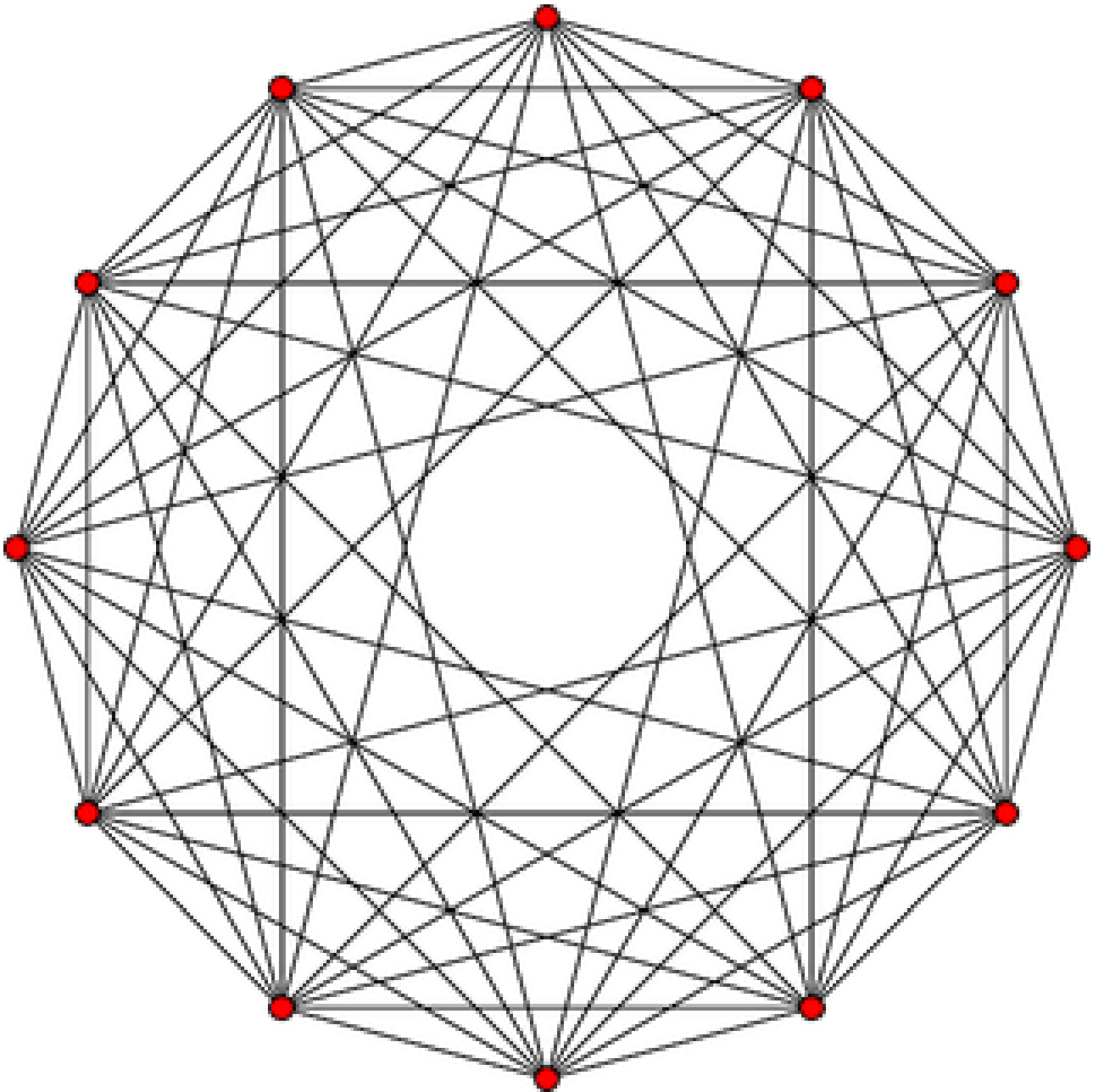


Centre for Law, Economics and Society

Research Paper Series: 4/2018



Polycentric Competition Law

Ioannis Lianos

Centre for Law, Economics and Society

**CLES
Faculty of Laws, UCL**

Director: Professor Ioannis Lianos



LAW, ECONOMICS & SOCIETY

CLES Research Paper Series
4/2018

Polycentric Competition Law

Ioannis Lianos

September 2018

Centre for Law, Economics and Society (CLES)
Faculty of Laws, UCL London,
WC1H 0EG
The CLES Research Paper Series can be found at
www.ucl.ac.uk/cles/research-papers

All rights reserved.

No part of this paper may be reproduced in any form without permission of the authors.

Pre-published version of I. Lianos, Polycentric Competition Law, forth. Current Legal Problems (2018)

ISBN 978-1-910801-18-5
© Ioannis Lianos 2018
Centre for Law, Economics and Society
Faculty of Laws, UCL
London, WC1H 0EG
United Kingdom

Polycentric competition law

Ioannis Lianos*

Abstract

In a world marked by financial instability, limited growth, rising inequality, deteriorating environment, growing corporate consolidation, and political turmoil, calls are made to shift the dominant competition law paradigm towards new directions. These may bring competition law beyond its usual comfort zone of assessing business, or government, practices from the point of view of their effect on prices, output and, more broadly, on consumer welfare.

Competition law is seen as a tool to be used in various circumstances in order to ‘correct’ market as well as non-market (e.g. government) failures, that result from restrictions of competition, to the extent that these affect social welfare. These failures may relate to the protection of personal data and privacy, the protection of the environment, the promotion of social mobility, the harnessing of disruptive innovation, or the mitigation of technology risks. Some go even further and argue that competition law may well be employed in order to preserve a number of other ‘values’ of social justice, thought to be intrinsic in democratic capitalism and the liberal order, and to which competition law should be sensitive.

By putting forward the model of ‘polycentric competition law’ and by explaining how this compares with the mainstream ‘monocentric’ vision that has prevailed so far, the study aims to unveil and portray the rites of passage in this transition, and to explore the liminal condition of modern competition law.

Keywords: *competition law, complex economy, innovation, environment, privacy, governance, consumers, citizens, polycentricity, monocentricity*

JEL Codes: A11, A12, A13, D6, D70, I30, K21, L40

* Professor of Global Competition Law and Public Policy; Director of the Centre for Law, Economics & Society, UCL Faculty of Laws; Chief Researcher, HSE BRICS Competition Law Centre. This inaugural lecture is dedicated to the memory of my father Konstantinos Lianos, whom I missed so much having in the room that day. The author would like to thank Amber Darr, Michal Gal, Damien Gerard, Athena Hatzi, Justin Lindeboom and an anonymous reviewer for their insightful editorial and also substance-related suggestions.

Polycentric competition law

Ioannis Lianos*

I.	Introduction.....	5
II.	Monocentric v. polycentric competition law	8
A.	Framing the problem.....	8
B.	Monocentric competition law	11
C.	The limits of the monocentric vision of competition law: polycentricity and the contested boundaries of competition law assessment	18
1.	Innovation	18
2.	Privacy	23
3.	Environmental protection.....	26
III.	The Institutional dimensions of polycentric competition law	30
A.	Framing struggles.....	32
B.	‘Cross-institutional isomorphism’.....	34
C.	‘Multiple performance’	35
1.	Frankenstein.....	35
2.	Polycentric competition law.....	39
IV.	Conclusion	43

I. Introduction

‘[T]he market is not the society’ [...] ‘For a long time we have been told that is all it is. But the market is there to serve us as citizens’¹.

For the past few decades, most competition law scholars would have done everything to avoid being accused of the ‘bad taste’ of mixing political with economic/legal questions. The ‘model’ of competition law that emerged in the late 1970s in the United States (US)² and in the 1990s

* Professor of Global Competition Law and Public Policy; Director of the Centre for Law, Economics & Society, UCL Faculty of Laws; Academic Director, BRICS Competition Law & Policy. This inaugural lecture is dedicated to the memory of my father Konstantinos Lianos, whom I missed so much having him in the room that day. The author would like to thank Amber Darr, Michal Gal, Damien Gerard, Athena Hatzi, Justin Lindeboom and an anonymous reviewer for their insightful editorial and also substance-related suggestions.

¹ The Guardian, Tim Adams ‘Interview of Margrethe Vestager:’ We are doing this because people are angry’ <https://www.theguardian.com/world/2017/sep/17/margrethe-vestager-people-feel-angry-about-tax-avoidance-european-competition-commissioner> (accessed September 17, 2017).

² This is linked to the rise of the Chicago school of antitrust economics: Yale Brozen, ‘Competition, Efficiency and Antitrust’ (1969) 3 J. World Trade L. 65; Robert H. Bork, *The Antitrust Paradox: A Policy at War with Itself*

in Europe,³ a period of triumph for neoliberal thought that marked, for some, the ‘end of history’⁴ was defined in opposition to the ‘populist’ model of competition law, and in particular the version that was enforced in the US from the 1950s until the end of the 1970s.⁵ This ‘modernised’ competition law essentially adopted the proposition that economics informs the essence of competition law norms and should be the ultimate guide in their implementation.⁶ Neo-classical price theory constitutes its unique, or main, source of economic expertise. Its main focus is markets, the field where price(s) are formed, and the preferences of consumers revealed and in which the domain of politics, or law, where citizens express their preferences, political emotions, and eventually convictions, is explicitly and on purpose ignored.⁷

The mainstream model of competition law disregards questions that the current methods and tools of economics, and in particular Neoclassical Price Theory (NPT), have difficulty integrating and processing analytically. Issues, such as fairness, are considered controversial from the point of view of economics and are deemed to belong to the separate realm of politics. A similar intellectual scheme distinguishes the domain of competition law, which is considered as a field of applied economics, and thus intrinsically allergic to any form of political content and to the neighbouring yet distinct, field of regulation, where controversial ‘political’ issues are often relegated for resolution. For instance, although consumer welfare—that is the ability of consumers to benefit from lower prices and higher output—is at the centre of the economic analysis in competition law cases, the allocation of that surplus between different groups of consumers, or more generally the definition of a standard for a fair allocation of this surplus, according to some principle of need—a fairness issue—is not usually considered as part of the realm of competition law analysis. Citizens may well declare their commitment to environmental or privacy-enhancing causes, however, only their behaviour in the marketplace, when they choose between various products, counts for the purposes of competition law.

Modern competition law relies on the work of a pro-active technocracy, which assumes the tasks of forecasting, knowledge gathering/sharing, and communicating with the public.⁸ Technocracy pre-supposes the systematic integration of scientific expertise in policy-making, in particular economics and its methods, not only at the level of policy conception but also at its implementation. The assumption is that the realm of politics and that of scientific expertise,

(New York: Basic Books 1978); Richard A. Posner, ‘The Chicago School of Antitrust Analysis’ (1979) 127 *University of Pennsylvania Law Review* 924. For a critical perspective, see William Davies ‘Economics and the ‘nonsense’ of law: the case of the Chicago antitrust revolution’ (2010) *Economy and Society*, 39:1, 64-83.

³ David Gerber, ‘Two Forms of Modernization in European Competition Law’ (2008) 31 *Fordham International Law Journal* 1235.

⁴ Francis Fukuyama, *The End of History and the Last Man* (Free Press, 2006).

⁵ On the various populisms in US antitrust, see Sandeep Vaheesan, ‘The Evolving Populisms of Antitrust’, (2014) 93 *Nebraska Law Review*, Article 4.

⁶ David Gerber refers to this as the ‘economics-based model’ of competition law: David Gerber, ‘Global competition law convergence: Potential roles for economics’, in T. Eisenberg & G.B. Ramello (eds.), *Comparative Law and Economics* (Edward Elgar, 2016), 206.

⁷ With the odd exception of a couple of papers, the most cited being Robert Pitofsky, ‘*Political Content of Antitrust*’, (1979) 127 *U. Pa. L. Rev.* 1051.

⁸ For a discussion of the view of antitrust as technocracy, see, Daniel A. Crane, ‘Technocracy and Antitrust’ (2009) 86 *Texas Law Review* 1159.

although separate, have a ‘convergent logic’.⁹ Crucially, for this assumption to hold, politics should not be conceived as the Schmidtian politics of the will.¹⁰ The expertise should assist ‘rational’ decision-making. This is often contrasted to the ‘irrationality’ of the political will, when this acts independently from expert advice. Following expert consensus is assumed to be good politics, in particular in an interdependent world. The theoretical framework and tools of NPT, the area of economics that became closely related to competition law, reflect this understanding, as they focus solely on economic efficiency, defined in the context of competition law as increasing output and reducing prices, and ignore for the most part the politically sensitive issues of fairness and social justice.¹¹ Mainstream competition law focuses on consumer welfare,¹² and more specifically the welfare resulting from lower prices, and ignores or only allows a marginal role, for the most part, the non-price dimensions of competition.¹³

This view of competition law is increasingly under challenge.¹⁴ Various manifestations of dissent that have so far touched upon issues of economic concentration and inequality, or the integration of non-price parameters of competition, such as privacy concerns in competition law assessment, show that competition law is traversing a ‘liminal’ moment. Arnold van Gennep singled out rites of passage as a special category among the myths, legends or narratives that render social life meaningful.¹⁵ Liminality refers to periods of transition during which the normal limits to thought, self-understanding and behaviour are relaxed, opening the way to novelty and imagination, construction and destruction.¹⁶ Established hierarchies and standing norms disappear and sacred symbols are mocked at and ridiculed, their authority

⁹ Robert Hoppe, ‘Policy analysis, science and politics: from ‘speaking truth to power’ to ‘making sense together’’, (1999) 26(3) *Science and Public Policy*, 201.

¹⁰ Carl Schmidt, *The Concept of the Political* (University of Chicago Press, 2007).

¹¹ See Ioannis Lianos, ‘The Poverty of Competition Law’ (CLEs Research Paper 2/2018), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3160054.

¹² On this concept and its role in US and EU competition law, see, *inter alia*, Barak Orbach, ‘The Antitrust Consumer Welfare Paradox’ (2010) 7(1) *Journal of Competition Law & Economics* 133; Ioannis Lianos, ‘Some Reflections on the Question of the Goals of EU Competition Law’ in Ioannis Lianos and Damien Geradin, *Handbook on European Competition Law: Substantive Aspects* (Edward Elgar, 2013) 1.

¹³ For a discussion, see OECD, ‘The Role and Measurement of Quality in Competition Analysis’ DAF/COMP(2013)17. The existence of a trade-off between these various parameters of competition protected by the ‘consumer welfare standard’ is an open question, in particular as ‘the superficial consensus’ on consumer welfare ‘masks a deep disagreement about what ‘consumer welfare’ means and especially about what policies best to promote it’: Gregory J Werden, ‘Consumer welfare and competition policy’ in Josef Drexler, Wolfgang Kerber and Rupprecht Podszun (eds), *Competition Policy and the Economic Approach: Foundations and Limitations* (Edward Elgar Publishing 2011) 15.

¹⁴ Maurice E. Stucke, ‘Occupy Wall Street and Antitrust’, (2012) 85 *Southern California Law Review* 33; Harry First and Spencer Weber Waller, ‘Antitrust’s Democracy Deficit’ (2013) 81 *Fordham L. Rev.* 2543; Tony Atkinson, *Inequality: What can be done?* (Harvard University Press, 2015); Jonathan B. Baker and Steven C. Salop, ‘Antitrust, Competition Policy, and Inequality’, (2015) 104 *Georgetown Law Journal* 1; Daniel Crane, ‘Antitrust and Wealth Inequality’ (2016) 101(5) *Cornell L. Rev.* 1171; Lina Khan and Sandeep Vaheesan, ‘Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents’, (2017) 11 *Harvard Law & Policy Review* 235; Special issue, *Antitrust Inequality Conundrum*, (October 2017) 1 *Competition Policy International* (with eight papers on the topic of inequality and fairness); Joseph Stiglitz, ‘Towards a Broader View of Competition Policy’, in Tembikonsi Bonakele, Eleanor Fox & Liberty McNube (eds.), *Competition Policy for the New Era – Insights from the BRICS Countries* (OUP 2017) 4.

¹⁵ Arnold van Gennep, *The Rites of Passage* (Psychology Press, 1960).

¹⁶ Bjorn Thomassen, *Liminality and the Modern: Living Through the In-Between* (Routledge, 2016).

questioned, taken apart and subverted. The vestiges of the ‘old’ order still have some symbolic meaning and command the continuing adherence of the competition law technocracy. However, they are gradually being challenged by ‘outsiders’ putting forward a new paradigm of competition law.¹⁷ This new paradigm relies on a new set of values, which are still in a state of great flux and have not yet crystallised into a new order.

The thesis put forward in this study is that the increasing interdependence of various spheres of social activity in a networked economy, the phenomenon of the emergence of large platforms dominating significant parts of the digital economy, may bring the current mainstream model of competition law, which has focused so far on some limited dimensions of competition relating, principally, to price and output effects, closer to a more ‘polycentric’ model. This polycentric model takes into account additional dimensions of competition, not only beyond the narrow confines of the relevant market, but also beyond the economic field. The study does not aim to exhaustively present and comment on the various instances of ‘polycentricity’ in the enforcement of EU competition law, or to resolve the necessary hermeneutical conundrum that the confluence of multiple goals may engender, which is the subject of a different study.¹⁸ It aims rather to conceptualise the emergence of a new model, which may be juxtaposed to the mainstream competition law model.

Before delving into the particulars of polycentric competition law, I will first examine the meaning I ascribe to this concept and how this can be compared to its opposite model of ‘monocentric competition law’, which characterises modern competition law. I will then explore the important tensions that the model of monocentric competition law is currently facing, demonstrating with examples that its boundaries are vague and its conceptual approach incoherent. In the last section, I will sketch the main characteristics of the emerging model of polycentric competition law.

II. Monocentric v. polycentric competition law

A. Framing the problem

According to Lon Fuller, a ‘polycentric’ problem is one that comprises a large and complicated web of interdependent relationships, so that a change in one factor produces an incalculable series of changes in other factors.¹⁹ Fuller referred to the principle of ‘polycentricity’ noting that intervention through adjudication in the context of polycentric problems may have ‘complex repercussions’.²⁰ Because of the complexity of the dispute and the range of those affected, who are at times difficult to foresee, it is quite difficult to organize their participation and representation of their position in the dispute resolution process. A problem will be monocentric where effects are contained within the relation between the parties to the specific transaction, and do not expand substantially beyond the strict confines of a bilateral exchange.

¹⁷ See for instance, Lina Khan, ‘The New Brandeis Movement: America’s Antimonopoly Debate’, (2018) 9(3) *Journal of Competition Law & Practice* 131.

¹⁸ Ioannis Lianos, ‘Legal Hermeneutics and Competition Law’ (forth. CLES Research Paper 6/2018).

¹⁹ Lon Fuller, ‘The Forms and Limits of Adjudication’, (1078) 92(2) *Harvard Law Review* 353, 395, 397.

²⁰ *Ibid.*

Fuller argued that problems that are polycentric in nature may not be suited for adjudication and may be resolved through other means of governance, such as managerial direction or regulation, negotiation and contract, or left to be resolved by the decentralised forces of the market. Undoubtedly, contracts and managerial administrative discretion present problems of their own when dealing with polycentric disputes. Contracts are generally ill-suited to inequalities of bargaining power, and managerial and administrative discretion may raise important problems of unlimited discretion. Fuller's analysis has been criticized for narrowing down the category of adjudication to the adversarial presentation of evidence and arguments between the parties to a litigation. This criticism ignores that concealed polycentric elements exist in all problems solved by adjudication and has made some authors suggest a new category of 'structural adjudication'.²¹ Although the aim of adjudication is to assess the abnormal event that has caused the dispute and to restore the parties to their rightful position, that is, the position that they would have occupied absent that specific abnormal event, the structural adjudication model also aims to eliminate threats to the values protected by the law (a prophylactic aim). Structural adjudication therefore eventually aims to restructure the incentives of the various actors so as to protect their structural position, in terms of welfare or well-being of the protected sociological category, either of consumers or the general public. Similar arguments have been put forward to justify the focus of antitrust assessment on economic efficiency and the narrow goal of 'consumer welfare', the proponents of this view arguing that competition law institutions (courts and competition authorities) would face difficulties in adjudicating disputes, if they had to implement more than one competition law goal.²²

However, the concept of polycentricity is not only related to the problem of setting limits to the activity of adjudication but also has been quite powerful in describing the benefits of polycentric or spontaneous societal organisations.²³ This argument, prominently made by Michael Polanyi, has affinities with that of Hayek about human knowledge being impossible to collate and act upon by a centralised authority.²⁴ Polanyi argues for a moral and social system that rather than relying on the direction of a centralised authority, would consist of a collection

²¹ See, J.W.F. Allison, 'Fuller's Analysis of Polycentric Disputes and the Limits of Adjudication', (1994) 53(2) Cambridge Law Journal 367; Ioannis Lianos, 'The Principle of Effectiveness, Competition Law Remedies and the Limits of Adjudication', in Philip Lowe, Mel Marquis, Giorgio Monti (eds.), *European Competition Law Annual 2013: Effective and Legitimate Enforcement* (Bloomsbury, 2014).

²² For this argument, see, *inter alia*, Frank H. Easterbrook, 'The Limits of Antitrust', (1984) 63 Texas Law Review 1, and more recently, William E. Kovacic and David A. Hyman, 'Regulatory Leveraging: problem or solution?', (2016) 23(5) *George Mason Law Review* 1163.

²³ The archetypal examples of such polycentric the scientific enterprise and the market system is a well-known feature of the work of Michael Polanyi, *The Logic of Liberty: Reflections and Rejoinders* (University of Chicago Press, 1951); Michael Polanyi, (1962) 'The Republic of Science: Its Political and Economic Theory. *Minerva*, 1(1), 54-73; Michael Polanyi and Harry Prosch, *Meaning* (University of Chicago Press, 1975).

²⁴ See, *inter alia*, Friedrich A. Hayek, 'The Use of Knowledge in Society', (1945) 35(4) *The American Economic Review* 519. Hayek developed his theories in opposition to the views of some neoclassical economists arguing for the superior efficiency of the administered economy in the so called 'socialist calculation debate', see Lawrence H. White, *The Clash of Economic Ideas: The Great Policy Debates and Experiments of the Last Hundred Years* (CUP 2012), Chapter 2.

of independent constellations managed by a number of autonomous decision centres.²⁵ This emphasis on a holistic moral system contrasts with Hayek's approach which proclaimed the superiority of the market system on purely economic grounds, and was highly suspicious of the "mirage of social justice".²⁶ Polanyi's approach was further refined by work in political economy, in particular that of Vincent and Elinor Ostrom, who focused on the beneficial effects of a dispersion of decision-making capabilities in various autonomous centres, spontaneously interacting with each other.²⁷ Ostrom, Tiebout and Warren defined these polycentric systems as systems with 'many centers of decision-making which are formally independent of each other... (t)o the extent that they take each other into account in competitive relationships, ...[they]...enter into various contractual and cooperative undertakings or have recourse to central mechanisms to resolve conflicts'. Their empirical research also found that 'the various political jurisdictions in a [functionally interlinked] ...area may function in a coherent manner with consistent and predictable patterns of interacting behaviour', thus functioning as a 'system'.²⁸

Polycentricity has close affinities with the concept of polyarchy that has been put forward in democratic theory as a variant of democracy which provides each member of the society the opportunity to express his or her preference, not so much in order to express a diversity of opinions or values, but because this enables each member of the society to make a rational calculation about alternative policies.²⁹ According to this view, the more the members of a society disagree about the goals to be pursued and there is lack of autonomy, the more polyarchy/polycentricity is undermined.

It may be concluded therefore that polycentricity has "three basic features":

- "multiplicity of decision centres", analysed "in terms of those centres' ability to implement their different methods into practice... in terms of the presence of autonomous decision-making layers, and in terms of the existence of a set of common/shared goals";
- "the institutional and cultural framework that provides the overarching system of rules defining the polycentric system" [...]
- "the spontaneous order generated by evolutionary competition between the different decision centres' ideas, methods, and ways of doing things", in particular as measured by the possibility of "spontaneous entry" in this polycentric system.³⁰

To the extent that the concept of polycentricity has both a descriptive (in describing the boundaries of adjudication) and a normative component (as it implies a desirable moral system

²⁵ Michael Polanyi and Harry Prosch, *Meaning* (University of Chicago Press, 1975. See the discussion of these various perspectives in Paul D. Aligiga & Vrad Tarko, 'Polycentricity: From Polanyi to Ostrom, and Beyond', (2012) 25(2) *Governance* 237.

²⁶ Friedrich A. Hayek, *Law, Legislation, and Liberty: A New Statement of the Liberal Principles of Justice and Political Economy*, (London and Henley: Routledge & Kegan Paul, 1979) (calling social justice a "mirage").

²⁷ See, inter alia, Vincent Ostrom, 'Polycentricity' in Michael D. McGinnis (ed.), *Polycentric governance and development: readings from the Workshop in Political Theory and Policy Analysis* (University of Michigan Press, 1999); Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge University Press, 1990).

²⁸ Vincent Ostrom, Charles M. Tiebout and Robert Warren, 'The Organization of Government in Metropolitan Areas: A Theoretical Inquiry', (1961) 55(4) *American Political Science Review* 831, 831.

²⁹ Robert A. Dahl, *A Preface to Democratic Theory* (University of Chicago Press, 1956), 67-75.

³⁰ Aligiga and Tarko (n. 25).

that ensures polyarchy in the market, cultural and political spheres), it may prove useful in understanding the challenges that the complex and interlinked (digital) economy sets for competition law enforcement, and the difficulties of the current monocentric model of competition law to address these. As I will explain in the following section, modern competition law has been conceptualised as essentially dealing with a monocentric problem, the price and output costs of market power, and its institutional architecture as well as value system reflect this, almost foundational, tension with the logic of polycentricity.

B. Monocentric competition law

One may challenge the characterization of modern competition law as monocentric, by arguing that the move towards a more effects-based, economic approach in competition law during the last three decades has accentuated the polycentric dimension of competition law disputes. Final and intermediate consumers active in the specific relevant market and affected by the adjudicated transaction are the focus of the competition law inquiry, their interest(s) being given the most weight in the decision-making process. Modern competition law not only emphasizes the restriction of the competitive process, that is the limitations imposed or conceded by one party to a transaction over their freedom of action in the market place, but also requires that for competition law to be enforced, this restriction harm consumers. However, despite its being broad in appearance, this focus on consumers is in reality quite narrow.

Firstly, any restriction of competition is assessed with regard to a specific relevant market. This concept has been a feature of competition law assessment, at least since the 1950s.³¹ Although recently subject to criticism,³² the process of market delineation still provides an analytical framework that helps antitrust practitioners to focus on factors more likely to be determinative for the analysis of anticompetitive effects, in particular price effects.³³ Focusing principally on the competitive dimension of price, in delineating a relevant market, assists in the adjudication of competition law disputes and constitutes an adequate control for any polycentric tendencies.

Secondly, competition law builds on a certain understanding of individual motives and the way these determine joint action with other individuals. Modern competition law essentially relies on a theoretical model, that of neoclassical economics, which relies on a de-socialised conception of the individual. In this model the individual loses his emotional and social (professional) identity and is transformed into an automaton operating according to the sole rule-book of self-interest.³⁴ It is not my intention to examine the veracity of such an assumption of human nature, as it has been challenged with abundant evidence by anthropology, sociology

³¹ Gregory J. Werden, 'The History of Antitrust Market Delineation', (1992) 76 (1) *Marquette Law Review* 123.

³² Louis Kaplow, 'Market Definition, Market Power', Harvard Law School, Discussion Paper No. 826, 05/2015; Louis Kaplow, 'Why (Ever) Define Markets?', (2010) 124 *Harvard Law Review* 437.

³³ To the extent that cross-price elasticity of demand and cross price elasticity of supply are the focal points of the relevant market enquiry: Joe S. Bain, *Price Theory* (Holt, Rinehart and Winston, 1952), 24-25; Fritz Machlup, *The Economics of Sellers' Competition* (Johns Hopkins Press, 1952), 213.

³⁴ Samuel Bowles, *The Moral Economy – Why Good Incentives are no substitute for Good Citizens* (Yale University Press, 2016), Chapter 1.

and behavioural studies, that all indicate that humans are a cooperative species and that their actions are predominately framed by institutions, such as family, culture, their community, or their profession.³⁵ My sole aim is to emphasise the absolutist nature of this assumption which underlies the monocentric nature of the economic foundations of competition law and is crucial for fully understanding the model.

Thirdly, even assuming that individuals are solely motivated by their self-interest,³⁶ what is often missed by price theory, and more broadly the neoclassical economics used in competition law, is that in real life games that people participate in, such as specific market exchange game, are overlapping. Indeed, people regularly participate in many distinct types of games or social interactions, at the marketplace, and in the political and cultural fields. Various markets are also linked to each other, in the same way for instance as credit markets are linked to labour and land markets.³⁷ The overlapping character of games is also important as participation in one game, let's call this the 'market game', also affects not only how the participants play the specific game in subsequent periods, but also 'how they play other games they are engaged in'.³⁸ One may expect, for instance, citizens benefiting from equal rights and democratic participation, rely on these rights in order to gain advantages in other games.³⁹

This complexity is assumed away by the population-level approach of the general competitive market equilibrium theory, one of the foundations of neoclassical economics, when it aims to translate individual preferences into aggregated social outcomes. The simplicity of the micro-foundations of the consumer welfare analysis explains its success in proceedings before competition authorities and in court-rooms, as it provides easy-to-justify and simple analytical frameworks to quite complex problems.

Consumer welfare approaches are based on a representative consumer theory of distribution, which accentuates the monistic dimension of the approach. On the basis of the 'representative consumer' assumption, neoclassical economists, in the words of Gary Becker 'use theory at the micro level as a powerful tool to derive implications at the group or macro level'.⁴⁰ This form of methodological individualism may be the necessary price to pay for equilibrium finesse, and surely provides some degree of analytical convenience. These models

³⁵ For a summary of this experimental game theory literature, see Bowles (n.34) 41-77; Ernst Fehr and Herbert Gintis, 'Human Motivation and Social Cooperation: Experimental and Analytical Foundations', (2007) 33 Annual Review of Sociology, 43; Ernst Fehr and Jean-Robert Tyran, 'Institutions and Reciprocal Fairness', (1996) Nordic Journal of Political Economy 1; Ernst Fehr and Simon Gächter, 'Altruistic punishment in humans', (2002) 415 Nature 137; Ernst Fehr & S. Simon Gächter, 'Fairness and Retaliation: The Economics of Reciprocity', (2000) 14(3) Journal of Economic Perspectives 159; Herbert Gintis, 'Strong Reciprocity and Human Sociality', (2000) 206 Journal of Theoretical Biology 169; Herbert Gintis & Ernst Fehr, 'The social structure of cooperation and punishment', (2012) 35(1) Behavioral and Brain Sciences 28; Herbert Gintis, *The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences* (Princeton University Press, 2009).

³⁶ This is often perceived from a strategic game-theoretical perspective, as individual action in the sphere of the market exchange is influenced by the idea that the consequences of an individual's actions depend on actions taken by others.

³⁷ Samuel Bowles, *Microeconomics – Behavior, Institutions, and Evolution* (Princeton University Press, 2004), 53.

³⁸ *Ibid.*, 54.

³⁹ *Ibid.*

⁴⁰ Gary S. Becker, 'Nobel Lecture: The Economic Way of Looking at Behavior', (1993) 101(3) Journal of Political Economy 385, 402.

have more than one *class* of agents (e.g. producers and consumers), in this case *TWO* agents, each being ‘representative’ of its class and perceived, at least in-class, as identical.⁴¹ Under restrictive assumptions, the model of partial equilibrium used in competition law analysis, aggregates the individual actions of the sociological categories of ‘producers’ and ‘consumers’. These result from the conceptualization of social interactions through the prism of the theory of supply (producers) and demand (consumers), to an ‘economy or market-wide vector of prices, outputs, and the allocation of resources to alternative uses’.⁴² The constitution of these sociological categories is made on the basis of interest-analysis in the abstract relational context of expected utility theory (where ‘producers’ are assumed to have different interests than ‘consumers’, taking into account a two-person exchange where one person is a ‘consumer’ and another a ‘producer’). Players in these games ‘come with (or acquire) labels that assign to them different strategy sets and payoffs’.⁴³

Individuals are allocated to distinct structural positions with different strategy sets without necessarily taking into account the broader social context of their position, and their presence and interaction in other spheres of social activity. Each individual is exclusively allocated a specific pre-defined social category representing specific interests. There is some irony in promoting the rights and the interests of the sociological category of ‘consumers’, by focusing on ‘consumer welfare’, while at the same time curtailing the rights and limiting the wages of the sociological category of ‘workers’, without realising that the individuals affected by these changes may literally be the same group of people. However, this absence of sociological content is particularly important for the value property monism of the economics of ‘consumer welfare’ for it to work it’s magic, welfare being constituted by the realization not of *actual* desires and aims of *real* individuals, but of their *rational* desires or aims, deduced by their structural position in the specific market game.

Fourthly, competition law assessment relies on the price-based revealed preferences model,⁴⁴ the prices being revealed in the market, or alternatively, if markets do not exist or are distorted, by estimating an implicit value based on an individual’s behaviour in a real life situation in which this individual has to face a trade-off between two competing consumption alternatives. Should market prices not be available, the contingent valuation method aims to calculate the value of a consumer gain or loss, through a survey of a sample of consumers, by testing their ‘willingness to pay’ (WTP) when they are faced with a hypothetical consumption choice-set. WTP analysis tends to transform even complex assessment of options into a one-dimensional monetary valuation, the crucial benefit of this process being the facilitation of decision-making. A common characteristic of these approaches is that they focus on the price parameter, which explains the success they enjoy among competition authorities. This however

⁴¹ Samuel Bowles (n. 37) 51 & footnote 7.

⁴² *Ibid.*, 59.

⁴³ *Ibid.*, 51.

⁴⁴ The aim of the ‘revealed preferences’ programme was to specify a procedure by which individual preferences can be ascertained by observing an individual’s market behaviour. The approach focuses on observed behaviour of individuals in markets, this being presumed to reveal this individual’s preference, as under the consistency principle, a single observed choice reveals a stable preference: Paul A. Samuelson, ‘A note on the pure theory of consumer’s behaviour’, (1938) 5(17) *Economica*, New Series, 61; Paul A. Samuelson, ‘Consumption Theory in Terms of Revealed Preference’, (1950) 15 *Economica*, 243.

ignores other dimensions of the decision-making process, such as aesthetic, societal or ethical values, which cannot be easily ‘evaluated’ using a price-based approach such as WTP.

One of the implicit assumptions of revealed preferences theory is that the behaviour of the agent is consistent when exercising her/his choice in the marketplace. This assumption has of course been largely questioned by recent work in behavioural economics, but, more important for our discussion, is work noting the ‘conflicting preference maps’ that most of us have, when acting as consumers in the marketplace, and as citizens in the political sphere. As Mark Sagoff observes:

“[L]ike members of the public generally, I, too, have divided preferences or conflicting ‘preference maps’. Last year, I bribed a judge to fix a couple of traffic tickets, and I was glad to do so because I saved my license. Yet, at election time, I helped to vote the corrupt judge out of office. I speed on the highway; yet I want the police to enforce laws against speeding. I used to buy mixers in returnable bottles – but who can bother to return them? I buy only disposables now, but to soothe my conscience, I urge my state senator to outlaw one-way containers. I love my car; I hate the bus. Yet I vote for candidates who promise to tax gasoline to pay for public transportation. [...] I have an ‘Ecology Now’ sticker on a car that drips oil everywhere it’s parked”⁴⁵.

Environmental economists have long noted the tension between the ‘utilitarian preference based’ approach used by the price-based revealed preferences approach and contingent valuation analyses, which focus on consumer *wants* as utility maximisers, and the ‘Kantian (principle-based)’ approach on what ‘we *ought* to do as a society’⁴⁶. Notwithstanding the debate about the appropriateness of revealed preferences approach in assessing citizen preferences, as opposed to consumer interests, and the scope of application of the method of cost benefit analysis,⁴⁷ one may ask why competition law, as any other area of law that has by purpose and design a normative content, should limit itself to preferences revealed in the marketplace by consumer behaviour. Why should it not consider preferences expressed by citizens, in particular when they design the constitutional framework regulating their social interactions, that is, the rules of the various overlapping games each of them participates in? More broadly, one may ask if the methodologies routinely used by economists in the revealed preferences tradition set limits to the type of consumers/citizens preferences considered relevant by the legal system. Surely, social theory assumes that social judgments and public decisions must depend, on individual preferences, broadly understood, as these are expressed in a transparent social process, but there is no reason to consider that the marketplace is the only transparent social process available. The opposite conclusion will have quite alarming implications for the democratic system. While not explicitly raising this issue, the recent call

⁴⁵ Mark Sagoff, ‘The Economy of the Earth: Philosophy, Law, and the Environment’ (CUP, 2nd ed., 2008), 48.

⁴⁶ See, Mark Sagoff, ‘Aggregation and deliberation in valuing environmental public goods: a look beyond contingent pricing’, (1998) *Ecological Economics* 213.

⁴⁷ See the discussion in, *inter alia*, Shepley W. Orr, ‘Values, preference, and the citizen-consumer distinction in cost-benefit analysis’, (2007) 6(1) *Politics, Philosophy & Economics* 377.

for a more democratic competition law may be understood as emanating from this concern over citizen preferences and not just consumer preferences.⁴⁸

Fifthly, the approach followed usually ignores the implications that a specific conduct may have on the individual consumers, for instance looking to the costs for consumers that are vulnerable (horizontal fairness issues).⁴⁹ The gains for some individuals can be balanced against the losses for other individuals in the specific sociological category of consumers, in order to determine the relative goodness (efficiency) of a state of affairs. This is a comparative exercise whose main aim is to determine how a particular outcome, or world, within which the act in question is performed and its consequences materialise, compares against alternative worlds in which alternative acts are performed and alternative consequences materialise.⁵⁰ The good/welfare in each world is, therefore, the aggregation of the *individual* well-being levels of all the people forming part of this category.

However, this trade-off is made in the context of the *specific* game, without taking into account the ‘*overlapping games*’⁵¹ and the complex web of social relations in which the same individuals may participate, in the multiple spheres of their lives. This further assumes that there are no goods other than the good of the representative agents, and that the social good is the aggregation of personal goods of the representative agents (consumers in this context). However, one may raise doubts, not only on the weight of each of these ‘goods’ or ‘bads’ that need to be balanced for each individual, but also on the scope of the balancing exercise. Why should we limit this to the market sphere and not take into account the other overlapping games in which the same individuals participate, in particular as they devise their strategies across the various spheres of social activity in which they interact with each other, and they may very well leverage their position in one field to a position of power in another?

To avoid the criticism that my argument only applies to the assessment of the effect of some conduct on prices, and in view of the current emphasis of competition law on innovation, that is, its effects on consumers’ future welfare, it is possible to highlight the (arbitrary) categorical thinking implicit in the trade-offs. The interests of future ‘consumers’ are assumed to coincide with the revealed preferences of the current ‘consumers’, for instance regarding the direction of innovation that is socially valuable, notwithstanding any evolution of the values presently prevailing in society, the technologies available, or of what are the requirements of the rules of the prevailing social contract. This monocentric focus on the preferences of actual consumers for innovation may explain why competition authorities have developed concepts that implement the ‘relevant market’ tool, when assessing the future effects of mergers or other

⁴⁸ Harry First & Spencer Weber Waller, ‘Antitrust’s Democracy Deficit’, (2013) 81(5) Fordham Law Review 2543.

⁴⁹ Michael Trebilcock & Francesco Ducci, ‘The Multifaceted Nature of Fairness in Competition Policy’, Competition Policy International Antitrust Chronicle October 2017.

⁵⁰ See the discussion in Bowles (n. 37), Chapter 6.

⁵¹ The concept of ‘overlapping games’ was suggested by Bowles and Gintis with the aim of understanding the relationship between different spheres of social life and the ‘irreducible heterogeneity’ of distinct areas of society, such as family, state, the economy and one may add the economic, political and cultural spheres: Samuel Bowles and Herbert Gintis, *Democracy and Capitalism* (Basic Books, 1986).

anti-competitive practices on consumers, by developing concepts such as ‘innovation markets’.⁵²

More generally, even if there is a trade-off, it does not take into account any distributional effects.⁵³ This is often justified by the need to ensure administrable decision-making procedures and rules for the institutions in charge of competition law enforcement. It is accepted that the monocentric perspective may lead to unfair consequences, in view of the initial distribution of resources, and, in particular, produce a differential impact on the position of the affected agents in the social structure. However, dealing with these unfair consequences is, according to this monocentric view, the task of other parts of the legal system, such as taxation or regulation.⁵⁴ Proponents of this view imagine a division of labor between competition law and taxation, if the main concern is wealth and income inequality, or between competition law and environmental law, should the value in question be the protection of the environment. The idea is that the competition law decision-maker lacks information about the structural position of the various actors in all other social spheres in which they may interact with each other, or will have to incur prohibitive costs in collecting this information, given the complexity of our societies and the sheer volume of transactions that take place in them, at least when adjudicating a single transaction’s compatibility with competition law. As I show in a separate study, this argument does not hold, simply because of the lack of other institutional options, such as the inability of the EU to employ fiscal instruments in order to systematically redistribute wealth across the Union, in contrast with the situation in the US, where there are adequate fiscal instruments to pursue redistribution at the federal level, or the fact that the existence of other least imperfect alternatives than competition law to pursue these distributive aims cannot be assumed, but requires a detailed comparative institutional analysis, which takes into account the advantages and disadvantages of each of these instruments in their specific jurisdiction.⁵⁵

Furthermore, many proponents of monocentric competition law argue against an over-extension of the activities of competition authorities into fields beyond the narrowly defined administrative/performance limits of competition law. In a series of articles, professors Bill Kovacic and David Hyman expressed concern over the fact that the assignment of multiple

⁵² See Richard J. Gilbert and Steven C. Sunshine, ‘Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets’ (1995) 63 *Antitrust Law Journal* 569.

⁵³ In the Williamsonian trade-off, usually employed by competition authorities to assess mergers or anticompetitive agreements, changes in the producer and consumer surplus are treated symmetrically. However, Williamson did not ignore the fact that distributional effects may be considerable and should also be considered. He explained that “the income redistribution which occurs [as a result of a merger] is usually large relative to the size of the deadweight loss” and that “attaching even a slight weight to income distribution effects can sometimes influence the overall valuation significantly”. However, he finally opted for a simple efficiency trade-off, arguing that other policies, such as taxation, may take care of the distributive effects of mergers (or anticompetitive agreements): Oliver E. Williamson, ‘Economics as an Anti-Trust Defense: The welfare trade-offs’, (1968) 58(1) *The American Economic Review* 18.

⁵⁴ Economists prefer the strategy of *compensating* through the transfer of adequate resources or through taxation of the individuals (or groups) affected, rather than strategies that would *remove* the various obstacles identified, probably because of the separation in welfare economics of issues of efficiency from issues of distributive justice. See, most recently, the discussion in Michael Trebilcock, *Dealing with Losers - The Political Economy of Policy Transitions* (OUP, 2015).

⁵⁵ This argument is developed in some detail in Lianos, ‘The Poverty of Competition Law,’ (n.11).

functions/areas of regulatory responsibility may affect governmental agency performance.⁵⁶ They also raise the problem of ‘regulatory leveraging’, that is, the use by a competition authority of regulatory power in policy domain A (for instance, merger approval) to extract concessions with respect to policy domain B (for instance, privacy and data security), in particular if that would be unconstitutional to impose them directly. Kovacic and Hyman float the idea that leveraging the power of regulators across fields within a single policy domain or across distinct policy domains, or with the aim of extracting concessions from a firm subject to oversight by another agency, may be counter-productive and illegitimate and must be avoided at all costs. However, even if one may agree that ‘regulatory leveraging’ is a valid concern, the authors mix two separate questions: (i) the proper scope of the policy space of competition law, and once this is defined, (ii) the ability of the institutions enforcing competition law to venture into policy spaces other than that of competition law. Their argument relates to the second issue, but it does not provide any guidance for the first one. Indeed, everything depends on what is considered to be the ‘normal’ scope of the activities of competition authorities and of the competition law policy domain in the specific jurisdiction, an issue over which there may be some controversy (see Table 1).

Table 1: Consensus and Divergence over the ‘Normal’ Scope of competition law

Competition law core	Grey area	Normally outside the competition law core, but... Public policy interests
<ul style="list-style-type: none"> • Ensure low prices • Ensure high output • Promote innovation (disruptive & sustained) • Promote consumer choice & variety competition 	<ul style="list-style-type: none"> • Fairness (no exploitative conduct) • Freedom to compete/freedom to trade • Limit abuse of economic dependence & superior bargaining power • Ensuring market access for small and medium undertakings • Privacy and informational self-determination 	<ul style="list-style-type: none"> • Protection of the environment, biodiversity and sustainability • Media pluralism • Security of supply • Right to food • Competitiveness of the local industry • Geopolitical concerns & national security • Promotion of employment & social welfare • Promoting human happiness or capabilities

To the extent that some of the activities listed may be legitimately considered as forming part of the competition law policy domain in a specific legal system, their argument appears superfluous. Surely the dominant understanding of competition law, and its role in the social contract, may also evolve over time. By viewing how competition authorities have dealt with policy domains that were initially thought of as separate from the traditional focus of competition law on consumer welfare, it may be possible to re-evaluate this argument.

In conclusion, even if competition law has moved to a more economic approach focusing on the effects of a specific conduct of consumers, the methodology employed to assess these

⁵⁶ Kovacic and Hyman (n. 22) .

effects is inspired by monocentricity, to the extent that the theoretical framework is denuded of any reference to the social, cultural, or political nature of the interaction, and is performed on the basis of a largely axiomatic conception of the welfare of the consumers of a relevant market using a narrow price-related revealed preferences approach.

C. The limits of the monocentric vision of competition law: polycentricity and the contested boundaries of competition law assessment

Polycentric disputes have become a more prominent feature in competition law, in view of the variety of forms of competition that public authorities aim to stimulate, and the complexity of social interactions, across various spheres of social activity. This is particularly the case in today's networked economy (and society), where what is rewarded as a competitive advantage may not only be the superior productivity of the agent, as measured by a cost/price framework, but also the capacity to attract users to the network controlled by the specific agent (through network effects), as individuals are bobbing and weaving between overlapping networks to achieve their desired outcomes and strategies.⁵⁷ In the networked economy competition also changes form and becomes a 'winner takes most' game, which has significant social and political implications, resulting from the acquisition and possible use in overlapping games of considerable economic power. In my view, this slow transformation of competition law raises questions as to the capability of the monocentric competition law model to deal with this increasing complexity. I will first focus on three examples of polycentric dispute with regard to the interaction of competition law with innovation, privacy and environmental protection. I will then explore the nature of 'polycentricity' in each case, and will explain how the model of monocentric competition law has failed to provide an adequate response to these polycentric problems, and how its application has had to accept some degree of polycentricity.

1. Innovation

Although the need for economics to shift to a more dynamic framework was recognized many decades ago by Joseph Schumpeter,⁵⁸ and innovation considerations may have framed the approach followed in some key antitrust cases in the past,⁵⁹ one had to wait until the adoption of the 1995 US Guidelines on licensing agreements, for innovation concerns to be directly integrated in competition law assessment.⁶⁰ Until then, promoting innovation was considered as the domain of intellectual property law, whilst competition law focused on protecting the

⁵⁷ Yochai Benkler, 'Networks of Power, Degrees of Freedom', (2011) *International Journal of Communication* 5, 721.

⁵⁸ Joseph A Schumpeter, *The Theory of Economic Development* (first published in 1934, Transaction Publishers, 2005,); Joseph A Schumpeter, *Capitalism, Socialism and Democracy* (Harper & Brothers, 1950).

⁵⁹ See, inter alia, the discussion in John J. Flynn, 'Antitrust Policy, Innovation Efficiencies, and the Suppression of Technology', (1998) 66(2) *Antitrust Law Journal* 487 (in particular Part III).

⁶⁰ US DOJ & FTC, *Antitrust Guidelines for the Licensing of Intellectual Property* (April 6, 1995).

competitive process and consumers, adopting a ‘static competition model’.⁶¹ It was also for a long time believed that there was some tension in these two areas of law.⁶²

As competition law moved towards a more ‘dynamic competition’ approach,⁶³ initiating the process of adding innovation to its ‘genetic code’, a question emerged: how could this drive the action of competition authorities, as practically these would be required not only to care about the welfare of *existing* consumers on clearly defined relevant markets, but also to take action against ‘restrictions on innovation’? The concept of ‘innovation markets’ was one way to account for ‘tomorrow’s products’ and future consumers.⁶⁴ This new framework was compatible with the monocentric competition law model, in particular the fact that it was important to identify a specific (future) consumer relevant market that would have been affected by the misalignment of innovation incentives resulting out of the specific restriction of competition. This concept has been subject to a number of criticisms: first, R&D is only an input to the production of goods and services and competition law analysis should focus on outputs and the actual supply of future goods and services; second, the sources of R&D may be difficult to identify as discoveries may come from unexpected sources; third, economic theory does not provide a solid empirical basis on the assumption that the decrease in the number of firms engaged in R&D will affect innovation negatively (the link between market structure and innovation being uncertain and hotly debated), some claiming that the elimination

⁶¹ As Andrew Tepperman and Margaret Sanderson, ‘Innovation and Dynamic Efficiencies in Merger Review’ (Canada, Competition Bureau 2007), available at <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/02378.html#key_concepts> explain (p. 5), “(s)tatic views of competition take the existing set of products and market participants as given, describing the outcome of competitive behaviour among those market participants using strategic instruments such as pricing or advertising that can be applied and varied in the “short term”. The Williamsonian trade-off between productive and allocative efficiency, that prevailed in competition analysis until the emergence of the new “dynamic competition” approach, takes place within a static framework, that is, holding technology and the product space fixed: Williamson (n. 58).

⁶² This tension may have resulted from the conceptualisation of IP rights as monopolies, see Edmund W Kitch, ‘Patents: Monopolies or Property Rights?’ (1986) 8 Research in Law and Economics 31; William F. Baxter, ‘Legal Restrictions on Exploitation of the Patent Monopoly: An Economic Analysis’ (1966) Yale Law Journal 267. For a critical analysis, see Michael A. Carrier, ‘Unravelling the Patent-Antitrust Paradox’ (2002) 150(3) University of Pennsylvania Law Review 761. In Europe, the development of standards for the interaction between competition law and IP rights is further complicated by the division of competence between the EU and its Member States with regard to IP law and competition law: Competition law is mainly an EU competence, if inter-state trade is affected, while the creation of systems of intellectual property remains the competence of the Member States. For a discussion of the various standards for the competition law/IP rights interaction, see Ioannis Lianos and Rochelle C. Dreyfuss, ‘New Challenges in the Intersection of Intellectual Property Rights with Competition Law - A View from Europe and the United States’ (CLEs Research Paper series 4/2013), available at <https://www.ucl.ac.uk/cles/sites/cles/files/cles-4-2013new.pdf>.

⁶³ See, Michael A. Carrier, *Innovation for the 21st Century: Harnessing the Power of Intellectual Property and Antitrust Law* (OUP 2011).

⁶⁴ On ‘innovation markets’, see Richard J. Gilbert and Steven C. Sunshine, ‘Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets’ (1995) 63 Antitrust Law Journal 569, 596-597. An innovation market consists in the research and development directed to particular new or improved goods or processes and the close substitutes for that research and development, “tomorrow’s products”: (1995) US DOJ and FTC Guidelines on the licensing of IP rights, Section 3.2. Innovation markets’ have been renamed in the 2017 update of the US DOJ & FTC Antitrust Guidelines for the Licensing of Intellectual Property, “research and development markets”, Section 3.2.3. The distinction between product markets, technology markets and innovation markets was first noted by William F Baxter, ‘The Definition and Measurement of Market Power in Industries Characterized by Rapidly Developing and Changing Technologies’ (1984) 53 Antitrust Law Journal 717.

of redundant expenditure, the reduction of costs and the possibility for the firm to fully capture the results of the R&D programme might accelerate the process of innovation (the Schumpeterian view).

Competition authorities have increasingly focused on the possible effects of merger activity on innovation. The US DOJ & FTC Horizontal Merger Guidelines of 2010 were the first to include a specific section on competition harm to innovation and product variety and to explicitly consider that ‘(a) merger enhances market power if it is likely to encourage one or more firms to raise price, reduce output, *diminish innovation*, or otherwise harm customers as a result of diminished competitive constraints or incentives’⁶⁵. The European Commission’s Horizontal Merger Guidelines also emphasised the merger’s ‘effect on innovation’.⁶⁶ Similarly, the EU non-horizontal merger guidelines list the diminishing of innovation as a competition concern for vertical and conglomerate mergers.⁶⁷ More recently, European Commission staff has, without resorting to the definition of an ‘innovation market’, explored the idea that a merger with a smaller potential competitor may also restrict innovation, in particular when the smaller player has promising pipeline products. Firms with similar assets as the merged firms, also with regard to their R&D pipeline, may pose a competitive threat to the merged firm’s competitive position, under the so called ‘actual potential entrant theory’.⁶⁸ The Commission has actively considered innovation effects in a series of recent merger cases, either exploring the possibility that a horizontal merger will lead to a loss of innovation by eliminating pipeline products that would likely have entered existing markets, thus preventing consumers from increased choice and variety,⁶⁹ or in the context of non-horizontal vertical or conglomerate mergers, under the theory that they would have harmed the ability of the merged entity’s rivals to innovate.⁷⁰ Focusing on potential competition may thus be considered an alternative to the ‘innovation markets’ approach.

This broadened focus led the Commission to envisage fields other than product or innovation markets, on which undertakings compete. In its recent *Dow/Dupont* merger decision,⁷¹ the Commission examined innovation competition both at the level of *innovation spaces* within the crop protection industry and at the *industry level*,⁷² dedicating several

⁶⁵ USDOJ & FTC, Horizontal Merger Guidelines (2010), p. 2. Emphasis added.

⁶⁶ EU Horizontal Merger Guidelines [2004] OJ C31/5, para 8 (hereinafter EU HMG), paras 8, 20, 38 & 81.

⁶⁷ EU Non Horizontal Merger Guidelines [2008] OJ C 265/7, paras 10 & 26.

⁶⁸ See, European Commission, Competition Policy Brief, 2016-01; Giulo Federico, GregorLangus and Tomasso Valletti, ‘A simple model of mergers and innovation’, (2017) 157 Economic Letters 136.

⁶⁹ COMP/M. 5675 – *Syngenta/Monsanto’s Sunflower Seed Business*, Commission decision of 17 November 2010, para. 248 and paras 200 and 207 (finding that farmers would have suffered from reduced choice); COMP/ M.6166 – *Deutsche Börse/NYSE Euronext*, Commission decision of 1 February 2012, section 11.2.1.3.4, confirmed by Case T-175/12, *Deutsche Börse AG v Commission*, ECLI:EU:T:2015:148; Case No COMP/ M.7326, *Medtronic/Covidien*, Commission decision of 28 November 2014; Case No COMP/M.7275, *Novartis/GlaxoSmithKline’s oncology business*, Commission decision of 28 January 2015 ; Case No COMP/ M.7559, *Pfizer/Hospira*, Commission decision of 4 August 2015 Case No COMP/ M.7278, *General Electric/Alstom (Thermal Power- Renewable Power & Grid Business)*, Commission decision of 8 September 2015.

⁷⁰ Case COMP/ M.5984 – *Intel/McAfee*, Commission decision of 26 January 2011; Case COMP/ M.6564 – *ARM/GIESECKE & DEVRIENT/GEMALTO JV*, Commission decision of 6 November 2012; Case No COMP/M.7688 – *Intel/Altera*, Commission decision of 14 October 2015.

⁷¹ European Commission, Case M.7932 *Dow/Dupont* (2017).

⁷² *Ibid.*, para. 1957.

hundred pages of its lengthy decision to the merger's alleged harm to innovation. The theory of harm went beyond the 'short-term' harm to innovation competition that would likely come with the discontinuation of overlapping lines of research and early pipeline products which target the same innovation spaces.⁷³ It developed a medium and long-term theory of harm which resulted from the lower overall incentives of the merged entity to innovate as compared to those of the merging parties separately before the transaction. The merger transaction also had a 'structural effect' as the merged entity pursued less discovery work, less lines of research, less development and registration work and ultimately brought less innovative active ingredients to the market than the merging parties would have done in the absence of the merger.⁷⁴

Although this new focus on innovation is quite promising, it still relies on an indirect measurement of the potential innovation effect on the basis of the concentration (the reduction of horizontal competition) occurring in a specific market or industry, a similar approach to that commonly used in order to infer the reduction of price-based competition.⁷⁵ From this perspective, it does not constitute a significant departure from the monocentric competition law model, only a little bit... However, this also implicitly recognizes that innovation may come from within the various segments of an existing value chain, to the extent that technological developments may offer the possibility to potential competitors that rely on different technologies than the dominant undertaking to challenge the competitive position of existing value chains. Lead firms in these value chains may behave strategically and block new avenues of innovation that may challenge their strong structural positioning and the share of the total surplus value they are able to extract from the value chain (vertical innovation competition). To a certain extent, vertical innovation competition constitutes is one of the most frequent ways in which entrenched dominant positions resulting from the control of general purpose technologies (GPTs) may come to an end.⁷⁶ It is possible that these potential challengers may have different views about the appropriate direction of innovation on the basis of their private information, thus making it worthwhile to enhance vertical competition as a source of innovation variety, in particular if the sector is already highly concentrated.

Furthermore, innovation cannot be evaluated only with regard to the possible higher output and lower prices it might bring in the future (benefits or costs that are often discounted as these concern the medium term), but it also constitutes a process, a new technology always calling for another application technology.⁷⁷ Hence, commensurating the innovation effects to some form of future effects on price or output is reductionist, and likely underestimating the full dimension of innovation. This complex assessment of the innovation incentives of the parties to the merger and of the possible evolution of the industry seems to open the door to a

⁷³ Ibid., para. 3056.

⁷⁴ Ibid., para. 3057.

⁷⁵ For such criticism, see F. Costa-Cabral, 'Innovation in EU Competition Law: the Resource-Based View and Disruption', (2018) Yearbook of European Law (forth.).

⁷⁶ See, inter alia, the work of See, T. Bresnahan & S. Greenstein, Technological Competition and the Structure of the Computer Industry, Working Paper 1997, available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.598.252&rep=rep1&type=pdf> (exploring the end of the hardware manufacturer IBM's dominance of the individual computing industry and its replacement by Microsoft, crucially present in the vertically situated software segment of the individual computing value chain).

⁷⁷ W. Brian Arthur, *The Nature of Technology* (Penguin, 2009).

more polycentric approach in the consideration of the effects of mergers and/or other conduct on the *process of innovation*, beyond the output and price effects on consumers (actual or future).

The current innovation-centred framework that is emerging takes for granted that consumers, whose welfare competition law aims to protect, are particularly interested in innovation, to the extent that they value it more, in terms of their order of preferences, than static price effects. Under this framework it is possible that a price increase, for instance resulting from the exercise of intellectual property rights concerning a specific active pharmaceutical ingredient in a drug, may be outweighed in this competition law balancing, by efficiency gains brought by the greater ability of the undertakings to invest these additional profits on innovation, and long term ‘consumer welfare’.⁷⁸ One may of course raise questions about the willingness of real consumers to pay higher prices for the specific drug, even if it is likely some future consumers rather than the real consumers themselves would benefit from the outcome of this innovation effort. However, to the extent that the analysis is performed on the basis of the broader sociological category of consumers, it assumes that current consumers’ preferences may include the welfare of future generations of consumers. A further assumption made is that consumers value innovation as such, whatever direction this may take, that any form of innovation is enhancing the welfare of consumers, whatever its broader social implications may be.

But are these assumptions plausible? Is all innovation good for consumers? Or, should we also consider the *direction* of innovation, in particular when this is *socially valuable*? But how can we define what is *socially valuable*? One may argue that decision-makers should not ignore the preferences consumers express in other spheres of social activity, outside the marketplace. For instance, if a society expressed its commitment to protect the environment, by including in its foundational texts, specific provisions requiring the consideration of environmental protection concerns in the various normative activities of public authorities,⁷⁹ why should we not take into account these citizens’ preferences in understanding when innovation may be socially valuable and thus compatible with the agents’ preferences? Similarly, can we assume that consumers will favour innovation that leads to skilled-biased technical change when they are low-skilled workers that may suffer from such change?⁸⁰ Hence, it may be argued that to the extent that we aggregate welfare effects, there is no reason such aggregation cannot also include the preferences expressed in social spheres other than the market place. Such dynamic and diachronic trade-offs, across social spheres, raise important issues of inter-generational equality, and fairness between various categories of consumers/citizens, that in my view need to be tackled by all areas of law, including competition law.

⁷⁸ For instance, the Commission recognizes that efficiencies may bring forward positive innovation effects, and acknowledge that “consumers may also benefit from new or improved products or services, for instance resulting from efficiency gains in the sphere of R & D and innovation”: EU Horizontal Merger Guidelines [2004] OJ C31/5, para. 81.

⁷⁹ One may, for instance, think of Article 11 TFEU stating that ‘(e)nvironmental protection requirements must be integrated into the definition and implementation of the Union’s policies and activities’.

⁸⁰ Note that article 9 of the TFEU provides that ‘(i)n defining and implementing its policies and activities, the Union shall take into account requirements linked to the promotion of a high level of employment, the guarantee of adequate social protection, the fight against social exclusion ...’.

Hence, this slow, but steady, policy shift in assessing the effects of anticompetitive practices on innovation illustrates the need for a more complex understanding of the issues arising out of the intersection of the interests of various actors active in this context. But to make this link between actual and future consumers, or actual and future innovators, especially given that most innovation nowadays is cumulative, one needs to adopt a broader perspective than the specific ‘game’, a perspective that integrates other considerations, and goes beyond those generally considered to be of direct interest to the ‘representative consumer’. To the extent that the meaning of ‘innovation’ and when this is socially valuable is left an open, and remains inherently more difficult to define and measure than the parameter of price, it is sensible when operationalising its use as a decision criterion to rely on a wider set of sources of wisdom than price-revealed preferences or contingent valuation.

2. Privacy

The recent controversy following the emergence of big data and social media, on the intersection of competition law with the protection of privacy, may also provide useful insights for this study. Breaches of privacy or data protection, facilitated by the use of Big Data and sophisticated computer algorithms, may affect millions of people and, depending on the purpose, even compromise the democratic process.⁸¹ The EU, as well as its Member States, value privacy,⁸² and have established an elaborate system of data protection.⁸³ In recent years, the digital sector has attracted the attention of competition authorities and regulators involved in data protection.⁸⁴ Competition authorities have also looked to these questions when exploring the changes brought about by platform competition,⁸⁵ and have identified various issues in this regard.

One of these issues, whether merger control should take into account the fact that access to personal data may constitute an important source of market power,⁸⁶ has been explored by

⁸¹ Josef Drexler, ‘Economic Efficiency versus Democracy: On the Potential Role of Competition Policy in Regulating Digital Markets in Times of Post-Truth Politics’, in Damien Gerard and Ioannis Lianos (eds.), *Competition Policy: Between Equity and Efficiency*, (forth. CUP, 2019).

⁸² Article 7 of the Charter of Fundamental Rights lays down the right to respect for private and family life, home and communications, protecting the individual primarily against interference by the state.

⁸³ Article 8 of the Charter of Fundamental Rights recognises the protection of personal data as a separate right, which goes beyond simply protecting against interference by the state, but entitles the individual to expect that his or her information will only to be processed, by anyone, if however this processing is fair and lawful and for specified purposes, that it is transparent to the individual who is entitled to access and rectification of his/her information. The EU has adopted General Data Protection Regulation (EU) 2016/679 the protection of natural persons with regard to the processing of personal data and on the free movement of such data [2016] OJ L 119/1, which applies from 25 May 2018. Its scope is significant and wide-ranging.

⁸⁴ See, European Data Protection Supervisor, Privacy and competitiveness in the age of big data: The interplay between data protection, competition law and consumer protection in the Digital Economy (March 2014); Autorité de la Concurrence & Bundeskartellamt, Competition Law and Data (May 16, 2016); US FTC, Big Data – a Tool for Inclusion or Exclusion? (January 2016) and the references included.

⁸⁵ European Commission, Online Platforms and the Digital Single Market Opportunities and Challenges for Europe, COM/2016/0288 final; House of Lords, Online Platforms and the Digital Single Market, HL Paper 129 (2016); OECD, Big Data: Bringing Competition Policy to the Digital Era, DAF/COMP(2016)14.

⁸⁶ See, Maurice Stucke and Allen Grunes, *Big Data and Competition Policy* (OUP, 2016), chapters 6–8.

the Commission in a number of high profile mergers, such as *Facebook/WhatsApp*⁸⁷ and *Microsoft/LinkedIn*.⁸⁸ In *Microsoft/LinkedIn* the Commission examined how the EU regulatory framework relating to data protection could mitigate some of the data concentration concerns, indirectly noting that the issue was resolved by a different regulatory framework, than that of data protection. This decision limited Microsoft's ability to have access to and to process its users' personal data in the future since the new rules would have strengthened the existing rights and would have empowered individuals with more control over their personal data.⁸⁹ In particular, the Commission noted the new provisions on easier access to personal data and the right to data portability. At the same time, the Commission found that concentration of data could nevertheless have a potential impact on competition by marginalising or making difficult the entry of a competitor of LinkedIn that offered a greater degree of privacy protection to its users than offered by LinkedIn, and thereby restricting, 'consumer choice in relation to this important parameter of competition'", privacy.⁹⁰ In doing so the Commission conceptualised privacy as a parameter of competition that may eventually be subject to measurement.⁹¹

As with the competition law/IP law intersection, these practices raise the question of the interaction between competition law and other social and technical regulatory regimes protecting consumers or personal data.⁹² In *Asnef-Equifax* the CJEU had applied a monistic framework stating that 'any possible issues relating to the sensitivity of personal data are not, as such, a matter for competition law, they may be resolved on the basis of the relevant provisions governing data protection'.⁹³ However, in more recent cases such as *Allianz Hungária*, although not in the area of the intersection between data protection and competition law, the CJEU held that frustrating the objectives pursued by another set of national rules may be taken into account in the consideration of the economic and legal context when assessing a restriction of competition.⁹⁴ In *Astra Zeneca* the CJEU found that misleading representations to the patent office, a possible regulatory offence, could constitute abusive conduct if it was part of an overall strategy of a dominant undertaking seeking to unlawfully exclude rivals.⁹⁵

Competition authorities are of course increasingly active in data markets, not only reviewing merger cases and exclusionary conduct but also examining the possibility of applying the provisions on abuse of a dominant position against privacy breaches,

⁸⁷ *Facebook/ Whatsapp* (Case No COMP/M.7217) C(2014) 7239 final.

⁸⁸ *Microsoft/LinkedIn* (Case No. COMP/M.8124), C(2016) 8404 final.

⁸⁹ *Ibid.*, paras 177-178.

⁹⁰ *Ibid.*, para 350. Indeed, the Commission had found that privacy was an important parameter of competition and driver of customer choice in the market for professional social networking services.

⁹¹ Konstantina Bania, 'The role of consumer data in the enforcement of EU competition law', (2018) 14(1) *European Competition Journal* 38; Elias Deutscher, 'How to Measure Privacy-Related Consumer Harm in Merger Analysis? A Critical Reassessment of the EU Commission's Merger Control in Data-Driven Markets' (2017). Faculty of Law, Stockholm University Research Paper No. 40. Available at SSRN: <https://ssrn.com/abstract=3075200>.

⁹² European Data Protection Supervisor, *Privacy and competitiveness in the age of big data: The interplay between data protection, competition law and consumer protection in the Digital Economy* (March 2014).

⁹³ Case C-238/05, *Asnef-Equifax, et al v. Ausbanc* [2006] ECR I-11125, para. 63. This was followed by the Commission in *Facebook/ Whatsapp* (Case No COMP/M.7217) C(2014) 7239 final, para 164.

⁹⁴ Case C-32/11, *Allianz Hungária Biztosító Zrt. and Others v Gazdasági Versenyhivatal* ECLI:EU:C:2013:160, paras 46 & 47.

⁹⁵ Case C-457/10 *AstraZeneca v Commission* ECLI:EU:C:2012:770, paras 105–112.

discrimination and exploitative contracts, which may be facilitated by control of big data, companies interchanging individualized offers on the basis of the information they acquire on individuals' willingness to pay through their past browsing history or other personalising factors; this enables them to charge different prices to various customers for homogeneous products (online personalised pricing).⁹⁶ Certain competition authorities have opened investigations exploring the possibility that these practices may represent an abusive imposition of unfair conditions on users.

A recent case brought by the German competition authority against Facebook (*Bundeskartellamt, BKA*) raises interesting issues as to the possible extension of Article 102 TFEU to cover abuses resulting from the exploitation of consumers by digital platforms when harvesting consumer (personal) data.⁹⁷ Facebook collected the data of its users by merging the various sources of personal data generated by the use of other services owned by Facebook, such as WhatsApp or Instagram, or by the use of third party websites and apps, which 'embedded' Facebook products through the 'like' button and the use of Facebook analytics. The BKA differentiated between user data that were generated through the use of Facebook, and user data obtained from third party sources and not generated by the use of Facebook's social network itself. Facebook was found to hold a dominant position in the German market for social networks. The BKA raised concerns with regard to the possible existence of an abuse of a dominant position as Facebook made the use of its service conditional upon the user granting the company extensive permission to use his or her personal data, even those generated off-Facebook. Users were, therefore, no longer able to control how their personal data was used. The BKA noted that Facebook's users were oblivious as to which data and from which sources were being merged to develop a detailed profile of their identities and their online activities. Considering that Facebook's merging of the data constituted a violation of the users' constitutionally protected right to informational self-determination, the Court decided that the specific provision of German competition law prohibiting conduct of dominant undertakings (§ 19 GWB) could apply.

The BKA also examined whether Facebook's data processing terms were admissible in view of the principles of the harmonised European data protection rules (EU General Data Protection Regulation). In doing so BKA indicated that a violation of EU data protection law could give rise to an abuse of a dominant position. This approach is consistent with that followed by the other German competition authority, the Monopolkommission, in proceedings pending before it. According to the Monopolkommission, an infringement of statutory

⁹⁶ Autorité de la Concurrence & Bundeskartellamt, *Competition Law and Data* (May 16, 2016), pp 21–22 ; See also, Allesandro Acquisti and Hal R. Varian, 'Conditioning prices on purchase history' (2005) 24(3) *Marketing Science* 367; OFT 1489, *Personalised Pricing* (May 2013) finding also evidence of search discrimination, targeted discounting and dynamic pricing (use fluctuations in demand to change the prices of products depending on availability); Ariel Ezrachi and Maurice Stucke, 'The Rise of Behavioural Discrimination' (2016) 37 *ECLR* 484; Ariel Ezrachi & Maurice Stucke, *Virtual Competition* (Harvard University Press, 2016), Chapter 12; Marc Bourreau, Alexandre de Streel and Inge Graef, *Big Data and Competition Policy: Market Power, personalised pricing and advertising*, CERRE Project Report (February 2017).

⁹⁷ Bundeskartellamt, Preliminary assessment in Facebook proceeding: Facebook's collection and use of data from third-party sources is abusive (http://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2017/19_12_2017_Facebook.html) (accessed December 19, 2017).

provisions other than those relating to competition becomes a competition law problem if the infringement is either the result of a dominant position or it confers a competitive advantage which allows the dominant undertaking to distort competition.⁹⁸ The final decision in this case is eagerly expected.

Of particular interest is the fact that the German competition authority has framed the issue as relating to the protection of the citizen's constitutionally protected rights to 'informational self-determination'. To do this, the competition authority, implicitly, took into account not only the preferences revealed in the marketplace, as consumers were continuing to use Facebook and were not massively switching to another social media platform, but also those expressed in a different sphere of social interaction, and 'revealed' in constitutional norms enshrined in the social contract. The authority considered the promotion of 'informational self-determination' a socially valuable aim, as it is constitutionally protected, and did so without relying on consumers' preferences. It is true that, in view of the multi-sided market business model of Facebook, its users are not charged a price for the service, and the traditional price theory approach would not have worked in this context.

Interestingly, the authority could have also focused on the quality dimension of competition and its reduction by the 'loss of control' of the users as they were no longer able to control how their personal data were used. However, the Bundeskartellamt made no effort to build such a quality narrative, simply because it would have had to explain why the users had not switched to different social networks if 'informational self-determination' was a parameter of quality and variety competition. For this to happen, the price revealed preference (or a contingent valuation method) would have required some analysis of substitutability between social networks that respect informational self-determination and those, like Facebook, that violated this principle. In contrast, the evidence basis on which the Bundeskartellamt seems to have built its theory of harm relates more to the citizens' right to informational self-determination/privacy, as these are proclaimed and protected by the German constitution and other data protection laws. Isn't this an illustration of the introduction of a polycentric element in the definition of consumer harm?

3. Environmental protection

My third example concerns the complex interaction between competition law and the protection of the natural environment.

Some recent Dutch competition law cases exemplify this tension well.⁹⁹ One of these is a joint initiative by organizations from the poultry sector and supermarkets to introduce a sector wide sustainability policy in favour of a minimum standard for breeding and growing chickens, such as providing them with more space, a better natural day-night rhythm, and lower use of antibiotics, all of which are aimed at improving, be it marginally, the conditions of chicken and their 'animal welfare'. The agreement looked to replace the 'regular' chicken with

⁹⁸ Monopolkommission, Sondergutachten 68, 2015, Tz. 517.

⁹⁹ For an excellent analysis of this case law see, Giorgio Monti and Jotte Mulder, 'Escaping the Clutches of EU Competition Law', (2017) 42 EL Rev 635; Edith Loozen, 'Why Strict Competition Enforcement Is The Way Forward. A Consistent EU Enforcement Narrative Exemplified By The Dutch Sustainability Dossier', (SSRN: <https://ssrn.com/abstract=3157725> accessed April 6, 2018).

the ‘Chicken of Tomorrow’, a chicken raised in a more animal-welfare friendly manner. This initiative of the industry stakeholders was disrupted by the Dutch Competition Authority (ACM), which *ex officio* investigated the agreement and concluded that the sustainability initiative constituted a restriction of competition in the retail market for chicken meat, because ‘regularly’ produced chicken meat would no longer be available for sale in Dutch supermarkets.¹⁰⁰

The ACM followed the approach put forward in a ‘vision document’ on competition and sustainability in which it advocated for a ‘broad welfare concept’ that would have included the value consumers give to products produced in an environmentally and animal-friendly way in order to assess private initiatives to promote sustainability.¹⁰¹ Sustainability concerns were integrated in consumer welfare, but the weight of these considerations and their possibility to outweigh price effects in the trade-off would depend on their evaluation from the perspective of consumers, either on the basis of price revealed preferences, or through contingent valuation. In considering the agreements between supermarkets, poultry farmers and broiler meat processors on the selling of chicken meat produced under animal welfare-friendly conditions, the ACM explored whether the measures concerned were valued by consumers, using a cost-benefit analysis prepared by its chief economist relying on a survey study over a sample of Dutch consumers.¹⁰² The ACM found that the improvements came at a cost higher than the consumers were willing to pay. To arrive to this conclusion, it conducted a willingness to pay analysis, using conjoint analysis. Consumers’ willingness to pay was tested through a survey administered to consumer panels screening their answers to a series of hypothetical but realistic consumption choice-sets for various types of chicken meat that differed in the level of animal welfare taken into account in its production. From the results of this conjoint analysis, the ACM then inferred the value consumers were ready to pay for increased animal welfare. The ACM then compared this additional amount consumers were willing to pay for animal welfare to the additional costs that the measures would give rise to, in terms of higher prices. It found that on balance, the willingness of consumers to pay for the Chicken of Tomorrow was not enough to justify the increase in prices. The ACM concluded that the potential advantages of this initiative to animal welfare and sustainability did not outweigh the reduction in consumer choice and potential price increases. The ACM also noted that measures less restrictive to competition

¹⁰⁰ See ‘ACM’s analysis of the sustainability arrangements concerning the ‘Chicken of Tomorrow’ dated 26 January 2015 (<https://www.acm.nl/en/publications/publication/13789/ACMs-analysis-of-the-sustainability-arrangements-concerning-the-Chicken-of-Tomorrow/>). Similar sustainability concerns were taken into account with regard to agreements between energy producers to close down coal-fired plants. See, ‘Private arrangement in Energy Agreement to withdraw production capacity from the market restricts competition’ dated 25 October 2013 (<https://www.acm.nl/en/publications/publication/12194/Private-arrangement-in-Energy-Agreement-to-withdraw-production-capacity-from-the-market-restricts-competition/>)

¹⁰¹ ACM Vision document on competition and sustainability, available at <https://www.acm.nl/en/publications/publication/13077/Vision-document-on-Competition-and-Sustainability> (2014).

¹⁰² See, ACM Economic Analysis, available at <https://www.acm.nl/nl/publicaties/publicatie/13759/Onderzoek-ACM-naar-de-economische-effecten-van-de-Kip-van-Morgen> (in Dutch). For a summary in English, see J.P. van den Veer, Blogpost (Feb, 18, 2015), available at <https://www.acm.nl/nl/publicaties/publicatie/13759/Onderzoek-ACM-naar-de-economische-effecten-van-de-Kip-van-Morgen>

were also available that could have achieved the same purpose, such as providing information to consumers about animal welfare on the basis of labels, at a lower cost.

The Dutch Ministry of Economic Affairs reacted, following calls from the civil society, and sent a draft instruction document to the ACM urging them not take into account the long-term interest of (future) users but also the positive effects of such measures on the society as a whole. The aim was to force the ACM to integrate in the analysis not just the value the consumers of the relevant market were providing to sustainability, but also, more broadly, of all citizens. The European Commission intervened by a letter and objected to the inclusion of the potential positive effects for society as a whole, mentioning that ‘if certain policy goals are considered valuable for society as a whole, while not by the consumers in the relevant market, regulation is the right tool to safeguard them and not competition law’.¹⁰³ Following this intervention, the Dutch Minister of Economic Affairs disbanded the proposals and tried to achieve the same aims by adopting a declaration of general effect with respect to private sustainability initiatives that meet certain public criteria.¹⁰⁴

It may be that restricting competition in the context of this ‘green cartel’ was not an appropriate public policy, in view of the fact that those who consume most of the ‘regular’ chicken, do not place a high value on environmental public good.¹⁰⁵ However, this assumes that revealed preferences on the marketplace are the sole evidence of the real preferences of consumers and does not cater for the importance of sustainability concerns in the legislative framework, and the action of public authorities in view of the citizens’ preferences for protecting ‘animal welfare’.

In its letter on the Dutch ‘Chicken of Tomorrow’ case, the Commission seems to have taken a different approach than its own decisional practice on this matter in the *CECED* case, where it had taken into account the ‘collective environmental benefits’ brought by an agreement between washing machine manufacturers to cease production and importation of less energy efficient machines.¹⁰⁶ Such ‘collective environmental benefits’ were found to be more than seven times greater than the increased purchase costs to consumers of more energy-efficient washing machines. The Commission had concluded in *CECED* that ‘[s]uch environmental results for society would adequately allow consumers a fair share of the benefits even if no benefits accrued to individual purchasers of the machine’.¹⁰⁷

Firms enter in arrangements to set quality standards, or codes of behaviour regarding environmental, labour or safety regulations. It has been argued that competition law may inhibit ‘socially responsible collaboration’ between competitors, in particular in order to tackle global environmental problems. This could be for instance the case for agreements setting environmental certification or ethical standards for production or to preserve natural resources

¹⁰³ Letter by Mr Johanness Laitenberger (Director General, DG Comp) to Mr Maarten Camps (Secretary General, Dutch Ministry of Economic Affairs), February 26, 2016.

¹⁰⁴ For a discussion, see Monti and Mulder (n. 99).

¹⁰⁵ For a discussion, see Maarten Pieter Schinkel and Yossi Spiegel, ‘Can collusion promote sustainable consumption and production?’, (2017) 53 *International Journal of Industrial Organization* 371.

¹⁰⁶ *CECED* (Case COMP IV.F.1/36.718) Commission Decision 2000/475/EC [2000] OJ L 187/47.

¹⁰⁷ *Ibid*, para. 56.

from overharvest and waste.¹⁰⁸ These claims are of course as old as competition law/antitrust exists.¹⁰⁹ The Commission had in the past shown that it not only utilises flexible tools in order to accommodate these concerns, in its decisional practice on ‘collective benefits’, but also provided for these in the old guidelines on horizontal cooperation agreements (which included a section on environmental agreements). However, in the latter it was careful not to refer to these as ‘collective environmental benefits’ but rather ‘economic benefits’, ‘either at individual or aggregate *consumer* level’.¹¹⁰ The call of monocentricity is hard to resist! Note also that the Commission’s most recent 2011 horizontal cooperation guidelines do not include a separate section on ‘environmental agreements’.¹¹¹ This indicates that it clearly has concerns regarding *balancing* restrictions of competition with broader public interests, such as the protection of the environment.

However, balancing is not the only way environmental concerns may be integrated in competition law. In assessing the effect of the recent *Dow/Dupont* concentration on the non-price parameter of innovation, the Commission made an effort to explain why innovation in crop protection is of crucial importance ‘both from the perspective of farmers and growers’, the consumers affected by the merger, as well as ‘from a public policy perspective’ in view of the increased effectiveness of crop protection and its positive impact to food safety, environmental safety and human health.¹¹² However, the Commission did not explain under which legal basis these public policy concerns were integrated in the competition law analysis. Oddly enough, it did not refer to the horizontal integration clauses in the EU Treaties, such as Article 11 TFEU, that impose duties to the Commission, as to all other EU Institutions, to ‘integrate’ environmental protection requirements, ‘into the definition of the Union’s policies and activities’, such as competition law.

The three areas that I discussed above attest to three different strategies in managing the interplay between competition law and other legal fields protecting socially important values: a more *accommodating* and *inclusive* one for innovation concerns and IP rights, with considerable effort made so that innovation concerns fit the monocentric focus on consumer welfare, this time conceptualised in the ‘long-term’, although there is still reticence to open up the black box of the innovation concept, by considering the direction of innovation and when this is socially valuable; a *cautious* one, but showing some signs of evolution, for the interaction between competition law and privacy, with some effort to integrate these concerns in the definition of the quality parameter of competition; a *regressive* one for the interaction between competition law and environmental protection, as competition authorities are still committed to the tool of price-revealed preferences and contingent valuation when they evaluate the

¹⁰⁸ For a discussion, see, Inara Scott, ‘Antitrust and Socially Responsible Collaboration: A Chilling Combination?’ (2016) 53 *American Business Law Journal* 97.

¹⁰⁹ Similar arguments were made with regard to the net social benefits of an output-reducing monopoly in the presence of negative externalities, such as the extinction of animal species: see, Colin W Park, ‘Profit Maximization and the Extinction of Animal Species’ (1973) 81 *The Journal of Political Economy* 950.

¹¹⁰ Commission Notice — *Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements* [2001] OJ C 3/2, para 193. Emphasis added. The Commission also noted that ‘[w]here consumers individually have a positive rate of return from the agreement under reasonable payback periods, there is no need for the aggregate environmental benefits to be objectively established’ (para 194).

¹¹¹ Communication from the Commission — *Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements*, [2011] OJ C11/1.

¹¹² Commission Decision, Case *M.7932 – Dow/DuPont* (2017), paras 1977, 1979 & 1980.

weight of these broader citizens' concerns with regard to higher prices effects, that are of relevance for consumers, in the context of the welfare trade-off performed. Is this incoherence sustainable? Or are the different strategies chosen in each case explained by some act of 'covert' hermeneutical, and eventually political, choices? Is this differential choice compatible with the narrative of a 'de-politicised' competition law? As for many hermeneutical choices, the different approaches may be linked to institutional factors in these nested polycentric systems, which brings to the fore the institutional dimension of incorporating polycentric problems in competition law analysis.

III. The Institutional dimensions of polycentric competition law

As extensive work in economic sociology has shown, economic transactions are embedded in complex social relations and institutions supporting, and at the same time, structuring economic exchange through relations of trust and power between economic actors.¹¹³ The financialisation of the economy leads to the superposition of global financial markets, characterised by higher volatility, the operation of complex information systems and future-driven rationalities which sit on top of the various product markets on which competitive interactions have traditionally been thought to occur. Competition does not only take place within a product or a technology market, or even an industry, but also within broader competition 'ecosystems'¹¹⁴, which may include various industries, as inter-industrial investment flows focus on the lowest cost techniques that provide higher rates of return for the capital invested, capital moving from one industry to another in search of higher profits¹¹⁵.

Broader societal effects are to be expected from this greater interpenetration of the various fields of economic (productive and financial) as well as social activity, which has intensified in the era of financialisation¹¹⁶. High-impact, low-probability events (HILP)¹¹⁷, or 'black swans',¹¹⁸ are an important element to consider, in view of the increasing interconnectivity between social, economic, political and environmental spheres of life. In a networked globalised society, important 'cascade effects' may easily be divulged across the various spheres of economic activity, but also more broadly to the social, political and cultural spheres, as well as geographically.

¹¹³ See, inter alia, Michael Callon (ed.), *The Law of the Markets* (Wiley-Blackwell, 1998); Neill Fligstein, *The Architecture of Markets – An Economic Sociology of Twenty-First Century Capitalist Societies* (Princeton University Press, 2002); Pierre Bourdieu, *The Social Structures of the Economy* (Polity Press, 2005); Mark Granovetter, *Society and Economy* (HUP, 2017).

¹¹⁴ Michael Jacobides, Carmelo Cennamo and Annabelle Gawer, 'Towards a theory of ecosystems', (2018) *Strategic Management Journal*, <https://doi.org/10.1002/smj.2904>.

¹¹⁵ Anwar Shaikh, *Capitalism: Competition, Conflict, Crises* (OUP, 2016).

¹¹⁶ Johnna Montgomerie and Karel Williams, 'Financialised Capitalism: After the Crisis and Beyond Neoliberalism' [2009] 13(2) *Competition & Change* 99. For a historical and explanatory analysis of the concept financialisation, with regards to profitability, shareholder value and shifted incentives on innovation, see Natascha van der Zwan, 'State of the Art: Making Sense of Financialisation' [2014] 12 *Socio-Economic Review* 99.

¹¹⁷ Bernice Lee, Felix Preston and Gemma Green, 'Preparing for High-Impact, Low Probability Events' (Chatham House, 2012) available at https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/r0112_highimpact.pdf

¹¹⁸ Nassim Taleb, *The Black Swan: The Impact of the Highly Improbable* (Penguin, 2008).

In addressing these challenges, it becomes crucial to go beyond established institutional ‘logics’ and pre-established institutional moorings. The danger with the functionalist archetype of mainstream competition law, and its monocentric emphasis on consumer welfare, is that it shapes the cognition of its actors (the competition law enforcers) making them unable to engage with the wider picture, as they operate in the specific schema of price competition, and ignore other socially relevant mechanisms of competition for rents, and other sources of wisdom than price-based preferences for the valuation for the societal preferences that competition law, as any other area of law, aims to cater for.

The choice of the cognitive closure of competition law to these (other) forms of competition, is justified by the difficulty to develop legal institutions and instruments that would be easily administrable in view of the current resources, either because of perceived risks of ‘regulatory leveraging’¹¹⁹, or because of disagreements as to the appropriate competition law goals. Other forms of state action, such as regulation or taxation are often suggested as the preferred institutional alternative¹²⁰. However, institutional choice cannot be established *ex ante* and *in abstracto*, but should be subject to a comparative institutional analysis, taking into account the economic, social realities of the specific jurisdictions, the existing legal framework, and the institutional capabilities of the specific authorities in charge of the various policy domains affected. One should not exclude *a priori* the consideration by competition law of other forms of competition than price.

The basic assumption of monistic competition law is also that the economy forms an insulated activity, operating in a, more or less, competitive market that remains aloof from politics or culture. There is nothing of course further from the truth. In a complex economy, competition for rents takes various forms and leads to strategies across different spheres of social activity. This requires a different, more holistic, approach to competition regulation that is able to understand and engage with these complex strategies, and various spaces of competition, in product, technology, financial and innovation fields. How is it also possible to overlook the fact that actors may develop strategies aiming to transfer resources originating in one social setting in order to use it to gain advantage in another? Isn’t the main function of ‘entrepreneurs’ to provide arbitrage across unconnected spheres in order to secure resources cheaply in one setting and use them to profit in another? Why should we assume that this does not happen within the various spheres of social activity subject to competition law, but also with other interrelated spheres of social activity?

Acknowledging complexity does not however mean that we should ignore the existence of different principles of justification or ‘orders of worth’,¹²¹ to the extent that all social actors need to justify their action to others and operate within a certain frame of reference. It is clear that competition law employs different rules and criteria in judging the value or appropriateness of a specific social arrangement, in comparison, for instance, to data protection law or environmental regulation. The concept of polycentric competition law aims to help us understand the necessary interplay between these different (legal) institutions and fields of

¹¹⁹ Kovacic and Hyman (n.22).

¹²⁰ For a critical analysis of these arguments, see Lianos, ‘The Poverty of Competition Law’ (n. 11).

¹²¹ Luc Boltanski and Laurent Thévenot, *On Justification: The Economies of Worth* (Princeton University Press, 2006).

justification. At an abstract level, there are various strategies in order to organise this interplay and ensure effective problem-solving. I will explore three: ‘Framing struggles’, ‘Cross-Institutional isomorphism’ and ‘Multiple Performance’ the last category comprising two main options.¹²² My purpose is to provide some elements of description of the different strategies employed. I will examine in a separate study the parameters that might explain the choice of each of these specific strategies.

A. Framing struggles

This approach starts from the premise that there may be alternative approaches from different institutional arenas that could be relevant in a problem-solving activity, in particular when activities sit at the intersection of multiple institutional spheres.¹²³ One may refer to the issues arising out of the possible application of consumer protection law, data protection law and competition law, when, for instance, the behaviour of a business entity harvesting personal data enters the material scope of each of these fields of law and that the norms and structure of evaluation of either of these fields of law may govern the matter. One may expect a clash of institutional logics, to the extent that the solution to the problem may be different, although not necessarily diverging, should one choose one or another of these logics. The issue may in this case lead to a framing struggle in order to determine the dominant logic that will prevail in the specific decision-making context.

We may think of the situation of a consumer who is also a keen animal rights’ activist, at least when it comes to his political views, but also works in an industrial chicken farm and/or enjoys consuming parts of this domesticated fowl in a nearby fast food several times a week. This individual has, therefore, a multivariate preference function. Assuming that the decision-maker should take decisions representing this consumer’s multivariate preference function, a choice must be made on which of these preferences finally prevails: that of the consumer for lower prices for chicken meat, that of the environmentalist for sustainable development and animal welfare, or that of the worker for maintaining his employment and making sure the industry is profitable. Different fields of law may cater for these various preferences, the question of their interaction arising at the doctrinal and adjudicative stages of legal reasoning if we follow Dworkin’s categorisation of legal argument.¹²⁴

Coming to the approach followed in this context by EU competition law, the debates over the intersection of environmental protection and competition law have taken the form of totally excluding environmental values from the equation, for instance by deciding that they should not be taken into account when assessing if an agreement restricts competition, or when

¹²² The terminology draws on Granovetter (n. 113) Chapters 5 & 6 who notes the “unique texture of social life” emerging from this “interpenetration of institutional sectors”: *ibid.*, 135.

¹²³ *Ibid.*, 173 (referring to ‘framing contests’).

¹²⁴ Ronald Dworkin, *Justice in Robes* (HUP, 2006), 9-21 (the first one constructing an account of the truth conditions of propositions of law in the light of the values identified at the jurisprudential stage and ultimately the semantic stage - the societal values justifying a specific legal practice, and the second one describing the stage where judges or decision-makers adopt propositions of law based on the conclusions reached at the doctrinal stage).

evaluating possible justifications for such restriction of competition.¹²⁵ In other instances, they have been assessed as a secondary value that needs to be taken into account, to the extent that the restriction of competition it leads to is proportional to the benefit procured to the consumers in question and/or that the specific conduct is the least restrictive to competition alternative. The application of a proportionality test, or the methodology of intuitive non-quantitative balancing,¹²⁶ may in this case be preferred.

There is no assurance that competition law values are, or will be, those that will usually prevail in these ‘framing struggles’. Confronted with the field of intellectual property law, and following a period during which the competition law logic of emphasising allocative efficiency prevailed, the scope of competition law ‘suffered’ from the extension of the scope of the IP rights sphere, by the development of new *sui generis* forms of IP rights, such as that covering databases and semi-conductors,¹²⁷ and a generous interpretation of patentable subject matter, in particular in the US,¹²⁸ with the purpose to promote the specific logic of IP law, promoting innovation. As a result of this shift, unilateral refusals to license benefit from some form of quasi-immunity in US antitrust law, in particular following the Supreme Court in *Trinko* which abandoned the Smithsonian/Walrasian framework of perfect competition for the Schumpeterian/Austrian framework of innovation contests.¹²⁹ In the words of the late Antonin Scalia,

‘(t)he mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system.

The opportunity to charge monopoly prices, *at least* for a short period, is what attracts business acumen in the first place’.¹³⁰

The EU has followed a different path, opening the gates of the IP law fortress with the ‘exceptional circumstances’ doctrine, before expanding the doctrine and finally resorting to the open-ended formula of balancing of incentives to innovate.¹³¹ In a framing contest, one logic finally prevails. The institutional framework for such “framing struggles” is also particularly important as it may exercise some influence on the emergence of a winning narrative.

¹²⁵ For a discussion over the integration of environmental values in EU competition law, see Suzanne Kingston, ‘Integrating Environmental Protection and EU Competition Law: Why Competition Isn’t Special’, (2010) 16 *European Law Journal* 780- 805; Julian Nowag, *Environmental Integration in Competition and Free Movement Laws*, (OUP, 2016); Monti and Mulder, (n.99).

¹²⁶ ‘Intuitive balancing’ does not require some form of measurement of these competing values on the basis of a cardinal unit (value in Euros) and then the weighing of these values.

¹²⁷ This was harmonized by Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, [1996] OJ L 77/20; Council Directive 87/54/EEC of 16 December 1986 on the legal protection of topographies of semiconductor products [1987] OJ L 24/36.

¹²⁸ Nancy T. Gallini, ‘The Economics of Patents: Lessons from Recent U.S. Patent Reform’, (2002) 16(2) *Journal of Economic Perspectives* 131.

¹²⁹ *Verizon Communications, Inc v Law Offices of Curtis v Trinko, LLP*, 540 US 398.

¹³⁰ *Ibid*, at 407. (‘Firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers. Compelling such firms to share the source of their advantage is in some tension with the underlying purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities’).

¹³¹ For a discussion, see, *inter alia*, Lianos and Dreyfuss (n.62); Gustavo Ghidini, *Innovation, Competition and Consumer Welfare in Intellectual Property Law* (Edward Elgar, 2010); Ioannis Lianos, *Competition Law and the Intangible Economy* (forth. OUP, 2019).

B. ‘Cross-institutional isomorphism’¹³²

A different approach is that in view of the alterity of the problem to be solved, for the specific institutional setting, it might make sense to borrow instruments and/or the overall logic from a different institutional realm and transplant them back, ‘repurposing them for the occasion’.¹³³

One may think of the situation of a competition authority reviewing a merger enabling social platforms to combine and aggregate the data of their clients in order to enhance their capabilities of behavioural advertising. Let’s even imagine that the merged entity will be in the business of data mining and data analysis, as well as in strategic communication for business as well as for the electoral process, raising concerns regarding the impact of this merger not only on price competition in advertising markets, but also on the democratic process. There may be important efficient synergies to develop with such merger, product marketing and electoral campaigns having many things in common. Commenting on the role of Cambridge Analytica in the US 2016 elections, the media noted how the company’s founders’

‘...intellectual starting point was that politics is just one piece of people’s broader identity as social creatures and consumers. So when they tried to work out how a population was going to vote — or to devise campaigns for candidates ... — they didn’t start with practices that might be labelled ‘political’, but with consumer data and psychological profiles. [...]’.¹³⁴

The aggregation of this data may enable social media companies to acquire influence in the political sphere, and enable them to frame the agenda through a possible manipulation of the information their customers receive in their social media feeds. There is clear interdependence between these various spheres. As Richard Robinson, vice-president of Cambridge Analytica’s commercial arm declared: ‘(e)nabling somebody and encouraging somebody to go out to vote on a wet Wednesday morning is no different in my mind to persuading and encouraging somebody to move from one toothpaste brand to another’.¹³⁵

The issues raised by such merger cannot be confined to the economic sphere of market competition, and spill over into the spheres of politics and culture. They also raise important questions as to the application of the traditional competition law assessment tools, which only focus on market power and effects on price or quality in specific relevant markets, but cannot assess the economic effects resulting from the interaction of the cross-economic and political/cultural spheres effects, and the broader social implications of the merger. Proponents of these business arrangements may claim, under the efficiency defence in merger control or Article 101(3) TFEU, that targeted online advertising increases consumer welfare to the extent that what the companies do is to place advertisements that target them based on their estimated personal interests and preferences, thus reducing wasteful advertising as ads and news posts match the consumers’ potential interest and preferences. It is not always easy to draw a line between advertisements that respond to estimated consumers’ interests, informing them of a

¹³² Granovetter, (n. 113) 175.

¹³³ Ibid, 172.

¹³⁴ Gillian Tett, Trump, Cambridge Analytica and how big data is reshaping politics (September 29, 2017), available at <https://www.ft.com/content/e66232e4-a30e-11e7-9e4f-7f5e6a7c98a2>.

¹³⁵ Statement cited in Tett above.

specific product or political opinion, and advertisements that manipulate consumer's preferences, or attempt to persuade about a certain opinion or product.

In assessing mergers raising such concerns, competition law can borrow from other areas of law, such as data protection, consumer protection or media law (which aims to ensure media plurality) specific tools, repurposing them accordingly. This may take the form of assessing the effect of this merger or conduct, by also taking into account the policy of ensuring plurality of media, under a broader public interest test. There are various institutional settings for such public interest standards, these being usually perceived as distinct from the 'normal' competition law consumer welfare standard. The most common institutional setting is that the public interest assessment is kept separate from the competition assessment and performed by a different institution than the competition authority, most frequently a Minister,¹³⁶ thus openly recognizing that the decision criterion in this case will be eminently linked to political considerations (e.g. ideology, interest capture). Less frequently, such considerations are juxtaposed to the competition assessment and their analysis is performed by the competition authority following an organised technocratic process of interest participation.¹³⁷

C. 'Multiple performance'¹³⁸

This approach allows for the integration of multiple frameworks that articulate and maintain 'alternative conceptions of what is valuable or worthy'.¹³⁹ Relying on 'multiple principles of evaluation in play', these multiple institutional frameworks can be used as resources for 'pragmatic actors'.¹⁴⁰ Some degree of ambiguity and ambivalence might be the right strategy when these multiple performance criteria are in operation as it is important to offer to the actors some room for manoeuvre, a 'portfolio' of value frames from which they can draw creative and innovative solutions in a pragmatic way.¹⁴¹ I distinguish here between two strategies.

1. Frankenstein

Resorting to an alchemy of various values and tools coming from different legal fields and disciplines, which I will call 'Frankenstein', constitutes the first possible option. This aims to integrate various 'economies of worth' into a single reference framework, eventually facilitating commensurability and weighing, under a common metric. This is not an easy task

¹³⁶ In the UK, under section 58 of the Enterprise Act 2002, the Secretary of State can intervene in mergers where they give rise to certain specified public interest concerns: specifically, issues of national security; media quality, plurality & standards; and, financial stability. In these cases the Secretary of State may make an assessment of a merger purely on the grounds that it runs counter to the public interest, without deferring to the 'substantial lessening of competition' test, or they may give regard to both tests in coming to a final decision.

¹³⁷ See, for a discussion of this model, Azza Raslan, 'Mixed Policy Objectives in Merger Control: What can Developing Countries learn from South Africa?', (2016) 39(4) *World Competition* 625.

¹³⁸ Granovetter (n.113).

¹³⁹ David C. Stark, *The Sense of Dissonance: Accounts of Worth in Economic Life* (Princeton University Press, 2009), 5.

¹⁴⁰ *Ibid.*, 19.

¹⁴¹ Granovetter, (n.113), 187.

and often requires a great level of abstraction and axiomatisation that may not be possible to implement by existing institutions, as this may demand new forms of combined expertise.

The approach still relies on the ‘voting theory of collective choice’, social judgments and public decisions depending, on individual preferences, broadly understood, as these are expressed in a transparent social process, in the marketplace, through elections, or through the various survey tools constructed by the experts.¹⁴² One may opt here for a Pareto efficiency approach that would require unanimity, which is impractical, or for a majoritarian approach, such as Kaldor-Hicks efficiency. One may even expand the evidence base for inferring ‘extensive preferences’ by way of a structural and constructive interpretation of the legal framework that puts legal practice ‘in its best (moral) light’.¹⁴³ Nevertheless, a voting approach is not without problems. As Arrow’s impossibility theorem shows, in the absence of a cardinal measure of utility across individuals, it becomes quite difficult to identify an adequate social welfare function. There are problems to identify preferences through voting schemes, as voting cannot measure the intensity of the individuals’ preferences and may lead to intransitive preferences.¹⁴⁴

Such approaches rely on various strategies of commensuration so as to enable competition law analysis through the balancing of various values inferred from the preferences of consumers (or the general public), or more generally found to derive from the specific legal framework as interpreted in its best moral light. I will give here two examples.

The increasing intersection of data protection with competition law in the digital economy has also led to some efforts to develop tools that integrate privacy concerns in competition analysis. Cabral and Lyskey have shown how ‘data protection law can act as an internal influence on substantive competition law assessments’ by giving ‘normative guidance’ to the way competition authorities and courts may interpret the non-price parameters of competition, such as quality, consumer choice and variety and innovation.¹⁴⁵ Following up this research programme, a number of authors have put forward various strategies in order to ensure the commensuration of privacy concerns within the competition law toolbox, such as assessing privacy as an element of product quality,¹⁴⁶ an element of consumer choice, or as a ‘non-monetary price’.¹⁴⁷ Noting the ‘privacy paradox’, that is that consumers often state different preferences than those they actually reveal by their behaviour on the marketplace, these authors argue for the adoption of different methodologies than the price-based revealed preferences model of valuation, which has in any case difficulties to work in the context of a ‘free’ product

¹⁴² Amartya Sen, ‘The Informational Basis of Social Choice’, in Kenneth Arrow, Amartya Sen and Kotaro Suzumura (eds.), *The Handbook of Social Choice and Welfare* (Elsevier, 2010, vol II), 29.

¹⁴³ Ronald Dworkin, *Law’s Empire* (HUP, 1986), Chapter 2.

¹⁴⁴ Kenneth J. Arrow, *Social Choice and Individual Values* (Wiley, 1951).

¹⁴⁵ Francisco Costa-Cabral and Orla Lyskey, ‘Family ties: the intersection between data protection and competition in EU Law’, (2017) 54(1) *Common Market Law Review* 11, 14.

¹⁴⁶ Stucke and Grunes (n.86), 65-66.

¹⁴⁷ For a critical discussion of these approaches see, Deutscher (n. 91) .

not subject to monetary evaluation,¹⁴⁸ as is often the case in these multi-sided markets.¹⁴⁹ These approaches have in common that they treat privacy as a parameter of price competition, even if this does not take a monetary form.

In their effort to establish some form of commensuration that would enable balancing, some authors explore alternatives to the traditional consumer welfare standard: (i) a ‘*broad* consumer welfare standard’, which will indirectly take into account non-economic interests, to the extent that these are directly related to the relevant market and accrue to the consumers of these markets, in a similar vein than the approaches explored above regarding the integration of privacy; (ii) an ‘*inclusive welfare standard*’ that would take non-economic interests directly into account even if these do not affect the consumers of the relevant market, for instance through the consideration of some other unspecified aggregation method and (iii) a ‘*capability approach*’, that would not rely on a welfarist standard.¹⁵⁰ The last approach relies on the theoretical framework put in place by Amartya Sen, focusing on ‘*well-being*’, rather than welfare.¹⁵¹ This calls for a new metric enabling some degree of commensuration and interpersonal comparison relying on the concepts of ‘*functionings*’ and ‘*capabilities*’. ‘*Functionings*’ are ‘*beings*’, such as being well-nourished, being undernourished, being safe, being able to participate to social and economic activities, but also being in bad health, and ‘*doings*’, such as voting in an election, travelling, eating to your hunger, consuming fuel to get warm, but also taking illicit drugs. For instance, consume a lot of fuel might be considered as a positive thing for someone taking a growth perspective, while a bad thing for an environmentalist or someone taking a sustainable growth perspective. Capabilities constitute a person's real freedoms or opportunities to achieve these specific functionings. Contrary to the welfarist perspective, in the capabilities approach social welfare is not seen as ‘*a function of the person-specific distribution of each commodity*’, but ‘*as a function of the combination of everyone’s functioning vectors (or of everyone’s capability sets)*’¹⁵².

The decision procedures required for the implementation of such an approach in competition law may be quantitative (when differences may be measured on a cardinal scale), or qualitative variations of the balancing method, where ‘*market-constructing capabilities*’, such as property rights and contract, are balanced with ‘*consumptive capabilities*’ (health, education, nourishment, housing) and ‘*third-party capabilities*’ (identifying capabilities to ‘*others than consumers or producers*’, such as the protection of future generations and animal welfare), the purpose being to maximize the total level of capabilities up to a threshold level.¹⁵³ Other approaches would focus on the happiness of agents by evaluating the way a person feels

¹⁴⁸ For a general discussion, see, John M. Newman, ‘*Antitrust in Zero-Price Markets: Foundations*’, (2015) 164 U. Pa. L. Rev. 149; Michal Gal and Daniel Rubinfeld, ‘*The Hidden Costs of Free Goods: Implications for Antitrust Enforcement*’, (2016) 80(3) *Antitrust Law Journal* 521.

¹⁴⁹ Deutscher (n. 91) (arguing for the use of conjoint analysis on the basis of consumer surveys exploring their responses to different hypothetical choice problems for different variations of the product (higher or lower standard of privacy protection); Bania (n.91) (advancing the need for a stated preferences/conjoint analysis method).

¹⁵⁰ Rutger Claassen and Anna Gerbrandy, ‘*Rethinking European Competition Law: From a Consumer Welfare to a Capability Approach*’, (2016) 12(1) *Utrecht Law Review*, <http://doi.org/10.18352/ulr.321>.

¹⁵¹ Amartya Sen, *Inequality Reexamined* (OUP, 1995), 92.

¹⁵² *Ibid.*, 95.

¹⁵³ Claassen and Gerbrandy (n.150).

throughout her life (subjective experience of life).¹⁵⁴ Although certainly intellectually appealing, this approach faces several difficulties, the first of which is to determine the capabilities that count for the analysis. Nussbaum suggests a number of possible capabilities,¹⁵⁵ while Sen leaves this decision to the democratic process. One may think that there could be some philosophical disagreement over the content of the list of objective capabilities, if one takes Nussbaum's perspective. The incorporation of this approach in competition law adjudication may also be challenging, in view of the fact that information on all these factors should be collected and assessed by competition authorities or courts on a case-by-case basis. By focusing on a specific metric, conceptualised as price, welfare or well-being, such approaches are compatible with the monocentric vision of competition law, to the extent that the competition law enquiry is narrowed down to examine if the conduct in question has maximised, or not, the specific metric (e.g. well-being).

The decision procedures required for the implementation of such approaches are quantitative or qualitative variations of the balancing method, one of the enduring myths of competition law, to the extent that there is a significant disjunction between theory, where balancing is often referred as the preferred method, and the practice of competition law, where it seems that the full balancing of costs and benefits of the specific practice to competition is performed in a very limited number of cases.¹⁵⁶

Prominent academic commentators also argue that when balancing is done, courts do not balance costs and benefits, according to a uniform metric, as in particular the costs and benefits to trade-off may be different in kind, such as higher prices, from one side, and higher quality or innovation, from the other side; balancing is a 'very poor label for what courts actually do'.¹⁵⁷ This incommensurability objection may however also apply for the trade-offs involved between static and dynamic efficiency (actual and future consumers), or those between price and quality, or even between the different individual consumers of the group of consumers affected by the specific restrictive conduct in the 'relevant market'.¹⁵⁸

This discussion reminds us that commensuration is a social process, by essence deeply political, where comparison is excluded between the values thought to be incommensurables.¹⁵⁹ Finding that values are incommensurable might also indicate that each of these relies on justifications characterized by different logics, or different 'orders of worth'.¹⁶⁰ Polycentricity

¹⁵⁴ Richard Layard, *Happiness: Lessons from a New Science* (London, Alen Lane, 2005). To the knowledge of the author the application of this approach in competition law adjudication has never been examined in depth.

¹⁵⁵ Martha Nussbaum, *Creating Capabilities: The Human Development Approach*, (HUP, 2011).

¹⁵⁶ See, Michael A. Carrier, 'The Real Rule of Reason: Bridging the Disconnect', (1999) *Brigham Young University Law Review* 1266 (noting that 'courts rarely conduct the balancing for which the Rule (of Reason) is known' and that in 96% Rule of Reason cases, courts do not balance anything', reporting for the period 1977 to 1999); Michael A. Carrier, 'The Rule of Reason: An Empirical Update for the 21st Century', (2009) 16(4) *George Mason Law Review* 827 (noting that balancing occurs 'in only 2% of cases', reporting for the period of 1999 to 2009). It is not, however, clear how many of these cases concerned 'mixed conduct': C. Scott Hemphill, 'Less Restrictive Alternatives in Antitrust Law' (2016) 116(4) *Columbia Law Review* 927.

¹⁵⁷ Herbert Hovenkamp, 'Antitrust Balancing', (2016) 12 *New York University Journal of Law and Business* 369.

¹⁵⁸ See, Rebecca H. Allensworth, 'The Commensurability Myth in Antitrust', (2016) 69(1) *Vanderbilt Law Review* 1 (arguing that costs and benefits to competition are usually incommensurate and balancing them under the Rule of Reason requires value judgments that often, economic science cannot supply).

¹⁵⁹ Wendy N. Espeland & Mitchell L. Stevens, 'Commensuration as a Social process', (1998) 24 *Annual Review of Sociology* 313.

¹⁶⁰ Boltanski and Thévenot (n. 121).

implies that there are multiple autonomous calculative spaces where different criteria and distributive principles are in operation.

2. Polycentric competition law

Behind this epithet lies a twofold strategy: (i) enhancing the cognitive openness of competition law so that it can address the multilevel strategies to restrict competition that are expected to unfold in a complex economy, and (ii) accounting for the diversity of values or orders of worth in productive friction in society by preserving and promoting spaces of polycentricity (or polyarchy).

The first, more descriptive task, originates from the finding that monocentric competition law ignores the continuous interaction of multiple actors in overlapping, but also interdependent games, and in particular the fact that positive feedback loops enable positions of power to be leveraged from one field to another. A ‘complex economy’ is characterised by the existence of overlapping and ‘interpenetrating domains of economic networks, political networks, and social/kinship networks’, which are structurally linked as multifunctional actors develop an ecology of strategies to exploit and survive ‘in multiple spheres of their lives’.¹⁶¹ Networks act as catalysts for each other and enable actors to develop an ecology of strategies that may be deployed across the various fields in which they interact, competitively and/or cooperatively, with each other. Increasing returns to scale throughout interconnected fields, path dependencies, multiple attractions and lock-in situations develop as a result of this high degree of interconnectivity.¹⁶² Equilibrium, the Holy Grail of neoclassical economics, cannot therefore be the default position in an economy on ‘ongoing computation’.¹⁶³ Equilibria may emerge in the presence of various countervailing forces at work, but the situation of ‘non-equilibrium’, defined as ‘an ecology of perpetual changes’, becomes the natural state of the economy.¹⁶⁴

In this complex system, important changes that appear localised and impact on just a few individual nodes may thus be felt right across the economy and other spheres of social activity. Arthur refers to this phenomenon as ‘sudden percolation’, as changes occurring in one field may be propagated and continue to propagate in other fields, in particular if the various networks are densely connected.¹⁶⁵ To the extent that there is interaction between various agents and nonlinear feedback between the actors and their environment, the system of interactions that emerges is ‘reflexive’,¹⁶⁶ and cannot be adequately described by equilibrium systems, as agents frame their strategies observing the broader environment, assessing their

¹⁶¹ John F. Padgett, ‘Evolvability of Organizations and Institutions,’ in David S. Wilson and Alan Kirman (eds.), *Complexity and Evolution – Towards a New Synthesis for Economics* (MIT Press, 2016), 185, 192.

¹⁶² W. Brian Arthur, *Increasing Returns and Path Dependence in the Economy* (University of Michigan Press, 1994).

¹⁶³ W. Brian Arthur, *Complexity and the Economy* (OUP, 2015), 8.

¹⁶⁴ *Ibid.*, 10 & 13.

¹⁶⁵ *Ibid.*, 14.

¹⁶⁶ George Soros, ‘General Theory of Reflexivity’, *The Financial Times* (October 26, 2009), available at <https://www.ft.com/content/0ca06172-bfe9-11de-aed2-00144feab49a>; George Soros, ‘Fallibility, reflexivity, and the human uncertainty principle’, (2013) 20(4) *Journal of Economic Methodology* 309.

position in it and determining their actions in order to alter the environment according to their aims (e.g. improving their structural position across networks). A pragmatic decision-maker should thus take into account these multi-networks strategies and cater for situations of ‘structural inequality’,¹⁶⁷ by developing strategies to reduce significant inequalities in the structural position of the individual (or collective) agents in the various overlapping social spheres they are active. By focusing almost exclusively on the price dimension of competition monocentric competition law plays with a toy economy that only exists in the economic textbooks. Enforcing competition law in a complex economy setting would require the development of a deeper understanding of the social structure of competition and of the various spaces on which competition tournaments may take place.¹⁶⁸ To give a simple example, the increasing role of financial markets and financialisation in the economy and the underlying logic of futurity that characterises them, as what counts for capital is expectations about future returns, draw attention to the role of finance and institutional investors as active competitive actors that may maximise their returns by softening competition between the undertakings they invest in.¹⁶⁹ This raises questions as to the right unit of analysis in competition law, beyond the market/firm dichotomy. The defining role of technology in the architecture of the competitive game also challenges the transaction-cost approach of the firm, which has been influential in framing the definition of the concept of undertaking in competition law, for a resource-based theory of the firm that focuses on assets and capabilities and engages more closely with innovation competition. Different methodologies should also be developed to account for this complex reality, such as agent-based modelling and sophisticated computation or the use of simulation techniques to better map the multi-functional strategies of actors in the various competition ecosystems and allow for computation.¹⁷⁰ I can venture for the time being the slogan of ‘augmented competition law’ in order to signify that this type of analysis will surely rely on advanced computing, algorithms and artificial intelligence supported decision-making.¹⁷¹

The second strategy consists in reconceptualising competition law in a way that would better reflect polycentricity. Taking a social contract perspective, one may consider that the consumer is also a citizen that values plurality of views and information in a democratic society built on the principle of democratic capitalism, that is, a pluralistic social system based on a differentiation of society into various non-overlapping and autonomous ‘power centers’.¹⁷² As I highlighted in Part II, polycentricity assumes that there are various ‘orders of worth’ or ‘spheres of justice’ in society, each of them with different criteria and arrangements as to the

¹⁶⁷ See, K. Sabeel Rahman, ‘Structural Inequality and the Law: part I’ (February 28, 2018) and ‘Structural Inequality and the Law: part II’ (March 5th, 2018), Law and Political Economy Blog, available at <https://lpeblog.org/2018/02/28/structural-inequality-and-the-law-part-i/>.

¹⁶⁸ Ronald S. Burt, *Structural Holes* (HUP, 1992).

¹⁶⁹ Jose Azar, Martin C. Schmalz, and Isabel Tecu, ‘Anti-Competitive Effects of Common Ownership’ (March 15, 2017). *Journal of Finance*, Forthcoming. Available at SSRN: <https://ssrn.com/abstract=2427345>.

¹⁷⁰ See Lynne Hamill and Nigel Gilbert, *Agent-Based Modelling in Economics* (Wiley, 2016).

¹⁷¹ For a discussion on the possible use of such approaches in the enforcement activity of competition authorities, see Ioannis Lianos, ‘Augmented competition law’ (forth. CLES Research paper series, 6/2018).

¹⁷² See Michael Novak, *The Spirit of Democratic Capitalism* (Simon & Schuster, 1982), (differentiating society into three power centers: a political sector, an economic sector, and a moral-cultural sector).

distribution of resources.¹⁷³ Preserving the boundaries of these ‘spheres of justice’ becomes a possible strategy if one is to respect the process through which the members of the community develop a diversity of criteria mirroring the diversity of the social goods. What becomes essential for the decision-maker is to ensure that structural inequalities are not multiplied through a conversion process across different social goods, compromising the autonomy of distributions.¹⁷⁴ The existence of autonomous distributive criteria requires that no citizen’s standing in one sphere or with regard to one social good can be undercut by his standing in some other sphere, with regard to some other good. ‘Complex equality’ aims to narrow the range within which particular goods are convertible and to preserve the autonomy of distributive spheres. Specific social goods may be monopolised, if this occurred in accordance to the distributive criteria, but no particular good should be ‘generally convertible’, becoming dominant and compromising the autonomy of the different distributive spheres¹⁷⁵.

To provide an example, power may be considered as a ‘special sort of good’, in the sense that it also operates as a ‘regulative agency’ ‘defending the boundaries of all the distributive spheres, including its own’, but is also capable to ‘invade the different spheres’ and ‘override’ their social meanings.¹⁷⁶ Individuals interacting with data comptrollers in the context of an online market transaction are participating in overlapping games in the political sphere with the same corporations. These corporations may use their algorithmic power to gain power in the political sphere, which through lobbying they may later convert in economic power, as rent seeking and lobbying constitute the second most important driver of firms’ profitability.¹⁷⁷ Why should we not consider this multi-dimensional nature of competition, for the simple reason that the current version of competition law only focuses on price and output competition?

There are various implications of such an approach. First, one needs to abandon the sole focus on consumer welfare, as determined by a narrow price-based revealed preferences approach. ‘Complex equality’ calls for a hypothetical revealed preference approach that would be sensitive to the fact that actors are interested in their structural position across the full-scale of their social interactions with other actors. In preparing the evidence base for inferring such preferences, it would be essential to look to the various overlapping games in which these actors frame their strategies, while also accounting for the specific evaluative criteria of each of these domains. The legal status of the right to privacy, which is recognised by the European

¹⁷³ Michael Walzer, *Spheres of Justice: A Defense of Pluralism and Equality* (Basic Books, 1983) (arguing that “(t)he principles of justice are themselves pluralistic in form”, as different “social goods” ought to be distributed for different reasons, in accordance to different distributive procedures, by different agents and criteria. Walzer puts forward three ‘distributive principles’: desert, free exchange and need. These rely on a diverse set of criteria, such as merit, qualifications, birth, friendships, loyalty, democratic decision, each having a place, along with many others, and possibly uneasily coexisting with them); Boltanski and Thévenot (n.121) (arguing that society is marked by the interplay of various “orders of worth” functioning according to different tests of justification).

¹⁷⁴ Ibid.

¹⁷⁵ Ibid., 17.

¹⁷⁶ Ibid., 16.

¹⁷⁷ James E. Bessen, ‘Accounting for Rising Corporate Profits: Intangibles or Regulatory Rents?’ (May 11, 2016). Boston Univ. School of Law, Law and Economics Research Paper No. 16-18. Available at SSRN: ssrn.com/abstract=2778641.

Charter of Fundamental Rights,¹⁷⁸ and the development of specific legislation to ensure data protection,¹⁷⁹ should also provide the evidence of the hypothetical extended preferences of consumers/citizens to have their personal data protected, even if in practice their choice on the market may reveal that they are ready to be lured to sacrifice it for some other immediate gratification/benefit (e.g. free search). Their behaviour as revealed by their choices in the market sphere may not constitute evidence of their true preferences, as it cannot be excluded that their behaviour may have been manipulated by a more powerful actor. It would therefore make sense to also rely on evidence of these extended preferences by looking to the rights and duties provided for in legal system where all actors are, at least formally, equal.

Second, instead of focusing on efficiency, 'polycentric' competition law would rather focus on systemic resilience, associated with the preservation of 'complex equality', so as to ensure that systemic shocks and crises may not produce important structural inequalities and significant losses for various stakeholders.¹⁸⁰ Systemic resilience will involve focusing on the structural position of the various stakeholders across fields. This may call for adopting a broader concept of power, than market power on a relevant market, drawing on resource-dependence theories accounting for the power emerging out of central positioning in networks and informational asymmetries. Having ties that provide the only route through which information or resources can travel between network segments that are otherwise disconnected from each other, in particular if this is within various spheres of social activity, may provide invaluable strategic advantages over actors having few or no alternatives, and may easily convert to economic power. My purpose is not to call for a systematic qualitative and quantitative analysis of each of these sources of power integrating the political or cultural/informational fields, in competition law analysis, but to indicate that powerful actors typically combine these different types of power. Moreover, the more seamlessly they do so, the more powerful they are. The scope of the competition enquiry should therefore be broader than assessing effects on the relevant market, at least from a qualitative perspective.

Third, in a complex economy setting, it may be expected that actors take advantage of their presence in various overlapping domains of social activity, by gaming the system and developing exploitative practices.¹⁸¹ These exploitative strategies may result from the differential access social actors have to information (asymmetric information), or the use of manipulation, which occurs when an agent's behaviour is 'judged, monitored, or measured by strict criteria of evaluation', the agent conforming formally to these narrow criteria, but not to the type of behaviour that was more widely intended.¹⁸² It is well known from the literature on behavioural economics, that choice can be affected by trivial manipulations in the construction of available options. This may particularly harm consumers,¹⁸³ in particular as the digital

¹⁷⁸ Article 7 of the EU Charter on Fundamental Rights.

¹⁷⁹ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), [2016] OJ L119/1.

¹⁸⁰ This breaks with the approach used in law and economics' literature

¹⁸¹ W. Brian Arthur (n.163), 104-105.

¹⁸² *Ibid.*, 108.

¹⁸³ See the literature on market manipulation, providing evidence that firms take advantage of the specific characteristics of consumers and manipulate their cognitive biases: Jon D. Hanson and Douglas A. Kysar, 'Taking

economy offers multiple opportunities of framing. In the ‘winner takes most’ competition that characterises the digital economy, when markets may tip and become dominated by a digital platform, it is also possible that an actor may take control of a whole system, or value chain, using the system for its own purposes, without due regard to the necessary reward of productivity that comes with the choice of the market organisation of economic production. It is also possible that the actor abuses the system by using it in a way not intended by policy designers. Drawing on rent-seeking theory some authors claim that monopolies and powerful corporations dominating platforms and markets may use the broader institutions of our societies in order to reduce competition, not only by exploiting the rules of the social game for their own benefit,¹⁸⁴ but also by building competitive ‘architectural advantage’, where the industry structure is framed in a way that enables them to constitute long lasting ‘bottlenecks, activities where scarcity and the potential for control offer superior opportunities for profit for a long period of time.’¹⁸⁵ The expansion of the scope of competition law to ‘regulatory abuses’, that has met some critique in competition law literature,¹⁸⁶ may therefore be understood as a well-designed pro-active strategy to maintain the competitive structure of the overlapping games, and to guarantee the effective protection of the societal values that may be affected by actors with economic power, without their conduct necessarily formally violating the provisions of these other regulatory fields.¹⁸⁷ These important concerns are often ignored by the proponents of monocentric competition law.

IV. Conclusion

This study does not argue for the transformation of competition law into the ‘law of everything’; I am largely in agreement with Judge Easterbook that ‘(w)hen everything is relevant, nothing is dispositive’.¹⁸⁸ My claim is narrower and aims to question the monocentric model of competition law relying on the price-based revealed preference approach of a representative consumer on a specific relevant market, without factoring in the analysis the action and interests of real individuals simultaneously active in various social spheres.

The current mainstream price-focused approach does not also take into account the complexity of social interactions and the overlapping games to which each of us participates. Positions of dominance in one network may easily be leveraged in other fields of social activity, breaking the boundaries that we have built in order to keep them separate and preserve the various ‘orders of worth’ that make our individual *and* social existence meaningful. If economic dominance and power is so easily leveraged to dominance in other spheres of social

Behavioralism Seriously: Some Evidence of Market Manipulation’, (1999) 112 Harvard Law Rev. 1420; Ryan Calo, ‘Digital Market Manipulation’, (2014) 82 The George Washington Law Rev. 995.

¹⁸⁴ Joseph Stiglitz, ‘Standard Economics Is Wrong. Inequality and Unearned Income Kills the Economy, Economics’, available at economics.com/joseph-stiglitz-inequality-unearned-income/; Zia Qureshi, Today’s economic puzzles: A tale of weakening competition (Brookings, April 5th, 2018).

¹⁸⁵ Michael G. Jacobides, Thorbjørn Knudsen and Mie Augier, ‘Benefiting from innovation: Value creation, value appropriation and the role of industry architectures’, (2006) 35(8) Research Policy 1200.

¹⁸⁶ See, for instance, the critical comments of David Bailey, ‘The new frontiers of Article 102 TFEU: antitrust imperialism or judicious intervention?’, (2018) 6(1) Journal of Antitrust Enforcement 25.

¹⁸⁷ See Deutscher (n.91), 33-34 (noting that ‘firms can lower the level of privacy protection, and thus raise the privacy-price consumers have to pay for their services without necessarily violating data protection legislation’).

¹⁸⁸ F. H. Easterbrook, ‘Limits of Antitrust’, (1984) 63 Texas Law Review 1.

activity, such as academia, politics, or culture, it can also become more easily entrenched, social activities often leading to feedback loops and lock in situations.

This polycentric vision is already here, in the debates that oppose competition law scholars over the goals of competition law, and the enforcement activity of the various competition authorities and courts which try to engage with the polycentric problems brought in by the digital revolution, although it has not so far been spelled out as a coherent theoretical argument. But does polycentric competition law have a chance? It may be too early to answer this question, but the ‘wood [has begun] to move’, as polycentric elements are, more and more, present in competition law. Abandoning the straightjacket of monocentric competition law will not be easy. Albert Hirschman has already warned us against the three principal arguments of reactive/conservative thought in its struggle to oppose progressive agendas and reforms for the past two hundred years.¹⁸⁹ Hirschman shows how these ‘rhetorics of intransigence’ are designed to make debate impossible. But debate is what we crucially need so as to build a competition law field that is both effective in regulating digital or informational capitalism and legitimate in the trust it engenders for the competitive process as a valuable mechanism of organizing social interactions in a complex economy. To recognize the polycentric nature of the problems competition law aims to tackle is a first step. To develop a positive programme that would preserve polycentricity through active competition law enforcement is another and certainly a project for the future. Perhaps some will lament the ‘paradise lost’ of Neoclassical Price Theory¹⁹⁰. But as the poet wrote, “*Tous les changements, même les plus souhaités, ont leur mélancolie*”.¹⁹¹

¹⁸⁹ Albert O. Hirschman, *The Rhetoric of Reaction - Perversity, Futility, Jeopardy* (HUP, 1991).

¹⁹⁰ I could not resist this reference to the poetic effusions of my friend and colleague Maarten Pieter Schinkel: Maarten P. Schinkel, 'Cartel Paradise Regained' (April 8, 2016) met Annotaties Economisch Statistische Berichten, 101(4736), 2016, 402, also available at SSRN: <https://ssrn.com/abstract=2760824>.

¹⁹¹ Anatole France, 'Le Crime de Sylvestre Bonnard', (1881).