> Robert Pitofsky, *New Definitions of Relevant Market and the Assault on Antitrust*, (1990) 90 *Columbia Law Review* 1805, 1807 [footnote omitted]; see also Robert G. Harris, Thomas M. Jorde, *Antitrust Market Definition: An Integrated Approach*, (1984) 72 *California Law Review* 1, 5; Franklin M. Fisher, *Economic Analysis and “Bright-Line” Tests*, (2007) 4 *Journal of Competition Law and Economics* 129.

substitutability”) – are all matters of degree that are extremely difficult to measure.”<sup>708</sup>

As is discussed below in section II.3. of this Chapter, something similar applies to the second stage in establishing dominance (‘market power’). However, the discussion below first turns to the analysis of those characteristics of the software industry which are likely to intensify the establishment of dominance at the (first) stage of ‘market definition’.

## **II.2. The First Stage: Market Definition**

It is generally accepted that market definition is an important factor in EU competition law analysis;<sup>709</sup> the main reason being that the way in which ‘the market’ is defined “materially” influences the result of an investigation under Article 102 TFEU.<sup>710</sup>

“[i]f markets are defined too narrowly, suppliers may be subject to competition law restrictions (on their freedom to make agreements, pursue a course of conduct or merge with other undertakings) that are unnecessary since, in the absence of market power, those activities would be unlikely to harm consumers. By contrast, if markets are defined too widely, suppliers which do in fact have significant market power may be subject to a lower standard of competition law obligations, enabling them profitably to act in ways that harm consumers (by raising prices or reducing quality, innovation or choice).”<sup>711</sup>

However, despite its aforementioned importance, market definition should not be regarded as “an end in itself”<sup>712</sup> but as an “intermediate step”,<sup>713</sup> as a “conceptual framework within which the [subsequent]

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<sup>708</sup> Robert Pitofsky, *New Definitions of Relevant Market and the Assault on Antitrust*, (1990) 90 *Columbia Law Review* 1805, 1807 [footnote omitted].

<sup>709</sup> See e.g. Alison Jones / Brenda Sufrin, *EU Competition Law*, 63; Peter Roth / Vivien Rose, Bellamy & Child – *European Competition Law*, para. 4.001.

<sup>710</sup> Robert O’Donoghue / A. Jorge Padilla, *The Law and Economics of Article 82 EC*, 64.

<sup>711</sup> Peter Roth / Vivien Rose, Bellamy & Child – *European Competition Law*, para. 4.004.

<sup>712</sup> Richard Whish, *Competition Law*, 26.

<sup>713</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 4-002.

evaluation of the competitive effect of the conduct or transaction in question takes place.”<sup>714</sup> This understanding of the position and importance of market definition would also seem to be reflected in the Commission’s *Notice on the definition of relevant market for the purposes of Community competition law* [hereafter: *Notice*]:

“[m]arket definition is a tool to identify and define the boundaries of competition between firms. It serves to establish the framework within which competition policy is applied by the Commission. The main purpose of market definition is to identify in a systematic way the competitive constraints that the undertakings involved [...] face. The objective of defining a market in both its product and geographic dimension is to identify those actual competitors of the undertakings involved that are capable of constraining those undertakings’ behaviour and of preventing them from behaving independently of effective competitive pressure. It is from this perspective that the market definition makes it possible inter alia to calculate market shares that would convey meaningful information regarding market power for the purposes of assessing dominance or for the purposes of applying Article 85 [now Article 101 TFEU].”<sup>715</sup>

Even though it should be noted that the *Notice* is not a statement of law,<sup>716</sup> it is nonetheless a statement of some importance as it gives a generally valuable insight into, and indication of, the Commission’s methodology for defining markets; this also appears to be the Commission’s intention.<sup>717</sup> It would further seem that the Commission’s *Notice* “is based around the

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<sup>714</sup> Peter Roth / Vivien Rose, Bellamy & Child – European Competition Law, para. 4.001.

<sup>715</sup> European Commission, Commission Notice on the definition of relevant market for the purposes of Community competition law, Official Journal 1997 C372 , 09/12/1997, para. 2.

<sup>716</sup> Richard Whish, Competition Law, 34.

<sup>717</sup> See European Commission, Commission Notice on the definition of relevant market for the purposes of Community competition law, Official Journal 1997 C372 , 09/12/1997, 5, para. 4: “By rendering public the procedures which the Commission follows when considering market definition and by indicating the criteria and evidence on which it relies to reach a decision, the Commission expects to increase the transparency of its policy and decision-making in the area of competition policy.”.

formal test of 'demand substitution arising from small, permanent changes in relative prices',<sup>718</sup> i.e. the so-called SSNIP test:<sup>719</sup>

"[t]he exercise of market definition focuses on prices for operational and practical purposes, and more precisely on demand substitution arising from small, permanent changes in relative prices. [...] The question to be answered is whether the parties' customers would switch to readily available substitutes or to suppliers located elsewhere in response to a hypothetical small (in the range 5 % to 10 %) but permanent relative price increase in the products and areas being considered. If substitution were enough to make the price increase unprofitable because of the resulting loss of sales, additional substitutes and areas are included in the relevant market. This would be done until the set of products and geographical areas is such that small, permanent increases in relative prices would be profitable. [...] A practical example of this test can be provided by its application to a merger of, for instance, soft-drink bottlers. An issue to examine in such a case would be to decide whether different flavours of soft drinks belong to the same market. In practice, the question to address would be whether consumers of flavour A would switch to other flavours when confronted with a permanent price increase of 5 % to 10 % for flavour A. If a sufficient number of consumers would switch to, say, flavour B, to such an extent that the price increase for flavour A would not be profitable owing to the resulting loss of sales, then the market would comprise at least flavours A and B. The process would have to be extended in addition to other available

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<sup>718</sup> Mark Furse, *EC Competition Law and the Computing Industry: A Guide for Industry Professionals*, 108.

<sup>719</sup> The 'Small but Significant Non-transitory Increase in Price' test is sometimes also referred to as the 'hypothetical monopolist' test and "focuses on the question of economic substitutability.", Peter Roth / Vivien Rose, *Bellamy & Child – European Competition Law*, para. 4.024. The workings of the SSNIP test can be explained as follows: "suppose that a producer of a product – for example a widget – were to introduce a Small but Significant Non-transitory Increase in Price. In those circumstances, would enough customers be inclined to switch their purchases to other makes of widgets, or indeed even to blodgets, to make the price rise unprofitable? If the answer is yes, this would suggest that the market is at least as wide as widgets generally and includes blodgets as well.", Richard Whish, *Competition Law*, 30.

flavours until a set of products is identified for which a price rise would not induce a sufficient substitution in demand.”<sup>720</sup>

Although the *Notice* itself describes this test only as “[o]ne way”<sup>721</sup> of defining ‘the market’, it does not indicate what other methods of delineating the market the Commission might consider. Rather, as “[t]he notice places the SSNIP firmly at the heart of market definition”,<sup>722</sup> it would appear to be “the primary method”<sup>723</sup> used by the Commission to establish if a product is in the same ‘market’. However, in practice, the definition of ‘the market’ – even, as further discussed below in this section, when applying the seemingly quite straightforward SSNIP test – is not quite as easy a matter as the Commission’s *Notice* would appear to suggest: rather than leading to clear-cut, unambiguous and incontestable results, the fact is that “the definition of the market is essentially a matter of interchangeability”<sup>724</sup> and thus essentially a question of degree and of what might be considered ‘personal’ preferences. Moreover, whilst the notion of the relevant market consisting of substitutable products might, as a theoretical concept, be “simple enough”,<sup>725</sup> the reality of competition law assessment reveals a somewhat different picture: in this context, mention should be made of e.g. *Continental Can*,<sup>726</sup> *Tetra Pak II*<sup>727</sup> and

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<sup>720</sup> European Commission, Commission Notice on the definition of relevant market for the purposes of Community competition law, Official Journal 1997 C372 , 09/12/1997, 5, paras. 15-18.

<sup>721</sup> European Commission, Commission Notice on the definition of relevant market for the purposes of Community competition law, Official Journal 1997 C372 , 09/12/1997, 5, para. 15.

<sup>722</sup> Mark Furse, *Competition Law of the EC and UK*, 291.

<sup>723</sup> Alison Jones / Brenda Sufrin, *EU Competition Law*, 68.

<sup>724</sup> Richard Whish, *Competition Law*, 28.

<sup>725</sup> Richard Whish, *Competition Law*, 29.

<sup>726</sup> Here, the Commission identified three separate markets: “le marché des emballages légers destinés aux conserves des produits carnés”, “le marché des emballages légers destinés aux conserves des produits de la pêche” and “le marché des bouchages métalliques, autres que les bouchons couronnes, destinés à l’industrie de la conserve”, i.e. markets “for light containers for canned meat products”, “for light containers for canned seafood” and “for metal closures for the food packing

*Eurofix-Bauco/Hilti*,<sup>728</sup> all of which might serve as cases in point for the argument that defining ‘the market’ even in more traditional industries and, thus, supposedly less complex ‘markets’ is a matter of degree. For example, in *Continental Can*, the European Court of Justice questioned some aspects of this part of the Commission’s decision – *inter alia*, the Court stated that the Commission had neither “give[n] any details of how these three markets differ from each other” nor outlined “how these three

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industry, other than crown corks”; European Commission, *Décision de la Commission, du 9 décembre 1971, relative à une procédure d’application de l’article 86 du traité CEE (IV/26 811 - Continental Can Company), 72/21/CEE, Official Journal 1972 L7, 08/01/1972, 25.*

<sup>727</sup> Here, the Commission identified four separate markets: “the market for machinery incorporating technology for the sterilization of cartons and the packaging in those cartons, under aseptic conditions, of UHT-treated liquid foods”, “the corresponding market for packaging cartons”, “the distinct but neighbouring market for machinery enabling fresh liquid foods to be packaged in cartons” and “the corresponding market for packaging cartons”; European Commission, *Commission Decision of 24 July 1991 relating to a proceeding pursuant to Article 86 of the EEC Treaty (IV/31043 - Tetra Pak II), 92/163/EEC, para. 11.*

<sup>728</sup> Here, the Commission contested “the view put forward by Hilti that nail guns, cartridge strips and nails must be seen as forming one integral system: powder actuated fastening systems. The very fact that there exist independent nail and cartridge strip makers who do not produce nail guns shows that these articles have different supply conditions. Moreover, certain nail gun manufacturers rely on independent nail and cartridge strip producers to supply at least in part some of their consumables. Hilti itself relies on Dynamit Nobel and Cartoucherie de Survilliers (and formerly Fiocchi) to supply independently its subsidiaries and distributors direct with cartridge strips. Some independent nail makers also supply nail gun manufacturers with nails. Finally, on the demand side, it should be noted that the purchase of a nail gun is a capital investment which, under normal usage, is used and amortized over a relatively long period. Cartridge strips and nails constitute current expenditure for users and are purchased in line with current requirements. Nail guns and consumables are not purchased together; indeed the decision depends on a different set of considerations. These factors were pointed out in Hilti’s letter to the Commission of 23 March 1983 which in fact considered nails, cartridge strips and nail guns to constitute separate markets. It can therefore be concluded that nail guns, cartridge strips and nails, even if inter-related, have different sets of supply and demand conditions and constitute separate product markets.”; European Commission, *Commission Decision of 22 December 1987 relating to a proceeding under Article 86 of the EEC Treaty (IV/30.787 and 31.488 - Eurofix-Bauco v. Hilti), 88/138/EEC, para. 57.*

markets differ from the general market for light metal containers”— and consequently annulled the Commission’s decision, stating:<sup>729</sup>

“[i]n order to be regarded as constituting a distinct market, the products in question must be individualized, not only by the mere fact that they are used for packing certain products, but by particular characteristics of production which make them specifically suitable for this purpose. Consequently, a dominant position on the market for light metal containers for meat and fish cannot be decisive, as long as it has not been proved that competitors from other sectors of the market for light metal containers are not in a position to enter this market, by a simple adaptation, with sufficient strength to create a serious counterweight.”<sup>730</sup>

Although this particular case was decided long before both the introduction of the Commission’s *Notice on the definition of relevant market for the purposes of Community competition law*<sup>731</sup> and the SSNIP test’s first appearance in European competition law analysis,<sup>732</sup> it is submitted that even the formal adoption of the SSNIP test as the primary method for delineating ‘the market’ through the publication of the Commission’s Notice has neither changed the importance nor the truth behind the European Court of Justice’s argument; delimiting the relevant market in

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<sup>729</sup> European Court of Justice, *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*, 21 February 1973, Case 6/72, para. 33.

<sup>730</sup> European Court of Justice, *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*, 21 February 1973, Case 6/72, para. 33.

<sup>731</sup> European Commission, *Commission Notice on the definition of relevant market for the purposes of Community competition law*, Official Journal 1997 C372, 09/12/1997.

<sup>732</sup> According to van den Bergh and Camesasca, the SSNIP test was first ‘implicitly’ referred to in European Commission, *Commission Decision of 22 July 1992 relating to a proceeding under Council Regulation (EEC) No 4064/89 (Case No IV/M.190 - Nestlé/Perrier)*, 92/553/EEC, Official Journal 1992 L356, 05/12/1992 and for the first time ‘formally’ applied in European Commission, *Commission Decision of 4 December 1996 declaring a concentration to be incompatible with the common market and the functioning of the EEA Agreement (Case No IV/M.774 - Saint-Gobain/Wacker-Chemie/NOM) (Council Regulation (EEC) No 4064/89)*, 97/610/EC, Official Journal 1997 L 247, 10/09/1997, especially paras. 220 and 236; see also Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 113.



terms of product interchangeability is still not an easy and straightforward process and, given the issues mentioned in section I.1. of this Chapter above and also in sections II.2. and II.3. below, is likely to be even more difficult in relation to software.<sup>733</sup> Moreover, it should be noted that

“economic relationships are seldom so simple that a relevant market can be defined with exactitude and confidence. There is not for any product a single, real ‘market’ waiting to be discovered. A seller of a given product, for example corn flakes, faces various degrees of competition: other brands of corn flakes are certainly competitive products and in the same market; other dry cereals, say corn puffs, or wheat flakes, are no doubt competitive in substantial degree; less competitive, but still significant perhaps, are cooked cereals; and not to be ignored entirely are other products which might be served instead of cereal – bacon, eggs, toast, danish pastries etc. Realistically, no single definition of a product market is likely to be decisive, in the sense that all sellers within it directly limit the power of the seller whose power is the subject of inquiry and all sellers outside of it affect the subject seller so little that they can be ignored. [...] But even if it [the producer of corn flakes] is the only cereal maker in the country, its power is not unlimited; there are other foods besides cereals to which buyers at some point will turn.”<sup>734</sup>

Despite its being written more than thirty years ago, not only would it appear that this statement is still accurate today but also that the same information deficits still apply in relation to defining ‘the market’ by means of substitutability:<sup>735</sup> the relevant data to measure the

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<sup>733</sup> See also Hedvig K.S. Schmidt, *The influence of IP rights on product definition in competition law – the curious case of tying*, (2010) 21 *International Company and Commercial Law Review* 224.

<sup>734</sup> Lawrence A. Sullivan, *Handbook of the Law of Antitrust*, 41 *et seq.*.

<sup>735</sup> See also Lawrence A. Sullivan / Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 64 *et seq.*: “The difficulty in defining the product market stems from the interchangeability of many products. Some products, (salt is sometimes cited as an example) may have few satisfactory substitutes, but many do. Consider the example of a producer of copper cookware. Should the market be confined to cookware made from copper, or should it include cast iron, steel, aluminum and other cookware? What if a particular manufacturer specializes in Teflon-coated pots and pans? Does that suggest a separate market? If so, should only cookware coated with Teflon be considered, or should porcelain-coated cookware, also having nonstick characteristics, be included? In theory, the answer to such questions should

interchangeability of specific goods or services “may be unreliable, incomplete or deficient in some other way”, “open to (at least) two interpretations” or not available at all.<sup>736</sup> Again, software is a good example for this difficulty, especially where the introduction of a new product is concerned as it is likely that either no substitute for the new product exists at all at the point of its introduction in ‘the market’ or at least no direct, i.e. directly ‘obvious’, substitute can be found. Moreover, it should be noted that the price for innovative products is typically quite high when introduced in ‘the market’ as e.g. shown “*pars pro toto*” by the introductory price of Apple’s ipod at the time of its first release.<sup>737</sup> In addition, problems regarding substitutability would seem to exist not only with regard to the availability of data relating to possible substitutability of a product or service in general but also in relation to the availability of specific price data regarding the said product or service (which is important for the SSNIP test) which might result in the non-applicability of the SSNIP test because

“the fact remains that in some sectors actual price data about substitutability may not be available: the information that can be captured varies hugely from one sector to another, and in some cases one will be thrown back on fairly subjective assessments of the market for want of hard, scientific evidence.”<sup>738</sup>

The Commission’s decision in Microsoft is a case in point for this statement: here, the Commission differentiated between three markets

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turn on the cross-elasticity of consumer demand: if consumers would not readily shift between coated and noncoated cookware, there is a coated cookware market. But cross-elasticity questions cannot be answered with a yes or no. There are countless variations of cross-elasticity along a continuum, making predictable and consistent results to a cross-elasticity inquiry an elusive goal.”

<sup>736</sup> Richard Whish, Competition Law, 29.

<sup>737</sup> Meinrad Dreher, Die Kontrolle des Wettbewerbs in Innovationsmärkten – Marktabgrenzung und Marktbeherrschung in innovationsgeprägten Märkten, in: Forschungsinstitut für Wirtschaftsverfassung und Wettbewerb e.V. (ed.), Innovation und Wettbewerb – Referate des XLII. FIW-Symposiums, 73, 82.

<sup>738</sup> Richard Whish, Competition Law, 34.

(‘client PC operating systems’, ‘work group server operating systems’ and ‘streaming media players’) each of which were defined using the concept of demand-side substitutability as a point of departure, followed by a consideration of supply-side substitutability. In doing so, the Commission explicitly used / relied upon the application of the SSNIP test;<sup>739</sup> this procedure was, at least with regard to ‘the market’ of work group server operating systems as the only defined ‘market’ contested and thus in need of re-consideration on appeal, sanctioned by the Court of First Instance.<sup>740</sup> However, as Dreher has rightly pointed out, this particular take on how to define ‘the market’ on the part of the Commission is remarkable for two reasons:<sup>741</sup>

“Zum einen, weil die Anwendung des SSNIP-Tests durch die EG-Kommission deutlich dessen fehlende Geeignetheit in einem Innovationsmarkt bestätigt. Denn die Kommission prüft, ob Unternehmen, die bisher keine Betriebssysteme für Client-PC herstellen, diese Produktion leicht aufnehmen könnten. Dem standen aber nicht nur die sehr hohen Entwicklungskosten im Sinne von *first copy costs*, sondern auch der fehlende Zugang zu rechtlich geschützten Informationen und zu dem Markt des komplementären Hauptprodukts, d.h. dem Hardwaremarkt, sowie andere Netzwerkeffekte wie fehlende Anwendersoftware für die neuen Betriebssysteme entgegen. Zum anderen und vor allem ist bemerkenswert, wie die Kommission – gebilligt vom EuG – die Nachfragesubstituierbarkeit prüft. Sie stellt dabei nämlich außer auf Informationen aus Nutzerkreisen entscheidend darauf ab, wie Microsoft selbst seine Produkte beschreibt und welche Preisstrategie

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<sup>739</sup> European Commission, Case COMP/C-3/37.792 Microsoft, 24 March 2004, paras. 334, 388, 416.

<sup>740</sup> Court of First Instance, Microsoft Corp. v Commission of the European Communities, 17 September 2007, T-201/04, paras. 480 *et seq.*

<sup>741</sup> Meinrad Dreher, Die Kontrolle des Wettbewerbs in Innovationsmärkten – Marktabgrenzung und Marktbeherrschung in innovationsgeprägten Märkten, in: Forschungsinstitut für Wirtschaftsverfassung und Wettbewerb e.V. (ed.), Innovation und Wettbewerb – Referate des XLII. FIW-Symposiums, 73, 89.

das Unternehmen dafür verfolgt. Beide Aspekte haben mit der Nachfragesubstituierbarkeit nichts zu tun.“<sup>742</sup>

The potential problems regarding market definition however do not end here as problems may also occur in cases where defining ‘the market’ by the criterion of price alone has to be considered “inappropriate”<sup>743</sup> because the decisions made by customers may not be based on the question of price alone.<sup>744</sup> In such cases, the quantitative SSNIP test will have to be replaced

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<sup>742</sup> Meinrad Dreher, Die Kontrolle des Wettbewerbs in Innovationsmärkten – Marktabgrenzung und Marktbeherrschung in innovationsgeprägten Märkten, in: Forschungsinstitut für Wirtschaftsverfassung und Wettbewerb e.V. (ed.), *Innovation und Wettbewerb – Referate des XLII. FIW-Symposiums*, 73, 89 [original emphasis; footnotes omitted]. This passage translates as follows: “On the one hand because the European Commission’s application of the SSNIP test clearly shows its lack of suitability for innovation markets. This is because the Commission examines if undertakings which, to date, do not produce operating systems for client PCs could take up production easily. This [occurrence] was however not only hindered by very high development costs in terms of first copy costs but also by the lack of access to both legally protected information and the market of the complementary main product, i.e. the hardware market, as well as other network effects such as lacking application software for the new operating systems. On the other hand and most notably, it is remarkable how the Commission examines – sanctioned by the European Court – the issue of demand-side substitutability. This is because, in doing so, it focuses, in addition to information from user groups, decisively on how Microsoft itself describes its products and which pricing strategy the undertaking pursues in this respect. Both aspects have got nothing to do with the issue of demand-side substitutability.” [own translation].

<sup>743</sup> Peter Roth / Vivien Rose, Bellamy & Child – *European Competition Law*, para. 4.017.

<sup>744</sup> Court of First Instance, *Colin Arthur Roberts and Valérie Ann Roberts v Commission of the European Communities*, 5 July 2001, Case T-25/99, paras. 39-40: “It should be noted that the fact that consumers distinguish between several kinds of establishments selling alcoholic beverages for consumption on the premises is not a ground to consider that each of those kinds of establishment constitutes a separate market, since all those establishments, both from the consumer’s point of view (the purchase of beer is associated with the provision of services and the consumption of beer in those establishments does not depend essentially on economic considerations) and from the breweries’ point of view (existence of specific distribution systems and higher sales prices compared to those charged in the retail sector), have features in common which mean that they must be considered as belonging to one single market. [...] The applicants, who rely on a very simple example taken from the Commission Notice on the definition of relevant market for the purposes of Community competition law, consider the question of demand substitution only by reference to the single criterion of price difference. They thus disregard a specific feature of the sale of beer, noted by the Court of Justice in the *Delimitis* judgment, namely that the consumption of beer in establishments selling it for consumption on the premises does not depend essentially on economic

by a qualitative assessment which has to take “into account all relevant available evidence to identify those goods or services that provide a close competitive constraint on one another in order to provide the best possible approximation for the SSNIP test.”<sup>745</sup> This process however can hardly be considered an easy task as e.g. the aforementioned cases of *Continental Can*,<sup>746</sup> *Tetra Pak II*<sup>747</sup> and *Eurofix-Bauco/Hilti*<sup>748</sup> show. Furthermore, even where the relevant price data is available, there are situations in which the use of the SSNIP test may “constitute an inaccurate tool for market definition” in relation to Article 102 TFEU enforcement action as the application of the said test leads to the so-called *Cellophane Fallacy*,<sup>749</sup> i.e. the inclusion of “false substitutes” in the relevant market,<sup>750</sup> thus resulting in “an erroneously wide market definition”<sup>751</sup> which, in turn, might lead to

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considerations. In this respect, the Commission rightly observes in its pleadings that the consumer's choice between those establishments is influenced primarily by their environment and atmosphere, even within the sub-category of pubs distinguished by the applicants.”.

<sup>745</sup> Peter Roth / Vivien Rose, Bellamy & Child – European Competition Law, para. 4.018.

<sup>746</sup> European Commission, Décision de la Commission, du 9 décembre 1971, relative à une procédure d'application de l'article 86 du traité CEE (IV/26 811 - Continental Can Company), 72/21/CEE, Official Journal 1972 L7, 08/01/1972; European Court of Justice, *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*, 21 February 1973, Case 6/72.

<sup>747</sup> European Commission, Commission Decision of 24 July 1991 relating to a proceeding pursuant to Article 86 of the EEC Treaty (IV/31043 - Tetra Pak II), 92/163/EEC; upheld on appeal to Court of First Instance, *Tetra Pak v Commission*, T-83/91, 6 October 1994; upheld on appeal to European Court of Justice, *Tetra Pak v Commission*, Case C-333/94 P, 14 November 1996.

<sup>748</sup> European Commission, Commission Decision of 22 December 1987 relating to a proceeding under Article 86 of the EEC Treaty (IV/30.787 and 31.488 - Eurofix-Bauco v. Hilti), 88/138/EEC; upheld on appeal to Court of First Instance, *Hilti AG v Commission of the European Communities*, 12 December 1991, case T-30/89; upheld on appeal to European Court of Justice, *Hilti AG v Commission of the European Communities*, 2 March 1994, case C-53/92 P.

<sup>749</sup> See Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, paras. 4-017 – 4-019; Alison Jones / Brenda Sufrin, *EC Competition Law – Text, Cases and, Materials*, 72 *et seq.*; *United States v Du Pont de Nemours & Co.* (1956) 351US 377, 76 S Ct 994.

<sup>750</sup> Joanna Goyder / Albertina Albors-Llorens, *Goyder's EC Competition Law*, 309 *et seq.*

<sup>751</sup> Peter Roth / Vivien Rose, Bellamy & Child – European Competition Law, para. 4.030.

an underestimation of the investigated undertaking's market power. This is because

“the identification of substitutes at existing prices does not necessarily identify those products that are effective substitutes at the competitive price, which is the relevant benchmark for defining markets in most non-mergers cases. Evidence that products are effective substitutes at current prices merely identifies those competitors that constrain the prices of the firm or firms under investigation from increasing above the current level. It does not necessarily provide information on whether these products are constraining prices to the competitive level.”<sup>752</sup>

In other words, as “the SSNIP test cannot identify whether the current price is already a monopoly price resulting from the exercise of market power”,<sup>753</sup> its application conveys little meaningful information in situations where it cannot be guaranteed that the existing price is also the competitive price.<sup>754</sup> The SSNIP test's difficulty in Article 102 TFEU cases is due to the differences in the actual question investigated in relation to both merger cases (for which the SSNIP had originally been devised<sup>755</sup>) and ‘abuse of dominance’ situations: in merger control, the investigation is prospective as it focuses on the question whether market power is going to be created or increased, i.e. the point of departure for market definition in such a case is the prevailing market price, the guiding question being whether a hypothetical monopolist *will be* in a position to maximise his profits by increasing the price of his product or service above the prevailing market price by a small but significant non-transitory

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<sup>752</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 4-019.

<sup>753</sup> Alison Jones / Brenda Sufrin, *EC Competition Law – Text, Cases and, Materials*, 72.

<sup>754</sup> See Bundesgerichtshof, Beschluss, 04. März 2008, file number (‘AktENZEICHEN’): KVR 21/07 (“SodaClub II”), para. 18 *et seq.*

<sup>755</sup> See Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 4-005; Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 111.

amount.<sup>756</sup> The analysis of the alleged abuse of a dominant position however is led by a different question as the issue to be determined is not what ‘the market’ will look like *in future* but whether the scrutinised undertaking *already* possesses market power, i.e. what the prevailing competitive conditions were at the point at which the alleged abuse occurred; consequently, the assessment of the competitive price is retrospective.<sup>757</sup> One might, maybe even reasonably so, expect this retrospective character of an Article 102 TFEU investigation to make the task of defining the relevant ‘market’ easier, yet that is not so:

“in merger control, the objective of market definition is to identify the competitive constraints faced by the merging parties at pre-merger prices, without questioning the legitimacy of those prices. Instead, under Article [102 TFEU], market definition is used to assess whether the firm whose practices are deemed abusive enjoys market power, and that involves investigating the existence of competitive constraints at competitive prices. This makes market definition under Article [102 TFEU] inherently more difficult than in merger control; while pre-merger prices are readily observable, defining whether a price is competitive or not is a daunting task.”<sup>758</sup>

Put differently, it appears questionable if the determination of ‘the market’ by means of the SSNIP test can ever be “conduct[ed] with sufficient accuracy” or if it is not rather an “impossible” undertaking.<sup>759</sup> But even if the relevant price data could be collected with such sufficient accuracy and thus, theoretically, would allow for an ‘accurate’ definition of ‘the

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<sup>756</sup> Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 84.

<sup>757</sup> Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 84.

<sup>758</sup> Robert O’Donoghue / A. Jorge Padilla, *The Law and Economics of Article 82 EC*, 65 *et seq.*

<sup>759</sup> Peter Roth / Vivien Rose, Bellamy & Child – *European Competition Law*, para. 4.017, see also Roger J. Van den Bergh / Peter D. Camesasca, *European Competition Law and Economics: A Comparative Perspective*, 130.

market', the fact remains that price is not the only parameter which defines 'competition'.<sup>760</sup>

This discussion leads to the conclusion that the SSNIP test is only of limited usefulness for the definition of the relevant 'market' in Article 102 TFEU cases. This general evaluation is neither changed by the Commission's apparent general awareness "that market definition in Article [102 TFEU] cases needs to be particularly carefully considered and that any single method of market definition, including in particular the SSNIP-test, is likely to be inadequate"<sup>761</sup> nor by its acknowledgment that, in certain circumstances, the application of the SSNIP test might be inappropriate.<sup>762</sup> Rather, the Commission's *Notice on the definition of relevant market for the purposes of Community competition law* may be said to be in line with the portrayal of the SSNIP test as the "standard" for defining 'markets'.<sup>763</sup> In addition, the fact that the SSNIP test is based on static economic considerations (short term price competition) would appear to confirm the conclusion previously drawn in Chapter 2 that the Commission's approach to market definition favours a static strand of neoclassical economic theory. This interpretation of the Commission's approach to market definition is not changed by the Commission's

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<sup>760</sup> Meinrad Dreher, Die Kontrolle des Wettbewerbs in Innovationsmärkten – Marktabgrenzung und Marktbeherrschung in innovationsgeprägten Märkten, in: Forschungsinstitut für Wirtschaftsverfassung und Wettbewerb e.V. (ed.), *Innovation und Wettbewerb – Referate des XLII. FIW-Symposiums*, 73, 82.

<sup>761</sup> European Commission, DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses, para 13.

<sup>762</sup> See European Commission, Commission Decision relating to a proceeding under Article 81 of the EC Treaty and Article 53 of the EEA Agreement, 19<sup>th</sup> December 2007, COMP/34.579 MasterCard, para. 286 *et seq.*

<sup>763</sup> See Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 4-005.



assertion in its *Notice* that the SSNIP test is but “[o]ne way”<sup>764</sup> to define a relevant market because the Commission fails to at least indicate what an alternative approach to market definition might look like. In this respect, one cannot help but agree with Bishop and Walker who have argued that, with the exception of the aforementioned *Discussion Paper*,

“[i]n general, the Commission’s practice since the Notice came into force gives little indication that the Commission fully appreciates the practical issues thrown up by the Cellophane fallacy or knows what to do about them.”<sup>765</sup>

This seeming inability or unwillingness on the part of the Commission to address these issues is problematic for the creation of coherent competition policy in any industrial sector because the lack of an explicit statement as to what an alternative approach to market definition might entail leaves considerable room for speculation and thus (legal) uncertainty. This is unfortunate because, as the discussion so far has attempted to demonstrate, defining ‘the market’ is not an easy process and certainly not as straightforward as the Commission’s *Notice on the definition of relevant market for the purposes of Community competition law* would seem to suggest. It might even be said that the seeming portrayal of the SSNIP test in the Commission’s *Notice* as the primary method for market definition is likely to compound the legal uncertainty caused by the aforementioned omission of alternative approaches: given that even in Merger cases, the SSNIP test is applied by the Commission only “relatively rarely”, and that, as pointed out before, certain data deficits exist in relation to Articles 101 and 102 TFEU which may hinder its

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<sup>764</sup> European Commission, Commission Notice on the definition of relevant market for the purposes of Community competition law, Official Journal 1997 C372, 09/12/1997, para. 15.

<sup>765</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 4-020.

application,<sup>766</sup> how are undertakings, counsel and regulators supposed to reliably assess a particular conduct for its potential anti-competitive impact if reliable guidance as to the alternative methods – i.e. other than by the SSNIP test – by which the essential prerequisite of ‘Dominance’ is to be established is lacking? The mere fact that, in lieu of the quantitative SSNIP test, a qualitative assessment will be carried out which takes “into account all relevant available evidence to identify those goods or services that provide a close competitive constraint on one another in order to provide the best possible approximation for the SSNIP test”<sup>767</sup> can hardly be considered reliable guidance as to what the Commission will regard as sufficient evidence for the purpose of defining a particular product ‘market’, especially when one considers the fact that the Commission’s own outline of what might constitute sufficient evidence in this respect appears to leave the Commission with considerable discretion:

“Product dimension

[...] There is a range of evidence permitting an assessment of the extent to which substitution would take place. In individual cases, certain types of evidence will be determinant, depending very much on the characteristics and specificity of the industry and products or services that are being examined. The same type of evidence may be of no importance in other cases. In most cases, a decision will have to be based on the consideration of a number of criteria and different items of evidence. The Commission follows an open approach to empirical evidence, aimed at making an effective use of all available information which may be relevant in individual cases. The Commission does not follow a rigid hierarchy of different sources of information or types of evidence.

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<sup>766</sup> Peter Roth / Vivien Rose, Bellamy & Child – European Competition Law, para. 4.018.

<sup>767</sup> Peter Roth / Vivien Rose, Bellamy & Child – European Competition Law, para. 4.019. The orientation towards the economic principles contained in the SSNIP test when delineating ‘the market’ by means of qualitative methods appears to be the approach favoured in the relevant legal-economic literature, see e.g. Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 4-021 *et seq.*; Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 86.

[...] The process of defining relevant markets may be summarized as follows: on the basis of the preliminary information available or information submitted by the undertakings involved, the Commission will usually be in a position to broadly establish the possible relevant markets within which, for instance, a concentration or a restriction of competition has to be assessed. In general, and for all practical purposes when handling individual cases, the question will usually be to decide on a few alternative possible relevant markets. For instance, with respect to the product market, the issue will often be to establish whether product A and product B belong or do not belong to the same product market. It is often the case that the inclusion of product B would be enough to remove any competition concerns.

[...] In such situations it is not necessary to consider whether the market includes additional products, or to reach a definitive conclusion on the precise product market. If under the conceivable alternative market definitions the operation in question does not raise competition concerns, the question of market definition will be left open, reducing thereby the burden on companies to supply information.”<sup>768</sup>

The taking into account of product characteristics however is – regardless of whether such evaluation is applied in addition to the SSNIP test or not – not an easy task.<sup>769</sup> This is nowhere more true than in a high-technology sector such as the software industry which, in addition to the ‘features’ discussed in section I.1. of this Chapter, possesses certain distinctive cumulative characteristics that, as this thesis submits, make the exercise of market definition in this sector an even more difficult and potentially more arbitrary process than in traditional industries. It is to two of these

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<sup>768</sup> European Commission, Commission Notice on the definition of relevant market for the purposes of Community competition law, Official Journal 1997 C372, 09/12/1997, paras. 25-27.

<sup>769</sup> In this respect, it might be said that market definition is “as much an art as [...] a science” which “sometimes requires fairly fine tuned judgements to do the exercise properly.”, Paul Geroski / Rachel Griffith, *Identifying Anti-Trust Markets*, 6.

characteristics of the software industry which are likely to complicate the process of market definition that the discussion now turns.<sup>770</sup>

### II.2.1. Complexity of Technology

As outlined above, even at the best of times, i.e. when ‘the product’ at the focus of a particular market definition exercise can be distinguished from other products without any great difficulty, the process of defining ‘the market’ is not an easy task; even then, the outcomes of any such definition process are highly contestable: in addition to the ‘phenomenon’ of the *Cellophane Fallacy*, more recent cases such as *Tetra Pak II*<sup>771</sup> show that the question of how the market is to be defined for the purpose of competition analysis is still not only a sometimes fiercely contested matter but also a difficult exercise to undertake with sufficient accuracy. This task may be considered to be even more “daunting [...] when competitive realities must be understood in the context of engineering or other hard science knowledge”,<sup>772</sup> i.e. the complexity of the technological issues of the product in question have a direct bearing on both the comparative ease and the accuracy with which ‘the market’ can be delineated for the purpose of competition law analysis. Put differently, the more complex the technology of the product at the centre of the investigation, the more difficult it is ‘to get it right’:

“[w]hen there is a range of differentiated products, each substituting for the others to some extent, but not perfectly, should one group

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<sup>770</sup> Other characteristics of the software industry include reliance on intellectual property rights and network effects; both of these are discussed in section II.3. of this Chapter.

<sup>771</sup> Court of First Instance, *Tetra Pak International SA v Commission of the European Communities*, 6 October 1994, Case T-83/91; confirmed by European Court of Justice, *Tetra Pak International SA v Commission of the European Communities*, 14 November 1996, Case C-333/94 P.

<sup>772</sup> David Balto / Robert Pitofsky, *Antitrust and high-tech industries: the new challenge*, (1998) 43 *Antitrust Bulletin* 583, 584.

these products in a single market, consider each of them as constituting a single market, or group clusters of them in one market and other clusters in other markets? Moreover, how should one draw the boundary between the spectrum of products to be considered and other products in the economy?"<sup>773</sup>

Cases such as the aforementioned *Tetra Pak II*<sup>774</sup> or *Continental Can*<sup>775</sup> exemplify these difficulties with regard to 'markets' involving *tangible* goods. Yet such difficulties also exist in relation to the delineation of 'markets' involving software and in particular with regard to the question of what constitutes a 'software product' for the purpose of competition analysis because of the particular nature of software. As indicated before, the issue of functionality might be considered of special importance in relation to the question of what software is and to what given 'market' a particular piece of software might belong because one might regard the functionality of a 'software product' as the factor which furnishes it with tangible characteristics similar to those of more traditional products – insofar that this functionality might cause an outside and / or visual result – which, in turn, would seem to allow for a differentiation between various 'software products' and thus also for their inclusion into, or exclusion from, a particular 'market':

"software products tend to be highly differentiated, markets typically include 'similar' programs, but may exclude more 'distant' programs with only a partial overlap in functionality."<sup>776</sup>

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<sup>773</sup> Franklin M. Fisher / John McGowan / Joen E. Greenwood, *Folded, Spindled, and Mutilated – Economic Analysis and U.S. vs. IBM*, 31.

<sup>774</sup> Court of First Instance, *Tetra Pak International SA v Commission of the European Communities*, 6 October 1994, Case T-83/91; confirmed by European Court of Justice, *Tetra Pak International SA v Commission of the European Communities*, 14 November 1996, Case C-333/94 P.

<sup>775</sup> European Court of Justice, *Europemballage Corporation and Continental Can Company Inc. v Commission of the European Communities*, 21 February 1973, Case 6/72.

<sup>776</sup> Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 11.

Such differentiation based on functionality however has certain implications for what might be seen as the 'traditional' way of defining the relevant 'market' in relation to software: if software is to be regarded as "a superior implementation for functionality",<sup>777</sup> then a 'software product' might be defined as "functionality separately valued by consumers";<sup>778</sup> this would seem to suggest that all pieces of software which had the, maybe even only partially, same functionality would have to be included into the definition of the relevant 'market'. Yet a market definition based on the functionality of a 'software product' might be considered as conveying no real benefit in terms of ease and accuracy because, unlike tangible products, not only might it be said that "software is merely a logical sequencing of 0s and 1s, [which means that] software products have no meaningful physical boundaries"<sup>779</sup> but also, given this 'boundless' property, that it is comparatively easy to incorporate one sequence of 0s and 1s into another sequence of 0s and 1s and vice versa.<sup>780</sup> This, in turn, might however – quite reasonably so – be taken to mean not only that "[t]he conclusion that [e.g.] Internet Explorer and Windows are separate products [...] is not self-evident; still less is it static" but also that "any distinction that can be drawn between software products will likely be ephemeral."<sup>781</sup> Moreover, it is open to debate whether "software products consist of code and nothing else"<sup>782</sup> or whether software code

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<sup>777</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 23.

<sup>778</sup> Lawrence Lessig, *Brief of Lawrence Lessig as Amicus Curiae*, 1 February 2000, 20.

<sup>779</sup> Willow A. Sheremata, "New" issues in competition policy raised by information technology industries, (1998) 43 *Antitrust Bulletin* 547, 558.

<sup>780</sup> See e.g. Testimony of Professor Edward Felten, 10 June 1999, P.M. Session Trial Transcript, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 [available at 1999 WL 380891].

<sup>781</sup> Mark A. Lemley / David McGowan, *Could Java change everything? The competitive propriety of a proprietary standard*, (1998) 43 *Antitrust Bulletin* 715, 739.

<sup>782</sup> Statement by Microsoft Corp., quoted in Andrew Chin, *Antitrust Analysis in Software Product Markets: A First Principles Approach*, (2004) 18 *Harvard Journal of Law and Technology* 1, 4.

and a 'software product' are two different 'things'.<sup>783</sup> These 'musings' suggest that, when it comes to defining 'the market' in relation to software as a product, there are more factors to consider than might first meet the eye: e.g. how is one, for the purpose of market definition, to establish e.g. substitutability in a reliable fashion if the 'physical' boundaries between what might be considered separate software products are blurred and indistinct? In other words, the boundaries between *what actually is* a separate 'software product' and *what might be* a separate 'software product' for the purpose of defining the relevant product market are far from clear-cut which means that it might neither always be possible to accurately define what the actual 'software product' is in a particular case nor to pinpoint suitable substitutes for the said 'software product'. Yet for the question of a market definition, the ability to draw precise lines between different products would appear to be, because of its impact on the outcome of a competition law assessment, essential:

“[f]or example, the exercises of defining relevant markets and measuring market power can be especially difficult when a judge or enforcement official must decide what relative weights to give to an incumbent technology and a new technology that threatens to displace it. If one underrates emerging rivals to the existing technology, one overrates the importance of the existing technology.

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<sup>783</sup> See e.g. Testimony of Professor Edward Felten, 10 June 1999, P.M. Session Trial Transcript, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 [available at 1999 WL 380891], 34 *et seq.*:

“Q. Okay. So, in the case of the Windows Update Program, you have no difficulty whatsoever identifying the software code that you wrote as comprising that program; correct?

A. No. What I said was the code was copyrighted. Or that – I assume it’s not copyrighted, but in the situation where it could be, that the code would be copyrighted. That’s a different thing.

Q. Let me see if I can understand that one. You say that you can claim a copyright on software code which is somehow different than the product? [...]

[A.] I admit that I’m not an expert on Copyright Law, but whether you can – but code and products are different things, as I said many times. So, whether you can copyright code of copyright products, I don’t know. I don’t see the connection.”.

If one overrates the importance of an emerging technology, one underrates the durability and amount of the incumbent's power."<sup>784</sup>

However, as the above has outlined, the nature of software does not really allow for such categorised and near fire-proof classifications. Rather, the fact that software is essentially a logical sequence of 0s and 1s – which effects the implementation of a particular functionality – might be seen as adding another difficulty to the already complex process of market definition.

### **II.2.2. Speed of Innovation / 'Market As Moving Target'**

The second feature of the software industry to be discussed in the context of market definition is 'speed of innovation'. It is generally acknowledged that the speed of innovation in high-technology sectors such as the software industry is high, especially when compared with more traditional industries:<sup>785</sup> for example, it has been stated that, "if the automobile business had developed like the computer business, a Rolls-Royce would now [i.e. January 1983] cost \$2.75 and run 3 million miles on a gallon of gas."<sup>786</sup> These figures are even likely to be "dwarfed" today<sup>787</sup> –

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<sup>784</sup> William Kovacic, *Antitrust After Microsoft: Upgrading Public Competition Policy Institutions for the New Economy*, (2001) 32 *University of West Los Angeles Law Review* 51, 54 *et seq.*

<sup>785</sup> See, among others, David Balto / Robert Pitofsky, *Antitrust and high-tech industries: the new challenge*, (1998) 43 *Antitrust Bulletin* 583; Daniel L. Rubinfeld, *Antitrust enforcement in dynamic network industries*, (1998) 43 *Antitrust Bulletin* 859; Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 22 September 1998, 9; David J Teece / Mary Coleman, *The meaning of monopoly: antitrust analysis in high-technology industries*, (1998) 43 *Antitrust Bulletin* 801; Meinrad Dreher, *Die Kontrolle des Wettbewerbs in Innovationsmärkten – Marktabgrenzung und Marktbeherrschung in innovationsgeprägten Märkten*, in: *Forschungsinstitut für Wirtschaftsverfassung und Wettbewerb e.V. (ed.), Innovation und Wettbewerb – Referate des XLII. FIW-Symposiums*, 73, 75 *et seq.*

<sup>786</sup> Otto Friedrich, *The Computer Moves In*, *Time Magazine*, January 3rd, 1983; see also statement by Bill Gates: "If General Motors had kept up with technology like the computer industry, we would all be driving twenty-five dollar cars that got 1.000 miles to the gallon." quoted in: Andreas Kemper, *Valuation of Network effects in Software Markets*, 29.



if the number of patents granted by the U.S. Patents and Trademark Office to organisations operating in the software industry (see Table 1 below) are anything to go by: whilst certainly not a definite proof for the speed of innovation in the software sector in general (after all, the issuance of a patent is not dependent upon innovation being ‘present’ in the to-be-patented invention<sup>788</sup>), the numbers in relation to patents granted to software developing organisations by the U.S. Patents and Trademark Office might at least be regarded as strongly suggestive of ongoing innovative action, respectively as being suggestive of the existence of strong market dynamics by means of a pressure to innovate.<sup>789</sup> Moreover, Table 1 indicates that, in the last few years, firms operating in the high technology / software sector were granted considerably more patents than their counterparts operating in more traditional industrial sectors.

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<sup>787</sup> David G. Messerschmitt / Clemens Szyperski, *Software Ecosystem*, 29.

<sup>788</sup> Josef Drexler, *Immaterialgüterrechte zwischen Innovationsförderung durch Monopole und Wettbewerbsbeschränkung*, in: *Forschungsinstitut für Wirtschaftsverfassung und Wettbewerb e.V. (ed.), Innovation und Wettbewerb – Referate des XLII. FIW-Symposiums*, 21, 28.

<sup>789</sup> See on the issue of ‘market dynamics by means of pressure to innovate’: Lina Barbara Böcker, *Computerprogramme zwischen Werk und Erfindung*, 76 *et seq.*; Jens Mundhenke, *Wettbewerbswirkungen von Open-Source-Software und offenen Standards auf Softwaremärkten*, 30 *et seq.*

**Table 1: U.S. Patent and Trademark Office: Patents Granted by Year of Grant from 1995 to 2008**

Patenting Organisation	Pre 1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
INTERNATIONAL BUSINESS MACHINES CORPORATION	15953	1383	1869	1724	2657	2756	2886	3411	3288	3415	3248	2941	3621	3125	4169	56446
MICROSOFT CORPORATION	54	46	97	199	334	352	344	396	499	499	629	746	1463	1638	2026	9322
GENERAL ELECTRIC COMPANY	22199	758	819	664	729	699	787	1107	1416	1139	976	904	1051	911	911	35070
E. I. DU PONT DENEMOURS AND COMPANY	11857	441	395	311	393	338	338	330	312	340	330	251	362	369	325	16692
FORD MOTOR COMPANY	4410	334	381	265	147	151	102	27	18	46	58	46	41	31	42	6099
SUN MICROSYSTEMS, INC.	235	63	113	152	423	560	465	436	502	564	678	653	776	610	509	6739
BAYER AKTIENGESELLSCHAFT	10460	327	323	357	381	341	304	362	398	348	329	176	148	38	11	14303
GENERAL MOTORS CORPORATION	10224	282	297	277	305	275	254	176	190	291	376	392	490	343	194	14366
BASF AKTIENGESELLSCHAFT	6634	301	317	276	399	414	509	486	473	393	343	231	278	225	214	11493
HOFFMANN-LA ROCHE INC.	3065	103	106	79	72	70	61	77	73	84	63	51	78	99	102	4183
GOODYEAR TIRE + RUBBER COMPANY	2552	64	70	93	108	73	101	138	192	170	143	114	130	77	67	4092
CISCO TECHNOLOGY, INC.	0	0	0	0	19	45	104	164	223	336	433	440	649	580	704	3697

Source: U.S. Patent and Trademark Office, All Technologies Report, January 1,1963 – December 31, 2008.

This seemingly fast pace of development may be due to, or at least connected with, the intangible nature of software: rather than having to change potentially involved tangible objects, apparatuses or processes, software innovation can occur through “carefully rearranging sequences of 1’s and 0’s in programs” with the result that “[s]light changes in those sequences can translate into major improvements in computer performance” because there are no “resource constraints” limiting innovative action.<sup>790</sup> As a consequence, the life span of a particular ‘piece’ of software is often shortened to not much more than approximately a year but also potentially resulting in substantive software innovation.<sup>791</sup> Furthermore, as software is often subject to ongoing minor upgrades, development even of existing software may be seen as a “more or less

<sup>790</sup> Richard B. McKenzie, Trust on Trial, 115.

<sup>791</sup> Richard B. McKenzie, Trust on Trial, 115.

continuous” process.<sup>792</sup> Again, this is a fact which is likely to have an impact on the ease and accuracy with which ‘the market’ for a particular piece of software can be defined for purposes of competition law analysis because it may – as is submitted here: reasonably – be asked how much ‘change’ must have occurred to the piece of software in question for it to be included into, or excluded from, a particular ‘market’.

Quite obviously, this potential for fast technological development has challenging implications for the process of market definition insofar that the pace with which changes are likely to take place makes ‘the market’ “a moving target, evolving as technology changes in response to innovation.”<sup>793</sup> In other words, a “mismatch between law time and new-economy real time” can be said to exist between technological development and the regulatory response.<sup>794</sup> This mismatch further exacerbates the ‘usual’ difficulties surrounding market definition as, try as one might, competition law enforcement, especially if pursued thoroughly and diligently, “cannot be accelerated to match” the pace of technological development.<sup>795</sup> In this respect, competition law enforcement may be said to always carry with it the impression of being backward-orientated rather than forward-looking.<sup>796</sup> To use a simile, the process of accurately defining the software ‘market’ somewhat resembles the attempt to catch a fish with bare hands; sometimes, one might be lucky and land the fish but most of

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<sup>792</sup> Richard B. McKenzie, *Trust on Trial*, 115; see also Lina Barbara Böcker, *Computerprogramme zwischen Werk und Erfindung*, 75 *et seq.*.

<sup>793</sup> Daniel L. Rubinfeld, *Antitrust enforcement in dynamic network industries*, (1998) 43 *Antitrust Bulletin* 859, 873.

<sup>794</sup> Richard A. Posner, *Antitrust in the New Economy*, (2001) 68 *Antitrust Law Journal* 925, 939; Gunnar Wolf, *Kartellrechtliche Grenzen von Produktinnovationen*, 135.

<sup>795</sup> Lawrence A. Sullivan, *Is Competition Policy Possible In High Tech Markets?: An Inquiry Into Antitrust, Intellectual Property, And Broadband Regulation As Applied To “The New Economy”*, (2001) 52 *Case Western Reserve Law Review* 41, 48.

<sup>796</sup> Gunnar Wolf, *Kartellrechtliche Grenzen von Produktinnovationen*, 135.

the times the attempt will be a case of ‘close but no cigar’ as the fish, i.e. the targeted ‘object’, will have moved on:

“[t]he rate of change accentuates the lag between the time that new industrial phenomena emerge and the antitrust system comprehends their significance and modifies existing rules to accommodate them. The accelerated rate of change and greater unpredictability about the course of future competition highlight inadequacies of existing mechanisms for adjudicating high-tech disputes. Even when the decision makers are expert and move at their fastest, traditional antitrust tribunals find it difficult to account for industry changes that take place as a proceeding unfolds and to make accurate predictions about how specific remedies might influence future competition.”<sup>797</sup>

This lag between economic development and legal response causes institutional problems for competition law enforcement insofar that the results of a regulatory decision in the high technology sector will, quite often, no longer fit into the structure of the originally delineated ‘market’, i.e. its make up at the time of the final ruling might be substantially different because ‘the market’ will have moved on, especially if the proceedings span more than one legal instance.<sup>798</sup> The antitrust trial against IBM in the United States in the 1970s demonstrates this point quite succinctly: about seven years of initial investigation through the US Department of Justice were followed by more than six years of court proceedings against IBM; during this time, IBM was losing quite a great deal of its ‘dominance’ in the computer / mainframe operating system sector. This implies that even perceived or actual ‘giants’ in a particular ‘market’ are not immune from shrinking to a (relatively speaking) smaller size, i.e. market share, for whatever reason – but especially for the simple reason that innovation is taking place and even more so, is doing so

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<sup>797</sup> William Kovacic, *Antitrust After Microsoft: Upgrading Public Competition Policy Institutions for the New Economy*, (2001) 32 *University of West Los Angeles Law Review* 51, 55.

<sup>798</sup> Gunnar Wolf, *Kartellrechtliche Grenzen von Produktinnovationen*, 135.

quickly. Again, the game console ‘market’ may serve as a case in point in this respect,<sup>799</sup> but mention might also be made of firms such as Digital Equipment Corporation (DEC) which rose to the top of the computer industry, only to basically disappear from the face of the Earth in the course of about 20 years.<sup>800</sup> These examples also illustrate the point made before that “economic life is an adventure”<sup>801</sup> whose development is subject to a number of – sometimes unpredictable – factors.

Furthermore, even though the software industry is “no longer in its infancy” and might, relatively speaking, be considered as having matured since the 1990s with the advent of “Microsoft as an absorbing barrier”,<sup>802</sup> the number of patents granted by the U.S. Patents and Trademark Office to organisations operating in the software industry would appear to continue to suggest that the speed of innovation in the software sector is still quite high. Neither the fact that a large proportion of new software for the ‘end-user mass market’ is developed by Microsoft (or by SAP as the world leader in the market for business management software<sup>803</sup>) nor the circumstance that only a few players operate in the software sector change this conclusion in a significant way:<sup>804</sup> the pace at which innovation seems

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<sup>799</sup> Peter Buxmann / Heiner Diefenbach / Thomas Hess, *Die Softwareindustrie*, 36.

<sup>800</sup> See Obituary of Ken Olsen, *The Times*, 18 February 2011, 56; Charles M. Ferguson / Charles R. Morris, *Computer Wars – The Fall of IBM and the Future of Global Technology*, 102 *et seq.*.

<sup>801</sup> Richard R. Nelson / Sidney G. Winter, *An Evolutionary Theory of Economic Change*, 369 *et seq.*.

<sup>802</sup> Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 9 *et seq.*.

<sup>803</sup> Peter Buxmann / Heiner Diefenbach / Thomas Hess, *Die Softwareindustrie*, 5. – In 2008, SAP was granted 246 patents by the U.S. Patents and Trademark Office, compared with 150 in 2007 and 55 in 2006, see:  
[http://www.uspto.gov/web/offices/ac/ido/oeip/taf/topo\\_08.htm#PartB](http://www.uspto.gov/web/offices/ac/ido/oeip/taf/topo_08.htm#PartB);  
[http://www.uspto.gov/web/offices/ac/ido/oeip/taf/topo\\_07.htm#PartB](http://www.uspto.gov/web/offices/ac/ido/oeip/taf/topo_07.htm#PartB);  
[http://www.uspto.gov/web/offices/ac/ido/oeip/taf/topo\\_06.htm#PartB](http://www.uspto.gov/web/offices/ac/ido/oeip/taf/topo_06.htm#PartB) (05/04/2010).

<sup>804</sup> See also, albeit in a slightly different context (‘innovation markets’), Ulrich Schwalbe / Daniel Zimmer, *Kartellrecht und Ökonomie*, 84: “Da es bei Innovationen häufig um die Erlangung eines Patentes geht, ist zu erwarten, dass selbst bei wenigen Marktteilnehmern mit großen Marktanteilen erheblicher Wettbewerb vorliegt.”

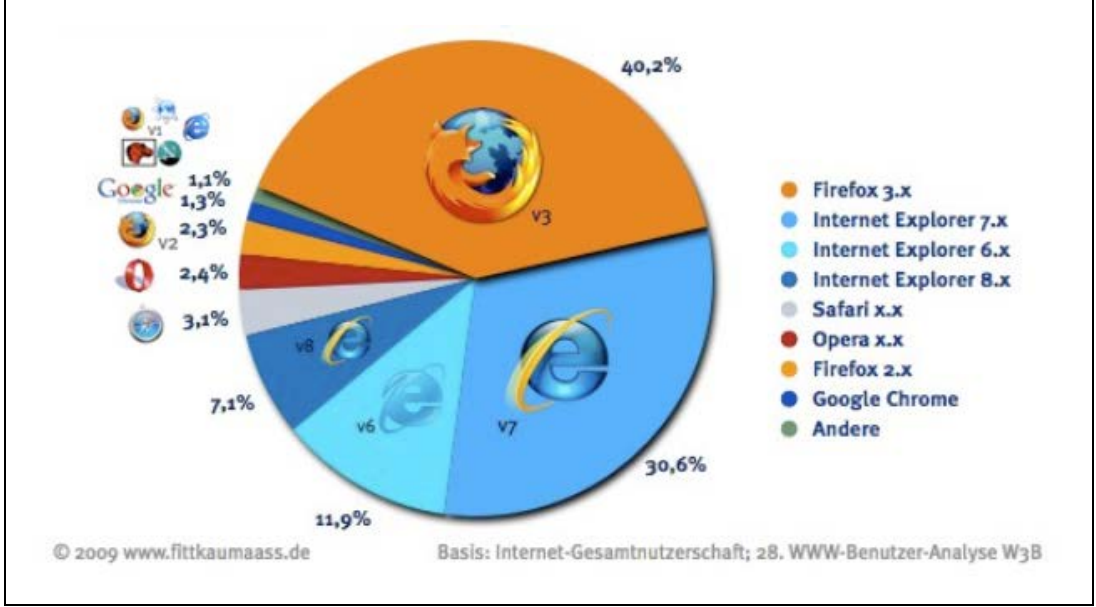
to take place in the software industry would appear to make it difficult for competition law analysis to capture an accurate picture of 'the market' for a particular software 'product'. This may be even more the case when the economic theory underlying the process of defining 'the market' is of a static nature which does not allow for the taking into account of dynamic, yet potentially equally important, factors (such as speed of innovation which is likely to make 'the market' a target which might even move more quickly than is already the case in traditional sectors) as the focus of such an approach to market definition is on short-term price developments. Furthermore, as demonstrated by the aforementioned IBM proceedings, the fact that a particular high technology organisation enjoyed a large market share at one point in time does not necessarily translate into still having a comparable slice of 'the market', say, five or six years later. For example, with regard to browser software, there are, as Diagrams 4 and 5 show,<sup>805</sup> signs that, at least in some countries, the so-called 'Browser Wars' are neither over nor can they be considered as having already and conclusively been won by Microsoft's Internet Explorer or, for that matter, another browser.

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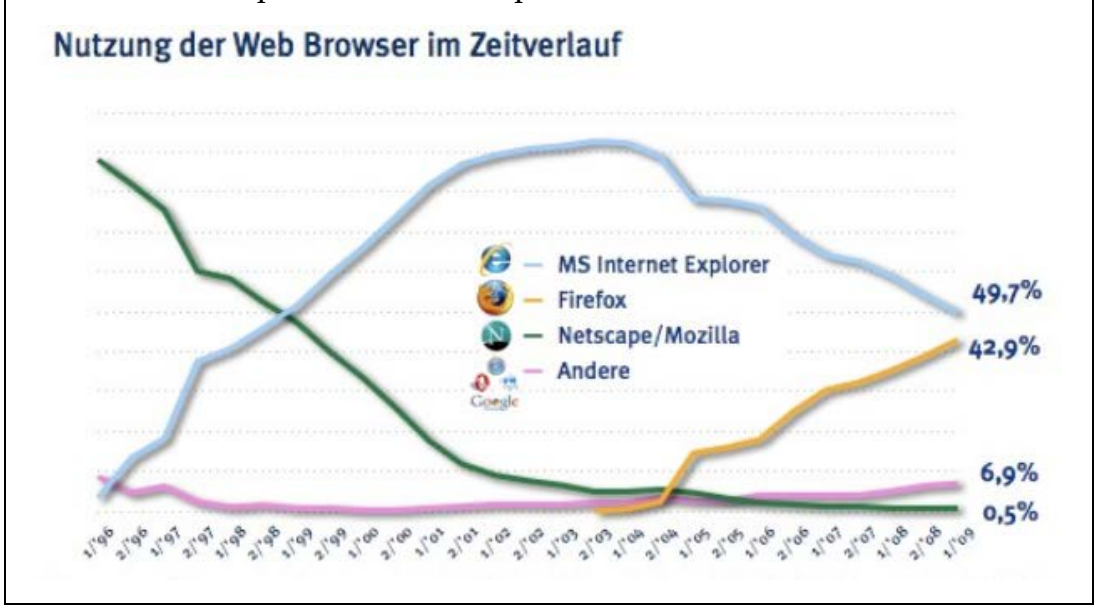
["Given that innovations are often aimed at obtaining a patent, it is to be expected that substantial competition exists even in markets with few actors with large market shares."]; similar: Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 4-044.

<sup>805</sup> These diagrams originate from Fittkau & Maaß Consulting, *Browserwatch: Firefox entthront Microsofts Internet Explorer*, 15. Juni 2009: <http://www.w3b.org/technik/browserwatch-firefox-enttrohnt-microsofts-internet-explorer.html> (17/05/2010).

**Diagram 4:** Survey of installed browsers in Germany in 2009 – Firefox 3 is ‘most used’ browser



**Diagram 5:** Survey of browser usage from 1996 to 2009 in Germany – Firefox catches up with Internet Explorer



Again, similar observations as to changes of market leaders and market actors might be made in relation to the sector of game consoles and associated games which, in terms of speed of technological development, might be considered as sharing some major characteristics with the software industry and there appears to be no reason that such a change of

leadership (or at least of significant share) in the market might not also happen in the software industry.<sup>806</sup> On the contrary, it has been suggested that Sun Microsystem's Java technology *could* take over from Microsoft as the driving force in 'the software market' and, consequently, could "change everything" in this industry.<sup>807</sup> Although this has not happened yet, and it remains to be seen whether the Java technology eventually will "expose enough APIs to support the development of full-featured applications that will run well on multiple operating systems without the need for porting",<sup>808</sup> Java's potential has however been acknowledged by other players in the same field.<sup>809</sup> At any rate, the potential for high-speed technological developments in the software industry is likely to add yet another difficulty for the process of market delineation in this industrial sector which means that a static understanding of 'the market' focusing on short-term price considerations will, in all likelihood, lead to a rather distorted picture of a competitive scenario in the software sector.

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<sup>806</sup> For a more detailed analysis of the game consoles industry see: Peter Buxmann / Heiner Diefenbach / Thomas Hess, *Die Softwareindustrie*, 35 *et seq.* and especially "Abbildung 2-5" which shows the changes in the game consoles industry from 1976 to 2008.

<sup>807</sup> Mark A. Lemley / David McGowan, *Could Java change everything? The competitive propriety of a proprietary standard*, (1998) 43 *Antitrust Bulletin* 715. – Essentially, the potential of Java to 'challenge' Microsoft's leadership is due to the following: "Java [...] functions as middleware [between the operating system and application software]. Java consists of four components. It contains a programming language and a set of "class libraries" of prewritten Java code that expose APIs for Java programmers. Java also includes a compiler that translates a programmer's Java code, but not directly into instructions for a specific operating system; instead it translates the Java code into "bytecode" for the last component of Java technologies, the Java Virtual Machine (JVM). The JVM, in turn, translates the bytecode into instructions for the PC's operating system. Thus, a program written in Java can run on any PC, regardless of its operating system, that has a "Java runtime environment", consisting of the class libraries and a JVM.", William H. Page / John E. Lopatka, *The Microsoft Case – Antitrust, High Technology, and Consumer Welfare*, 62.

<sup>808</sup> *United States v. Microsoft Corporation*, 84 F.Supp.2d 9, 29, para. 74.

<sup>809</sup> See e.g. Steve Lohr / Ashlee Vance, *I.B.M., Looking to Buy Sun, Sets Up a Software Strategy*; Matthew Saltmarsh, *Oracle's Acquisition of Sun Wins Approval of Europeans*.



### II.3. The Second Stage: Market Power

The second “vital”<sup>810</sup> stage in the current assessment procedure of ‘Dominance’ under Article 102 TFEU is the issue of market power, i.e. the assessment of “the degree of commercial power enjoyed by the undertaking on the market so defined.”<sup>811</sup> This importance attached to market power is also reflected in the European case law which has repeatedly stated that

“[i]n general a dominant position derives from a combination of several factors which, taken separately, are not necessarily determinative. [...] In order to find out whether [...] an undertaking [is] in a dominant position on the relevant market it is necessary first of all to examine its structure and then the situation on the said market as far as competition is concerned.”<sup>812</sup>

This assessment “in turn involves [the] consideration of various factors, such as market share, barriers to entry, and competitive constraints.”<sup>813</sup>

This ‘multiple factors’ approach to the establishment of market power is also echoed in the Commission’s *Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings* which states that a dominant position is

“a position of economic strength enjoyed by an undertaking, which enables it to prevent effective competition being maintained on a relevant market, by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of consumers. This notion of independence is related to the degree of competitive constraint exerted on the undertaking in

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<sup>810</sup> Robert O’Donoghue / A. Jorge Padilla, *The Law and Economics of Article 82 EC*, 63.

<sup>811</sup> Peter Roth / Vivien Rose, Bellamy & Child – *European Competition Law*, para. 10.016.

<sup>812</sup> European Court of Justice, *United Brands Company and United Brands Continental BV v Commission of the European Communities*, 14 February 1978, Case 27/76, paras. 66-67. See also European Court of Justice, *Hoffmann-La Roche & Co. AG v Commission of the European Communities*, 13 February 1979, Case 85/76, paras. 39-40.

<sup>813</sup> Peter Roth / Vivien Rose, Bellamy & Child – *European Competition Law*, para. 10.016.

question. Dominance entails that these competitive constraints are not sufficiently effective and hence that the undertaking in question enjoys substantial market power over a period of time. This means that the undertaking's decisions are largely insensitive to the actions and reactions of competitors, customers and, ultimately, consumers. The Commission may consider that effective competitive constraints are absent even if some actual or potential competition remains. In general, a dominant position derives from a combination of several factors which, taken separately, are not necessarily determinative."<sup>814</sup>

Of the factors to be considered in the quest for market power, the question of market shares is usually thought to be the "most important".<sup>815</sup> Despite this apparent ranking of the factors market share, barriers of entry and competitive constraints in terms of their perceived respective importance for the determination of market power, it has to be said that "strong correlations"<sup>816</sup> often exist between these three factors with the effect that the total disregard of one or more of these factors may be considered ill-advised because such 'omission' would most likely cause misleading results as to how great the alleged undertaking's influence, i.e. its relative position of economic strength, on 'the market' actually is. Consequently, it may be stated that

"a high market share is rarely sufficient to establish dominance. If used alone it offers only a static picture of relative shares at one point

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<sup>814</sup> European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, Official Journal 2009 C45, 24/02/2009, para. 10 [footnotes omitted].

<sup>815</sup> Mark Furse, EC Competition Law and the Computing Industry, A Guide for Industry Professionals, 115; Robert O'Donoghue / A. Jorge Padilla, The Law and Economics of Article 82 EC, 109. See also European Court of Justice, Hoffmann-La Roche & Co. AG v Commission of the European Communities, 13 February 1979, Case 85/76, para. 5: "Very large market shares are highly significant evidence of the existence of a dominant position. Other relevant factors are the relationship between the market shares of the undertaking concerned and of its competitors, especially those of the next largest, the technological lead of the undertaking over its competitors, the existence of a highly developed sales network and the absence of potential competition."

<sup>816</sup> Peter Roth / Vivien Rose, Bellamy & Child – European Competition Law, para. 10.020.

in time. Whether the size of the market share actually reflects market power in that market depends upon the state of actual competition faced by that undertaking in that market. Moreover, there needs to be a consideration of whether there is ‘real’ potential competition with access to the relevant product market.”<sup>817</sup>

Again, this view is reflected in the case law of the European courts. For example, the European Court of Justice held in *Hoffmann-La Roche* that “the fact that an undertaking is compelled by the pressure of its competitors’ price reductions to lower its own prices is in general incompatible with that independent conduct which is the hallmark of a dominant position.”<sup>818</sup> However, the Court also acknowledged that price cuts may be due to factors other than competitive pressure experienced by the investigated undertaking,<sup>819</sup> which means that a differentiated approach to the determination of market power, i.e. one which does not solely focus on the factor of market share, is warranted. Accordingly, under the current legal regime in the European Union, the finding of ‘Dominance’ is usually neither held to be incompatible with “the existence of lively competition”<sup>820</sup> in the said ‘market’ nor is such a finding, as indicated in the Commission’s *Tenth Annual Report on Competition Policy*<sup>821</sup> and the European Court of Justice’s judgment in *Metro No.2*,<sup>822</sup> necessarily taken to

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<sup>817</sup> Steven D. Anderman, *EC Competition Law and Intellectual Property Rights – The Regulation of Innovation*, 170.

<sup>818</sup> European Court of Justice, *Hoffmann-La Roche & Co. AG v Commission of the European Communities*, 13 February 1979, Case 85/76, para. 71.

<sup>819</sup> European Court of Justice, *Hoffmann-La Roche & Co. AG v Commission of the European Communities*, 13 February 1979, Case 85/76, para. 72: “These data show that there is a correlation between prices on the one hand, and the volume of production and costs on the other, rather than between prices and the pressure of competition.”.

<sup>820</sup> Court of First Instance, *General Electric Company v Commission of the European Communities*, 14 December 2005, Case T-210/01, para. 117.

<sup>821</sup> European Commission, (1980) *Tenth Report on Competition Policy*, para. 150: “A dominant position cannot even be ruled out in respect of market shares between 20% and 40%”.

<sup>822</sup> European Court of Justice, *Metro SB-Großmärkte GmbH & Co. KG v Commission of the European Communities*, 22 October 1986, Case 75/84, Summary para. 7 and

be confined to cases in which an undertaking holds a significant market share of a particular 'market' – even though the Court stated that this would only apply in “exceptional circumstances”.<sup>823</sup> Equally, under the current regulatory approach to the determination of market power, the finding that an undertaking enjoys a high market share may,<sup>824</sup> or may not,<sup>825</sup> be enough to conclude that competition on the specific market in question is (or is likely to be) distorted. Consequently, it might be said that

“the most important point [in relation to the assessment of market power] is not the existence of high market shares, but whether such shares are likely to confer *lasting* market power. This involves a proper assessment of entry barriers. If barriers to entry are low, firms with very high market shares may have no market power. If they are high (e.g., due to the existence of exclusive or special rights), firms with even modest shares may have market power.”<sup>826</sup>

This suggests that a certain caution regarding the importance and (evidentiary) significance attached to the question of market share in

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paras. 86-87, considering the scenario in which 10% would constitute the largest market share.

<sup>823</sup> European Court of Justice, *Metro SB-Großmärkte GmbH & Co. KG v Commission of the European Communities*, 22 October 1986, Case 75/84, paras. 86-87.

<sup>824</sup> European Court of Justice, *NV Nederlandsche Banden Industrie Michelin v Commission of the European Communities*, 9 November 1983, Case 322/81, para. 52, stating that the Commission was right to conclude that a market share of 57 to 65%, when compared with the market shares of Michelin NV's main competitors (which amounted to 4 to 8%) “constitutes a valid indication of Michelin NV's preponderant strength in relation to its competitors, even when allowance is made for some competition from retreads.”

<sup>825</sup> In the Merger Decision re: *Rhône Poulenc / SNIA*, the Commission concluded that a market share of about 40 - 50% in a particular market is not sufficient to establish dominance as such, see: European Commission, Decision of 10 August 1992 declaring a concentration to be compatible with the common market (Case No IV/M.206 - *Rhône Poulenc / SNIA*) according to Council Regulation (EEC) No 4064/89, especially point 7.

<sup>826</sup> Robert O'Donoghue / A. Jorge Padilla, *The Law and Economics of Article 82 EC*, 112 [original emphasis]; see also Peter Roth / Vivien Rose, Bellamy & Child – *European Competition Law*, para. 10.022.

relation to the assessment of market power may be advisable.<sup>827</sup> Yet it is not so much – or, at least, not alone – the issue of market share which makes the assessment of market power a ‘moot point’ in competition law analysis; rather, it is the question of barriers to entry which are likely to complicate this process: such barriers to entry may result from a number of characteristics / features either inherent in the scrutinised market (i.e. legal, administrative or economic difficulties faced by the new entrant) or specific to the investigated undertaking (i.e. competitive advantages of the incumbent firm such as special knowledge, brand recognition or ‘capital cushion’).<sup>828</sup>

At any rate, the determination of market power for the purpose of competition law analysis would appear to be equally complex as the process of (accurately) defining ‘the market’. In view of the discussion of the characteristics of software so far, it is contended here that this exercise of establishing ‘market power’ becomes even more difficult in the context of the software industry as this industrial sector might be said to exhibit certain characteristics which are likely to further aggravate the accurate determination of market power. It is to two characteristics which may be considered as having an impact on the ease and accuracy with which market power might be determined that this thesis now turns: network effects and intellectual property rights.

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<sup>827</sup> See e.g. Peter Roth / Vivien Rose, Bellamy & Child – European Competition Law, para. 10.022; Robert O’Donoghue / A. Jorge Padilla, *The Law and Economics of Article 82 EC*, 111 *et seq.*.

<sup>828</sup> Robert O’Donoghue / A. Jorge Padilla, *The Law and Economics of Article 82 EC*, 119-128; Peter Roth / Vivien Rose, Bellamy & Child – European Competition Law, paras. 10.032-10.039; Steven D. Anderman, *EC Competition Law and Intellectual Property Rights – The Regulation of Innovation*, 171 *et seq.*.

### II.3.1. Network Effects

In economics, the term network effects describes a situation in which “the utility that a given user derives from the good depends upon the number of other users who are in the same ‘network’ as is he or she”<sup>829</sup> insofar that “each individual’s demand for a product is positively related to the usage of other individuals.”<sup>830</sup> Put differently, “a network effect is the effect of the expected size of an installed base.”<sup>831</sup> Such effects can be present in a variety of ‘markets’ as they “often arise when consumers share”,<sup>832</sup> although more traditional industries usually do not exhibit strong network effects as “[n]o one enjoys Perrier more because you drink it too.”<sup>833</sup> An example might help to illustrate this economic principle:<sup>834</sup>

A has got a telephone. This telephone alone possesses no basic utility for A; only when A can connect his telephone to at least another telephone B, A will receive any utility from his telephone by two possible connections: A can call B and B can call A. If a third party C is joining the telephone network consisting of A and B (the installed base), then he himself will have two possibilities to use the telephone as he can call A and B.

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<sup>829</sup> Michael L. Katz / Carl Shapiro, *Network Externalities, Competition, and Compatibility*, (1985) 75 *The American Economic Review* 424, see also Peter Buxmann / Heiner Diefenbach / Thomas Hess, *Die Softwareindustrie*, 21; Carl Shapiro / Hal R. Varian, *Information Rules*, 174.

<sup>830</sup> Daniel L. Rubinfeld, *Antitrust enforcement in dynamic network industries*, (1998) 43 *Antitrust Bulletin*, 859, 861.

<sup>831</sup> Willow A. Sheremata, “New” issues in competition policy raised by information technology industries, (1998) 43 *Antitrust Bulletin*, 547, 561.

<sup>832</sup> Gregory J. Werden, *Network Effects and Conditions of Entry: Lessons from the Microsoft Case*, (2001) 69 *Antitrust Law Journal* 87, 89.

<sup>833</sup> Christian Ahlborn / David Evans / Atilano Jorge Padilla, *Competition Policy in the New Economy: Is European Competition Law up to the Challenge?*, (2001) 22 *European Competition Law Review* 156, 159.

<sup>834</sup> The example used here follows the description used by Julia Pohlmeier, *Netzwerkeffekte und Kartellrecht*, 29. Werden also uses the example of the telephone in order to explain the concept of network effects, see: Gregory J. Werden, *Network Effects and Conditions of Entry: Lessons from the Microsoft Case*, (2001) 69 *Antitrust Law Journal*, 87, 89.

Although, by joining the network consisting of A and B, C has only created two connections for himself, the number of possible connections in this telephone network however rises from two to six as A and B can now not only call each other but also C in addition. In other words, the increased number of possible connections between different users leads to an increase of the utility of the telephone for each (potential) user.

The network effect described in the above example is known as a direct network effect because the increase in utility of the good 'telephone' for each user *directly* results from the size of the network.<sup>835</sup> Direct network effects are thus characterised by 'horizontal interoperability / compatibility' of the goods which make up the network (see Diagram 6 below)<sup>836</sup> as this ability allows for the communication / interaction between the parties to a particular network (such as telephone or email<sup>837</sup>), thereby increasing the utility each user derives directly from using his good. Direct network effects can also be detected in the context of the software industry because users might prefer one software program (e.g. a particular word processing program) over another, thereby increasing each user's ability to communicate with other users of the same software program.<sup>838</sup> Consequently, direct networks effects may be considered a strong argument for users to choose software which is widely used or to go for providers who can offer them strong network effects.<sup>839</sup> At least

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<sup>835</sup> Michael Dietrich, *Wettbewerb in Gegenwart von Netzwerkeffekten*, 22; William H. Page / John E. Lopatka, *The Microsoft Case – Antitrust, High Technology, and Consumer Welfare*, 91.

<sup>836</sup> Alexandra von Westernhagen, *Zugang zu geistigem Eigentum nach europäischem Kartellrecht*, 63.

<sup>837</sup> Peter Buxmann, *Network Effects on Standard Software Markets: A Simulation Model to examine Pricing Strategies*, 3.

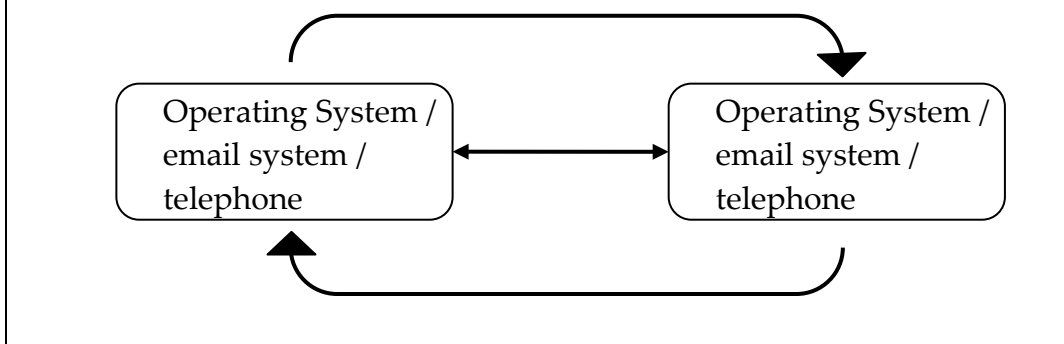
<sup>838</sup> Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 2; Daniel L. Rubinfeld, *Antitrust enforcement in dynamic network industries*, (1998) 43 *Antitrust Bulletin* 859, 861

<sup>839</sup> Peter Buxmann / Heiner Diefenbach / Thomas Hess, *Die Softwareindustrie*, 22.

partially, this is due to the fact that the individual basic utility which a user might derive from a particular software program is more limited than, say, in the case of choosing a particular mineral water. For example, software users tend to get more ‘enjoyment’, i.e. more benefits, out of a particular piece of software if there is a bigger installed user base because

“[t]he benefits of PC ownership may increase with the size of the network of friends and coworkers who can help with problems [...], the benefits from adopting a particular PC application program may increase with the size of the network of individuals who can share files. A single application program may present a clear choice to many users because it has become an industry standard and must be used in order to do business efficiently, or at all, with other users.”<sup>840</sup>

**Diagram 6:** Direct network effects and horizontal interoperability with regard to the examples of operating systems / telephones / email systems<sup>841</sup>



In contrast, an individual’s choice of – to stay with the aforementioned example – a particular mineral water will in most cases be unaffected by such considerations; apart from cases where the choice of a particular mineral water might, for reasons of possible ‘peer pressure’ be influenced by the question if the said mineral water is ‘in’, i.e. *the* fashionable drink to

<sup>840</sup> Gregory J. Werden, Network Effects and Conditions of Entry: Lessons from the *Microsoft* Case, (2001) 69 Antitrust Law Journal, 87, 90 [footnotes omitted].

<sup>841</sup> This diagram is based on Alexandra von Westernhagen, Zugang zu geistigem Eigentum nach europäischem Kartellrecht, 64.



have, what usually counts are factors such as taste, price and maybe availability but not whether the drink in question allows its user to 'communicate' / interact with other users by drinking the same type of mineral water. Put differently, the utility one consumer derives from drinking a particular type of mineral water is not directly linked to the consumption of the same type of mineral water by other consumers because, say, consumer A does not get more enjoyment / utility out of his consumption of mineral water of brand MW if other consumers also increasingly drink MW.

In addition to the aforementioned direct network effects, an industrial sector may also display indirect network effects. The term indirect network effect refers to a situation in which "an increase in the number of users of a durable good [...] spurs the production of complementary products used over the useful life of the durable good";<sup>842</sup> in other words, the term indirect network effects denotes the existence of a "positive dependency between the spreading of a technology or a standard and appropriate offers of complementary goods."<sup>843</sup> Accordingly, indirect network effects are characterised by 'vertical interoperability / compatibility' of the goods which might be considered to make up its so-called virtual network (see Diagram 7 below);<sup>844</sup> i.e. such a network is made up by "[i]ntangible connections based on knowledge or skills"<sup>845</sup>

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<sup>842</sup> William H. Page / John E. Lopatka, *The Microsoft Case – Antitrust, High Technology, and Consumer Welfare*, 91; see also Gregory J. Werden, *Network Effects and Conditions of Entry: Lessons from the Microsoft Case*, (2001) 69 *Antitrust Law Journal*, 87, 90; Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 2.

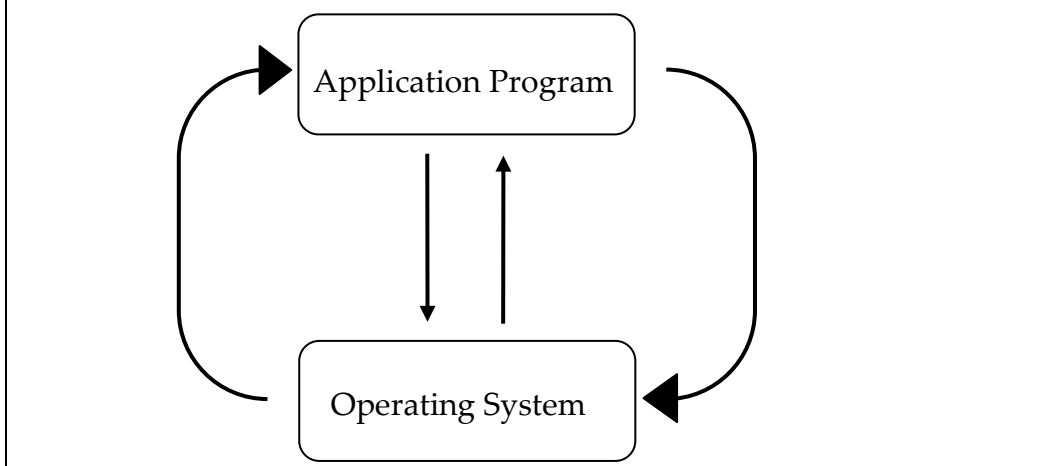
<sup>843</sup> Peter Buxmann, *Network Effects on Standard Software Markets: A Simulation Model to examine Pricing Strategies*, 3.

<sup>844</sup> Alexandra von Westernhagen, *Zugang zu geistigem Eigentum nach europäischem Kartellrecht*, 64.

<sup>845</sup> Willow A. Sheremata, "New" issues in competition policy raised by information technology industries, (1998) 43 *Antitrust Bulletin* 547, 561.

and does not display a 'need' for "any communication between users of the network."<sup>846</sup>

**Diagram 7:** Indirect network effects and vertical interoperability with regard to a virtual network built upon an operating system<sup>847</sup>



Both the computer industry and the software industry are prime examples of such virtual networks,<sup>848</sup> and in either of these industries, the issue of vertical interoperability may be considered important: for example with regard to the software industry, the development of application software can be regarded, as mentioned above,<sup>849</sup> as being built on a particular 'infrastructure' – such as an operating system – which means that

"[a]n application is written for a particular 'platform' created by a set of 'application programming interfaces (APIs). Applications use the APIs to access operating system services, and different operating systems 'expose' different API sets, so an application written for one operating system will not run on another unless 'ported' to it."<sup>850</sup>

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<sup>846</sup> Daniel L. Rubinfeld, *Antitrust enforcement in dynamic network industries*, (1998) 43 *Antitrust Bulletin* 859, 861.

<sup>847</sup> This diagram is based on Alexandra von Westernhagen, *Zugang zu geistigem Eigentum nach europäischem Kartellrecht*, 65.

<sup>848</sup> David Balto / Robert Pitofsky, *Antitrust and high-tech industries: the new challenge*, (1998) 43 *Antitrust Bulletin* 583, 588.

<sup>849</sup> See "Diagram 3: Layers of complementary supporting software" above and surrounding text.

<sup>850</sup> Gregory J. Werden, *Network Effects and Conditions of Entry: Lessons from the Microsoft Case*, (2001) 69 *Antitrust Law Journal*, 87, 94.

In such a scenario, indirect network effects might not only arise because of consumer needs and expectations but also because of the (monetary) incentives of suppliers or producers to become part of the virtual network in question.<sup>851</sup>

“[u]sers want an operating system that will permit them to run all the applications programs they want to use; developers tend to write applications for the most popular operating system; and applications software written for a specific operating system cannot run on a different operating system without extensive and costly modifications or add-ons.”<sup>852</sup>

Accordingly, both direct and indirect network effects – by means of the so-called “positive feedback-loop”<sup>853</sup> – might be regarded as leading to ‘the strong getting stronger and the weak getting weaker’ which might, eventually, cause ‘the market’ to tip in favour of the leading product, thus more or less ‘naturally’ resulting in the creation of a monopoly or near-monopoly.<sup>854</sup> The existence of network effects in a ‘market’ might thus be seen as the expression of a sector’s “inevitable” tendency to monopolisation because it can be said that, as “networks can only operate effectively under a single standard, they tend to vest dominant market power in the firm that owns the standard, leaving little, if any, room in the

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<sup>851</sup> David Balto / Robert Pitofsky, *Antitrust and high-tech industries: the new challenge*, (1998) 43 *Antitrust Bulletin* 583, 588.

<sup>852</sup> Franklin M. Fisher / Daniel L. Rubinfeld, *U.S. v. Microsoft – an economic analysis*, (2001) 46 *Antitrust Bulletin* 1, 15; see also Daniel L. Rubinfeld, *Antitrust enforcement in dynamic network industries*, (1998) 43 *Antitrust Bulletin* 859, 861; Mark A. Lemley / David McGowan, *Legal Implications of Network Economic Effects*, (1998) 86 *California Law Review* 479, especially 483-507.

<sup>853</sup> The term “positive feedback-loop” describes the fact that with the growth of the installed base of users, more and more people are likely to “find adoption worthwhile” and join the network; Carl Shapiro / Hal R. Varian, *Information Rules*, 13 and 174.

<sup>854</sup> Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 22 September 1998, 2; similar: Willow A. Sheremata, *Barriers to innovation: a monopoly, network externalities, and the speed of innovation*, (1997) 42 *Antitrust Bulletin* 937, 954.

relevant market for other players”.<sup>855</sup> Put differently, it would appear that network effects – by means of the aforementioned ‘positive feedback-loop’ – are bound to result in the reinforcement of the network leader’s market power (i.e. the market power of the undertaking which produces the good that displays network effects).<sup>856</sup> Consequently, one might be inclined to think that the mere existence of network effects in a ‘market’ is, from the perspective of competition law, an actionable factor insofar that such effects might be seen by competition law regulators “as introducing a major distortion into the competitive process”, thereby implying that the sole function of network effects is “generally anticompetitive.”<sup>857</sup>

This would appear to also be the view subscribed to by the European Commission;<sup>858</sup> for example, parts of the Commission’s decision in *Microsoft* repeatedly referred to the strong network effects existing in the investigated ‘markets’ PC operating systems and group server operating systems and also repeatedly emphasised the strong commercial and technical associative links between these investigated ‘markets’.<sup>859</sup> Both points were held not only to reduce the contestability of Microsoft’s position in these ‘markets’ but also to result in the reinforcement of Microsoft’s market share in the scrutinised ‘markets’, thus presenting – in

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<sup>855</sup> Thomas A. Piraino, Jr., A Proposed Antitrust Approach to High Technology Competition, (2002) 44 William and Mary Law Review 65, 77.

<sup>856</sup> Thomas A. Piraino, Jr., A Proposed Antitrust Approach to High Technology Competition, (2002) 44 William and Mary Law Review 65, 79.

<sup>857</sup> Daniel J. Gifford, The European Union, the United States, and Microsoft: A Comparative Review of Antitrust Doctrine, 20.

<sup>858</sup> Daniel J. Gifford, The European Union, the United States, and Microsoft: A Comparative Review of Antitrust Doctrine, 20.

<sup>859</sup> See e.g. in relation to PC operating systems: European Commission, Commission Decision relating to a proceeding under Article 82 of the EC Treaty, 24 March 2004, Case COMP/C-3/37.792 Microsoft, paras. 526-534, 590.

the Commission's opinion: insurmountable – barriers to entry for Microsoft's competitors:<sup>860</sup>

“[t]he nature of the barriers to entry in the client PC operating system market serves to reinforce the conclusion that Microsoft holds a dominant position in this market. These barriers to entry derive from the network effects in the market. [...] In essence, the dynamic between the Windows client PC operating system and the large body of applications that is written to it is self-reinforcing. In other words, applications developers have a compelling economic incentive to continue writing applications for the dominant client PC operating system platform (that is to say, Windows) because they know that the potential market will be larger. [...] In conclusion, the ‘positive feedback loop’ protects Microsoft's high market shares in the client PC operating system market from effective competition from a potential new entrant. The term ‘applications barrier to entry’ has been coined to describe this phenomenon.”<sup>861</sup>

This passage is interesting insofar as it appears to suggest not only that network effects are anti-competitive in nature but also that the Commission drew its conclusion that Microsoft held a dominant position in the PC operating systems market before, and irrespective of, properly considering the issue networks effects. This *modus operandi* on the part of the Commission might therefore be taken as a confirmation of the previously drawn conclusion that the Commission overemphasises the importance of ‘the market’ and market shares.

The Commission presented a similar understanding of the ‘function’ of network effects with regard to its investigation of the alleged violation of Article 102 TFEU by Microsoft's tying of its Windows Media Player (WMP) to Windows; here, the Commission contended that the network

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<sup>860</sup> See e.g. in relation to PC operating systems: European Commission, Commission Decision relating to a proceeding under Article 82 of the EC Treaty, 24 March 2004, Case COMP/C-3/37.792 Microsoft, para. 533.

<sup>861</sup> European Commission, Commission Decision relating to a proceeding under Article 82 of the EC Treaty, 24 March 2004, Case COMP/C-3/37.792 Microsoft, paras. 448 *et seq.* and 458-459; see also paras. 526 *et seq.*, 878, 897, 946, 969 and 973.

effects in relation to Windows not only presented a “content and applications barrier to entry” which protected Microsoft’s position in relation to operating systems but also that the tying of WMP with Windows would “facilitate the erection of such a barrier for WMP.”<sup>862</sup> The Commission continued its negative outlook on network effects by stating that

“[a] position of market strength achieved in a market characterised by network effects - such as the media player market - is sustainable, as once the network effects work in favour of a company which has gained a decisive momentum, they will amount to entry barriers for potential competitors [...]. [...] This shields Microsoft from effective competition from potentially more efficient media player vendors which could challenge its position. Microsoft thus reduces the talent and capital invested in innovation of media players, not least its own and anti-competitively raises barriers to market entry. Microsoft’s conduct affects a market which could be a hotbed for new and exciting products springing forth in a climate of undistorted competition. [...] Moreover, tying of WMP allows Microsoft to anti-competitively expand its position in adjacent media-related software markets and weaken effective competition to the eventual detriment of consumers. [...] Microsoft’s tying of WMP also sends signals which deter innovation in any technologies which Microsoft could conceivably take interest in and tie with Windows in the future. Microsoft’s tying instils actors in the relevant software markets with a sense of precariousness thereby weakening both software developers’ incentives to innovate in similar areas and venture capitalists’ proclivity to invest in independent software application companies. A start-up intending to enter or raise venture capital in such a market will be forced to test the resilience of its business model against the eventuality of Microsoft deciding to bundle its own version of the product with Windows.”<sup>863</sup>

According to the above excerpts, the Commission not only appears to regard network effects as the active prevention of actual and potential

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<sup>862</sup> European Commission, Commission Decision relating to a proceeding under Article 82 of the EC Treaty, 24 March 2004, Case COMP/C-3/37.792 Microsoft, para. 980.

<sup>863</sup> European Commission, Commission Decision relating to a proceeding under Article 82 of the EC Treaty, 24 March 2004, Case COMP/C-3/37.792 Microsoft, paras. 980-984.

competitors from competing on what it considers to be a level playing field, and thus as a *de facto* insurmountable obstacle to competition, but it also seems to be of the opinion that the presence of such effects in a 'market', by means of their self-reinforcing character, directly translate into actionable market power. In other words, the Commission appears to regard network effects as barriers to entry actionable under competition law.

This reading of network effects however seem problematic: admittedly, network effects might have a negative impact on consumers of, and / or competitors to, a particular product or service. For example, consumers and businesses might be

"harmed by network effects. Because of the focus on one company's product, other potentially superior products have a difficult time reaching the market. Especially in the computer industry, where the barriers to entry are extremely high, network effects tend to eliminate potential competitors. This, in turn, reduces the incentives for creators of new programs, which reinforces the dominant market holder's position."<sup>864</sup>

It is however questionable if this potential to have negative consequences for other parties in 'the market' necessarily means that network effects by themselves constitute actionable barriers to entry. In other words, even where network effects might have a negative impact on consumers and / or businesses, it might be premature to conclude that, because they *might* lead to negative results for some parties in a given 'market', the existence of network effects in a 'market' *directly* translates into an actionable distortion of competition in that 'market' because of some potential negative consequences they might, or might not, have in the future – regardless of whether these consequences are 'directed' at competitors or

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<sup>864</sup> John T. Soma / Kevin B. Davis, *Network Effects in Technology Markets: Applying the Lessons of Intel and Microsoft to Future Clashes between Antitrust and Intellectual Property*, (2000) 8 *Journal of Intellectual Property Law* 1, 8.

consumers. At any rate, the Commission, by focusing on the negative aspects of network effect for competitors, reinforces the impression that it views 'competition' in purely structural terms. It is submitted here that such a view is too simplistic as, rather than having expressly and unequivocally negative effects, it would appear that "[n]etwork effects tend to have conflicting implications that are difficult to interpret."<sup>865</sup> Furthermore, the conclusion that a 'market' will tip in favour of a particular product or service because it exhibits network effects might be far from foregone as the tendency to prefer one product or service over another may be influenced / due to a number of factors,<sup>866</sup> i.e. "network effects might not be the only effects at work."<sup>867</sup> For instance,

"[t]ipping is more likely in the case of homogeneous products. [...] the degree of product differentiation plays an important role in whether a service is likely to tip or not. With network effects and product differentiation (vertical but also horizontal), there are two forces at play. Consumers will value more a product that is more widely adopted, but at the same time they may have specific strong preferences for a particular type of product. With highly differentiated products the latter may allow the presence of a number of competing providers despite the presence of network effects – for example, this is the case with Apple computers and its McIntosh operating system, which is able to compete with Microsoft Windows in spite of the large share of the latter and the importance of network effects. Another example could be off-the-shelf standardized software, such as spreadsheet applications and specialized statistical software. The value of a particular spreadsheet is likely to be strongly enhanced by its adoption rate as consumers

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<sup>865</sup> Mark A. Lemley / David McGowan, *Legal Implications of Network Economic Effects*, (1998) 86 *California Law Review* 479, 498.

<sup>866</sup> See e.g. Richard Schmalensee, *Direct Testimony, United States v. Microsoft*, paras. 119-125 who points to a number of different factors which may be considered 'influential' in this respect.

<sup>867</sup> Mark A. Lemley / David McGowan, *Legal Implications of Network Economic Effects*, (1998) 86 *California Law Review* 479, 498. Lemley and McGowan give the following example: "A user might prefer Lexis to Westlaw, but only up to a certain point. If the information she needs is available only on Westlaw, she may start using that service, whatever the cost in terms of lost convenience.", *ibid.*



value the ability to exchange files. On the other hand, consumers are more likely to have stronger personal preferences for a particular type of statistical package and not put too much weight on whether the package is widely adopted.”<sup>868</sup>

In addition, with regard to the Commission’s seeming one-sided approach to network effects, it is worth remembering that network effects might also lead to beneficial consequences for consumers and businesses alike. For instance, the more people buy a particular product or subscribe to a particular service, the more likely it is that more complementary products will be available or that the service subscribed to will become more widely accepted.<sup>869</sup> To stay with the example of software, such benefits might result

“from having the creative and growth forces of software development centered around one standard because, in theory, a better product will exist. For instance, problems with compatibility between files transferred from one computer to another should be reduced. Additionally, businesses benefit from having to invest fewer resources into training people for different programs. It is likely that an employee’s home Windows operating system, with its word processing, spreadsheet, and additional applications is virtually identical to the one used in the office.”<sup>870</sup>

Consequently, even the existence of only one network might be beneficial from the consumer’s point of view “to the extent that they will be able to enjoy more communication possibilities or more complementary services, whereas under competing networks they will not be able to.”<sup>871</sup> In this respect it appears also possible to argue that “[t]he mere fact that a new

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<sup>868</sup> Pietro Crocioni, *Leveraging of Market Power in Emerging Markets: A Review of Cases, Literature, and a Suggested Framework*, (2008) 4 *Journal of Competition Law & Economics* 449, 469 *et seq.*

<sup>869</sup> See Massimo Motta, *Competition Policy – Theory and Practice*, 82.

<sup>870</sup> John T. Soma / Kevin B. Davis, *Network Effects in Technology Markets: Applying the Lessons of Intel and Microsoft to Future Clashes between Antitrust and Intellectual Property*, (2000) 8 *Journal of Intellectual Property Law* 1, 8. See also Michael L. Katz / Carl Shapiro, *Systems Competition and Network Effects*, (1994) 8 *Journal of Economic Perspectives* 93, 94.

<sup>871</sup> Massimo Motta, *Competition Policy – Theory and Practice*, 85.

software platform does not have a pre-existing stock of applications does not mean that consumers would be better off if this entrant succeeded, or that consumers are worse off because they have applications available to them for the incumbent software platform.”<sup>872</sup> Similarly, it is debatable if “the optimal number of [, for example,] operating systems would be greater than one even without network effects” as the emergence of one standard / market leader might be due to the existence of economies of scale (i.e. high fixed and low marginal costs of production) in the software industry rather than to network effects.<sup>873</sup> In this context, it might also be worth to point out that, although a ‘market’ in which network effects are present may tip towards a particular product or service and thus may result in a monopoly or near-monopoly,<sup>874</sup> network effects do not relate to the same theoretical problem as natural monopolies because

“[t]he problem in the case of natural monopoly is one of scale economies of supply: the marginal and average costs of production decline throughout the demand curve for a particular market. By contrast, network effects are demand-side rather than supply-side effects: the shape of the demand curve is affected by existing demand. [...] Classical theory approaches most increasing returns problems as if they involve economies in the scale of production, rather than value added to existing users through increased demand. While the two problems may be difficult to distinguish in practice – and some courts may treat them the same – the two cases are analytically distinct and therefore may require different legal treatment [...]”<sup>875</sup>

Accordingly, it also appears possible to argue that network effects, rather than being “anticompetitive roadblocks to competition”, are “merely a

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<sup>872</sup> Richard Schmalensee, Direct Testimony, *United States v. Microsoft*, para. 116.

<sup>873</sup> Mark A. Lemley / David McGowan, Legal Implications of Network Economic Effects, (1998) 86 California Law Review 479, 502.

<sup>874</sup> Michael L. Katz / Carl Shapiro, Antitrust in Software Markets, 2; Willow A. Sheremata, Barriers to innovation: a monopoly, network externalities, and the speed of innovation, (1997) 42 Antitrust Bulletin 937, 954.

<sup>875</sup> Mark A. Lemley / David McGowan, Legal Implications of Network Economic Effects, (1998) 86 California Law Review 479, 484.

characteristic of consumer demand.”<sup>876</sup> In turn, this point of view (‘network effects as a mere expression of consumer demand’) would appear to question the correctness of an approach to competition law analysis which, as is apparently the case with the Commission’s more economic approach, focuses solely “on the “dark side” of network effects”:<sup>877</sup> for instance, from this perspective, it is debatable if network effects present natural – or even artificial – barriers to entry for competitors because such barriers are “more often [...] the product of old-fashioned supply-side factors, such as increasing returns to scale and high fixed costs, than of network effects *per se*.”<sup>878</sup>

In order to answer the question if network effects necessarily constitute barriers to entry, mention should also be made of the ongoing controversy surrounding the question of how barriers to entry are to be properly defined.<sup>879</sup> For example, Bain has defined barriers of entry as “the extent to which, in the long run, established firms can elevate their selling prices above the minimal average costs of production and distribution (those costs associated with operation at optimal scales) without inducing potential entrants to enter the industry”<sup>880</sup> which would appear to “include all factors that allow incumbents to maintain a price significantly in excess of marginal cost without stimulating entry by new firms.”<sup>881</sup> This

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<sup>876</sup> See Kevin J. Arquit / Arman Y. Oruc, Predation Against “Dangerous” Complements, (2003) 4 Sedona Conference Journal 21, 25. It is acknowledged that Arquit and Oruc do not subscribe to that view.

<sup>877</sup> William J. Kolasky, Network Effects: A Contrarian View, (1999) 7 George Mason Law Review 577, 578.

<sup>878</sup> William J. Kolasky, Network Effects: A Contrarian View, (1999) 7 George Mason Law Review 577, 578 [original emphasis]; see also *ibid.*, 587.

<sup>879</sup> See e.g. Robert O’Donoghue / A. Jorge Padilla, The Law and Economics of Article 82 EC, 117 *et seq.*; Lawrence A. Sullivan / Warren S. Grimes, The Law of Antitrust: An Integrated Handbook, 68 *et seq.*

<sup>880</sup> Joe Staten Bain, Industrial Organization, 252.

<sup>881</sup> Lawrence A. Sullivan / Warren S. Grimes, The Law of Antitrust: An Integrated Handbook, 68.

definition can be contrasted with Stigler's definition of barriers to entry "as a cost of producing (at some or every rate of output) which must be borne by a firm that seeks to enter an industry but is not borne by firms already in the industry."<sup>882</sup> Again, this definition can be contrasted with Bork's understanding of barriers to entry: Bork has opined that a definition which included "anything that makes the entry of new firm into an industry difficult" resulted in problematic "ambiguity"; therefore, the question should be "whether there exist artificial entry barriers", i.e. "barriers that are not forms of superior efficiency and which yet prevent the forces of the market – entry or the growth of smaller firms already within the industry – from operating to erode market positions not based on efficiency."<sup>883</sup> Fisher has proposed yet another understanding: stating that barriers of entry refer to "a situation in which unnecessarily high profits are being earned and society would be better off if they competed away, but firms cannot enter to do this", he argues that "[a] barrier to entry exists when entry would be socially beneficial but is somehow prevented".<sup>884</sup> Finally, to conclude this representative selection of different definitions of barriers to entry, von Weizsäcker has suggested that "a barrier to entry is a cost of producing which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry and which implies a distortion in the allocation of resources from the social point of view."<sup>885</sup>

All of these definitions are likely to lead not only to a different evaluation of the question if network effects have necessarily to be regarded as (from

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<sup>882</sup> George J. Stigler, *The Organization of Industry*, 67.

<sup>883</sup> Robert H. Bork, *The Antitrust Paradox – A Policy at War with Itself*, 310 *et seq.*.

<sup>884</sup> Franklin M. Fisher, *Diagnosing Monopoly*, (1979) 19 *Quarterly Review of Economics and Business* 7, 23.

<sup>885</sup> C. C. von Weizsäcker, *A welfare analysis of barriers to entry*, (1980) 11 *The Bell Journal of Economics* 399, 400.

the perspective of competition law) actionable barriers to entry but potentially also to a number of (difficult) follow-on questions: for instance, with regard to Bork's definition, it might be asked if network effects are to be regarded as 'artificial barriers' as they might, or might not, be the result of "superior efficiency" (howsoever understood) on the part of the incumbent undertaking; with regard to Bain's definition, network effects are however likely to be considered actionable barriers to entry as they might allow the incumbent firm to make excessive profits, yet it might be said that not "all factors identified by Bain are proper barriers to entry";<sup>886</sup> with regard to Fisher's definition of barriers to entry, a differentiation exercise is likely to 'occur' as network effects might sometimes be socially beneficial and sometimes be socially detrimental – yet, it has to be stated that it is not clear that entry will always increase welfare.<sup>887</sup> In addition, it is also interesting to note that even within the review literature a certain disagreement appears to exist as to which author might be considered as following any of the above 'Schools of thought': Bishop and Walker consider Carlton and Perloff<sup>888</sup> as following Stigler,<sup>889</sup> whereas Sullivan and Grimes appear to regard Carlton and Perloff as adhering to the Bainian definition.<sup>890</sup> Certainly, such seeming disagreement / confusion even within the academic circle cannot be considered helpful in the quest for a more sound and more economic approach to competition law enforcement.

However irrespective of a decision as to which definition of barriers to entry is to be preferred and also regardless of a decision as to whether

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<sup>886</sup> Robert O'Donoghue / A. Jorge Padilla, *The Law and Economics of Article 82 EC*, 119.

<sup>887</sup> Massimo Motta, *Competition Policy – Theory and Practice*, 85.

<sup>888</sup> Dennis W. Carlton / Jeffrey M. Perloff, *Modern Industrial Organization*, 77.

<sup>889</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 3-024.

<sup>890</sup> Lawrence A. Sullivan / Warren S. Grimes, *The Law of Antitrust: An Integrated Handbook*, 69, footnote 14.

network effects have to be considered barriers of entry which competition law analysis has to overcome, the above nevertheless shows that the assumption 'network effects constitute *per se* an actionable distortion of competition' is premature and not tenable in this generalised form. Rather, one has to agree with the – as this thesis submits: more balanced – view that network effects as such are neither inherently 'bad' nor inherently 'good'.<sup>891</sup> In this respect, the above indicates that the fact that a 'market' exhibits network effects does not – *per se* – answer any questions as to the way in which a particular position in 'the market' has been achieved and thus does not tell us anything about whether the behaviour of the accused undertaking is legal;<sup>892</sup> moreover, it appears equally possible to argue that "[t]he fact that a monopolist buttressed by network externalities may be hard to dislodge even by a firm with a superior technology has no antitrust significance in itself."<sup>893</sup> Consequently, an argument to the opposite, i.e. that a firm with a new, potentially even superior product is generally unable to convince consumers to join its emerging network, might be considered "incomplete":<sup>894</sup>

"[a]lthough it is true that entry with a new, incompatible technology is more difficult when the established technologies have installed-base advantages, entry also is less desirable socially. By choosing a product with no installed base, a consumer gives up consumption benefits that he or she could have enjoyed on a larger, existing network. Moreover, when a consumer chooses a new product, his or her consumption does not provide positive consumption

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<sup>891</sup> See S. J. Liebowitz / Stephen E. Margolis, *Network Externalities: An Uncommon Tragedy*, (1994) 8 *Journal of Economic Perspectives* 133, 134.

<sup>892</sup> See Kathryn McMahon, *Interoperability: "Indispensability" and "Special Responsibility" in High Technology Markets*, (2007) 9 *Tulane Journal of Technology and Intellectual Property* 123, 131 *et seq.*

<sup>893</sup> Richard A. Posner, *Antitrust Law*, 250.

<sup>894</sup> Michael L. Katz / Carl Shapiro, *Product Introduction with Network Externalities*, (1992) 40 *Journal of Industrial Economics* 55, 56.

externalities for the consumers on the existing networks, who may be “stranded.”<sup>895</sup>

Therefore, the conclusion to be drawn for competition law enforcement would appear to be that the difficulties faced by (potential) entrants in markets which exhibit network effects “should not be generalised to imply that all these markets will naturally show “excess inertia” (or persistence of dominance)”<sup>896</sup> and thus definitely warrant competition law enforcement. Rather, it should be kept in mind that

“it would be ironic indeed if overly simplistic arguments based on network effects caused us to revisit the mistakes of the past in our new, knowledge-based economy. It would be doubly ironic if, based on such arguments, courts inhibited firms from delivering the benefits inherent in network effects to consumers. Network industries may well exhibit unique characteristics, but these characteristics do not all point in one direction. Network effects will as often provide a valid procompetitive business justification for conduct as they will [provide] a reason for holding otherwise lawful conduct unlawful. What is needed, therefore, is a carefully nuanced, highly fact-specific approach of the kind the antitrust courts have used in dealing with claims of monopolization in more traditional industries.”<sup>897</sup>

Accordingly, competition law analysis should, at the very least, take note of the fact that network effects “may be of different strengths, and may

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<sup>895</sup> Michael L. Katz / Carl Shapiro, Product Introduction with Network Externalities, (1992) 40 *Journal of Industrial Economics* 55, 56. Katz and Shapiro’s analysis concludes that “[i]n fact, [...] entry may be profitable even if it worsens industry performance by stranding customers who own the older technology. We also found that the sponsor of a new technology earns greater profits than its entry contributes to social welfare. In other words, markets with network externalities in which new technologies are proprietary exhibit a bias towards new technologies. We call this bias insufficient friction, the opposite of excess inertia. With insufficient friction, a new technology may be able to take over the market even when it does not contribute to total social surplus. Furthermore, we found that firms introducing new, incompatible technologies will bring out their products earlier than would be socially desirable.”, *ibid.*, 73.

<sup>896</sup> Massimo Motta, *Competition Policy – Theory and Practice*, 85.

<sup>897</sup> William J. Kolasky, *Network Effects: A Contrarian View*, (1999) 7 *George Mason Law Review* 577, 578.

have different consequences” which requires that the assessment of network effects is not taking place “in the abstract”.<sup>898</sup> This differentiated approach to network effects however seems to be currently lacking in the Commission’s more economic approach.

### **II.3.2. The Existence and Exercise of Intellectual Property Rights**

In the context of market power assessment mention should also be made of the issues which might arise as a consequence of the importance of intellectual property rights (IPRs) for the software industry – it might be said that “[s]oftware is, in effect, digitised IP”<sup>899</sup> – i.e. the question if and how the existence and / or exercise of IPRs may complicate the ease and accuracy with which market power and, thus, ultimately dominance under Article 102 TFEU can be established.

While the view that intellectual property is “just another form of property” may be considered “unduly simplistic”,<sup>900</sup> intellectual property can be considered “property in a legal sense”<sup>901</sup> which means that the holder of an IPR may enjoy certain rights not dissimilar to those relating to tangible property. Accordingly, it appears possible to regard the ownership of an intellectual property right as a legally conferred monopoly “which may in many cases totally insulate the holder of an IPR from competition”<sup>902</sup> and which, thus, may form a barrier to entry into ‘the

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<sup>898</sup> Mark A. Lemley / David McGowan, *Could Java change everything? The competitive propriety of a proprietary standard*, (1998) 43 *Antitrust Bulletin* 715, 719 and footnote 15.

<sup>899</sup> Mark Furse, *EC Competition Law and the Computing Industry: A Guide for Industry Professionals*, 147.

<sup>900</sup> Robert Pitofsky, *Antitrust and Intellectual Property: Unresolved Issues at the Heart of the New Economy*, (2001) 16 *Berkeley Technology Law Journal* 535, 536.

<sup>901</sup> David I. Bainbridge, *Intellectual Property*, 10.

<sup>902</sup> Mark Furse, *EC Competition Law and the Computing Industry: A Guide for Industry Professionals*, 147 *et seq.*; see also Steven D. Anderman, *EC Competition Law and Intellectual Property Rights – The Regulation of Innovation*, 169.



market' for any potential competitor.<sup>903</sup> Irrespective (for the moment) of a decision whether or not such a view is desirable, let alone correct, it would therefore also seem possible to equate the existence of an IPR with the existence of an insurmountable barrier to entry and, thus, ultimately the finding of dominance:

“the question whether an intellectual property right can by itself confer dominance on its owner should not be controversial. Plainly it can and there is no point in denying such an obvious truth. The simplest of examples serves to prove this proposition. Suppose someone patents, throughout Europe, a pharmaceutical that is capable of curing AIDS. If no other pharmaceutical capable of curing AIDS exists, the proprietor of the patent will inevitably hold a dominant position. The relevant product market can only be defined as the market in pharmaceuticals for successfully treating AIDS, since no other product could be substituted for the patented pharmaceutical. The patentee would enjoy a legal monopoly on the relevant market throughout Europe and the entry barrier would be insuperable during the life of the patent (unless, of course, someone else developed a non-infringing drug also capable of curing AIDS).”<sup>904</sup>

However, in view of the case law of the European courts, the position as to when the exercise of an IPR (or even the mere existence thereof) may constitute an actionable barrier to entry or may even result in the finding of dominance would appear less clear-cut than the above quote seems to suggest. While the European Courts have held “that mere ownership of an intellectual property right cannot confer such a dominant position”,<sup>905</sup> this

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<sup>903</sup> See Robert O'Donoghue / A. Jorge Padilla, *The Law and Economics of Article 82 EC*, 120.

<sup>904</sup> David T. Keeling, *Intellectual Property Rights in EU Law, Volume I – Free Movement and Competition Law*, 371.

<sup>905</sup> European Court of Justice, *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities*, 6 April 1995, joined cases C-241/91 P and C-242/91 P, para. 46; see also European Court of Justice, *Deutsche Grammophon Gesellschaft mbH v Metro-SB-Großmärkte GmbH & Co. KG*, 8 June 1971, case 78/70, para. 16: “A manufacturer of sound recordings who holds a right related to copyright does not occupy a dominant position within the

statement has been qualified by the European Court of Justice insofar that, where the holder of an IPR has the “power to impede the maintenance of effective competition over a considerable part of the relevant market, having regard in particular to the existence of any producers marketing similar products and to their position in the market”,<sup>906</sup> the existence of an IPR may be considered as constituting a barrier to entry which might result in the right holder being considered dominant.<sup>907</sup> This suggests that, according to European case law, the evaluation of an IPR’s impact on the question of the right holder’s market power by means of its existence or its exercise is closely intertwined with the question of market definition. As pointed out by Friden with reference to the opinion of Advocate General Mischo in *AB Volvo v Erik Veng (UK) Ltd*,<sup>908</sup> the definition of the relevant

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meaning of Article [102 TFEU] merely by exercising his exclusive right to distribute the protected articles.”.

<sup>906</sup> European Court of Justice, *Deutsche Grammophon Gesellschaft mbH v Metro-SB-Großmärkte GmbH & Co. KG*, 8 June 1971, case 78/70, para. 17.

<sup>907</sup> See European Court of Justice, *EMI Records Limited v CBS United Kingdom Limited*, 15 June 1976, case 51/75, para. 36; European Court of Justice, *Sirena S.r.l. v Eda S.r.l. and others*, 18 February 1971, case 40/70, para. 16; Inge Govaere, *The use and abuse of intellectual property rights in E.C. law*, para. 8.31; Alison Jones / Brenda Sufrin, *EU Competition Law*, 497-521; Nicholas Green, *Intellectual Property and the Abuse of a Dominant Position under European Union Law: Existence, Exercise and the Evaporation of Rights*, (1993-95) 20 *Brooklyn Journal of International Law* 141.

<sup>908</sup> Advocate General Mischo, *Opinion, AB Volvo v Erik Veng (UK) Ltd*, 21 June 1988, Case 238/87, paras. 14-15: “[...] in the present case, the industrial property rights relate to body panels for a motor vehicle and the only products which can be substituted for them are products having exactly the same shape as the parts produced by the manufacturer.[...] in the circumstances of this case no substitutable goods exist which do not encroach upon the registered rights of the manufacturer. Accordingly, as soon as the proprietor exercises the rights deriving from his registered design and substitutable parts can no longer be produced, there is no doubt that the manufacturer holds a dominant position in the market in the spare parts for which he registered the design and which is, in the last analysis, the “relevant market” in the present case. [...] In view of the foregoing considerations, I suggest the following answer to the first question submitted by the High Court, London: “If a substantial car manufacturer holds registered designs which, under the law of a Member State, confer on it the sole and exclusive right to make and import replacement body panels required to effect repair of the body of a car of its manufacture (and if such body panels are not replaceable by body panels of any

market might even be considered “the crucial point” for the finding of dominance in the context of intellectual property rights.<sup>909</sup> This is because if ‘the market’ for a product protected by an IPR

“can be defined with reference to the supply of products, or the provision of services, subject to the right in question, then the right can in practice be said to make the holder dominant since it follows from such a definition of the relevant market that, if the right is enforced, there cannot be alternative substitutes to the goods covered by the right, and such absence of substitutes logically implies dominance.”<sup>910</sup>

Moreover, in this respect, it may even be said that

“[f]or rightholders the main risk of dominance occurs if the product is defined in sufficiently narrow terms as to create a single product market. For then, the existence of an IPR could extinguish competition and thereby confirm the dominant position of the undertaking owning the right incorporated in the product. [...] Yet what is even more important a point is that in such a situation [i.e. where substitutes are unavailable], the single product market can not only set the stage for dominance; it can set the stage for a finding of a *de facto* monopoly over an essential input or infrastructure. It is this category of dominance which contains the greatest threat of restriction of the exercise of IPRs by EC competition law.”<sup>911</sup>

From the perspective of the holder of an intellectual property right, this connection is worrying insofar as it suggests that, despite the fact that Article 102 TFEU “only regulates the conduct of undertakings which have

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other design), that manufacturer is in a dominant position within the meaning of Article 86 of the EEC Treaty, by reason both of such sole and exclusive rights and of the fact that it is impossible for the consumer to obtain a substitute product.”

<sup>909</sup> Georges Friden, Recent Developments in EEC Intellectual Property Law: The Distinction between Existence and Exercise Revisited, (1989) 26 Common Market Law Review 193, 209.

<sup>910</sup> Georges Friden, Recent Developments in EEC Intellectual Property Law: The Distinction between Existence and Exercise Revisited, (1989) 26 Common Market Law Review 193, 209.

<sup>911</sup> Steven D. Anderman, EC Competition Law and Intellectual Property Rights – The Regulation of Innovation, 172 *et seq.* [original emphasis].

already achieved market dominance”,<sup>912</sup> what might actually be ‘regulated’ is *dominance as such* or even the *potential to achieve such dominance*. While this tendency is not necessarily a new development in the European Union<sup>913</sup> – in this context, reference may be made to what Anderman and Schmidt have called the Commission’s “desire to use Article 82 [now 102 TFEU] to supervise effective competition in markets in the new economy of information technology and telecommunications”<sup>914</sup> – it may, after *Microsoft*, be considered to be even more visible and pronounced: for example, in *Microsoft*, the Commission decided that Microsoft’s refusal to supply certain information to (potential) competitors “limits the prospect for such competitors to successfully market their innovation and thereby discourages them from developing new products” as Microsoft’s refusal, in the opinion of the Commission, prevented these competitors effectively from “us[ing] the disclosures to make the advanced features of their own products available in the framework of the web of interoperability relationships that underpin the Windows domain architecture.”<sup>915</sup> In other words, by submitting “that a ‘new product’ is a product which does not limit itself essentially to duplicating the products already offered on the market by the owner of the copyright” and that “[i]t

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<sup>912</sup> Steven D. Anderman / Hedvig Schmidt, EC Competition Law and IPRs, in: Steven D. Anderman (ed.), *The Interface between Intellectual Property Rights and Competition Policy*, 37, 39.

<sup>913</sup> See e.g. European Court of Justice, *Radio Telefis Eireann and Independent Television Publications Limited v Commission of the European Communities*, Report for the Hearing by G. C. Rodriguez Iglesias, (1995) *Entertainment and Media Law Reports* 337, 359: “The Commission concludes therefore that it is of great importance to uphold the principle that the refusal by a dominant undertaking to license copyright material may [...] constitute an abuse, and to hold the contrary would gravely impair the Commission’s capacity to supervise effective competition, particularly in the computer and telecommunications industries.”

<sup>914</sup> Steven D. Anderman / Hedvig Schmidt, EC Competition Law and IPRs, in: Steven D. Anderman (ed.), *The Interface between Intellectual Property Rights and Competition Policy*, 37, 43.

<sup>915</sup> European Commission, Case COMP/C-3/37.792 *Microsoft*, 24 March 2004, para. 694 *et seq.*

is sufficient, therefore, that the product concerned contains substantial elements that result from the licensee's own efforts",<sup>916</sup> the Commission appeared to apply a rather wide interpretation of the criterion of a 'new product'.<sup>917</sup> This wide interpretation of what constitutes a 'new product' however may be considered as unfortunate: on the one hand, because it is likely to lead to an increase of legal uncertainty insofar as it, given that the Court of First Instance essentially approved the Commission's argumentation in this respect,<sup>918</sup> may be considered as having somewhat 'devalued' its intervention limiting meaning ("eingriffsbegrenzende Bedeutung").<sup>919</sup> In this respect, the *Microsoft* case seems to have contributed little to solve questions which arose after the cases of *Magill* and *IMS Health*, e.g.

"how different must a new product be from the one offered by the owner of the IP protected industrial standard? How strong must the potential unmet consumer demand be to qualify a new entrant to a compulsory licence? [...] Must the new entrant show that the new product has been developed to the point that it simply requires the indispensable component supplied by the IPR owner, or can it ask for access in order to do more work on its own product?".<sup>920</sup>

On the other hand, the Commission's wide interpretation of the term 'new product' may be considered as having *de facto* widened the scope of application of Article 102 TFEU beyond the 'mere' question if an

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<sup>916</sup> Court of First Instance, *Microsoft Corp. v Commission of the European Communities*, 17 September 2007, T-201/04, para. 631.

<sup>917</sup> Knut Werner Lange, *Europäisches Kartellrecht und geistiges Eigentum – der Fall Microsoft*, in: Knut Werner Lange / Diethelm Klippel / Ansgar Ohly, *Geistiges Eigentum und Wettbewerb*, 131, 139 *et seq.*

<sup>918</sup> Court of First Instance, paras. 621 – 665.

<sup>919</sup> Knut Werner Lange, *Europäisches Kartellrecht und geistiges Eigentum – der Fall Microsoft*, in: Knut Werner Lange / Diethelm Klippel / Ansgar Ohly, *Geistiges Eigentum und Wettbewerb*, 131, 140.

<sup>920</sup> Steven D. Anderman / Hedvig Schmidt, *EC Competition Law and IPRs*, in: Steven D. Anderman (ed.), *The Interface between Intellectual Property Rights and Competition Policy*, 37, 61.

undertaking has *actually* abused its dominant position as it may be said that

“im Fall Microsoft [ging es] für die Kommission nicht allein darum, ein konkretes Verhalten, was man als wettbewerbsschädlich angesehen hat, zu untersagen. Ziel der Kommission war es wohl auch, das Auftreten neuerer Produkte bzw. neuen Wettbewerb insgesamt zu fördern, damit sich langfristig der Marktanteil des marktbeherrschenden Unternehmens reduziert. Dadurch wird aber nicht nur der Missbrauch einer Marktbeherrschung bekämpft, sondern auch die Marktbeherrschung selbst. Damit bewegen wir uns auf das Feld der Regulierung von Märkten. Es stellt sich die Frage, ob diese Art von Marktgestaltung noch durch das europäische Wettbewerbsrecht gedeckt ist.”<sup>921</sup>

This development has to be considered even more unfortunate as it is likely to add to the already existing difficulties in distinguishing between lawful and unlawful exercise of IPRs; as Anderman and Schmidt have pointed out, “there are [...] rare situations where conduct by an IP owner which is lawful under IP legislation, can be viewed as unlawful under competition law.”<sup>922</sup> The distinction between the lawfulness and unlawfulness of intellectual property law conform conduct is however a fine one and might to some extent, as e.g. demonstrated by the case of

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<sup>921</sup> Knut Werner Lange, *Europäisches Kartellrecht und geistiges Eigentum – der Fall Microsoft*, in: Knut Werner Lange / Diethelm Klippel / Ansgar Ohly, *Geistiges Eigentum und Wettbewerb*, 131, 145. This passage translates as follows: “in Microsoft, the Commission was not just concerned with the prohibition of a particular behaviour which was regarded as anti-competitive. It appears that the Commission’s aim was also to aid the occurrence of new products or new competition, respectively, in order to achieve the reduction of the market share of the dominant undertaking in the long term. Thus, however, it is not only the abuse of a dominant position which is targeted / combated but also the dominant position itself. In so doing we move into the area of the regulation of markets. It is questionable if this kind of market design is still backed by European competition law.” [own translation].

<sup>922</sup> Steven D. Anderman / Hedvig Schmidt, *EC Competition Law and IPRs*, in: Steven D. Anderman (ed.), *The Interface between Intellectual Property Rights and Competition Policy*, 37, 38.

*Micro Leader/Microsoft*,<sup>923</sup> be regarded as a matter of degree. Again, the nature of software as ‘superior implementation for functionality’ which is ‘constructed’ by a logical string of 0s and 1s might complicate matters even further. Another complication may, in relation to the assessment of market power, be seen in the fact that the award of an IPR as an exclusive right “do[es] not automatically result in [the] positive right to exploit a protected product” because the “actual possibilities of commercial exploitation depend upon the extent of demand and competition in the market for the protected product or process”;<sup>924</sup> moreover, even the existence of an IPR does not guarantee the ‘marketed’, IP protected product’s success. In this respect, the danger would appear to be that the actual possibility of acquiring and / or exercising market power might be overestimated by the competition law enforcer.

### **III. Conclusion**

This Chapter linked the analysis of the Commission’s more economic approach in previous Chapters with the software industry and, in doing so, concentrated on the question of why the previously discussed issues might be said to be exacerbated in this particular industrial sector. It was argued that the problems caused by factual indeterminacies for competition law assessment in general are intensified by the characteristics of the software industry and, in particular, that these characteristics represent a problem for the Commission’s more economic approach insofar that the static nature of this approach and its resulting shortcomings are even more ‘exposed’ in a dynamic and knowledge based

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<sup>923</sup> European Commission, Commission Decision (Case IV/36.219 *Micro Leader/Microsoft*), 15 October 1998; annulled by Court of First Instance, *Micro Leader Business v Commission of the European Communities*, 16 December 1999, case T-198/98.

<sup>924</sup> Steven D. Anderman, *EC Competition Law and Intellectual Property Rights – The Regulation of Innovation*, 169.

environment. Yet, although the discussion in this Chapter concluded that ‘software is different’, it was also shown that software is not different enough to warrant regulatory non-intervention. In doing so, it was argued that concerns as to potentially anti-competitive behaviour of undertakings operating in the software industry are neither new as such (in the sense that this industry had never given rise to regulatory concerns)<sup>925</sup> nor are the issues which might arise (or have arisen) in this sector necessarily restricted to the software industry (in the sense that these issues might only arise in relation to software ‘markets’).<sup>926</sup>

Building upon these (interim-)conclusions, the Chapter further argued that the analytical problems encountered by enforcers of competition law do not so much lie with the actual economic characteristics of the software industry as such (as these characteristics may, in varying degrees, also be found in other sectors) but rather with the pronounced accumulation of issues which, with regard to more traditional industries, do not surface in such cumulative fashion and thus do not – in these industrial sectors – result in such intense assessment difficulties for competition law authorities.<sup>927</sup> In particular, the analysis concluded that, as a result of the

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<sup>925</sup> See Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 1: “In the past, these concerns centered on monopolization by IBM. Today, the concerns are with Microsoft, but in many ways they are the same. IBM was accused of attempting to sabotage industry standards in Fortran; Microsoft is accused of sabotaging JAVA. IBM was accused of predatory product pre-announcements; Microsoft has been accused of employing “vaporware” – the tactic of announcing products before they are ready in order to preempt the market – to undercut its competitors. IBM was accused of bundling functionality into its CPUs to reduce the value of peripheral equipment; Microsoft is battling government lawyers over the bundling of Internet Explorer with Windows 95. IBM was accused of manipulating interfaces and refusing to reveal them to competitors; Microsoft is accused of refusing to reveal interfaces to competitors.”; see also Willow A. Sheremata, “New” issues in competition policy raised by information technology industries, (1998) 43 *Antitrust Bulletin* 547, 581.

<sup>926</sup> See David Balto / Robert Pitofsky, *Antitrust and high-tech industries: the new challenge*, (1998) 43 *Antitrust Bulletin* 583, 587.

<sup>927</sup> Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 1.



accumulative ‘occurrence’ of factors such as e.g. complexity of technology and network effects (to name but a few), the Commission’s static approach to competition law enforcement is unlikely to result in the creation of coherent competition policy for a dynamic industrial sector such as the software industry as the Commission’s more economic approach in its current form – when applied in the context of the software industry – is too static, too one-dimensional to properly cope with the dynamics and multifaceted characteristics of this industry. To conclude, this Chapter further substantiated this thesis’ call for a more sophisticated economic approach to the application of competition law which truly integrates – rather than merely purports to do so – *modern* economic theory, i.e. one which goes beyond the current static regulatory approach outlined above by allowing for the incorporation of modern theoretical insights about the dynamics of the process of competition;<sup>928</sup> or, as Schmalensee has put it, “a sound antitrust policy cannot be founded on the fiction that the world is simple.”<sup>929</sup> Chapter 6 makes some suggestions as to what such an approach might look like.

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<sup>928</sup> See Wolfgang Kerber, *Competition, Innovation, and Maintaining Diversity through Competition Law*, 24.

<sup>929</sup> Richard Schmalensee, *Another Look at Market Power*, (1982) 95 *Harvard Law Review* 1789.

## **Chapter 6 – Advocating an Alternative Approach to Competition Law Analysis under Article 102 TFEU**

So far, the discussion has centred around the identification and the analysis of problems which this thesis suggests can be associated with the Commission's more economic approach when it is applied to the software industry. It has been argued that these problems can be traced back to two points: first, to the apparent conflict between the multiple traditional objectives of EU competition policy (as contained in the European Treaties) and the Commission's narrow focus on consumer welfare as the single goal of EU competition policy; and second, to the Commission's adherence to a seemingly static use of economic theory (as exemplified by the Commission's current understanding of, and approach to, 'the market') which this thesis submits is unlikely to adequately reflect the economic realities of a 'market' as dynamic as that exemplified by the software industry. This statement should not be read to mean that the subject of economics is either refusing or, even worse, incapable of dealing with dynamic issues.<sup>930</sup> Rather, the argument advanced by this thesis is that even these 'more dynamics orientated' strands of economic theory continue to proceed from an equilibrium focused basis which, as "the notion of equilibrium [...] inevitably remains an inherently stationary concept",<sup>931</sup> make these strands of economic theory less well suited to deal with more dynamic industries.

The preceding Chapters might therefore all – albeit some to a lesser, some to a greater extent – be seen as indicating the need to change the

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<sup>930</sup> See e.g. John Sutton, *Technology and Market Structure*; Jennifer Reinganum, *Innovation and Industry Evolution*, (1985) 100 *Quarterly Journal of Economics* 81; Suzanne Scotchmer, *Innovation and Incentives*.

<sup>931</sup> Oliver Budzinski, *An Evolutionary Theory of Competition*, 2. See also Wolfgang Kerber, *Competition, Knowledge, and Institutions*, (2006) 40 *Journal of Economic Issues* 457.

Commission's current approach to competition law analysis under Article 102 TFEU in relation to dynamic economic sectors such as the software industry. Chapter 5, in particular, discussed (and dismissed) one possible option of what such a change might look like: the option of completely exempting the software industry (and possibly other high technology sectors) from the scrutiny of EU competition law. This Chapter discusses another possible – and as this thesis submits: more viable – option in relation to the application of Article 102 TFEU: the option of revising the Commission's more economic approach to competition law enforcement under Article 102 TFEU in order to not only bring the application of Article 102 TFEU into line with current, more dynamically orientated, economic theory but also to 'reconcile' the Commission's economic approach to Article 102 TFEU more closely with the traditional goals of EU competition policy as outlined in Chapter 1. In doing so, this Chapter suggests the adoption of an alternative and more diverse approach to competition law enforcement under Article 102 TFEU, i.e. one which recognises the complex nature of the concept of competition by applying a "multitude of different theoretical approaches"<sup>932</sup> and which "focus[es] attention more on the nature and functioning of market relations and networks".<sup>933</sup> In other words, this Chapter can be seen as advocating the express incorporation of more dynamically orientated economic theory into competition law analysis under Article 102 TFEU than seems to be currently the case with the Commission's more economic approach in its present form. In particular, it is suggested that what might reasonably be

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<sup>932</sup> Wolfgang Kerber, *Competition, Innovation, and Maintaining Diversity through Competition Law*, 1, Presentation at Conference "Foundations and Limitations of an Economic Approach to Competition Law", Max-Planck-Institut für Immaterialgüter- und Wettbewerbsrecht München, 12<sup>th</sup> – 13<sup>th</sup> March 2009.

<sup>933</sup> Ian Wilkinson, *The evolvability of business and the role of antitrust*, (2006) 51 *Antitrust Bulletin* 111, 127.

called an “incompleteness”<sup>934</sup> of the theoretical foundations of the Commission’s current approach could be overcome by expressly incorporating insights from so-called evolutionary economics as a more dynamically orientated strand of economic theory into the process of competition law assessment under Article 102 TFEU. This thesis submits that such incorporation would also have the effect of removing the aforementioned ‘conflict’ between the Commission’s goal of consumer welfare and the traditional goals of ‘protection of undistorted competition’ and ‘market integration’ as contained in the European Treaties. Put differently, it is argued that, just as the “understanding of innovation driven industries and markets requires looking at the intertwined and feedback driven dynamics between market structure and innovation activities”<sup>935</sup>, so too does competition law analysis under Article 102 TFEU if it is to result in coherent and consistent competition policy for dynamic economic sectors such as the software industry. It is therefore to the outline and consideration of evolutionary economics as an alternative basis for competition law analysis under Article 102 TFEU that this thesis now turns.

## **I. A Brief Outline of Evolutionary Economics**

Put simply, evolutionary economics is

“an attempt to look at an economic system, whether the whole world or of its parts, as a continuing process in space and time. Each

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<sup>934</sup> Maurice Stucke, *Better Competition Advocacy*, (2008) 82 *St. John’s Law Review* 951, 967.

<sup>935</sup> Uwe Cantner, *Industrial dynamics and evolution – the role of innovation, competences and learning*, in: Josef Drexl / Wolfgang Kerber / Rupprecht Podzun, *Competition Policy and the Economic Approach – Foundations and Limitations*, 149, 150.

economy is then seen as a segment of the larger evolutionary process of the universe in space and time [...]."<sup>936</sup>

In doing so, evolutionary economics transfers and integrates insights from other disciplines (such as ecology, chaos theory and evolutionary biology – hence the term ‘evolutionary’) into economics in order to better explain and understand the process of competition over time.<sup>937</sup> Yet, while drawing on insights from evolutionary biology, evolutionary economics neither is “just normal economic theory with a Darwinian gloss – for example in the manner of market competition as ‘survival of the fittest’”<sup>938</sup> nor does an “isomorphism between biological and economic terms” exist,<sup>939</sup> i.e. there is no equivalence of either ‘design’ or structure between biological and economic terms.

Although this ‘School’ of economic theory is not new – its origins can not only be traced back to the likes of Schumpeter<sup>940</sup> and Hayek<sup>941</sup> but even

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<sup>936</sup> Kenneth E. Boulding, What is evolutionary economics?, (1991) 1 *Journal of Evolutionary Economics* 9.

<sup>937</sup> See, on the ontological foundations of evolutionary economics, Kurt Dopfer (ed.), *The Evolutionary Foundation of Economics* (2005).

<sup>938</sup> Jason Potts, Evolutionary economics – An introduction to the foundation of liberal economic philosophy, 1 *et seq.*. Consequently, the exercise of a certain reluctance as to the one-to-one or even unreflected transferral and use of biological metaphors in the economic context appears advisable; see Thomas J. Horton, Competition or monopoly? The implications of complexity science, chaos theory, and evolutionary biology for antitrust and competition policy, (2006) 51 *Antitrust Bulletin* 195; John Foster, The analytical foundations of evolutionary economics: From biological analogy to economic self-organization, (1997) 8 *Structural Change and Economic Dynamics* 427. However, some voices in the economic literature appear to transfer evolutionary biology concepts one-to-one to the field of economics, see: Marco Iansiti / Roy Levien, *The Keystone Advantage: What the New Dynamics of Business Ecosystems Mean for Strategy, Innovation, and Sustainability*.

<sup>939</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 101.

<sup>940</sup> Joseph Schumpeter, *Theorie der wirtschaftlichen Entwicklung*; Joseph A. Schumpeter, *The Process of Creative Destruction*, in: Joseph A. Schumpeter, *Capitalism, Socialism and Democracy*, 81.

<sup>941</sup> Friedrich A. von Hayek, *Law, Legislation and Liberty - A New Statement of the liberal principles of justice and political economy*, Vol. 1: *Rules and Order* (1973); *idem*, *Competition as a Discovery Procedure*, in: Friedrich A. von Hayek (ed.), *New studies in philosophy, politics, economics and the history of ideas*, 179.

further back to Marshall<sup>942</sup> – it has only been (re-)discovered for the purpose of competition law analysis fairly recently.<sup>943</sup> It should however be noted that the term ‘School’ is used loosely here as evolutionary economics is not just one clearly defined branch of economic theory but rather encompasses a multitude of different approaches to economic thinking;<sup>944</sup> it might even be said that “[e]volutionary economics itself is evolutionary rather revolutionary.”<sup>945</sup> Despite rather marginal differences however, the different ‘types’ of evolutionary economic approaches which can be identified all share the same belief that neo-classical economics is incapable of properly coping with the dynamic aspects of the economy (such as innovation and technological progress).<sup>946</sup> This common belief not

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<sup>942</sup> “The Mecca of the economist lies in economic biology rather than in economic dynamics. But biological conceptions are more complex than those of mechanics; a volume on Foundations must therefore give a relatively large place to mechanical analogies; and frequent use is made of the term “equilibrium,” which suggests something of statical analogy. This fact, combined with the predominant attention paid in the present volume to the normal conditions of life in the modern age, has suggested the notion that its central idea is “statical,” rather than “dynamical.” But in fact it is concerned throughout with the forces that cause movement: and its keynote is that of dynamics, rather than statics.”, Alfred Marshall, *Principles of Economics*, 8<sup>th</sup> ed., xii. – But note that Marshall’s view was not without contradictions in itself; see Shelby D. Hunt, *A General Theory of Competition – Resources, Competences, Productivity, Economic Growth*, 18.

<sup>943</sup> See, for example, Thomas J. Horton, *Competition or monopoly? The implications of complexity science, chaos theory, and evolutionary biology for antitrust and competition policy*, (2006) 51 *Antitrust Bulletin* 195; Ian Wilkinson, *The evolvability of business and the role of antitrust*, (2006) 51 *Antitrust Bulletin* 111; Gregory T. Gundlach, *Complexity science and antitrust?*, (2006) 51 *Antitrust Bulletin* 17; Wolfgang Kerber / Simonetta Vezzoso, *EU Competition Policy, Vertical Restraints, and Innovation: An Analysis from an Evolutionary Perspective*, (2005) 28 *World Competition* 507; J. Gregory Sidak / David J. Teece, *Dynamic Competition in Antitrust Law*, (2009) 5 *Journal of Competition Law & Economics* 581.

<sup>944</sup> See e.g. overviews in Richard R. Nelson, *Recent Evolutionary Theorizing About Economic Change*, (1995) 33 *Journal of Economic Literature* 49; Giovanni Dosi / Richard R. Nelson, *An introduction to evolutionary theories in economics*, (1994) 4 *Journal of Evolutionary Economics* 153; Carsten Herrmann-Pillath, *Grundriß der Evolutionsökonomik*, 21-47.

<sup>945</sup> Kenneth E. Boulding, *Evolutionary Economics*, 86.

<sup>946</sup> See Richard R. Nelson, *A Viewpoint on Evolutionary Economic Theory*, in: Yuji Aruka (ed.) *Evolutionary Controversies in Economics – A New Transdisciplinary Approach*, 15; Wolfgang Kerber, *Institutional Change in Globalization*:

only goes back to the recognition that the assumption that everybody knows “everything” (as is assumed to be the case with a neoclassically influenced economic approach) does not solve anything<sup>947</sup> but also to the realisation that, in an economy, “[e]volution, growth and change are closely intertwined”.<sup>948</sup> It is this perception of, and approach to, the economy which, as this thesis submits, makes evolutionary economics a more suitable theoretical foundation for a new version of the ‘more economic approach’ to competition law analysis in dynamic and innovation intensive industrial sectors such as the software industry.

In accordance with this – compared to the perspective applied by neoclassical economics – different perception of economic life and interactions, evolutionary economic theory proceeds from the general recognition that the economy is

“a complex, hierarchical structure comprising various levels and subsystems, which are linked together through strong feedback mechanisms [...]. Variation and selection processes occurring in any of these subsystems affect changes in the total environment. The global economy as an adaptive nonlinear network is a difficult subject for traditional formal modelling [...]. The usual mathematical tools, as applied to economic analysis, exploit linearity, fixed points and convergence. These instruments are usually insufficient to deal with complexity of economic systems, path dependency, diversity and novelty. Evolutionary economics recognizes that the economy operates far from optimum (a global attractor) and that directions of economic changes depend on interactions of many elements that can act in parallel. It provides formal tools to capture these features.”<sup>949</sup>

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Transnational Commercial Law from an Evolutionary Economics Perspective, (2008) 9 German Law Journal 411; Ulrich Witt, Warum evolutorische Ökonomik?, in: Ulrich Witt (ed.), Studien zur Evolutorischen Ökonomik I, 9, 10 *et seq.*.

<sup>947</sup> Friedrich A. von Hayek, Individualism and Economic Order, 95.

<sup>948</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 90.

<sup>949</sup> Karolina Safarzynska / Jeroen C. J. M. van den Bergh, Evolutionary Modelling in Economics: A Survey of Methods and Building Blocks, Max Planck Institute of Economics Papers on Economics and Evolution #0806, 3.

Put differently, evolutionary economics essentially provides a new look at how the economy works and involves the refutation of “the neoclassical focus on a steady state of the economic system”, i.e. evolutionary economics sees ‘markets’ as complex adaptive systems which change over time through a process of trial and error.<sup>950</sup> In this respect, the term ‘evolutionary’ can be seen as a programmatic description of how evolutionary economics approaches the analysis of the economy as ‘evolutionary’ “in general implies that the outcomes of evolutionary processes are usually not based on a perfect *ex ante* plan, but are the result of a trial-and-error process combined with an *ex ante* evaluation.”<sup>951</sup> This different perception of economic interactions means that an evolutionary economics approach focuses “on economic and social change, on the emergence of novel ways of running the economy, [and] on becoming rather than being” in the economy;<sup>952</sup> furthermore, it also means that technological development events “are not viewed in isolation from each other, but more as particulars of a total process.”<sup>953</sup>

This particular view on the economy appears to have at least two implications which are likely to be important in the context of competition policy; the first being that, as evolutionary economics centres around the

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<sup>950</sup> François Moreau, The role of the state in evolutionary economics, (2004) 28 Cambridge Journal of Economics 847, 851; see also Carsten Herrmann-Pillath, Grundriß der Evolutionsökonomik, 11.

<sup>951</sup> Uwe Cantner, Industrial dynamics and evolution – the role of innovation, competences and learning, in: Josef Drexl / Wolfgang Kerber / Rupprecht Podzun, Competition Policy and the Economic Approach – Foundations and Limitations, 149.

<sup>952</sup> Ulrich Witt, Evolutionary concepts in economics, (1992) 18 Eastern Economic Journal 405, 416.

<sup>953</sup> Ulla-Maija Mylly, An evolutionary economics perspective on computer program interoperability and copyright, (2010) 41 International Review of Intellectual Property and Competition Law 284, 292.



process of economic development over time<sup>954</sup> rather than the optimal allocation of a given resource at a given point in time, evolutionary economics is process-orientated rather than equilibrium-orientated.<sup>955</sup>

“[t]he equilibrium, either linked to the stability of the various variables or to the stability of the rate of change of these variables, cannot be considered as the main pattern of an economic system. The economic process is an ongoing process. The universe is open-ended. While pursuing goals, individuals make mistakes, readjust their plans in the light of new information, and carry on. It is inherently a process of trial and error with no stable end-state considered by the participants in the process. More often than not, such a dynamic process does not lead to equilibrium, and when it does, we have to deal with the dynamic process itself.”<sup>956</sup>

Consequently, an evolutionary economics approach considers the information which neoclassical equilibrium based analysis produces to be only of limited usefulness;<sup>957</sup> one reason being that “the significance of these traditional determinants for shaping an industry’s innovation pattern appears to be rather weak.”<sup>958</sup> In other words, it is “no longer” the question of allocative efficiency as is arguably the case with neoclassical economics which “represents the hallmark, but the generation of

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<sup>954</sup> See e.g. Giovanni Dosi / Richard R. Nelson, An introduction to evolutionary theories in economics, (1994) 4 *Journal of Evolutionary Economics* 153, 154; Ulrich Witt, Evolutionary concepts in economics, (1992) 18 *Eastern Economic Journal* 405.

<sup>955</sup> Thomas Heidrich, Das evolutiv-systemtheoretische Paradigma in der Wettbewerbstheorie – Alternatives Denken zu dem More Economic Approach, 60.

<sup>956</sup> François Moreau, The role of the state in evolutionary economics, (2004) 28 *Cambridge Journal of Economics* 847, 851.

<sup>957</sup> Ulla-Maija Mylly, An evolutionary economics perspective on computer program interoperability and copyright, (2010) 41 *International Review of Intellectual Property and Competition Law* 284, 293; Shelby D. Hunt / Dennis B. Arnett, Competition as an Evolutionary Process and Antitrust Policy, (2001) 20 *Journal of Public Policy & Marketing* 15; J. S. Metcalfe, Evolutionary Economics and Technology Policy, (1994) 104 *The Economic Journal* 931, 935.

<sup>958</sup> Uwe Cantner, Industrial dynamics and evolution – the role of innovation, competences and learning, in: Josef Drexler / Wolfgang Kerber / Rupperecht Podzun, Competition Policy and the Economic Approach – Foundations and Limitations, 149, 151.

knowledge and the selection of solutions gain relevance.”<sup>959</sup> It is submitted that this particular outlook / perception makes an evolutionary economic approach to competition law analysis not only more immediately dynamic in nature but also more more holistic and inclusive than the Commission’s more economic approach in its present form.

The second important implication of a changed analytical focus as proposed by evolutionary economics may be considered to be a corollary of the aforementioned thematic orientation of evolutionary economics towards processes rather than towards equilibria: this implication being that, in view of the relative unimportance evolutionary economics attaches to price effects and the limited usefulness evolutionary economics considers these effects to have, the concept of competition “is neither a market price mechanism taken as given nor a set of preconditions of competitive equilibrium”.<sup>960</sup> Rather, the concept of competition is regarded by evolutionary economics as a fundamental process of economic reality (“Wettbewerb als fundamentaler Prozeß wirtschaftlicher Wirklichkeit”)<sup>961</sup> which exceeds the neoclassical understanding of the concept of competition as a state of equilibrium mainly expressed in terms of price effects; this is because evolutionary economics sees ‘competition’ as effectuating, rather than assuming, “that state of affairs already to exist which [...] the process of competition tends to bring about”.<sup>962</sup> Accordingly, the concept of competition from the perspective of evolutionary economics might be described as a process of experimentation which is not only characterised by continuous

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<sup>959</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 101.

<sup>960</sup> Mario L. Possas / Jorge Fagundes, *Competition, Strategic Behaviour and Antitrust Policy: an Evolutionary Approach*, 5. See also Jason Potts, *Evolutionary economics – An introduction to the foundation of liberal economic philosophy*, 8.

<sup>961</sup> Carsten Herrmann-Pillath, *Grundriß der Evolutionsökonomik*, 33.

<sup>962</sup> Friedrich A. von Hayek, *Individualism and Economic Order*, 92.

innovation, testing and feedback against organisational and market benchmarks but which is also coupled with cross-fertilisation among firms.<sup>963</sup> Put differently, unlike neoclassical economic theory which leaves “no room whatever for the *activity* called competition, which is presumed to have already done its task”,<sup>964</sup> an evolutionary economic approach sees ‘competition’ as a “discovery procedure”<sup>965</sup> which recognises that ‘competition’ is not, as is also advocated by this thesis, “a timeless state of affairs”.<sup>966</sup> In doing so, evolutionary economics might be considered as establishing itself as a more realistic take on the economy because it emphasises an important factor of both human and economic “interaction”: the factor of “uncertainty”.<sup>967</sup> Consequently, ‘unpredictable’ economic factors such as innovation<sup>968</sup> and diversity feature more prominently in evolutionary economics than in neoclassical economics as these factors are seen as being important for the creation, promotion and maintenance of a competitive and fertilising economic environment. To conclude, an evolutionary economics approach may thus probably best be described as one which “pick[s] up the theoretical stick by the other end” insofar that such an approach does not proceed from equilibrium

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<sup>963</sup> Of course, this general prescription of evolutionary economics is of greater (or even: of greatest) significance in industries where innovation is intensive; however, it should be noted that such a prescription is, in principle, also applicable to all aspects of firm performance (e.g. pricing, marketing, expansion plans) as these activities might also be influenced by feedback and benchmark testing.

<sup>964</sup> Friedrich A. von Hayek, *Competition as a Discovery Procedure*, in: Friedrich A. von Hayek, *New Studies in Philosophy, Politics, Economics and the History of Ideas*, 179, 182.

<sup>965</sup> Friedrich A. von Hayek, *Competition as a Discovery Procedure*, in: Friedrich A. von Hayek, *New Studies in Philosophy, Politics, Economics and the History of Ideas*, 179.

<sup>966</sup> Gerald P. O’Driscoll, *Competition as a process: a law and economics perspective*, in: Richard N. Langlois (ed.), *Economics as a process – Essays in the New Institutional Economics*, 153, 154.

<sup>967</sup> See Gisela Linge, *Competition Policy, Innovation, and Diversity*, 93.

<sup>968</sup> See e.g. Giovanni Dosi, *The nature of the innovative process*, in: Giovanni Dosi / Christopher Freeman *et al.* (eds.), *Technical Change and Economic Theory*, 221.

analysis, i.e. from the (neoclassically influenced) assumption “that observed phenomena ought to be interpreted as equilibrium configurations resulting from the constant maximizing behavior of a collection of economic actors”, but rather centres around “the question of what happens along the road” of economic activity.<sup>969</sup> Accordingly, evolutionary economics might not only be described as the study of the mechanisms by which knowledge in the economy grows<sup>970</sup> but also as “the economics of an imperfect, and from a conventional viewpoint, inefficient world.”<sup>971</sup> Ultimately however, this wider analytical approach means that evolutionary economic analysis represents a “more holistic” analytical approach than traditional price centred economic analysis;<sup>972</sup> and by acknowledging that bringing price to costs “isn’t competition’s only benefit and [also that it] probably isn’t the most important”,<sup>973</sup> it also refutes the usefulness of an equilibrium centred analysis.<sup>974</sup>

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<sup>969</sup> Richard R. Nelson, The tension between process stories and equilibrium models: analyzing the productivity-growth slowdown of the 1970s, in: Richard N. Langlois (ed.), *Economics as a process – Essays in the New Institutional Economics*, 135 *et seq.*. See also Shelby D. Hunt / Dennis B. Arnett, *Competition as an Evolutionary Process and Antitrust Policy*, (2001) 20 *Journal of Public Policy & Marketing* 15.

<sup>970</sup> See Jason Potts, *Evolutionary economics – An introduction to the foundation of liberal economic philosophy*, 5 *et seq.*: “And knowledge is what the economic system is made of. In an evolutionary economic process, it is knowledge that evolves. Capital is knowledge in an operational form. Labour is knowledge in an active form. Money, as a store of value, is unspecified knowledge potential. Knowledge is subject to selection, variation, and replication. These evolutionary mechanisms operate over systems and populations of rules (that is, institutions) to produce the growth of knowledge process known as economic evolution. It is the growth of knowledge that ultimately underpins the wealth of nations.”.

<sup>971</sup> J. S. Metcalfe, *Evolutionary Economics and Technology Policy*, (1994) 104 *The Economic Journal* 931, 933.

<sup>972</sup> Ulla-Maija Mylly, *An evolutionary economics perspective on computer program interoperability and copyright*, (2010) 41 *International Review of Intellectual Property and Competition Law* 284, 292.

<sup>973</sup> Joseph Farrell, *Complexity, diversity, and antitrust*, (2006) 51 *Antitrust Bulletin* 165, 166; see also Gisela Linge, *Competition Policy, Innovation, and Diversity*, 6 *et seq.*.

<sup>974</sup> See e.g. Wolfgang Kerber, *Competition, Knowledge, and Institutions*, (2006) 40 *Journal of Economic Issues* 457; Oliver Budzinski, *An Evolutionary Theory of Competition*.

## **I.1. The Advantages of an Evolutionary Economics Approach to (EU) Competition Law Assessment in the Software Industry**

This thesis suggests that an evolutionary economics approach to competition law analysis has several advantages over the Commission's more economic approach in its present form; in particular, it is argued that an evolutionary economics approach is better suited than an equilibrium focused economic approach to lead to the formation of coherent competition policy for industries – such as the software industry – which involve high levels of innovation or which are subject to more dynamic development than more traditional 'smoke-stack' industries. The following sub-sections set out the reasons why this thesis advocates evolutionary economics as the 'better' basis for competition law analysis under Article 102 TFEU in relation to dynamic economic sectors such as the software industry.

### **I.1.1. Better Consideration of Important Economic Factors and Characteristics**

The first reason relates to the economic factors and characteristics of an industry which might be considered important for that particular industrial sector: given the potentially detrimental impact which competition law enforcement might have in relation to a firm's economic 'wellbeing' (and thus ultimately also in relation to a particular industry's wellbeing), it seems important that, in order to better ensure the creation of consistent and coherent competition policy for an economic sector such as the software industry, the theoretical foundations underlying any such potential 'regulatory' intervention allow those economic factors to be considered in the actual process of analysis which might be considered as

having a 'shaping' impact on that particular firm / industrial sector,<sup>975</sup> rather than merely considering these factors as some kind of "afterthought"<sup>976</sup> to the analytical process.<sup>977</sup> Evolutionary economics would appear to allow for such inclusive consideration of these factors because an evolutionary economics approach recognises not only that "innovation activities of firms involve a wider range of other institutions supplying the knowledge and skills which underpin the efforts of individual firms" but also that, in order to create a (competition) policy which encourages innovation, it cannot be considered "helpful to treat innovation and the diffusion of innovation as separate categories, [when] in fact they are inseparable, with feedback from diffusion being one of the critical elements shaping how a technology is developed."<sup>978</sup> Put differently, as evolutionary economics incorporates and, to a large extent, necessarily centres around the dynamics operating in an industrial sector / the economy, it which would therefore seem to guarantee a more complete and inclusive 'abuse of a dominant position' assessment of dynamic industries than appears to be currently the case with the Commission's more economic approach.

Furthermore, it is submitted that the theoretical foundations should also allow for the incorporation of those issues which can be regarded as being closely connected with the aforementioned important economic factors

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<sup>975</sup> That is, in the case of the software industry, factors such as innovation or network effects.

<sup>976</sup> Keith N. Hylton / Haizhen Lin, *Optimal Antitrust Enforcement, Dynamic Competition, and Changing Economic Conditions*, (2010) 77 *Antitrust Law Journal* 247, 248; see also Oliver Budzinski, *An Evolutionary Theory of Competition*, 2.

<sup>977</sup> In the case of the software industry, such factors include e.g. intellectual property rights and network effects.

<sup>978</sup> J. Stanley Metcalfe, *Evolutionary Economics and Technology Policy*, (1994) 104 *The Economic Journal* 931.

and which, as cases from dynamic industrial sectors demonstrate,<sup>979</sup> may be regarded as possessing the potential to detrimentally effect both likelihood and possibility that e.g. ‘competition’ or ‘innovation’ is taking place in a given ‘market’. Consequently, it is suggested here that, especially in relation to an industry where innovation might be considered the life-blood of an industry,<sup>980</sup> it is important for the theoretical economic foundations which underlie the actual process of competition law analysis to allow for a more inclusive consideration of the impact an alleged anticompetitive behaviour is likely to have on ‘innovation’ in this sector. Second, if one accepts that competition law possesses some kind of double function, i.e. insofar that the application of competition law does not merely serve the deterrence of a certain behaviour but also that it is intended to encourage and to maintain the process of ‘competition’ (meaning that competition policy is also supposed to provide an incentive for undertakings to ‘compete’ and, ultimately, to innovate), then, clearly, the actual analytical process should be capable of reflecting this incentive function, i.e. be capable of (better) incorporating this function. This means however, as it may not only be said that “[f]ostering innovation requires recognition of the benefits of dynamic efficiency and the dangers of focusing myopically on static efficiency”<sup>981</sup> but also that “the significance of [...] traditional [structural] determinants for shaping an industry’s

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<sup>979</sup> For example, in the case of innovation intensive industries, those issues which are related to (or derive from) the existence and exercise of intellectual property rights: refusal to licence (Microsoft: issue of interoperability – Case Comp/C-3/37.792); leveraging (Microsoft: Windows Media Player – Case Comp/C-3/37.792 – and Microsoft: Internet Explorer – Case Comp/C-3/39.530); abuses of the standardisation process (Rambus – Case Comp/38.686); abuses of elements of the intellectual property protection system (AstraZeneca – Case Case Comp/A.37.507/F3) or excessive pricing (Rambus – Case Comp/38.686).

<sup>980</sup> See e.g. Alan Devlin / Michael Jacobs, *Microsoft’s Five Fatal Flaws*, (2009) *Columbia Business Law Review* 67, 79.

<sup>981</sup> Thomas O. Barnett, *Interoperability between Antitrust and Intellectual Property*, (2007) *14 George Mason Law Review* 859, 860.

innovation pattern appears to be rather weak”,<sup>982</sup> that the actual economic approach to competition law analysis needs to be able to adequately reflect, and deal with, these dynamic factors. In view of the fact, as was discussed in Chapter 4, that the Commission’s analytical focus is currently predominantly on questions of allocative efficiency and that thus dynamic issues appear to be considered as an “afterthought”<sup>983</sup> to, rather than as an incorporated and overt component of, the actual process of competition law assessment under Article 102 TFEU, the more economic approach in its present form may be considered as falling short of this mark as far as the software sector is concerned.<sup>984</sup>

With regard to an economic theory’s capabilities to allow for such inclusive incorporation / consideration of dynamic issues, it is suggested here that the disequilibrium perspective on the economy employed by evolutionary economics makes such an approach particularly apt for application in the context of competition policy concerning new economy industries: one reason being that its theoretical point of departure is one which is of particular importance in the context of innovative industries such as the software industry, namely that firms generally neither start off with perfect knowledge about what are the best products, solutions, technologies or current consumer preferences and nor do they start off with perfect knowledge about how optimum production and distribution

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<sup>982</sup> Uwe Cantner, *Industrial dynamics and evolution – the role of innovation, competences and learning*, in: Josef Drexler / Wolfgang Kerber / RupprechtPodzun, *Competition Policy and the Economic Approach – Foundations and Limitations*, 149, 151.

<sup>983</sup> Keith N. Hylton / Haizhen Lin, *Optimal Antitrust Enforcement, Dynamic Competition, and Changing Economic Conditions*, (2010) 77 *Antitrust Law Journal* 247, 248; see also Oliver Budzinski, *An Evolutionary Theory of Competition*, 2.

<sup>984</sup> Of a similar opinion with regard to the issue of vertical restraints in general: Simonetta Vezzoso, *Zur Beurteilung vertikaler Beschränkungen in der europäischen Wettbewerbspolitik aus evolutionsökonomischer Sicht*, 3.



might be achieved as cheaply as possible.<sup>985</sup> In addition, by taking into account the fact that competition is not “an ideal state”<sup>986</sup> but rather a process,<sup>987</sup> evolutionary economics may be also seen as dispensing with another shortcoming of an existing approach to competition law analysis based upon neoclassically influenced, equilibrium focused economic theory, namely that its underlying foundations are unrealistic (and thus unlikely to lead to the formation of coherent competition policy): for example, an evolutionary economics approach to competition law analysis does not proceed from the neoclassical ideal of the *homo oeconomicus*<sup>988</sup> who always acts rationally and always maximises utility but rather makes allowances for the fact that economic actors may neither be always acting rationally nor be always and solely concerned with ‘wealth maximisation’. In other words, instead of applying what might be considered ‘neoclassical blinkers’ to the process of competition law analysis, evolutionary economics expressly takes into account that the economy is a complex, adaptive and open system:<sup>989</sup>

“[t]he world seen by evolutionary theory differs from an orthodox world not only in that things always are changing in ways that could not have been fully predicted, and that adjustments always are having to be made to accommodate or to exploit those changes. It differs, as well, in that those adjustments and accommodations,

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<sup>985</sup> Wolfgang Kerber, *Competition, Innovation, and Maintaining Diversity through Competition Law*, 3, Presentation at Conference “Foundations and Limitations of an Economic Approach to Competition Law”, Max-Planck-Institut für Immaterialgüter- und Wettbewerbsrecht München, 12<sup>th</sup> – 13<sup>th</sup> March 2009.

<sup>986</sup> Maurice E. Stucke, *Better Competition Advocacy*, (2008) 82 *St. John’s Law Review* 951, 970.

<sup>987</sup> Shelby D. Hunt / Dennis B. Arnett, *Competition as an Evolutionary Process and Antitrust Policy*, (2001) 20 *Journal of Public Policy & Marketing* 15.

<sup>988</sup> See e.g. Kurt Dopfer, *Evolutionary economics: a theoretical framework*, in: Kurt Dopfer (ed.) *The Evolutionary Foundation of Economics*, 3, 21-22 and 27-28. For a more detailed analysis of the concept of *homo oeconomicus*: Horst Eidenmüller, *Effizienz als Rechtsprinzip*, 28-41.

<sup>989</sup> François Moreau, *The role of the state in evolutionary economics*, (2004) 28 *Cambridge Journal of Economics* 847.

whether private or public, in general do not lead to tightly predictable outcomes.”<sup>990</sup>

In other words, given that evolutionary economics can be described as “the economics of an imperfect, [...] inefficient world” which, by applying a disequilibrium perspective, actively embraces the factors of diversity and innovation as important constituent parts of the competitive environment,<sup>991</sup> it would appear to be better suited to deal with the intricacies of the economy *as is* than a strand of economics which is somewhat removed from (economic) reality. Again, this statement should not be taken to indicate that the Commission’s currently pursued more economic approach *completely* ignores dynamic issues, however, as mentioned before, it would appear that any such consideration tends to occur as an “afterthought”<sup>992</sup> to the analytical process; in this respect, it may well be concluded that recent advances in economic theory are still ‘not good enough’.<sup>993</sup>

### **I.1.2. More in Line with ‘Competition as a Process’**

The second reason brought forward here is not only built upon the general outline of evolutionary economics above but also follows on from the above-mentioned reason why evolutionary economics might be considered a ‘better’ basis for EU competition law analysis under Article 102 TFEU: given the general outlook of evolutionary economics, the

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<sup>990</sup> Richard R. Nelson / Sidney G. Winter, *An Evolutionary Theory of Economic Change*, 370.

<sup>991</sup> J. Stanley Metcalfe, *Evolutionary Economics and Technology Policy*, (1994) 104 *The Economic Journal* 931, 933.

<sup>992</sup> Keith N. Hylton / Haizhen Lin, *Optimal Antitrust Enforcement, Dynamic Competition, and Changing Economic Conditions*, (2010) 77 *Antitrust Law Journal* 247, 248; see also Oliver Budzinski, *An Evolutionary Theory of Competition*, 2.

<sup>993</sup> See e.g. Wolfgang Kerber, *Competition, Knowledge, and Institutions*, (2006) 40 *Journal of Economic Issues* 457; Oliver Budzinski, *An Evolutionary Theory of Competition*; J. Geoffrey Sidak / David J. Teece, *Dynamic Competition in Antitrust Law*, (2009) 5 *Journal of Competition Law & Economics* 581.

incorporation of dynamic economic factors into the actual (competition law) analysis would also appear to be more in line with the understanding of the concept of competition *as a process* (given that such incorporation would emphasise the process-orientated elements of ‘competition’ instead of solely considering some equilibrium-orientated elements) and, thus, would appear to ‘reconcile’ the analytical approach with the *lex lata* of the European Treaties which, as this thesis concluded in Chapter 1, regards ‘competition’ as a behavioural, institutional concept which is independent both of an ideal image of competition and of an ideal market structure.

### **I.1.3. Evolutionary Economics stresses the Importance of Heterogeneity for ‘Competition’**

The third reason presented here relates to the particular perspective applied by evolutionary economics: that reason being that, by means of including factors such as innovation and growth of knowledge, an evolutionary economics approach to competition law analysis “stresses the importance of heterogeneity and variety”,<sup>994</sup> i.e. diversity, for the concept of competition. As was discussed in Chapter 2, the question of ‘competition’ is not just a question of structure – in the sense that it is directly correlated with the number of competitors in a given ‘market’. Evolutionary economics caters for this fact insofar as it based on two important realisations: first, that “structural characteristics [...] such as firm size and age, the intensity of competition (market concentration) and barriers to entry (scale economies etc.) [...] are only partially able to explain the dynamics of firms and of industries”;<sup>995</sup> second, that a focus on

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<sup>994</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 102.

<sup>995</sup> Uwe Cantner, *Industrial dynamics and evolution – the role of innovation, competences and learning*, in: Josef Drexl / Wolfgang Kerber / Rupprecht Podzun, *Competition Policy and the Economic Approach – Foundations and Limitations*, 149, 154 *et seq.*.

“knowledge and capabilities of actors and firms as well as on the search and learning processes involved in building them up”<sup>996</sup> appears to allow for a more complete explanation and consideration of dynamic developments within an industrial sector or even within the economy and, thus, also seems to ultimately facilitate the formation of coherent and consistent competition policy for dynamic economic sectors such as the software industry. In other words, more dynamic factors such as diversity and innovation play a more prominent role in evolutionary economics than in the neoclassical economics which influence the Commission’s more economic approach in its current form. Again, this is not to say that dynamic aspects are completely ignored by neoclassically influenced economics nor to say that the Commission neglects such aspects entirely in its (economic) analysis of an alleged abuse of a dominant position in relation to dynamic industries;<sup>997</sup> rather, the point made here is that the consideration of dynamic issues seems currently to occur as an “afterthought”<sup>998</sup> to the analytical process which appears to increase the danger of leading to incoherent (at least in relation to dynamic industries such as the software sector) policy decisions / formation, i.e. a decision which might seemingly make sense in a less dynamic economic sector might result in potentially ‘false’ / wrong decisions in a more dynamic economic sector because important dynamic factors might either be overlooked completely or be considered in a somewhat incomplete fashion.

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<sup>996</sup> Uwe Cantner, *Industrial dynamics and evolution – the role of innovation, competences and learning*, in: Josef Drexl / Wolfgang Kerber / Rupprecht Podzun, *Competition Policy and the Economic Approach – Foundations and Limitations*, 149, 155.

<sup>997</sup> See e.g. the European Commission’s Decision in Microsoft.

<sup>998</sup> Keith N. Hylton / Haizhen Lin, *Optimal Antitrust Enforcement, Dynamic Competition, and Changing Economic Conditions*, (2010) 77 *Antitrust Law Journal* 247, 248; see also Oliver Budzinski, *An Evolutionary Theory of Competition*, 2.

It is for those reasons outlined above that this thesis, at least with regard to dynamic industries such as the software industry, considers evolutionary economics to provide the ‘better’ basis from which competition law analysis under Article 102 TFEU might proceed in order to achieve a more complete consideration of dynamic issues such as innovation.

## **I.2. Two Necessary Qualifications**

Following on from the above outline of what this thesis considers to be the general utility and overall advantages of an evolutionary economic perspective in relation to competition law analysis, some qualifications seem worth making with regard to the suggestions made in this Chapter for an *alternative*, evolutionary economics approach to competition law analysis under Art. 102 TFEU before the following section attempts to outline such a possible *alternative* economic approach in greater detail.

### **I.2.1. No Uniform Evolutionary Economic Paradigm exists currently**

The first qualification to be made is that the area of evolutionary economics is still in flux; economists generally agree that a “uniform theoretical, evolutionary economic paradigm”<sup>999</sup> which is comparable to the neoclassical ‘equilibrium-and-maximisation’ paradigm has yet to emerge.<sup>1000</sup> It might consequently be difficult to outline or even pinpoint a definite evolutionary economics approach to competition law analysis under Article 102 TFEU; however, the determination of such a definite approach is neither the task of this thesis nor is it within its scope.

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<sup>999</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 89.

<sup>1000</sup> See for an overview of different strands of evolutionary economics: Karolina Safarzyńska / Jeroen C. J. M. van den Bergh, Evolutionary Modelling in Economics: A Survey of Methods and Building Blocks, Max Planck Institute of Economics Papers on Economics and Evolution #0806; Geoffrey M. Hodgson, Evolution and Institutions – On Evolutionary Economics and the Evolution of Economics, 127; Ulrich Witt, Evolutionary concepts in economics, (1992) 18 Eastern Economic Journal 405.

Furthermore, the lack of a uniform evolutionary economics paradigm should also not be read to mean that, currently, evolutionary economics has nothing to offer to EU competition law analysis in the software sector; rather, despite the absence of absolute uniformity, evolutionary economics can still provide useful insights into what an economic approach which better reflects economic reality might include and resemble. In this respect, the discussion which follows below is not intended to present a complete and definite evolutionary economics approach to competition law analysis under Article 102 TFEU.<sup>1001</sup> Rather, it aims to contribute to the existing body of research by providing some ‘food for thought’ as to how the Commission’s more economic approach in its current form might be possibly and sensibly revised in order to facilitate a more complete, i.e. not merely “afterthought”,<sup>1002</sup> consideration of dynamic issues such as innovation under Article 102 TFEU, especially in relation to dynamic and innovation intensive economic sectors such as the software industry. As such, what follows is intended to facilitate the identification of those issues and questions which should be addressed as part of the actual analytical process so as to help create a coherent and consistent competition policy for dynamic industries such as the software sector. In short, this thesis suggests that evolutionary economics provides a ‘better’ economic theoretical foundation upon which competition law analysis and competition law regulation regarding Article 102 TFEU can be based when considering highly dynamic industries such as the software sector. As is however pointed out by Nelson in the context of considering different

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<sup>1001</sup> Indeed, the development and presentation of such a definite approach is beyond both this thesis’ task and its scope.

<sup>1002</sup> See Keith N. Hylton / Haizhen Lin, *Optimal Antitrust Enforcement, Dynamic Competition, and Changing Economic Conditions*, (2010) 77 *Antitrust Law Journal* 247, 248; see also Oliver Budzinski, *An Evolutionary Theory of Competition*, 2.

aspects of evolutionary economic theory, there are caveats concerning the meaning of the word 'better':

"[t]his of course raises the question of what one might mean by "better". More accurate prediction? "On the button" prediction has never been a hallmark of economic analysis, and it is unlikely that predictions motivated by an evolutionary theoretic framework are systematically better or worse than those motivated by a neoclassical theory. The heart of quantitative prediction making in economics lies in the details of the prediction equations, and these almost always reflect judgment of the particular context as much as formal theory. Better explanation? [...] if by "better explanation" one means one that is consistent with informed judgments as to what really is going on, that is exactly the case for evolutionary theory put forth by those that advocate it. In general those informed judgments reflect inferences drawn from a broad and diversified body of data. Thus evolutionary theories of productivity growth at a macroeconomic level feel right to their advocates not simply because they can be tuned to fit those particular data well, but also because the evolutionary explanation is consistent with observed differences in productivity and profit among firms, with the fact that even obviously superior new technology usually diffuses slowly, and like observations, that it takes more strain for neoclassical theory to encompass."<sup>1003</sup>

The suggestion made by this thesis is that evolutionary economics can be regarded as providing a 'better' basis from which current European competition law analysis under Article 102 TFEU might proceed in order to enable the formation of consistent and coherent competition policy regarding alleged abuses of a dominant position, especially in (but not necessarily limited to<sup>1004</sup>) the context of dynamic economic sectors such as the software industry because the analysis of such dynamic issues in

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<sup>1003</sup> Richard R. Nelson, *Recent Evolutionary Theorizing About Economic Change*, (1995) 33 *Journal of Economic Literature* 48, 84.

<sup>1004</sup> This is because the 'core prescription' of evolutionary economics regarding the concept of competition (i.e. as a process of experimentation which is not only characterised by continuous innovation, testing and feedback against organisational and market benchmarks but which is also coupled with cross-fertilisation among firms) is potentially important a) where innovation is intensive and b) in relation to other aspects of a firm's performance (e.g. marketing, pricing and expansion plans).

evolutionary economics would appear to be more consistent with economic realities. Again, this is not to say that other economic theories do not deal with dynamic issues at all;<sup>1005</sup> however, it is suggested that, as these theories usually take an equilibrium based approach to competition law analysis,<sup>1006</sup> their ability to lead to a fuller and ‘better’ explanation of “as to what really is going on”<sup>1007</sup> in dynamic industries may be regarded as being rather limited.<sup>1008</sup>

In addition, neither the lack of a uniform paradigm nor the greater complexity of the factors to be considered under an evolutionary economics approach – when compared to a neoclassically influenced economic approach – should not be taken to mean that an evolutionary economics approach to competition law analysis should not, or cannot, be attempted. Rather, as has been stated above, it should be noted that the simplification of analysis and / or of its underlying theory does not necessarily make the result ‘more’ correct just because it can be reduced to a relatively simple mathematical formula (as it is in the case of a neoclassically influenced understanding of the concept of competition) because “the economy refuses to be captured by a single set of axioms

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<sup>1005</sup> See e.g. John Sutton, *Technology and Market Structure*; Jennifer F. Reinganum, *Innovation and Industry Evolution*, (1985) 100 *The Quarterly Journal of Economics* 81; Suzanne Scotchmer, *Innovation and Incentives*.

<sup>1006</sup> See e.g. John Sutton, *Technology and Market Structure*, 8 and esp. 33 - 91; Jennifer F. Reinganum, *Innovation and Industry Evolution*, (1985) 100 *The Quarterly Journal of Economics* 81, 82. See also Oliver Budzinski, *An Evolutionary Theory of Competition*, 2; Wolfgang Kerber, *Competition, Knowledge, and Institutions*, (2006) 40 *Journal of Economic Issues* 457; David B. Audretsch / William J. Baumol / Andrew E. Burke, *Competition policy in dynamic markets*, (2001) 19 *International Journal of Industrial Organization* 613, 617.

<sup>1007</sup> Richard R. Nelson, *Recent Evolutionary Theorizing About Economic Change*, (1995) 33 *Journal of Economic Literature* 48, 84.

<sup>1008</sup> See e.g. Oliver Budzinski, *An Evolutionary Theory of Competition*, 2.



from which all truths can be deduced.”<sup>1009</sup> Consequently, it has to be said that

“the opinion that we should ignore long-term innovation effects in competition law practice because of our ignorance about the dynamics of competition and the determinants of innovation and technological progress cannot be held up due to the plethora of theoretical and empirical insights about innovation processes. The appropriate answer rather is that we need much more research both in regard to innovation processes in competition itself but also how appropriate tests for competition law practice can be designed.”<sup>1010</sup>

As advanced by this thesis, despite the fact that evolutionary economics might currently not be able to provide answers to *all* questions relevant for the development of a more sophisticated economic approach to competition law analysis of dynamic and innovation intensive sectors, it might nevertheless be considered to constitute a step into the ‘right’ direction because it appears to allow for the ‘better’ identification and consideration of those aspects which can be considered of importance to competition regulators in the high-technology context (such as innovation and diversity), yet which give the impression of being currently more or less missed by the Commission’s more economic approach as these issues appear to be only, if at all, considered as an “afterthought” to the actual assessment process.<sup>1011</sup> Moreover, one might even add that “uncertainty about technological progress and how single policy measures affect it [i.e. technological progress] does not defend total ignorance of dynamic

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<sup>1009</sup> W. Brian Arthur in: Robert Delorme / Geoffrey M. Hodgson, Complexity and the economy: an interview with W. Brian Arthur, in: John Finch / Magali Orillard (eds.), Complexity and the Economy – Implications for Economic Policy, 17, 27.

<sup>1010</sup> Wolfgang Kerber, Competition, Innovation, and Maintaining Diversity through Competition Law, 24, Presentation at Conference “Foundations and Limitations of an Economic Approach to Competition Law”, Max-Planck-Institut für Immaterialgüter- und Wettbewerbsrecht München, 12<sup>th</sup> – 13<sup>th</sup> March 2009.

<sup>1011</sup> Keith N. Hylton / Haizhen Lin, Optimal Antitrust Enforcement, Dynamic Competition, and Changing Economic Conditions, (2010) 77 Antitrust Law Journal 247, 248; see also Oliver Budzinski, An Evolutionary Theory of Competition, 2.

competition”, especially when one considers that even the currently favoured emphasis on (static) short-term price analysis does not result in “full certainty” of its predictions.<sup>1012</sup> Accordingly, it is worth stressing again that the suggestion which is made below, in view of the ongoing research into how evolutionary economics might contribute to the creation of competition policy, must be regarded as ‘food for thought’ rather than as a complete and fully developed evolutionary economics paradigm for competition law analysis in the software industry. In other words, the suggestions made by this thesis should be seen as highlighting those issues which need and / or warrant further consideration / research in order to achieve a ‘better’ and more complete economic approach to competition law analysis under Article 102 TFEU in relation to dynamic and innovation intensive industries such as the software industry.

### **I.2.2. Restrictions placed by Scope and Task of Thesis**

Following on from the above qualification that the suggestions put forward in this Chapter cannot and do not attempt to offer a final evolutionary economics approach to competition law analysis in the software sector, the second qualification to be made with regard to the discussion of evolutionary economics’ utility for competition law analysis is that it is neither the task of this thesis to provide a comprehensive outline of such an approach nor does the scope of this thesis allow for the extensive and copious coverage of such an attempt. In this respect, no claim of completeness of the suggestions is made by this thesis nor, indeed, is the claim made that the suggested changes to the theoretical foundations of the Commission’s more economic approach to competition law analysis in its current form would mean “that automatically

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<sup>1012</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 15.

everything gets better” as it has to be acknowledged that “[t]eething problems necessarily occur.”<sup>1013</sup> Rather, as mentioned above, this Chapter attempts to outline, and to further specify, some of the issues, questions and implications which this thesis considers to warrant further investigation and more inclusive consideration in order to improve the economic approach to competition law analysis under Article 102 TFEU currently pursued by the Commission in relation to dynamic industry such as the software sector. Accordingly, what is done here is to contribute to the ongoing discussion in relation to the Commission’s more economic approach by suggesting how and where an evolutionary economics perspective might be incorporated into the application of Article 102 TFEU in order to facilitate the creation of a more coherent and more reasoned competition policy for dynamic industries such as the software industry.

## **II. Considering the Introduction of an Evolutionary Economics**

### **Approach to Article 102 TFEU**

The above outline of the apparent advantages of evolutionary economics as a potential basis for European competition law analysis under Article 102 TFEU in relation to dynamic industries such as the software sector however does not answer the question of the actual way in which evolutionary economics might be employed in relation to Article 102 TFEU so as to achieve what might be considered “a more robust framework for antitrust analysis”<sup>1014</sup> of such dynamic sectors. Furthermore, a survey of the relevant literature suggests that, despite an apparent widespread discontent with the *status quo* of competition law analysis (both in general and in relation to dynamic economic sectors such

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<sup>1013</sup> Oliver Budzinski, *Modern Industrial Economics and Competition Policy: Open Problems and Possible Limits*, 12.

<sup>1014</sup> J. Gregory Sidak / David J. Teece, *Rewriting the Horizontal Merger Guidelines in the Name of Dynamic Competition*, (2009) 16 *George Mason Law Review* 885.

as the software industry),<sup>1015</sup> hardly any concrete proposals appear to exist as to how the Commission's current approach to competition law analysis of dynamic industries under Article 102 TFEU might usefully be changed in order to overcome its perceived shortcomings.<sup>1016</sup> Insofar as suggestions have been put forward in relation to the question of competition law analysis in the presence of innovation and / or intellectual property rights, these suggestions may reasonably be described as representing "a call for modesty and humility in analyzing conduct that is not yet well understood",<sup>1017</sup> i.e. a call for competition law to basically abstain from interfering in situations where issues of innovation and / or intellectual property rights might be affected.<sup>1018</sup>

Furthermore, it would seem that, despite a sometimes detectable acknowledgment of the usefulness of evolutionary economics for the

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<sup>1015</sup> See e.g. Alan Devlin / Michael Jacobs, *Microsoft's Five Fatal Flaws*, (2009) *Columbia Business Law Review* 67; Roger van den Bergh, *The 'More Economic Approach' and the Pluralist Tradition of European Competition Law*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27; Oliver Budzinski, *„Wettbewerbsfreiheit“ und „More Economic Approach“: Wohin steuert die Europäische Wettbewerbspolitik?*, *Marburg Papers on Economics* No. 13-2007; Ulrich Immenga, *Ökonomie und Recht in der europäischen Wettbewerbspolitik*, *Zeitschrift für Wettbewerbsrecht* 2006, 346; Meinrad Dreher / Michael Adam, *The more economic approach to Art. 82 EC and the legal process*, *Zeitschrift für Wettbewerbsrecht* 2006, 259; Arndt Christiansen, *Die „Ökonomisierung“ der EU-Fusionskontrolle: Mehr Kosten als Nutzen?*, *Wirtschaft und Wettbewerb* 2005, 285; Geoffrey A. Manne / Joshua D. Wright, *Innovation and the Limits of Antitrust*, (2010) 6 *Journal of Competition Law & Economics* 153; J. Geoffrey Sidak / David J. Teece, *Dynamic Competition in Antitrust Law*, (2009) 5 *Journal of Competition Law & Economics* 581.

<sup>1016</sup> Even Heidrich's book *„Das evolutiv-systemtheoretische Paradigma in der Wettbewerbstheorie“*, in which he analyses the theoretical foundations of an evolutionary economics influenced approach to competition law assessment, does not address the question of how such an approach might best be put into practice; see Thomas Heidrich, *Das evolutiv-systemtheoretische Paradigma in der Wettbewerbstheorie*.

<sup>1017</sup> Geoffrey A. Manne / Joshua D. Wright, *Innovation and the Limits of Antitrust*, (2010) 6 *Journal of Competition Law & Economics* 153, 193.

<sup>1018</sup> See discussion of this point in Andreas Heinemann, *Die Relevanz des „more economic approach“ für das Recht des geistigen Eigentums, Gewerblicher Rechtsschutz und Urheberrecht* 2008, 949, 952 *et seq.*

creation of coherent competition policy with regard to dynamic / innovation focused industries,<sup>1019</sup> no definite suggestion appears to have been made as to how and where an evolutionary economics approach might usefully be taken into account in the actual process of competition law assessment. As far as can be seen, the only exception appears to be Linge who presents a relatively brief outline as to what an evolutionary economics influenced approach to competition law analysis (i.e. one which explicitly incorporates the issues of innovation and dynamics into the assessment process) might look like in relation to existing merger and acquisitions review procedure.<sup>1020</sup>

It is thus to the consideration of Linge's proposal in relation to merger and acquisitions review that this thesis now turns.

## **II.1. Linge's Suggestion of Introducing Two Additional Overt Assessment Criteria to Existing Merger and Acquisitions Review Procedure**

Linge's proposal aims to change the underlying theoretical foundations which currently underlie merger and acquisitions analysis largely by reference "to dynamic, evolutionary competition concepts, industrial organization models and to resource-based management theories" as well as "to market characteristics and firm / cooperation characteristics without explicit assessment of market shares" in order to facilitate both the move away from the current analytical focus on static short-term price and quantity effects and the 'better', i.e. more complete, consideration and

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<sup>1019</sup> See e.g. J. Geoffrey Sidak / David J. Teece, Dynamic Competition in Antitrust Law, (2009) 5 *Journal of Competition Law & Economics* 581; Oliver Budzinski, Modern Industrial Economics and Competition Policy: Open Problems and Possible Limits; Wolfgang Kerber / Simonetta Vezzoso, EU Competition Policy, Vertical Restraints, and Innovation: An Analysis from an Evolutionary Perspective, 10<sup>th</sup> International Joseph A. Schumpeter Society Conference, Milan, 9-12 June 2004.

<sup>1020</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 245-286.

incorporation of the issue of dynamic efficiency in the existing process of merger and acquisitions review.<sup>1021</sup> Building upon an analysis and critique of the U.S. Innovation Market Analysis (an analytical approach to merger and acquisition review first conceived in the United States in the mid-1990s<sup>1022</sup>), Linge proposes to change the current merger and acquisition review procedure to the extent that ‘Research & Development’ as well as “firm diversity” are to be considered “during”, i.e. as part of, the competitive assessment of a proposed merger rather than as an afterthought; this, she suggests, might be achieved by adding the overt assessment criteria of “innovation and diversity” to the already existing merger and acquisition review process.<sup>1023</sup> The introduction of these criteria would appear to be motivated by the general realisation that “[c]ompetition policy plays an important role [...] when it comes to safeguard dynamic efficiency within an economy.”<sup>1024</sup> More specifically, Linge reasons that

“[b]oth competition and technological progress influence each other, since rivalry alters the incentive to innovate, whereas radical innovations cause major upheavals in markets and change market structures as well as power relations among market participants.”<sup>1025</sup>

Ultimately, this reasoning leads Linge to two connected conclusions: first, that innovation issues must / need to be incorporated into the actual process of competition law analysis as otherwise, i.e. if only static neoclassical issues are to be considered, ‘competition’ will be unable “to

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<sup>1021</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 246, especially Figure 6.1.

<sup>1022</sup> The concept of ‘innovation markets’ in relation to merger and acquisition reviews was first developed by Richard J. Gilbert / Steven C. Sunshine, *Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets*, (1995) 63 *Antitrust Law Journal* 569, 594 *et seq.*; see also Michael L. Katz / Howard A. Shelanski, *Mergers and Innovation*, (2007) 74 *Antitrust Law Journal* 1.

<sup>1023</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 263 *et seq.*.

<sup>1024</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 5.

<sup>1025</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 6.

exert its innovation-fostering function”,<sup>1026</sup> hence her suggestion to introduce ‘innovation’ as an additional review criterion. Second, Linge advances the argument that the issue of dynamic efficiency is not only connected to the question of ‘innovation’ but also to what she calls ‘diversity’ insofar that both quantitative and qualitative “changes in economic heterogeneity” have an impact upon technological development.<sup>1027</sup> Consequently, as “dynamic efficiency might be adversely affected by fewer experimentation in markets, since fewer opportunities to learn are provided in the market”,<sup>1028</sup> Linge suggests to also consider the criterion ‘diversity’ during the normal merger and acquisition review process.

The following section briefly outlines her proposals as to how the two criteria ‘innovation’ and ‘diversity’ might be incorporated into the existing review procedure for of merger and acquisitions.

## **II.2. Linge’s Incorporation of ‘Diversity’ and ‘Innovation’ into Existing Merger and Acquisitions Review Procedures**

Linge proposes to modify the existing review process for merger and acquisitions by introducing an additional, specifically diversity and innovation orientated layer of analysis to the existing merger review procedure, i.e. she suggests that the current competition policy perspective might be supplemented by an additional test considering the impact of a merger on innovation from a diversity perspective.<sup>1029</sup> As can

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<sup>1026</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 6.

<sup>1027</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 10 and 263-266.

<sup>1028</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 9.

<sup>1029</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 274 *et seq.*. See also Wolfgang Kerber, Competition, Innovation, and Maintaining Diversity through Competition Law, 22, Presentation at Conference “Foundations and Limitations of an Economic Approach to Competition Law”, Max-Planck-Institut für Immaterialgüter- und Wettbewerbsrecht München, 12<sup>th</sup> – 13<sup>th</sup> March 2009, discussing Linge’s proposal.

be seen from Diagram 8 (below) which depicts a brief outline of Linge's ideas, her proposal may be said to shift the analytical focus from issues of static efficiency to "the experimentation and thus [the] learning character of competition"; her suggested approach to the assessment process for mergers consequently centres around "the trade off between improvements of static efficiency of the individual innovation process and fewer learning opportunities available to firms on the industry level."<sup>1030</sup> In general terms, Linge's ideas as depicted by Diagram 8 can be summarised as follows:

"[a]fter asking whether a merger etc. leads to a decreased number of experimenting firms, a first assessment is necessary, whether it might be not possible or not profitable to sustain parallel experimentation internally. If we can expect that parallel experimentation will be maintained then it is likely that no problem emerges from a diversity perspective. If, however, we must assume that after a merger parallel experimentation will be reduced, then the fewer trials will lead to less feedback from the market. If, however, we can show that in the initial situation, we already have too many parallel experiments (e.g., in comparison to some reference standard of an optimal number of experiments, implying excess diversity), then such a reduction might not harm consumer welfare. Otherwise, our diversity test would lead to the conclusion that the reduction of parallel experimentation through this merger or R&D agreement etc. has negative effects on the effectiveness of competition as a process of parallel search and experimentation, is therefore detrimental to consumer welfare and might be prohibited."<sup>1031</sup>

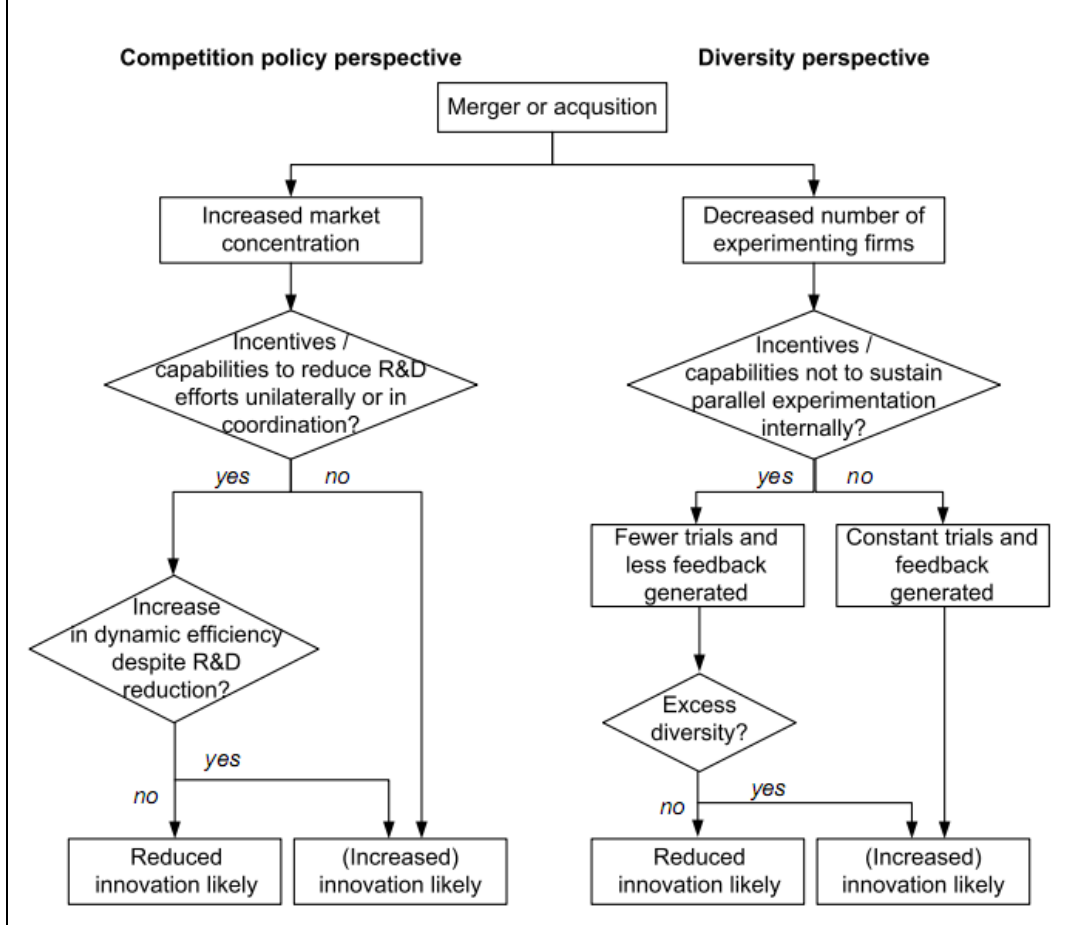
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<sup>1030</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 266.

<sup>1031</sup> Wolfgang Kerber, *Competition, Innovation, and Maintaining Diversity through Competition Law*, 22, Presentation at Conference "Foundations and Limitations of an Economic Approach to Competition Law", Max-Planck-Institut für Immaterialgüter- und Wettbewerbsrecht München, 12<sup>th</sup> – 13<sup>th</sup> March 2009.



**Diagram 8: Analysis of Merger and Acquisition Effects from Competition and Diversity Perspective**<sup>1032</sup>



As for the question of how such a diversity orientated approach to the analysis of innovation aspects might actually be achieved (or, at least, be achievable) in relation to merger assessment, Linge suggests that a supplementary two stage test might be introduced which centres around the incorporation of the aforementioned criteria ‘innovation’ and ‘diversity’ and which moves away from the usual equilibrium focused approach to competition law analysis.<sup>1033</sup> Tables 3 and 4 (below) briefly summarise the points which Linge regards as the key issues – i.e., effectively, as their constituting components – to be taken into account in

<sup>1032</sup> Source: Gisela Linge, *Competition Policy, Innovation, and Diversity*, 266.

<sup>1033</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 274 *et seq.*.

merger analysis in relation to each criterion. It is beyond the scope of this thesis to discuss each of these components in detail; for the purposes of this thesis it suffices to say that, by drawing on a large body of economic research in the discussion and outline of each component,<sup>1034</sup> Linge makes a convincing case for the argument that the taking into account of these ‘ingredients’ as part of a merger review ensures, *inter alia*, “that adequate frameworks and thresholds are applied during the analysis”<sup>1035</sup> and that the consideration of these components will also “help antitrust authorities to gain a better understanding of the reviewed markets.”<sup>1036</sup> Put differently, Linge’s research shows persuasively that the adoption of an evolutionary economics perspective leads to a fuller and ‘better’ explanation which “is consistent with informed judgments as to what really is going on”<sup>1037</sup> and thus is likely to lead to the formation of more informed and consistent competition policy for dynamic and innovation intensive sectors such as the software industry.

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<sup>1034</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 263-274.

<sup>1035</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 268.

<sup>1036</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 270. Similarly arguing that the incorporation of insights from evolutionary economics would lead to the development of “a more robust framework for antitrust economics”: J. Gregory Sidak / David J. Teece, *Rewriting the Horizontal Merger Guidelines in the Name of Dynamic Competition*, (2009) 16 *George Mason Law Review* 885.

<sup>1037</sup> Richard R. Nelson, *Recent Evolutionary Theorizing About Economic Change*, (1995) 33 *Journal of Economic Literature* 48, 84 *et seq.*

**Table 3: Assessment Criteria for Innovation Effects ('the Innovation Criterion')**<sup>1038</sup>

**Market conditions:**

- High technology market characteristics
- Specialized assets and entry barriers to product / R&D competition
- Appropriability level and character of spillovers
- Degree of technological market uncertainty reflected in industry / technological life cycle
- Interdependencies with product market competition

**Firm or cooperation characteristics:**

- Complementary / substituting knowledge resources / specialized assets needed
- Exploration / exploitation strategy
- Time pressure vs. cost pressure

**Research properties:**

- Cumulative / independent research trajectories
- Incremental / radical innovations
- Economies of scale / scope in experimentation and R&D cost structure
- Marginal costs / benefits of parallel experimentation

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<sup>1038</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 267.

**Table 4: Assessment Criteria for Diversity Effects (‘the Diversity Criterion)<sup>1039</sup>**

Dimension Level	Quantitative Diversity	Qualitative Diversity
<b>Market</b>	Number of firms	Differences among firms
<b>Activity</b>	Number of parallel trials per activity	Differences among trials per activity

In practical terms, the two stage test as proposed by Linge means that, at the first stage, “all mergers are [to be] assessed briefly regarding their likely implications for technological progress” with a focus being placed on “market characteristics and the degree of diversity” (as outlined by Tables 3 and 4); the intention being, on the one hand, that the review process generally ensures “that innovation aspects are not neglected at all” and, on the other hand, that the review process also allows for the general establishment “whether market conditions and already low diversity imply that a merger is likely to adversely affect technological progress”.<sup>1040</sup>

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<sup>1039</sup> Table 4 is based upon Figure 6-4 in Gisela Linge, *Competition Policy, Innovation, and Diversity*, 265. Linge offers the following explanation for the differentiation as portrayed in the table: “In order to get hold of diversity in competition policy practice, different levels of diversity of activities should be distinguished. Heterogeneity is reflected in the number of firms operating in the market, representing the *quantitative* aspect on the *market* level. Diversity also refers to the number of all hypotheses tested in the market, regardless of the subject of these tests, i.e. whether they describe production, marketing or other business activities. This represents the *quantitative* dimension on the *activity* level. Qualitative differences are also decisive, since only differences concerning the content of the tested hypotheses generate different information during the feedback process. Therefore, the *qualitative* dimension on the *activity* level can be distinguished as well. Nevertheless, not only diversity of the tested hypotheses concerning all business activities is of interest. Since the main attention is directed at the relation between technological progress and competition, in particular, diversity of R&D activities is analyzed. Thus, variety of tested hypotheses on a specific activity level, namely the R&D level, is referred to. These different levels of diversity should be distinguished during the review process.” [original emphasis].

<sup>1040</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 274 *et seq.*.

If this “initial assessment” stage leads to the conclusion that the evaluated merger is “at least likely” to result in harming the innovation output, then, at the second stage, the investigation should “delve further into the firm respectively cooperation characteristics and the incentives to sustain diversity in the aftermath of a merger or in the course of a joint venture internally” and address the following questions:<sup>1041</sup>

- “1. What is the current status of R&D competition?
2. Are the merging or cooperating firms able to innovate and do they possess incentives to do so?
3. Are the merging or cooperating firms able to reduce R&D investments on their own or in coordination with the remaining firms and do they possess incentives to do so?
4. Which efficiency implications are likely to arise from the merger or the cooperation?”<sup>1042</sup>

Addressing these questions, Linge contends, will further ensure the thorough investigation of mergers and joint ventures “which have the potential to put R&D competition and, thereby, technological progress at risk” and thus will also result in a more complete evaluation of the dynamic effects of a proposed merger or joint venture.<sup>1043</sup>

### **II.3. The Application of Linge’s Suggestion to the Analysis of an Alleged Violation of Article 102 TFEU in Dynamic and Innovation Intensive Industries**

With regard to the subject matter of this thesis, i.e. the Commission’s currently pursued more economic approach in relation to competition law analysis of the software industry under Article 102 TFEU, Linge’s suggestion in relation to the incorporation of an evolutionary economics perspective into existing merger review procedures in order to ensure a

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<sup>1041</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 274 *et seq.*.

<sup>1042</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 275.

<sup>1043</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 275.

more complete assessment of dynamic and innovation intensive industries raises two basic issues: first, it poses the question of *whether* Linge's ideas are, in general, restricted to the context of merger and acquisitions review alone or if her suggestions might not also find a useful application in relation to an Article 102 TFEU assessment of a dynamic sector such as the software industry. Second, if the answer to the first question is in the affirmative, the question needs to be addressed *if* and *how* her suggestions might be transferred from the context of a merger review into the context of an Article 102 TFEU analysis regarding a dynamic and innovation intensive industry such as the software sector, i.e. it poses the question of the feasibility of the transfer of Linge's suggestions into the context of abuse control. The following subsections consider both issues.

### **II.3.1. Are Linge's suggestions necessarily restricted to existing merger and acquisitions review?**

Although Linge's proposal may be regarded as being quite sketchy in places – Linge herself states that her recommendations do not constitute a complete proposal in form of “a fully developed analysis schema” but rather that these, by “discussing additional review criteria”, are intended to add to the ongoing debate as to how dynamic efficiency considerations might best be incorporated into competition law analysis<sup>1044</sup> – and although she stresses the need for “further and particularly empirical research”<sup>1045</sup> into how to best address and incorporate dynamic efficiency considerations into (existing) competition law analysis, it is submitted that

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<sup>1044</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 263. In view of the ongoing development of evolutionary economic theory, her ‘modesty’ in this regard appears a sensible approach to take.

<sup>1045</sup> Gisela Linge, Competition Policy, Innovation, and Diversity, 275.

her proposal can, at the very least, be considered a “valuable contribution” to a “necessary discussion.”<sup>1046</sup>

The value of her proposal stems especially from the fact that her research indicates that, by applying evolutionary economics criteria, issues involving innovation and dynamics *can be* integrated into the existing merger and acquisitions review process;<sup>1047</sup> thus it presents a convincing case for the argument that it appears possible to apply an evolutionary economics approach to EU competition law and to integrate such a perspective into existing competition law assessment procedures. After all, when it comes to the assessment of a potentially anti-competitive scenario in relation to a dynamic and innovation intensive industry, competition law practice faces similar enforcement and policy challenges regardless of whether the assessment concerns an alleged cartel, a proposed merger or an alleged violation of Article 102 TFEU insofar that all of these alleged competition law violations involve dynamic issues which means that in each case the problem is the same, i.e. how to best account for dynamic aspects and how to properly incorporate them into the analytical process. Based on these considerations, this thesis agrees with Heinemann who has opined that there appears to be “no deeper reason for restricting evolutionary economics to merger control”;<sup>1048</sup> a statement which – with

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<sup>1046</sup> Wolfgang Kerber, Competition, Innovation, and Maintaining Diversity through Competition Law, 24, Presentation at Conference “Foundations and Limitations of an Economic Approach to Competition Law”, Max-Planck-Institut für Immaterialgüter- und Wettbewerbsrecht München, 12<sup>th</sup> – 13<sup>th</sup> March 2009.

<sup>1047</sup> Of a similar opinion: Wolfgang Kerber, Competition, Innovation, and Maintaining Diversity through Competition Law, 24, Presentation at Conference “Foundations and Limitations of an Economic Approach to Competition Law”, Max-Planck-Institut für Immaterialgüter- und Wettbewerbsrecht München, 12<sup>th</sup> – 13<sup>th</sup> March 2009.

<sup>1048</sup> Andreas Heinemann, The impact of innovation – comments on Uwe Cantner and Wolfgang Kerber, in: Josef Drexler / Wolfgang Kerber / Rupprecht Podzun (eds.), Competition Policy and the Economic Approach – Foundations and Limitations, 202, 210.

regard to the question of the general usefulness of evolutionary economics for the analysis in other areas of competition law – seems to be shared by some voices in the relevant literature.<sup>1049</sup> Moreover, as indicated by Linge’s research and her suggested changes to the existing Merger & Acquisitions review process, it would seem that the adoption of an evolutionary economics influenced approach to EU competition law analysis would result in “a more robust framework for antitrust analysis”<sup>1050</sup> insofar that the assessment would no longer be equilibrium-orientated with a predominant focus on issues of static economic efficiency.<sup>1051</sup> Rather, as alluded to by Nelson,<sup>1052</sup> the introduction of an evolutionary economics perspective in competition law analysis would seem to allow for more informed judgements as to the real economic ‘going-ons’ in a particular ‘market’ and thus would appear to facilitate the creation of more consistent and coherent competition policy for dynamic economic sectors such as the software industry. Furthermore, the adoption of

“the long-term perspective of the evolutionary concept could contribute to the entire field of competition law by invalidating an argument frequently put forward, namely that competition law turns a blind eye to long-term effects on innovation. Evolutionary

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<sup>1049</sup> See e.g. J. Geoffrey Sidak / David J. Teece, Dynamic Competition in Antitrust Law, (2009) 5 *Journal of Competition Law & Economics* 581; Wolfgang Kerber / Simonetta Vezzoso, EU Competition Policy, Vertical Restraints, and Innovation: An Analysis from an Evolutionary Perspective, 10<sup>th</sup> International Joseph A. Schumpeter Society Conference, Milan, 9-12 June 2004.

<sup>1050</sup> J. Gregory Sidak / David J. Teece, Rewriting the Horizontal Merger Guidelines in the Name of Dynamic Competition, (2009) 16 *George Mason Law Review* 885.

<sup>1051</sup> See Wolfgang Kerber, Competition Knowledge, and Institutions, (2006) 40 *Journal of Economic Issues* 457; Oliver Budzinski, An Evolutionary Theory of Competition, 2. See also J. Gregory Sidak / David J. Teece, Rewriting the Horizontal Merger Guidelines in the Name of Dynamic Competition, (2009) 16 *George Mason Law Review* 885, 887.

<sup>1052</sup> Richard R. Nelson, Recent Evolutionary Theorizing About Economic Change, (1995) 33 *Journal of Economic Literature* 48, 84 *et seq.*



economics may be helpful in order to strengthen the long-term perspective in applying Articles 101 and 102 TFEU.”<sup>1053</sup>

In fact, given that the question of ‘innovation’ is not just something specifically related to the question of mergers,<sup>1054</sup> it does not seem to be completely beside the point to argue that “it is of utmost importance for competition law” to demonstrate that the critique usually levelled at competition law analysis of preferring static short-time considerations over dynamic long-term considerations in relation to the application of competition law to either intellectual property rights in general or the IT sector in particular is “unfounded”.<sup>1055</sup> Put differently, the adoption of a dynamics orientated perspective might not just be relevant (or even advisable) in the evaluation of a proposed merger but also with regard to what might be considered to constitute the core concerns of competition law, i.e. investigations of (alleged) cartels or (alleged) abuses of a dominant position.

Consequently, this thesis suggests that Linge’s proposal can be regarded as providing a starting point for the fuller exposition of those questions which need to be addressed if a more complete consideration of dynamic issues is to be achieved in relation to an Article 102 TFEU analysis as to ultimately enable the creation of coherent and consistent competition policy for dynamic economic sectors such as the software industry. It is

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<sup>1053</sup> Andreas Heinemann, The impact of innovation – comments on Uwe Cantner and Wolfgang Kerber , in: Josef Drexl / Wolfgang Kerber / Rupprecht Podzun (eds.), *Competition Policy and the Economic Approach – Foundations and Limitations*, 202, 210.

<sup>1054</sup> See e.g. the discussions in Steven D. Anderman / Hedvig Schmidt, *EC Competition Law and IPRs*, in: Steven D. Anderman (ed.), *The Interface between Intellectual Property Rights and Competition Policy*, 37 *et sqq.*; Gunnar Wolf, *Kartellrechtliche Grenzen von Produktinnovationen*.

<sup>1055</sup> Andreas Heinemann, The impact of innovation – comments on Uwe Cantner and Wolfgang Kerber , in: Josef Drexl / Wolfgang Kerber / Rupprecht Podzun (eds.), *Competition Policy and the Economic Approach – Foundations and Limitations*, 202, 206.

therefore submitted that her suggestions might also be usefully employed in the context of abuse control under Article 102 TFEU regarding a dynamic and innovation intensive economic sector such as the software industry.

### **II.3.2. Can Linge's suggestions be transposed to an Article 102 TFEU assessment of an industry such as the software sector?**

The above discussion concluded not only that Linge's suggestion is relevant in relation to the evaluation of a proposed merger but also that her proposal might be equally relevant with regard to the evaluation of an alleged abuse of a dominant position under Article 102 TFEU. This conclusion necessitates the consideration of the aforementioned questions of *if* and *how* such a transposition of Linge's suggestions in general and in particular of her proposal regarding the introduction of a supplementary diversity perspective in the existing merger and acquisitions review procedure might be achieved into the context of abuse control under Article 102 TFEU; the importance of the introduction of a supplementary diversity perspective results from the fact that, as indicated by Linge's own explanations, the introduction of this supplementary perspective can be regarded as constituting the necessary first step in order to ensure the more complete consideration of the likely impact a proposed merger might have on the factors of diversity and innovation.

Several answers to the questions of *if* and *how* seem possible: first, and this would be the 'easiest' way to achieve an evolutionary economics approach to an Article 102 TFEU analysis, it may be possible and feasible to directly transfer Linge's proposal on a one-to-one basis from the context of a merger review to the context of an Article 102 investigation, i.e. without the need to change, alter or adapt her suggestions in any way. Second, it may be that, whilst Linge's suggestions regarding the introduction of a

supplementary diversity perspective may be held to be generally transferable from merger review to the context of Article 102 TFEU, such transposition may – given the difference of the investigations in each situation<sup>1056</sup> – require a certain amount of ‘tweaking’ so as to achieve the implementation of an additional diversity perspective (and with it, the more complete consideration of the innovation and diversity impact) in a way that makes sense in the context of abuse control under Article 102 TFEU. The following explores these different possibilities. The beneficial ‘by-product’ of this examination is that, if the conclusion should be reached that Linge’s proposal is – either on a one-to-one basis or with some alterations – generally transferable to an Article 102 TFEU analysis, it might also offer a brief outline of what an evolutionary economics approach to the assessment of an alleged abuse of a dominant position in dynamic and innovation intensive industries could actually ‘look like’. Furthermore, in considering these two possible answers, this thesis also (indirectly) considers the possibility of a third answer to the questions *if* and *how* a transposition of Linge’s suggestions regarding the introduction of a supplementary diversity perspective might be achieved into the context of abuse control under Article 102 TFEU, given that the potential conclusion of this consideration might be either that Linge’s idea to introduce a supplementary diversity perspective is *generally* non-transferable or that her merger review *specific* suggestions cannot be used into the context of abuse control under Article 102 TFEU (thus limiting the usefulness of her proposal to the analysis of merger and acquisitions alone. However regardless of the conclusions drawn in the examination which follows

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<sup>1056</sup> Put simply, a merger relates to a (proposed) business combination so that previously firms are brought together under common control whereas an abuse of a dominant position under Article 102 TFEU concerns unilateral (allegedly anti-competitive) behaviour. This point is explored in more detail further below.

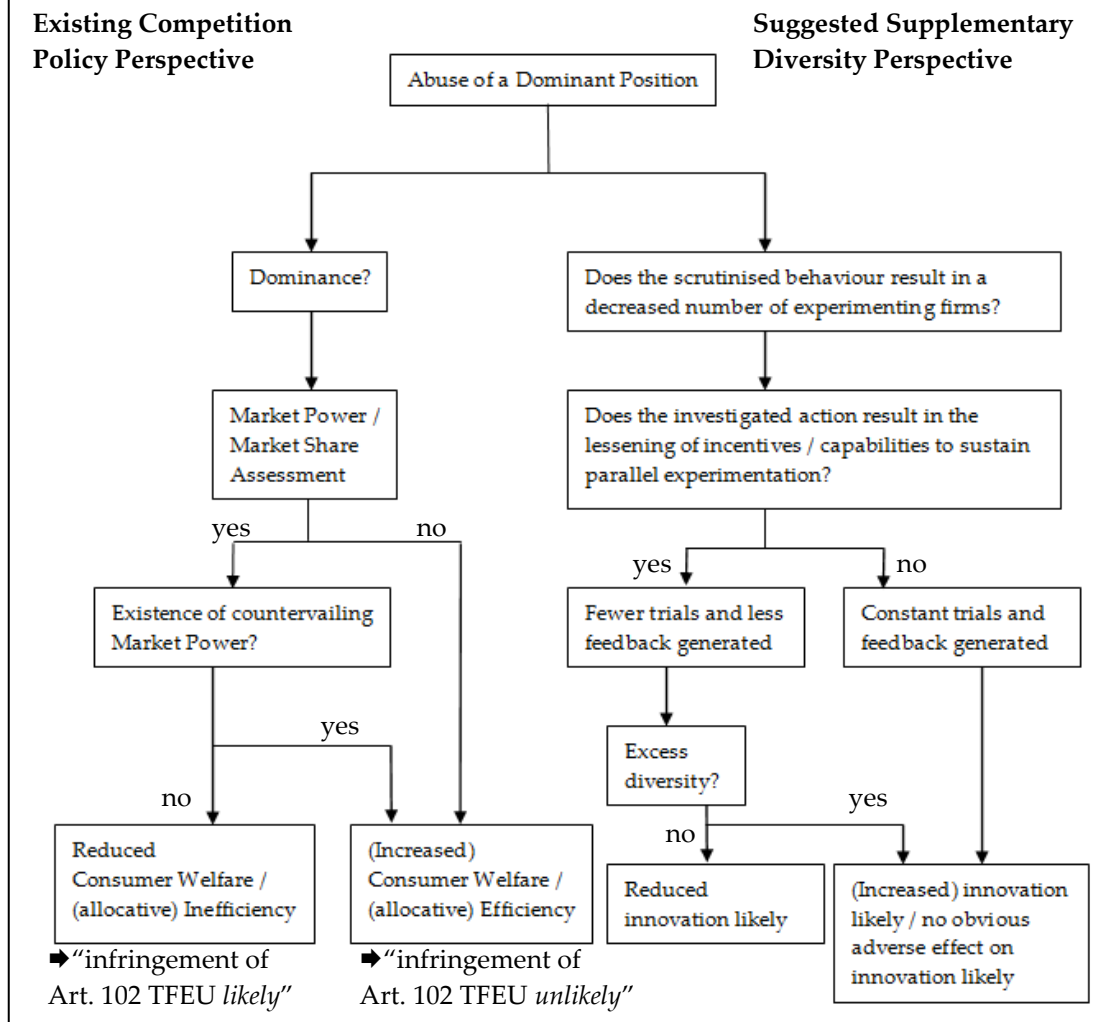
below, it should again be noted that it is neither the task of this thesis to provide a fully developed evolutionary economics model for the analysis of an alleged abuse of a dominant position nor that it is within its scope to do so. In this respect, what is undertaken in the section below is to highlight some of those issues and questions which require some further research in order to ultimately facilitate a more complete (evolutionary) economic approach to competition law analysis under Article 102 TFEU in relation to a dynamic industry such as the software sector.

At first glance, and for the reasons outlined above in section II.3.1. of this Chapter, it would appear possible and might, indeed, even be useful to adopt Linge's suggestions from the context of merger review into the context of an Article 102 TFEU analysis of dynamic and innovation intensive industries such as the software sector, i.e. to also introduce a supplementary diversity perspective which focuses on the issue of 'firm diversity' (such as e.g. the issue of the actual number of firms operating in the scrutinised market) in relation to abuse control under Article 102 TFEU.<sup>1057</sup> This possibility of a direct transfer of Linge's model into the context of Article 102 TFEU is depicted by Diagram 9 below.

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<sup>1057</sup> See Diagram 9 below for an outline of what such a direct transposition might look like.

**Diagram 9: The Direct Transposition of Linge’s Suggested Model to the Analysis of an (Alleged) Abuse of a Dominant Position under Article 102 TFEU**



However at second glance, it has to be acknowledged that the attempt to directly transpose Linge’s proposal on a one-to-one basis is not without problems: as depicted by Diagram 8 above, Linge’s model centres around two particular variables; these variables being, first, the possibility that parallel experimentation may continue internally after the proposed merger between the previously independent firms and, second, the possibility that there may be excess diversity. Both of these variables would appear, in a merger and acquisitions scenario, to be more or less

directly linked to (at least<sup>1058</sup>) the reduction of quantitative (firm) diversity resulting from the proposed merger; furthermore, in accordance with the assessment criteria for diversity effects ('the Diversity Criterion') as outlined by Linge,<sup>1059</sup> these variables might reasonably be understood as constituting at least necessary, if not even sufficient, components of the diversity criterion in relation to merger review. However, whilst the consideration of the variables of parallel experimentation and excess diversity makes sense in the context of merger review – given that both can be regarded as being connected to the issue of quantitative and qualitative inter- and / or intra-firm diversity when it comes to a merger and acquisitions scenario<sup>1060</sup> – it may be said that their suitability is less obvious in the context of an alleged abuse of a dominant position, i.e. in a situation which involves the evaluation of a firm's *unilateral* behaviour under Article 102 TFEU. This is because the analysis of an alleged abuse of a dominant position under Article 102 TFEU involves a factually completely different question than an analysis of a (proposed) merger:

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<sup>1058</sup> In its simplest form, a merger will result in the reduction of the number of firms in 'the market'. This however not to say that a merger might not also reduce firm diversity in qualitative terms as it might also result in the reduction of (previously existing) differences among firms in 'the market'. Furthermore, as a consequence of the merger between previously independent firms, the activities within that merged firm might also be reduced both in quantitative and qualitative terms. See also "Table 4: Assessment Criteria for Diversity Effects ('the Diversity Criterion')" above.

<sup>1059</sup> See "Table 4: Assessment Criteria for Diversity Effects ('the Diversity Criterion')" above.

<sup>1060</sup> The issue of parallel experimentation is likely to be only relevant in the context of reviewing a merger & acquisitions scenario as it relates to the question of what impact a proposed business combination of previously independent research lines is likely to have on 'diversity' with regard to the *post*-merger continuation of experimentation within the previously independent undertakings, i.e. the quantitative and / or qualitative reduction of experiments which, prior to the (proposed) merger can be said to have existed within the *pre*-merger independent undertakings. Equally, the issue of excess diversity is likely to be only relevant in the context of merger and acquisitions as it is unlikely that any single firm conduct leading to foreclosure of 'diversity' can or will be offset by an *independent* research line *within* the dominant incumbent.

whereas in merger review, the focus is on the impact of a business combination of previously independent undertakings, no such business combination is assessed (or even at issue) under Article 102 TFEU where the focus is on single firm conduct leading to foreclosure.<sup>1061</sup> Put differently, while it may be quite clear which aspects / issues will need to be addressed when assessing 'diversity' with regard to merger review and also what 'diversity impact' is likely to result from a proposed merger,<sup>1062</sup> it is less than crystal clear as to what impact an alleged abuse of a dominant position in a given 'market' has on e.g. quantitative, let alone qualitative, '(firm) diversity' and, even more importantly, how 'diversity' is to be understood in the context of abuse control under Article 102 TFEU. Yet this statement should not be taken to mean that unilateral conduct which falls within the scope of Article 102 TFEU might not also have an impact on e.g. the number of firms operating in the scrutinised 'market' and thus on (quantitative) 'firm diversity'; rather, the point is that might be more immediately obvious and easier to detect the 'diversity' impact of a (proposed) merger than the implications for 'diversity' which are the result of an abuse of a dominant position. The above thus suggests that, given the factual differences which exist between both scenarios, the evaluation of what actually constitutes 'diversity' and how to precisely evaluate its impact in relation to the assessment of an alleged abuse of a dominant position is likely to be different from the assessment of 'diversity' with regard to a proposed merger. Furthermore, the above also

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<sup>1061</sup> See e.g. in relation to innovation intensive industries: refusal to licence (Microsoft: issue of interoperability – Case Comp/C-3/37.792); leveraging (Microsoft: Windows Media Player – Case Comp/C-3/37.792 – and Microsoft: Internet Explorer – Case Comp/C-3/39.530); abuses of the standardisation process (Rambus – Case Comp/38.686); abuses of elements of the intellectual property protection system (AstraZeneca – Case Case Comp/A.37.507/F3) or excessive pricing (Rambus – Case Comp/38.686)..

<sup>1062</sup> As mentioned before, in its simplest form, a merger is likely to lead to (at least) a quantitative reduction at the firm level.

indicates that 'diversity' has to be both understood and approached in a context specific way in order to achieve the proper implementation and consideration of the criterion of 'diversity' as part of any competition law assessment process and thus also to achieve the meaningful adoption of a supplementary diversity perspective for competition law analysis based on evolutionary economics as suggested by Linge's model. In other words, it would appear that 'diversity' in relation to an Article 102 TFEU analysis has to be assessed and approached in a somewhat different manner than in relation to merger review because it involves, and relates to, a factually different scenario which requires the taking into account of different 'aspects' / 'components' of diversity. However, it should be noted that the determination of the definite evolutionary economics meaning of 'diversity' in the context of abuse control under Article 102 TFEU is neither the task of this thesis nor is such determination within its scope. Nevertheless, research investigating the nature and meaning of 'diversity' across a number of different disciplines (including economics) suggests that the concept of diversity always possesses, regardless of the particular context in which it is used or to which it relates, "a remarkably similar and particular set of properties";<sup>1063</sup> those properties being "'variety', 'balance' and 'disparity'":<sup>1064</sup>

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<sup>1063</sup> Andy Stirling, *A general framework for analysing diversity in science, technology and society*, (2007) 4 *Journal of Royal Society Interface* 707; see also Andrew Stirling, *On the Economics and Analysis of Diversity*, Science Policy Research Unit Paper No.28, University of Sussex; Jeroen C.J.M. van den Bergh, *Optimal Diversity: Increasing returns versus recombinant innovation*, (2008) 68 *Journal of Economic Behavior & Organization* 565, 567 *et seq.*

<sup>1064</sup> Andy Stirling, *A general framework for analysing diversity in science, technology and society*, (2007) 4 *Journal of Royal Society Interface* 707, 709; see also Jeroen C.J.M. van den Bergh, *Optimal Diversity: Increasing returns versus recombinant innovation*, (2008) 68 *Journal of Economic Behavior & Organization* 565, 567 *et seq.*; Andrew Stirling, *On the Economics and Analysis of Diversity*, Science Policy Research Unit Paper No.28, University of Sussex.



“Variety is the number of categories into which system elements are apportioned. It is the answer to the question: ‘how many types of thing do we have?’ [...] *All else being equal, the greater the variety, the greater the diversity.* [...] Balance is a function of the pattern of apportionment of elements across categories. It is the answer to the question: ‘how much of each type of thing do we have?’ [...] *All else being equal, the more even is the balance, the greater the diversity.* [...] Disparity refers to the manner and degree in which the elements may be distinguished [...]. It is the answer to the question: ‘how different from each other are the types of thing that we have?’ [...] *All else being equal, the more disparate are the represented elements, the greater the disparity.*”<sup>1065</sup>

“Variety denotes the number of different technologies, processes, products, organizations, institutions or strategies in a population of elements. Variety can comprise identities (appearance), functions, or behaviors (knowledge, problem-solving capacity). Balance or equality relates to the extent to which one or more elements dominate elements in a population in terms of size or number (frequency). Disparity or dissimilarity refers to the degree of difference between elements in a population.”<sup>1066</sup>

Again, it should be noted that it is neither within the scope of this thesis nor is it its task to carry out a detailed examination of whether each of these three components merely represents a necessary or whether each forms a sufficient property of ‘diversity’;<sup>1067</sup> furthermore, neither the thesis’ scope nor its thematic focus allow for a more detailed analysis of each of these components. However, irrespective of these qualifications, the above quotes suggest, at the very least, that any diversity perspective applied in the context of abuse control under Article 102 TFEU in relation to a dynamic and innovation intensive industry such as the software sector needs (at a minimum) to be capable of reflecting these different properties

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<sup>1065</sup> Andy Stirling, A general framework for analysing diversity in science, technology and society, (2007) 4 Journal of Royal Society Interface 707, 709 [original emphasis].

<sup>1066</sup> Jeroen C.J.M. van den Bergh, Optimal Diversity: Increasing returns versus recombinant innovation, (2008) 68 Journal of Economic Behavior & Organization 565, 567.

<sup>1067</sup> See Andy Stirling, A general framework for analysing diversity in science, technology and society, (2007) 4 Journal of Royal Society Interface 707, 709.

not only because, generally, “diversity is a multidimensional concept”<sup>1068</sup> but also because the three aforementioned properties “may each affect innovation and selection and thus future diversity as well as benefits.”<sup>1069</sup> A consequence of this conclusion is that, at least with regard to a dynamic and innovation intensive industry such as the software sector, the impact which each of these properties may have on innovation makes the respective, more explicit consideration of each of these diversity components in the actual assessment process under Article 102 TFEU of paramount importance in order to achieve and to ensure the application of “adequate frameworks and thresholds [...] during the analysis”<sup>1070</sup> of such dynamic markets. However, the actual process of achieving this end might be more complex than first appearances might suggest as “[t]he consequence of this threefold understanding of diversity is a recognition that each property constitutes the other two”,<sup>1071</sup> thereby rendering diversity a much more complex concept than usually acknowledged because

“[t]his [recognition] in turn highlights difficulties with diversity concepts and associated indices – in whatever discipline – that focus exclusively on subsets of these properties. This is a matter of significant, but relatively neglected, scientific importance. The relevance is amplified by the tendency for apparently technical questions over diversity to acquire high profile policy salience – as in fields like ecological conservation, market regulation, energy policy and research [...] strategies. In such areas, [...] ostensibly arcane scientific questions over the definition and measurement of diversity

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<sup>1068</sup> Jeroen C.J.M. van den Bergh, *Optimal Diversity: Increasing returns versus recombinant innovation*, (2008) 68 *Journal of Economic Behavior & Organization* 565, 567.

<sup>1069</sup> Jeroen C.J.M. van den Bergh, *Optimal Diversity: Increasing returns versus recombinant innovation*, (2008) 68 *Journal of Economic Behavior & Organization* 565, 567.

<sup>1070</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 268.

<sup>1071</sup> Andy Stirling, *A general framework for analysing diversity in science, technology and society*, (2007) 4 *Journal of Royal Society Interface* 707, 709.

are laden with (and conditioned by) large-scale institutional, economic and political interests.

Variety and balance, for instance, cannot be characterized without first considering disparity. It is on this basis that a taxonomy of elements is defined and partitioned. An ecological community comprising 20 varieties of beetle is less diverse than the one comprising less than 20 species drawn from different insect, reptile and mammalian taxa. Likewise, an electricity system is less diverse if it comprises equal contributions from lignite, brown coal, oil and gas than if it is an equal mix of coal, nuclear and renewable energy. However, a category like 'renewable energy' might itself be judged highly diverse if it is equally apportioned into wind, solar, hydro, tidal, biomass, landfill gas etc. The focus of attention in each case is neither on variety nor balance, but on disparity. Taking variety or balance as proxies for diversity can thus be highly sensitive to subjective construction and partitioning of taxonomies and to arbitrary linguistic conventions concerning the implicit bounding of categories.

Conversely, the relevance of disparity to diversity often depends on the pattern of apportionment across categories. Yet, such apportionment may sometimes be neglected. This is necessarily so in palaeontology due to the limited evidence on species abundance. Ecological structures and the reproductive potential of germplasm can likewise make interest in diversity quite independent from questions of abundance. Yet, problems can arise if disparity is taken as a complete representation of diversity in conservation biology. This is because, used on their own, disparity measures fail to discriminate between species represented by viable or non-viable populations. Similarly, an energy portfolio comprising a 90% contribution from one of three highly disparate resources might reasonably be judged less diverse than a portfolio comprising an equal contribution from three less disparate options. This crucial feature is not addressed by understandings of diversity in terms of disparity alone. Taking disparity as a proxy for diversity ignores the balance with which a system is apportioned."<sup>1072</sup>

This complexity of diversity as a concept has several implications for EU competition law analysis, not only with regard to the application of Article

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<sup>1072</sup> Andy Stirling, *A general framework for analysing diversity in science, technology and society*, (2007) 4 *Journal of Royal Society Interface* 707, 709 *et seq.* [references (Harvard style) omitted].

102 TFEU in general but also with regard to the specific application of Article 102 TFEU to dynamic and innovation intensive industries such as the software sector. On a general level, the aforementioned complexity of diversity as a concept is likely to have implications for the general way in which both 'Dominance' and 'Abuse' are defined and understood under Article 102 TFEU:<sup>1073</sup> for example, in view of the fact that Article 102 TFEU requires the investigated undertaking to be *dominant* before any behaviour by this undertaking can be held as constituting an actionable violation of Article 102 TFEU, the complex nature of the concept of diversity might lead to, or even necessitate, the reformulation of what is meant by 'Dominance' under Article 102 TFEU. This is because, as e.g. 'variety' on its own appears to be an insufficient and potentially misleading proxy for 'diversity', a notion of 'Dominance' which (predominantly or exclusively) focuses on one such aspect might result in what Stirling has called "subjective construction"<sup>1074</sup> and thus, ultimately, in 'wrong' regulatory decisions from the above-described perspective on 'diversity'. In addition, the above outline of 'diversity' poses the question of how the abuse issue might arise in relation to the concept of diversity as outlined above, i.e. in what way can an undertaking commit an 'Abuse' which has an impact on 'diversity' and in what way can a particular behaviour have an impact on 'diversity'? This last question is likely to be especially important in relation to dynamic and innovation intensive industries (where the investigation of allegedly anti-competitive behaviour under Article 102 TFEU often involves and / or centres around the investigated

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<sup>1073</sup> This list is not intended to present an exhaustive list but, rather, to provide a general outline of the questions which, at a minimum, are in need of further consideration and research so as to ultimately achieve a more complete economic competition law analysis of dynamic and innovation intensive industries such as the software sector.

<sup>1074</sup> Andy Stirling, A general framework for analysing diversity in science, technology and society, (2007) 4 Journal of Royal Society Interface 707, 710.

undertaking's exercise of intellectual property rights) because, in cases involving such industries, the scope of protection and rights provided by intellectual property law to the holder of an intellectual property right can be said to have a not to be underestimated impact on the actual finding of abuse.<sup>1075</sup> This, in turn, might lead to, or necessitate, the reformulation of the scope of legal rights and protection awarded to the holder of an intellectual property right; for example, by drawing intellectual property rights more narrowly and by imposing wider duties of disclosure on the right holder in order to ensure not only that 'diversity' is maintained in the investigated 'market' but also that 'diversity' can unfold its beneficial impact on the process of competition.<sup>1076</sup>

This brief consideration of some possible implications of this particular 'diversity' notion points towards further implications for the actual refinement and development of regulatory activity by the Commission on as well as for the possibility of diversity based defences and arguments to be advanced by the undertaking alleged to have abused a dominant position: for example, might it be possible to argue that conduct (which would otherwise be held to constitute an abuse of a dominant position) is not abusive because of its impact on 'diversity'? Also, might the introduction of a (complex) diversity criterion lead to, or necessitate, the 'determination' of an 'optimal' level of 'diversity' (thus being connected to the question of 'Dominance'); if so, how can, and should, this level of 'optimal diversity' be determined?<sup>1077</sup> Especially the second point is likely

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<sup>1075</sup> See e.g. Hedvig K.S. Schmidt, The influence of IP rights on product definition in competition law – the curious case of tying, (2010) 21 *International Company and Commercial Law Review* 224.

<sup>1076</sup> See e.g., on the issue of 'optimal design' of intellectual property, Suzanne Scotchmer, *Innovation and Incentives*, 97 *et seq.*.

<sup>1077</sup> This, of course, also leads to the questions of what level of 'diversity' is to be regarded as 'optimal' and of who should be responsible for determining such an 'optimum'.

to have implications for the actual regulatory activity taken by the European Commission insofar as the question of 'optimal diversity' opens up the possibility for the Commission to argue that the current state of 'diversity' existing within a 'market' is 'optimal', thus potentially providing the Commission with an 'objective' justification to take pre-emptive action against undertakings, i.e. an action which is aimed at preventing 'diversity' reducing conduct within a specific 'market'. In addition – and this implication arises both in connection with, and independently of, the possibility of the Commission's taking pre-emptive action to protect the 'optimal' level of diversity within a given 'market' – the issue of 'optimal diversity' might also result in what might be called 'social engineering' on the part of the Commission because the criterion of 'optimal diversity' might be understood by the Commission as providing it with a justification to actively create a certain 'optimal' level of diversity in a particular 'market' in order to further specific policy goals such as e.g. consumer welfare. However, despite the importance of these potential implications for the formation of EU competition policy,<sup>1078</sup> it should be noted that it is neither the task of this thesis to control the activities of the

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<sup>1078</sup> This importance can be seen as a direct result of the fact that an application of Article 102 TFEU by the Commission which is based on a (perceived) pre-emptive, 'diversity protecting' function of this Article might result in (over-)intrusive activities by the Commission with, in turn, doubtful consequences for 'innovation' in a particular 'market' or economy. Whilst certainly not trying to downplay this issue – after all, the Commission is not necessarily best placed to decide how much 'innovation' can be expected or how much 'innovation' should take place in a 'market' – it should be kept in mind that, currently, the Commission is already enjoying a wide margin of appreciation in relation to the issue of 'Abuse' under Article 102 TFEU. One possibility to address the potential for (over-)intrusive activities by the Commission could be to make the Commission subject to tighter control in relation to its margin of appreciation; another possibility could be to introduce the option of a 'policy review' along the lines of a 'judicial review' in the European Treaties. Finally, it might also be possible to introduce differential treatment of high technology industries such as the software sector by means of 'Block Exemptions' in order to minimise any potential negative impact on 'innovation' by means of regulatory activities.

Commission in EU competition law nor that it is within its scope to do so; in this respect, the above outline of potential implications for the actual refinement and development of regulatory activity by the Commission should only be understood as identifying some areas in which further research is needed and, in so doing, as also pointing towards some more concrete questions which should be addressed in such an investigation.

At this point, given these wide-ranging implications of 'diversity' for the application of Article 102 TFEU both in general and in particular with regard to dynamic and innovation intensive industries such as the software sector, it also appears worthwhile to make another point: the above outline of the likely or potential implications for the formation of EU competition policy if a concept of diversity which is capable of reflecting variety, balance and disparity is incorporated into an Article 102 TFEU analysis should not be taken to present an exhaustive and definite picture of these likely implications; indeed, as mentioned before, it is neither this thesis' task nor within its scope to conduct and to present a complete analysis of the concept of diversity and likely implications of such an understanding of 'diversity' for EU competition law analysis, be it in general or with particular regard to an application of Article 102 TFEU to the software industry. However, irrespective of these qualifications, the above brief outline of the concept of diversity and its potential implications suggests that a much more sophisticated system of competition law analysis is required in order to take the criterion of 'diversity' and thus, ultimately also the criterion of 'innovation' properly into account when analysing the alleged abuse of a dominant position under Article 102 TFEU from an evolutionary economics perspective. In other words, although the above discussion concluded that an evolutionary economics perspective is, in principle, capable of being applied in relation to Article 102 TFEU, the discussion did not result in

devising a concrete model as to how such an evolutionary economics perspective might actually be achieved under Article 102 TFEU; the above discussion outlined some of those questions which warrant and require further research in order to achieve the eventual development of an evolutionary economics model for Article 102 TFEU.

### **III. Conclusion**

In analysing the Commission's more economic approach with regard to the software industry, Chapter 5 concluded *inter alia* that, if a coherent competition policy for this economic sector is to be created, a 'change of direction' for competition law analysis is needed; however, rather than reaching the conclusion that the software industry should be exempted from the scrutiny of EU competition law, Chapter 5 reasoned that the creation of a more coherent competition policy for – especially, but not exclusively – the software industry required a change of the theoretical foundations underlying the Commission's approach to competition law assessment in its present form. Chapter 6 built upon this conclusion and considered one possibility of what such a 'change of direction' might entail: the possibility of incorporating insights from evolutionary economics into current competition law analysis in the European Union which, despite being based upon a still developing strand of economic theory, was argued to provide useful insights into what a regulatory approach which better reflects and accommodates economic reality might resemble and involve.

In discussing this option, this Chapter presented – in view of the extensive body of research and literature on this subject – a relatively brief outline of what evolutionary economics is all about, i.e. it outlined its basic tenets which may, by and large, be traced back to the belief not only that neoclassical economics is incapable of properly coping with the dynamic



aspects of the economy (such as innovation and technological progress)<sup>1079</sup> but also that, in an economy, “[e]volution, growth and change are closely intertwined.”<sup>1080</sup> Put differently, evolutionary economics was outlined as centring around the process of economic development over time<sup>1081</sup> rather than the optimal allocation of a given resource at a given point in time. In a nutshell, it is this strategic perception of, and approach to, the economy which led to this Chapter’s submission that – especially with regard, but not limited, to dynamic industries such as the software sector – evolutionary economics may constitute a more suitable theoretical foundation for an approach to competition law analysis and regulation than that which currently appears to underlie the Commission’s more economic approach.

In particular, again with reference to dynamic industries such as the software industry, this Chapter contended that an evolutionary economics based approach to competition law analysis would have several advantages over one which is based upon neoclassical economics: the main advantage being that, as evolutionary economics recognises that bringing price to costs “isn’t competition’s only benefit and [also that it] probably isn’t the most important”,<sup>1082</sup> an evolutionary economics approach to competition law analysis might be regarded as being, in general, “more holistic” than one which is based on traditional price

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<sup>1079</sup> See Richard R. Nelson, A Viewpoint on Evolutionary Economic Theory, in: Yuji Aruka (ed.) *Evolutionary Controversies in Economics – A New Transdisciplinary Approach*, 15; Wolfgang Kerber, *Institutional Change in Globalization: Transnational Commercial Law from an Evolutionary Economics Perspective*, (2008) 9 *German Law Journal* 411; Ulrich Witt, *Warum evolutorische Ökonomik?*, in: Ulrich Witt (ed.), *Studien zur Evolutorischen Ökonomik I*, 9, 10 *et seq.*

<sup>1080</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 90.

<sup>1081</sup> See e.g. Giovanni Dosi / Richard R. Nelson, *An introduction to evolutionary theories in economics*, (1994) 4 *Journal of Evolutionary Economics* 153, 154; Ulrich Witt, *Evolutionary concepts in economics*, (1992) 18 *Eastern Economic Journal* 405.

<sup>1082</sup> Joseph Farrell, *Complexity, diversity, and antitrust*, (2006) 51 *Antitrust Bulletin* 165, 166; see also Gisela Linge, *Competition Policy, Innovation, and Diversity*, 6 *et seq.*

centred economic analysis.<sup>1083</sup> Thus, Chapter 6 contended that by enabling the incorporation of dynamic effects into the actual analytical process, an analytical approach based upon evolutionary economics would allow for a more complete consideration of those economic factors which may be of particular relevance for a specific industry and consequently, Chapter 6 submitted that such an approach was preferable to the mere ‘tacking-on’ of dynamic efficiency considerations as some sort of “afterthought”<sup>1084</sup> to more traditional, equilibrium-centred economic analysis. This Chapter further argued that the facilitation of insights offered by evolutionary economics for competition law analysis was also more in line with the understanding of the concept of competition *as a process* and, thus, may have the beneficial ‘side-effect’ of reconciling the analytical approach with the *lex lata* of the European Treaties which, as concluded in Chapter 1, regards ‘competition’ as a behavioural, institutional concept.

The discussion of the advantages of an approach to competition law analysis based upon evolutionary economics was duly followed by a consideration of what such an approach might look like *in concreto* with regard to competition law assessment under Article 102 TFEU. After outlining and discussing a suggestion made by Linge as to how insights from evolutionary economics might usefully be applied in relation to existing merger review procedures by introducing two additional overt assessment criteria (‘innovation’ and ‘diversity’), this Chapter analysed the possibility of directly transposing Linge’s model into the context of abuse control. This analysis concluded that, whilst, at first glance,

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<sup>1083</sup> Ulla-Maija Mylly, An evolutionary economics perspective on computer program interoperability and copyright, (2010) 41 *International Review of Intellectual Property and Competition Law* 284, 292.

<sup>1084</sup> Keith N. Hylton / Haizhen Lin, Optimal Antitrust Enforcement, Dynamic Competition, and Changing Economic Conditions, (2010) 77 *Antitrust Law Journal* 247, 248.

seemingly possible, the attempt to transfer Linge's model into the context of Article 102 TFEU encountered some problems which prevented the direct and unaltered transposition of her proposal in relation to the analysis of an alleged abuse of a dominant position. It was further concluded, as the encountered transposition problems were connected to the way in which 'diversity' was approached and defined with regard to merger review, that 'diversity' had to be approached in a context specific way, which took into account the factual differences between the investigated scenarios, meaning that, in view of the subject matter of this thesis, 'diversity' had to be understood in relation to abuse control under Article 102 TFEU. Although the determination of a concrete evolutionary economics meaning of 'diversity' was neither the task of this thesis nor within its scope, Chapter 6 nonetheless briefly considered the general properties which can be said to commonly constitute 'diversity'; those properties being variety, balance and disparity.<sup>1085</sup>

After considering these properties, this Chapter submitted that any Article 102 TFEU specific 'diversity' would have to be capable of reflecting these properties in order to achieve and to ensure the application of "adequate frameworks and thresholds [...] during the analysis"<sup>1086</sup> of such dynamic markets, thereby helping "antitrust authorities to gain a better understanding of the reviewed markets."<sup>1087</sup> In addition, the discussion also deduced that the actual process of achieving this end was likely to be more complex than first appearances might suggest as "[t]he consequence

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<sup>1085</sup> Andy Stirling, *A general framework for analysing diversity in science, technology and society*, (2007) 4 *Journal of Royal Society Interface* 707

<sup>1086</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 268.

<sup>1087</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 270. Similarly arguing that the incorporation of insights from evolutionary economics would lead to the development of "a more robust framework for antitrust economics": J. Gregory Sidak / David J. Teece, *Rewriting the Horizontal Merger Guidelines in the Name of Dynamic Competition*, (2009) 16 *George Mason Law Review* 885.

of this threefold understanding of diversity is a recognition that each property constitutes the other two”,<sup>1088</sup> thereby rendering diversity a much more complex concept than usually acknowledged. In turn, the discussion of the complex nature of ‘diversity’ as a concept led this Chapter to consider several implications for EU competition law analysis, not only with regard to the application of Article 102 TFEU in general but also with regard to the specific application of Article 102 TFEU to dynamic and innovation intensive industries such as the software sector. Yet, irrespective of these qualifications, the brief outline of the concept of diversity and its potential implications presented in Chapter 6 led to the suggestion that a much more sophisticated system of competition law analysis is required in order to take the criterion of ‘diversity’ and thus, ultimately also the criterion of ‘innovation’ properly into account when analysing the alleged abuse of a dominant position under Article 102 TFEU by applying an evolutionary economics perspective. In other words, although the discussion in Chapter 6 concluded that an evolutionary economics perspective is, in principle, capable of being applied in relation to Article 102 TFEU, the discussion did not result in devising a concrete model as to how such an evolutionary economics perspective might actually be achieved under Article 102 TFEU; the analysis conducted in Chapter 6 can thus be regarded as outlining some of those questions which warrant and require further research in order to achieve the eventual development of such a model for Article 102 TFEU, thereby contributing to the discussion of how a more robust framework for competition law analysis in relation to dynamic effects might be best achieved.

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<sup>1088</sup> Andy Stirling, *A general framework for analysing diversity in science, technology and society*, (2007) 4 *Journal of Royal Society Interface* 707, 709.

## **Chapter 7 – Conclusion**

This thesis has explored the regulation of competition in the software industry by the European Union and examined, in particular, the European Commission's more economic approach in relation to the application of Article 102 TFEU in the software industry. In doing so, the hypothesis was advanced that the European Commission's more economic approach does not currently lend itself easily to the formation of coherent and consistent competition policy and regulatory practice for the software industry. In testing this hypothesis, the thesis has advanced the argument that the software industry involves more complexities than are capable of being accurately captured by the static neo-classical economic theory underlying the current form of the Commission's more economic approach. However, instead of merely asserting the supremacy of non-economic considerations grounded in 'the law' over considerations of economic efficiency, this thesis has argued for a more balanced regulatory approach which not only recognises the general importance of up-to-date economic theory in the development of both coherent competition law analysis and regulatory practice but which also does not overlook the continuing importance of the traditional, constitutional policy goals (as contained in the European Treaties) for the formation of competition policy and regulatory practice. The argument was advanced that the need for such an 'inclusive' approach becomes particularly noticeable in relation to dynamic industries such as the software sector. In calling for a more balanced regulatory approach to the formation of competition policy for dynamic economic sectors such as the software industry, this thesis criticised the 'traditional' market-based approach to the 'regulation' of competition in the context of the software sector and, in doing so, argued for the development of a more dynamically aware and sophisticated

approach to the object of competitive regulation which incorporates, rather than ignores, insights from current economic theory such as evolutionary economics.

The findings of this thesis may be summarised as follows: in considering the general setting of EU competition policy and its traditional, constitutional goals ‘protection of undistorted competition’ and ‘market integration’ in the light of the (pre- and post-Lisbon) European Treaties, Chapter 1 *‘EU Competition Policy: Setting and Aims’* concluded that both goals still have to be considered the guiding principles of EU competition policy, at the very least until the standing of Protocol No. 27 is clarified or is given a radically different interpretation by the European Courts. Moreover, Chapter 1 further concluded that, as “a ‘highly competitive social market’ and ‘full employment’ in the Union [both of which are expressly mentioned as policy goals of the Union<sup>1089</sup>] cannot be attained without effectively protecting competition”,<sup>1090</sup> it seems unlikely that the objective of ‘protection of competition’ will disappear from the radar of European Union goals completely. In discussing the meaning of the concept of competition as contained in the (pre- and post-Lisbon) European Treaties, Chapter 1 further contended that, despite the changes introduced by means of the Lisbon Treaty, the European Treaties continue to regard ‘competition’ as a concept which is both institutional and behavioural; in this context, it was also argued that the European Treaties still avoided mandating an ideal form of competition or, in this context, an ideal form of market structure. In short, the discussion concluded that the concept of competition as contained in the European Treaties continues to

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<sup>1089</sup> Article 3 (3) TEU.

<sup>1090</sup> Josef Drexler, *Competition Law as Part of the European Constitution*, in: Armin von Bogdandy / Jürgen Bast (eds.) [2009], *Principles of European Constitutional Law*, 659, 665.

act as a legal principle of organisation of the EU's open market economic system. By analysing the (continuing) importance of the traditional, Treaty based policy goals of 'protection of undistorted competition' and 'market integration' as well as the meaning of the concept of competition as contained in the European Treaties, Chapter 1 thus established the basis for the hypothesis that the Commission's more economic approach in its present form does not lend itself easily to the creation of a coherent competition policy in relation to the software industry and laid the foundation for the argument that a conflict exists between the goal(s) underlying the Commission's more economic approach in its present form and the traditional goals of EU competition policy as contained in the European Treaties.

In order to contrast the findings made in Chapter 1 with the Commission's recent reform efforts and, thus, to also substantiate the thesis' hypothesis, Chapter 2 *'The European Commission's Approach to Competition Policy'* considered the Commission's more economic approach in its present form. As the Commission's more economic approach ostensibly purports to centre around the issue of 'consumer welfare', the analysis placed a particular emphasis on the notion of 'the consumer' as an appropriate benchmark for competition policy and noted the Commission's tendency to employ an overly broad and inconsistent characterisation of this term, leading to problems of identification concerning the relevant consumer. It was argued that this lack of uniformity in terms of terminology is one reason why the Commission's more economic approach is unlikely to lead to the formation of consistent and coherent competition policy for the software sector.

The discussion of the Commission's reform efforts in Chapter 2 further reasoned, given that the more economic approach equates the question of consumer welfare with the question of allocative efficiency, that the

Commission's use of consumer welfare as the new overall objective of EU competition policy follows traditional, neoclassical textbook economics. Furthermore, the analysis of relevant Commission documents concluded that the Commission appears to consider the traditional goals of EU competition policy ('protection of undistorted competition' and 'market integration') to now be only of minor importance, i.e. only relevant insofar as these traditional policy goals can be seen as supporting the achievement of consumer welfare as understood by the Commission. It was consequently submitted that the Commission's approach, by the issuance of notices and guidance documents which replace or downgrade the traditional Treaty based objectives of EU competition policy in favour of a new, economically conceptualised goal of consumer welfare, could be reasonably argued to represent an attempt to effect the *de facto* overhaul of EU competition policy. Furthermore, it was suggested that such a shift from the traditional policy goals gives rise to a theoretical conflict between the Commission's enforcement practice and the *lex lata* of the European Treaties themselves. This conflict is another reason for this thesis' submission that the Commission's more economic approach is unlikely to result in the creation of coherent and consistent competition policy for the software industry.

Chapter 3 '*The Economics of the Commission's More Economic Approach*' complemented the analysis conducted, and the conclusions drawn, in the previous Chapters by analysing the economic theory which underlies the Commission's reform efforts. It was argued that many of the pitfalls associated with the Commission's more economic approach in relation to the software industry are connected with (or even hail from) the Commission's 'peculiar' use and understanding of economic theory or, more precisely, from the Commission's seeming wish to rely on a rather static form of economic theory by following what might be called a



neoclassical economic approach to competition law analysis. This argument was based on the following considerations: The focus on equilibrium-focused efficiency considerations in the form of price and quantity might be seen as leading to an undue regulatory “focus on price competition between firms *given* current costs and current product offerings”<sup>1091</sup> and therefore also to incomplete and problematic legal analysis and regulatory outcomes. Referring to Commission decisions such as *Microsoft*<sup>1092</sup> and *Intel*,<sup>1093</sup> it was reasoned that, as a selective focus on (rather static) economic issues such as allocation or price can arguably be considered as falling short of the manifold facets and aspects of the concept of competition,<sup>1094</sup> a price and allocation focused approach to competition policy in high-technology sectors such as the software industry may reasonably be regarded as being “burdened by a myopic focus on market structure as the key determinant of innovation” and therefore also as a “remarkably naïve, highly incomplete” approach to competition law enforcement.<sup>1095</sup> Consequently, Chapter 3 concluded that, as the Commission’s current approach apparently lacks what might be called ‘sufficient links to economic reality’ because of its seeming overreliance on neoclassical economic theory, the more economic approach can not only be accused of neglecting dynamic efficiency

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<sup>1091</sup> Simon Bishop / Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, para. 2-036.

<sup>1092</sup> European Commission, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty, COMP/C-3/37.792 Microsoft.

<sup>1093</sup> European Commission, Commission Decision relating to a proceeding under Article 82 of the EC Treaty and Article 54 of the EEA Agreement, 13 May 2009, COMP/C-3/37.990.

<sup>1094</sup> See e.g. Karl M. Meessen, *Prinzip Wettbewerb*, (2009) *Juristenzeitung* 697; Shelby D. Hunt, *A General Theory of Competition – Resources, Competences, Productivity, Economic Growth*, 4 *et seq.*; Robert H. Bork, *The Antitrust Paradox – A Policy at War with Itself*, 58-61 [footnotes omitted]. As was substantiated in Chapter 3, this might especially be the case where ‘competition’ in an innovation context is concerned.

<sup>1095</sup> J. Gregory Sidak / David J. Teece, *Dynamic Competition in Antitrust Law*, (2009) 5 *Journal of Competition Law & Economics* 581, 589.

considerations but also of presenting a case of “‘omitted’ economics”.<sup>1096</sup> This, it was suggested, might in turn negatively impact upon the Commission’s efforts to modernise and to improve the quality of competition law assessment in the European Union and thus also lead to the creation of inconsistent and incoherent competition policy for the software industry.

Chapter 4 *‘Analysing the Ökonomisierung of EU Competition Policy: Manifestation, Effects and Problems’* further developed the arguments outlined in Chapter 3 and, by discussing the effects and problems of the Commission’s recent reform efforts, questioned the general suitability of the more economic approach as a means to create coherent and consistent competition policy and regulatory decisions. In particular, it analysed the ways in which the Commission’s more economic approach has manifested itself in relation to the goals of EU competition policy and the concept of competition: with regard to the Commission’s approach to the goal(s) of EU competition policy, the findings of the analysis further substantiated the objection that the Commission’s more economic approach neglects dynamic aspects of economic theory; with regard to the Commission’s understanding of the concept of competition, it was concluded that the Commission continues to view ‘competition’ in structural terms, rather than in behavioural terms. Making particular reference to competitive assessment under Article 102 TFEU, it was argued that such a structural approach to the concept of competition may be considered “‘unfortunate”<sup>1097</sup> insofar as it results in a regrettable mixture of a behavioural concept (‘competition’) with a structural one (‘market’) which

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<sup>1096</sup> Roger Van den Bergh, *The ‘More Economic Approach’ and the Pluralist Tradition of European Competition Law*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 27, 34.

<sup>1097</sup> George J. Stigler, *Perfect Competition, Historically Contemplated*, (1957) 65 *The Journal of Political Economy* 1, 6.

leaves all concerned – whether lawyers, economists, regulators or judges – not only with an ambiguous concept<sup>1098</sup> with which to assess alleged abuses of a dominant position but also with one which can only offer limited insights in relation to the *legal* determination of an actionable abuse of a dominant position.

Chapter 4 also discussed the likely effects and implications of the more economic approach as currently pursued for EU competition policy and in particular what implications the Commission's reform efforts might have for the issues of normativity and legal certainty in relation to EU competition law assessment, making particular reference to the Commission's *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*: with regard to the issue of normativity, it was reasoned that the more economic approach in its present form is likely to result in normative concerns because, by focusing on static efficiency considerations, it is not only likely to exclude the consideration of 'the bigger picture' (e.g. relevant public policy issues<sup>1099</sup>) from the actual evaluation process but is also likely to disregard the important fact that, in practice, competition law analysis is not so much concerned with market structure as with allegedly anticompetitive behaviour within 'the market'. In this context, it was argued that any further 'injection' of economics into competition law analysis should be treated as an addition to, rather than as a replacement of, the *legal* competitive assessment process as treating such an 'injection' otherwise is likely to result in the loss of the normativity needed to make proper and transparent regulatory decisions.

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<sup>1098</sup> See Paul J. McNulty, *Economic Theory and the Meaning of Competition*, (1968) 82 *Quarterly Journal of Economics* 639, *passim*.

<sup>1099</sup> Wulf-Henning Roth, *The "More Economic Approach" and the Rule of Law*, in: Dieter Schmidtchen / Max Albert / Stefan Voigt (eds.), *The More Economic Approach to European Competition Law*, 37, 41 *et seq.*.

Furthermore, the discussion concluded that the Commission's seeming reliance on a rather 'static' form of economic theory as embodied in its understanding of, and approach to, the economic concept of 'the market' risks the *de facto* establishment of a competition policy which is at odds with its normative purpose as presented by the *lex lata* of the European Treaties.

Unfortunately, this negative evaluation of the Commission's more economic approach continued with regard to the analysis of its impact on legal certainty, especially in relation to the *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*: indeed, the discussion concluded that the *Guidance Paper* is not only characterised by the lack of intellectual coherence and a multitude of "inherent uncertainties"<sup>1100</sup> but also that it exhibits a certain "ambiguity"<sup>1101</sup> as to its true legal nature; all of these conclusions were found to negatively affect legal certainty for undertakings, counsel and enforcement authorities. In addition, the analysis concluded that the considerable leeway granted to the Commission by the European Courts in relation to the application of Article 102 TFEU by means of its 'margin of appreciation' was likely to increase the legal uncertainty caused by either the *Guidance Paper's* ambiguous content or its ambiguous legal nature. Accordingly, the discussion submitted that, instead of adding clarity to the assessment process for all parties concerned, the *Guidance Paper* actually magnifies confusion as to what conduct might, or might not, trigger an investigation

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<sup>1100</sup> Ariel Ezrachi, *The Commission's Guidance on Article 82 EC and the Effects Based Approach – Legal and Practical Challenges*, in: Ariel Ezrachi (ed.) *Article 82 EC: Reflections on its Recent Evolution*, 51, 54.

<sup>1101</sup> Damien Geradin, *Is the Guidance Paper on the Commission's Enforcement Priorities in Enforcing Article 102 TFEU Useful?*, in: Frederico Etro / Ioannis Kokkoris (eds.), *Competition Law and the Enforcement of Article 82*, 46, 61, at: <http://www.intertic.org/BookPapers/oxford.pdf> (13/01/2011).

and thereafter liability for anticompetitive behaviour under Article 102 TFEU. Consequently, it was reasoned that the publication of the *Guidance Paper* as a manifestation of the more economic approach has been detrimental for legal certainty as it has introduced a range of theoretical and practical problems for the future application of, and compliance with, Article 102 TFEU and that it is therefore unlikely to help in the creation of coherent and consistent competition policy.

Chapter 5 '*The Commission's More Economic Approach and the Software Industry*' linked the analysis of the Commission's more economic approach with the software industry and, in doing so, concentrated on the question of why the previously discussed issues might be said to be exacerbated in this particular industrial sector. It was argued that the problems caused by factual indeterminacies for competition law assessment in general are intensified by the characteristics of the software industry and, in particular, that these characteristics represent a problem for the Commission's more economic approach insofar that the static nature of this approach and its resulting shortcomings are even more 'exposed' in a dynamic environment such as the software industry. Although the analysis concluded that 'software is different', it also reasoned that software is not different enough to warrant regulatory non-intervention in the form of an exemption from the application of EU competition law; this conclusion was reached as a consequence of arguing that concerns as to anti-competitive behaviour of undertakings operating in the software industry are neither new as such (in the sense that this industry had never before given rise to regulatory concerns) nor are the regulatory issues which might arise (or have arisen) in this sector necessarily restricted to the software industry (in the sense that these issues might only arise in relation to software 'markets'). Building upon these conclusions, it was reasoned that the analytical problems

encountered by enforcers of competition law do not so much lie with the actual economic characteristics of the software industry as such (as these characteristics may, in varying degrees, also be found in other sectors) but rather with the pronounced accumulation of issues which, with regard to more traditional industries, do not surface in such cumulative fashion and thus do not – in these other industrial sectors – result in such intense assessment difficulties for competition law authorities.<sup>1102</sup> In particular, the analysis concluded that, as a result of the accumulative ‘occurrence’ of factors including, for example, complexity of technology and network effects, the Commission’s current economic approach to competition law enforcement is unlikely to result in the creation of coherent competition policy for a dynamic industrial sector such as the software industry as, in its present form, it is too static, too one-dimensional to properly cope with the dynamics and multifaceted characteristics of this industry. In reaching these conclusions, Chapter 5 substantiated this thesis’ call for a more sophisticated economic approach to the application of competition law which incorporates insights from *modern* economic theory about the dynamics of the process of competition and which is not, as Schmalensee has put it, “founded on the fiction that the world is simple.”<sup>1103</sup>

Building upon the conclusions drawn in previous chapters that the theoretical foundations underlying the more economic approach in its current form should be changed / readjusted in order to create a more coherent competition policy (particularly for dynamic economic sectors such as the software industry), Chapter 6 ‘*Advocating an Alternative Approach to Competition Law Analysis under Article 102 TFEU*’ addressed the question of the nature of the ‘change of direction’ necessary to allow the

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<sup>1102</sup> Michael L. Katz / Carl Shapiro, *Antitrust in Software Markets*, 1.

<sup>1103</sup> Richard Schmalensee, *Another Look at Market Power*, (1982) 95 *Harvard Law Review* 1789.

development of more coherent competition policy by suggesting the possibility of incorporating insights from evolutionary economics into (existing) competition law analysis so as to better reflect and accommodate the dynamism of the software sector. In discussing this option it was contended that an evolutionary economics based approach to competition law analysis possesses several advantages over one based solely upon neoclassical economics: one advantage being that, as evolutionary economics neither proceeds from the assumption that bringing cost to price is the only advantage of the competitive process nor regards this issue as the most significant advantage of the competitive process, an evolutionary economics approach is generally “more holistic” than traditional price centred economic analysis.<sup>1104</sup> It was thus argued that, by explicitly incorporating the consideration of dynamic effects into the actual process of regulatory assessment, an analytical approach based upon evolutionary economics would allow for a more complete consideration of those economic factors which may be of particular relevance for a specific industry; such an approach is preferable to the mere ‘tacking-on’ of dynamic efficiency considerations as some sort of “afterthought”<sup>1105</sup> to the traditional static analysis. It was further reasoned that, as the incorporation of dynamic effects can be seen as emphasising the process-orientated elements of ‘competition’ as a concept, the facilitation of insights offered by evolutionary economics for competition law analysis was also more in line with the understanding of the concept

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<sup>1104</sup> Ulla-Maija Mylly, *An evolutionary economics perspective on computer program interoperability and copyright*, (2010) 41 *International Review of Intellectual Property and Competition Law* 284, 292.

<sup>1105</sup> Keith N. Hylton / Haizhen Lin, *Optimal Antitrust Enforcement, Dynamic Competition, and Changing Economic Conditions*, (2010) 77 *Antitrust Law Journal* 247, 248.

of competition *as a process* and, thus also better aligned with the *lex lata* of the European Treaties as considered in Chapter 1.

The discussion of the advantages of an approach to competition law analysis based upon evolutionary economics was duly followed by a consideration of what such an approach might look like *in concreto* with regard to competition law assessment under Article 102 TFEU. After outlining and discussing a suggestion made by Linge as to how insights from evolutionary economics might usefully be applied in relation to existing merger review procedures by introducing two additional overt assessment criteria ('innovation' and 'diversity'), Chapter 6 analysed the possibility of directly transposing Linge's model into the context of abuse control. It was concluded that, whilst, at first glance, seemingly possible, the attempt to transfer Linge's model into the context of Article 102 TFEU encountered some problems which prevented the direct and unaltered transposition of her proposal in relation to the analysis of an alleged abuse of a dominant position. It was further reasoned, as the encountered transposition problems were connected to the way in which 'diversity' was approached and defined with regard to merger review, that 'diversity' had to be approached in a context specific way, which took into account the factual differences between the investigated scenarios, meaning that, in view of the subject matter of this thesis, 'diversity' had to be understood in relation to abuse control under Article 102 TFEU. Although the determination of a concrete evolutionary economics meaning of 'diversity' was neither the task of this thesis nor within its scope, Chapter 6 nonetheless briefly considered those properties which



can be said to commonly constitute ‘diversity’”; those properties being variety, balance and disparity.<sup>1106</sup>

After considering these properties, Chapter 6 submitted that any Article 102 TFEU specific ‘diversity’ would have to be capable to reflect these properties in order to achieve and to ensure the application of “adequate frameworks and thresholds [...] during the analysis”<sup>1107</sup> of such dynamic markets, thereby helping “antitrust authorities to gain a better understanding of the reviewed markets.”<sup>1108</sup> In addition, Chapter 6 also reasoned that the actual process of achieving this end was likely to be more complex than first appearances might suggest as “[t]he consequence of this threefold understanding of diversity is a recognition that each property constitutes the other two”,<sup>1109</sup> thereby rendering diversity a much more complex concept than usually acknowledged. The complex nature of ‘diversity’ as a concept led Chapter 6 to – in view of the constraints placed upon this thesis in terms of both its task and scope: briefly – consider several implications for EU competition law analysis, not only with regard to the application of Article 102 TFEU in general but also with regard to the specific application of Article 102 TFEU to dynamic and innovation intensive industries such as the software sector. Yet, irrespective of these qualifications, the brief outline of the concept of diversity and its potential implications led to the suggestion that a much more sophisticated system of competition law analysis is required in order to take the criterion of

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<sup>1106</sup> Andy Stirling, *A general framework for analysing diversity in science, technology and society*, (2007) 4 *Journal of Royal Society Interface* 707

<sup>1107</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 268.

<sup>1108</sup> Gisela Linge, *Competition Policy, Innovation, and Diversity*, 270. Similarly arguing that the incorporation of insights from evolutionary economics would lead to the development of “a more robust framework for antitrust economics”: J. Gregory Sidak / David J. Teece, *Rewriting the Horizontal Merger Guidelines in the Name of Dynamic Competition*, (2009) 16 *George Mason Law Review* 885.

<sup>1109</sup> Andy Stirling, *A general framework for analysing diversity in science, technology and society*, (2007) 4 *Journal of Royal Society Interface* 707, 709.

'diversity' and thus, ultimately, also the criterion of 'innovation' properly into account when analysing the alleged abuse of a dominant position under Article 102 TFEU by applying an evolutionary economics perspective. In other words, although the discussion in Chapter 6 concluded that an evolutionary economics perspective is, in principle, capable of being applied in relation to Article 102 TFEU, the discussion did not result in devising a concrete model as to how such an evolutionary economics perspective might actually be achieved under Article 102 TFEU; however, the analysis conducted in Chapter 6 outlined some of those questions which warrant and require further research in order to achieve the eventual development of such a model for Article 102 TFEU, thus contributing to the discussion of how a more robust framework for competition law analysis in relation to dynamic effects might be best achieved.

Although this thesis has considered problems with the Commission's more economic approach in relation to the formation of coherent competition policy for the software industry from a predominantly theoretical perspective, it relates to an important practical point: that point being that if the Commission gets its regulatory approach 'wrong', this will result in the creation of either a false negative (Type I error – false acquittal) or a false positive (Type II error – false condemnation), thereby producing a flawed body of competition law practice which resonates throughout the European Union to adversely affect the behaviour of undertakings and other regulators in the European Union and elsewhere. With particular regard – but not limited – to the context of 'the software industry', developing a flawed body of regulatory practice has to be considered hazardous for the process of competition and economic development alike for a number of reasons: first, there is a risk that, a consequence of the lack of legal certainty, predictability and transparency,

innovation may be stunted or adversely affected to the detriment of both consumers and the economy. This is because undertakings will be unsure as to what action on their part will trigger an investigation for anticompetitive behaviour and thus will be increasingly (and understandably) less willing to engage in any activity that might potentially be perceived as 'anticompetitive' by the regulator or be represented to be so by their competitors. Moreover, as engaging in software innovation may very well be one of the activities that, given its potential to upset competitors, undertakings may shy away from, the absence of legal certainty in this context is an important issue if the maxim of protecting 'competition' rather than competitors is to be more than just an empty catch-phrase. Second, it is to be feared that regulatory transparency will be lost or at least reduced, with the likely (associated) negative effect that compliance costs may rise for no good reason (other than to potentially benefit legal and economic Counsel). Again, this likely development is to the detriment of both the economy and consumers as such compliance costs must either be passed on or will, in all likelihood, act to deter the undertaking from taking the risk of attempting to innovate. Third and finally, there is a broader risk that the multiplication of dubious, opaque or downright wrong evaluations on the part of the Commission may make the argument for exempting software or IT from the scrutiny of EU competition law seem more attractive and plausible; however, as this thesis has shown, there is reason to believe that the likelihood for anticompetitive behaviour to occur in the software industry is as great as anywhere else. Moreover, removing sectors such as the software industry from the radar of EU competition law would seem to suggest that the trend to remove 'protection of undistorted competition' from the list of EU policy goals which some saw in Protocol 27 was becoming a reality. This trend, however, should not be encouraged: otherwise, there will be no

doubt that the maxim of protecting 'competition' rather than competitors has become an empty catch-phrase in the European software industry.

As outlined in the course of this thesis, these risks already exist in relation to more traditional, relatively mature and so-called smoke-stack industries; however, they are much higher in the context of high technology industries such as the software industry as, within these industries, maintaining a high level of innovation is pivotal if these economic sectors are to fulfil the (economic and politic) expectancies outlined in strategic documents such as Europe 2020<sup>1110</sup> by providing new, better and cheaper products to those who would sell and buy such goods. Given the dynamics operating within such sectors, it is submitted that the suggestions put forward in this thesis represent a necessary step towards the improvement of the competitive regulation of the software industry within the European Union and thereby also a step towards the fulfilment of the software industry's economic potential as outlined in the aforementioned strategic documents.

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<sup>1110</sup> European Commission, Europe 2020 - A strategy for smart, sustainable and inclusive growth, COM(2010) 2020 final; see also European Commission, A Digital Agenda for Europe, 26 August 2010, COM(2010) 245 final/2.

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**Please note: Unless otherwise stated, all websites were last accessed on 28 August 2011.**

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