

Centre for Law, Economics and Society

Research Paper Series: 2/2018



The Poverty of Competition Law

The Long Story

Ioannis Lianos

Centre for Law, Economics and Society

CLES
Faculty of Laws, UCL

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April 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-paper-series

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ISBN 978-1-910801-16-1
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Ioannis Lianos*

Abstract: *For a long time considered a fringe topic, of interest for developing and emergent economies, the question of inequality and poverty has recently taken centre-stage in mainstream competition law scholarship in developed countries. Some of this literature deplores the current state of competition law, which has largely ignored this issue, and argues for a different paradigm that would actively engage with economic inequality and its causes. While thought-provoking and suggesting a variety of reforms, these studies have not so far offered a coherent theoretical argument and framework explaining why equality, and its various facets, should become a concern for competition law, and how this will interact with the existing economic efficiency- and/or consumer surplus-oriented paradigm of competition law. If one is to take equity concerns seriously, it becomes essential to provide a solid theoretical framework that would engage with the arguments put forward by those defending the status quo. These are essentially three: (i) the need for competition law to develop concepts and measurement tools that justify, from a welfare perspective, the recourse to state intervention in markets, welfare being narrowly defined, for methodological and ideological reasons, (ii) the availability of other, presumably more effective, institutions than competition law to deal with inequality and (iii) the existence of a trade-off between equality and efficiency, meaning that focusing on equality may harm economic efficiency.*

The study engages with these three arguments. Taking a social contract perspective, and noting the hybrid nature of competition law, which is a tool of economic order, but also a form of social regulation, it explores the main difficulty in enriching competition law with equity concerns: the economic foundations of mainstream competition law in welfare economics, and the crucial separation of the economic efficiency dimension from that of distributive justice. It then examines alternative traditions in economic thought, which are more compatible with an egalitarian perspective. The study then turns to the institutional question, exploring the various instruments that governments dispose in order to equalise, and the respective role of more conventional tools against inequality, such as taxation, concluding that the institutional argument against equity concerns in competition law does not stand serious scrutiny. The study also critically engages with the argument that there is a trade-off between equality and efficiency, and again concludes that this argument does not stand serious scrutiny. The final part revisits the thorny question of what is to be equalised. Drawing on the idea of “complex equality”, it presents the contours of a fairness-driven competition law.

Keywords: fairness, inequality, efficiency, competition law, antitrust, consumer welfare, equality of opportunity, complex equality, dominant firms, growth, innovation

JEL Codes: A13, D6, I3, K21, L4

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I. Introduction: The twilight of the efficiency approach in competition law

For a long time considered a fringe topic, of interest for developing and emergent economies¹, the question of inequality and poverty has recently taken centre-stage in mainstream competition law scholarship². The confidence crisis that hit financial capitalism at the aftermaths of the financial crisis of 2007-2008³, the realisation that the ongoing fourth industrial revolution may lead to rising levels of economic concentration and drastic changes in labour markets and income distribution⁴, and the rise of populism in the United States and

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¹ See, *inter alia*, E. Fox, Economic Development, Poverty, and Antitrust: The Other Path, (2007) 13 Southwestern Journal of Law and Trade in the Americas 211.

² See, *inter alia*, M.E. Stucke, 'Occupy Wall Street and Antitrust', (2012) 85 Southern California Law Review 33; T. Atkinson, *Inequality: What can be done?* (Harvard University Press, 2015); J. B. Baker & S. C. Salop, 'Antitrust, Competition Policy, and Inequality', (2015) 104 Georgetown Law Journal 1; D. Crane, 'Antitrust and Wealth Inequality', (2016) 101(5) Cornell L. Rev. 1171; L. Khan & S. 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); J. Stiglitz, Towards a Broader View of Competition Policy, in T. Bonakele, E. Fox & L. McNube (eds.), *Competition Policy for the New Era – Insights from the BRICS Countries* (OUP, 2017) 4; H. Hovenkamp, *Antitrust Policy and Inequality of Wealth*, (2017). Faculty Scholarship. 1769. http://scholarship.law.upenn.edu/faculty_scholarship/1769; S. Roberts, Assessing the record on competition enforcement against anti-competitive practices and implications for inclusive growth (REDI3x3 Working paper 27, February 2017); S.L. Hsu, 'Antitrust and Inequality -The Problem of Super-Firms', (2018) 63(1) The Antitrust Bulletin 104; M.S. Gal, The Social Contract at the Basis of Competition Law (August 6, 2017). Forthcoming, *Competition Policy: between Equity and Efficiency* (Lianos and Gerard eds., Cambridge University Press, 2018), available at SSRN: <https://ssrn.com/abstract=3014354>; C. Shapiro, Antitrust in a Time of Populism (October 24, 2017), available at <https://faculty.haas.berkeley.edu/shapiro/antitrustpopulism.pdf>.

³ A number of recent surveys in developed (and emergent) economies indicate that people's faith in markets and the capitalist system has suffered substantially the last 9 years. See, The Economist, Market Troubles, (April 6th, 2011), https://www.economist.com/blogs/dailychart/2011/04/public_opinion_capitalism (noting a drop from 80% to 59% in favour of markets from 2002 to 2011 in the US); Wall Street Journal, Has the World Lost Faith in Capitalism? (Nov. 6, 2015) (commenting on a seven-nations survey conducted by YouGov on public opinion vis-à-vis capitalism); Shorthand Social, What the World Thinks of Capitalism, available at <https://social.shorthand.com/montie/3C6iES9yjf/what-the-world-thinks-of-capitalism> (summarising the results of the YouGov international survey). The survey however notes that still more people trust free enterprise at lifting people out of poverty than government.

⁴ United Nations, Department of Economic and Social Affairs, The impact of the technological revolution on labour markets and income distribution (July 31, 2017), available at

in Europe⁵, have disrupted the mainstream model of competition law the last four decades. This has been mainly driven by the technocratic quest for economic efficiency⁶. The debate has expanded beyond academia, with a number of political leaders calling for a more active role for competition law in the fight for fairness, and against inequality⁷. This is a complex issue, as competition law starts from the premise that free markets are beneficial to society and has, so far, confined its intervention in cases where markets may not work as expected (externalities and in particular market power), because of business or government anti-competitive practices.

Some of the authors calling for a more active policy against inequalities challenge the role of markets, as it is accepted that some degree of inequality may result from their operation⁸. The current level of inequality (and poverty) and the fact that this is rising (at least in developed countries) is judged alarming, and is considered to impose a ‘price’ to society, in terms of lower efficiency, productivity, and social stability⁹. Denying the opposition between markets and government, and drawing on rent-seeking theory and the influence of institutional and political factors shaping labour markets and patterns of remuneration, these authors claim that monopolies and powerful corporations dominating markets influence the government and the broader institutions of our societies (the rules of the social game), in order to reduce competition and to exploit consumers and workers, thus perpetuating patterns of inequality and poverty¹⁰. A possible risk is also that governments finish by becoming

https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/2017_Aug_Frontier-Issues-1.pdf.

⁵ See, *inter alia*, B. Moffitt, *The Global Rise of Populism: Performance, Political Style, and Representation* (Stanford Univ. press, 2016) (conceptualizing populism as a ‘new political style’).

⁶ This approach is linked to the rise of the dominance of economics as the primary source of wisdom in competition law, although various economic doctrines may offer different perspectives: R.T. Atkinson & D.B. Audretsch, *Economic Doctrines and Approaches to Antitrust* (ITIF, January 2011). In particular of Chicago antitrust economics school has emphasised the importance of economic efficiency and ‘consumer welfare’ (this ambiguous concept being interpreted as referring to consumer surplus). See, *inter alia*, Y. Brozen, ‘Competition, Efficiency and Antitrust’ (1969) 3 J. World Trade L. 65; R. H. Bork, *The Antitrust Paradox: A Policy at War with Itself* (New York: Basic Books, 1978); R.A. Posner, ‘The Chicago School of Antitrust Analysis’ (1979) 127 University of Pennsylvania Law Review 924. Although there is some literature putting forward the need for competition law to focus on wealth transfers from consumers to suppliers [see, *inter alia*, R.H. Lande, ‘Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged’, (1982) 34 Hastings L.J. 65], thus taking a distributive justice perspective, it is still unclear how this may be operationalised in practice, in view of the acceptance that there should be a trade-off between allocative inefficiencies and productive or dynamic efficiencies. I will explore these trade-offs in part V.

⁷ See, Senator Elizabeth Warren, ‘Reigniting Competition in the American Economy,’ 29 June 2016, available at https://www.warren.senate.gov/files/documents/2016-6-29_Warren_Antitrust_Speech.pdf; M. Vestager, EU Competition Commissioner, Competition for a Fairer Society (Speech at the 2016 Global Antitrust Enforcement Symposium, Georgetown, 20 September 2016) <https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/competition-fairer-society_en>; E. Miliband, UK Member of Parliament, Leader’s speech (Speech at the Labour Party Conference, Brighton, 24 September 2013) <<http://www.britishpoliticalspeech.org/speech-archive.htm?speech=353>>.

⁸ J.E. Stiglitz, *The Price of Inequality: How Today’s Divided Society Endangers Our Future*, (W.W. Norton & Company, 2012) Preface (noting that ‘(m)arkets, by themselves, even when they are stable, often lead to high levels of inequality, outcomes that are widely viewed as unfair’).

⁹ Ibid. Chapter 4 (noting that ‘high inequality makes for a less efficient and productive economy’ and that this undermines ‘trust, which is essential for the functioning of our society’).

¹⁰ J. Stiglitz, Standard Economics Is Wrong. Inequality and Unearned Income Kills the Economy, Evonomics, available at evonomics.com/joseph-stiglitz-inequality-unearned-income/; Z. Qureshi, Today’s economic puzzles: A tale of weakening competition (Brookings, April 5th, 2018).

“semi-private in nature¹¹” or “private¹²”, relying on the “co-optation and cooperation of diverse holders of political, military, economic and ideological power to control subordinate populations”, in other words “the establishment”, something which also constituted the essence of the state apparatus in “premodern” times¹³. Hence, one may re-interpret the argument as not being that markets increase inequality to a level that may be considered unfair, but rather that *concentrated* or *monopolised* markets, forming pockets of centralised governance, may create structural conditions that lead to inequality and unfairness, beyond their usual effects on price and output.

It is important in debates about equality to agree on what is to be equalised, the “*equalisandum*”, between whom, and the reasons it should be equalised, before devising ways to cater for the type and level of redistribution to follow so that equality is restored¹⁴. Determining the appropriate *equalisandum* has been crucially missing from the recent discussions over the need for competition law to engage more with inequality and poverty. There could be various candidates for this *equalisandum*.

Inequality in income is the first that comes to mind. Indeed, despite a significant overall reduction in absolute poverty, there has been a rise of income inequality, as well as relative and absolute poverty, across many developed and developing economies over the last three decades¹⁵. As the OECD reports “(i)ncome inequality in OECD countries is at its highest level for the past half century [...] (t)he average income of the richest 10% of the population is about nine times that of the poorest 10% across the OECD, up from seven times 25 years ago”¹⁶. Focusing on developed countries, income inequality in the U.S. has been growing since the 1980s¹⁷. Between 1982 and 2013, the share of income going to the top 1% increased

¹¹ W. Scheidel, *The Great Leveler* (Princeton Univ. Press, 2017), 47.

¹² E. Anderson, *Liberty, Equality, and Private Government*, The Tanner Lectures in Human Values (Princeton Univ. lecture March 4-5th, 2015) (noting that ‘(t)he economic system of the modern workplace is communist, because the government—that is, the establishment—owns all the assets, and the top of the establishment hierarchy designs the production plan, which subordinates execute. There are no internal markets in the modern workplace. Indeed, the boundary of the firm is *defined* as the point at which markets end and authoritarian centralized planning and direction begin’: *ibid.*, 95).

¹³ W. Scheidel, *The Great Leveler* (Princeton Univ. Press, 2017), 46-47 (noting the link between the formation of premodern states and the development of a “ruling elite” (often at the “imperial” level), competing but also “closely intertwined” with each other, and capturing “the political rents and commercial gains mobilized by state-building and imperial integration”).

¹⁴ See, D. Markovits, ‘How Much Redistribution Should There Be?’, (2003) 112 Yale Law Journal 2291, 2292 (tracing this necessary definition of the *equalisandum*, in Amartya Sen’s Tanner lecture *Equality of What?: A. Sen, Equality of What?*, in S. Darwall (ed.), *Equal Freedom: Selected Tanner Lectures on Human Values* (Univ. of Michigan press, 1995), 307. Markovits explains that the idea of equality stems from the principle of the “nonsubordination among persons”, egalitarianism requiring that “all people’s lives are equally important and, accordingly, that no person’s fortune may be subordinated to anyone else’s”: see Markovits, at 2291.

¹⁵ Although there has been an important reduction in poverty in China, India and some emerging economies, inequality, within national borders, in particular for developed countries, but also to a certain extent between different jurisdictions, in particular the least developed countries, has risen. See, OECD, *Income Inequality – The Gap between Rich and Poor* (December 2015); World Bank, *The Changing Wealth of Nations 2018: Building a Sustainable Future* (2018);

¹⁶ OECD, <http://www.oecd.org/social/inequality.htm>

¹⁷ E. Saez & T. Piketty, ‘Income Inequality in the United States, 1913-1998’, (2003) 118(1) Quarterly Journal of Economics 1 (updated to 2015 in Excel format, see

from 12.8% to 19.8%, and the share going to the bottom 40% fell from 12.3% to 9.4%¹⁸. The average income of the top 1% rose by 90% from 1983 to 2013, while the average income of the bottom 60% declined by more than 4% over the same period¹⁹.

Wealth inequality has exhibited a similar trend, in particular following the asset price meltdown of the financial crisis of 2008 that has struck more heavily the middle class²⁰. The wealth share of the bottom 90% has steadily declined since the mid-1980s, while the wealth share of the highest 0.1% has grown from 7% in 1979 to 22% in 2012²¹. As of 2017, the top 1% in the U.S. owned nearly 40% of publicly listed stocks²². Data also shows that the top 0.1% now account for virtually as much total wealth as the entire bottom 90%²³. The 16,070 households in the top 0.01% collectively control 11% of all U.S. wealth, each with more than \$111 million in assets²⁴, while the three richest Americans cumulatively own the same wealth as the bottom half of the population²⁵. Between 1983 and 2013, the average net worth of the top 1% rose by 81.6% while the average net worth of the bottom 60% declined, and, indeed, the average net worth of the bottom 40% is now negative²⁶. These figures may underestimate the extent of wealth inequality as much of wealth goes unrecorded, with 8% of the world's financial household wealth being currently held in offshore tax havens²⁷.

This income and wealth inequality may lead some to suffer significant material deprivation. In presenting a recent report, Oxfam note that “(b)etween 2009 and 2013, the number of Europeans living without enough money to heat their homes or cope with unforeseen expenses, known as ‘severe material deprivation’, rose by 7.5 million to 50

¹⁸ E.N. Wolff, Household Wealth Trends in the United States, 1962-2013: What Happened Over the Great Recession? (2014) National Bureau of Economic Research Working Paper No 20733, 50, cited by J.B. Baker and S.C. Salop, ‘Antitrust, Competition Policy, and Inequality’ (2015) 104 Georgetown Law Journal 1, 2.

¹⁹ Ibid.

²⁰ E.N. Wolff, The Asset Price Meltdown and the Wealth of the Middle Class, NBER, Working Paper 18559 (2012). Note that a 2012 Bank of England research paper found that the richest 5% of UK households held 40% of the assets that rose in value due to Quantitative Easing. See also <https://www.bankofengland.co.uk/-/media/boe/files/news/2012/july/the-distributional-effects-of-asset-purchases-paper> ; <https://www.cepreweb.org/wp-content/uploads/2017/11/Montecino-paper.pdf> and https://www.bis.org/publ/qtrpdf/r_qt1603f.pdf.

²¹ E. Saez & G. Zucman, Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data (2014) NBER Working Paper No 20625, 1, cited by J.B. Baker and S.C. Salop, ‘Antitrust, Competition Policy, and Inequality’, (2015) 104 Georgetown Law Journal 1, 3.

²² E.N. Wolff, The Asset Price Meltdown and the Wealth of the Middle Class (2012) NBER Working Paper 18559 cited by D. Alejo Vazquez Pimentel, I. Macias Aymar and M. Lawson, Reward Work, Not Wealth (2018) Oxfam Briefing Paper, 48.

²³ E. Saez & G. Zucman, Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data (2014) NBER Working Paper No 20625, 1, cited by J.B. Baker and S.C. Salop, ‘Antitrust, Competition Policy, and Inequality’, (2015) 104 Georgetown Law Journal 1, 3.

²⁴ Ibid.

²⁵ R. Neate, Bill Gates, Jeff Bezos and Warren Buffet are wealthier than poorest half of US (8 November 2017) <<https://www.theguardian.com/business/2017/nov/08/bill-gates-jeff-bezos-warren-buffett-wealthier-than-poorest-half-of-us>> cited by D. Alejo Vazquez Pimentel, I. Macias Aymar and M. Lawson, Reward Work, Not Wealth (2018) Oxfam Briefing Paper, 19.

²⁶ E.N. Wolff, Household Wealth Trends in the United States, 1962-2013: What Happened Over the Great Recession? (2014) National Bureau of Economic Research Working Paper No 20733, 51, cited by J.B. Baker and S.C. Salop, ‘Antitrust, Competition Policy, and Inequality’, (2015) 104 Georgetown Law Journal 1, 3.

²⁷ W. Scheidel, *The Great Leveler* (Princeton Univ. press, 2017). 422.

million people²⁸.” More than 123 million people - almost a quarter of the EU’s population – are at risk of living in poverty, while the continent is home to 342 billionaires²⁹. The situation is even more dramatic if one looks to the rest of Europe, beyond the EU. Credit Swiss estimates that the richest seven million people in Europe have the same amount of wealth as the poorest 662 million people (including non-EU countries)³⁰. Even people who do have jobs struggle to provide for their families, as real wages have fallen sharply. Data for 2013 found that nine percent of working households – more than 8.5 million people – are at risk of poverty despite being in work³¹. Between 2009 and 2013 the proportion of people with severe material deprivation increased by more than 20% in Greece, more than 10% in Italy and more than 7% in the UK³². The only EU countries in which there has been a reduction were Poland and Romania³³.

Inequality does not only refer to a person’s fortune or misfortune vis-à-vis another person, where merit or luck could explain the situational differential between two persons. Indeed such inequality may not be relevant for a legal system to focus on, with the exception of political inequality, and could in any case be considered as natural, to the extent that “equal distribution will almost certainly not be the distribution produced in the ordinary course of economic and social activity”³⁴. Inequality may also refer to distributional inequality, with regard to the specific *equalisandum*, of a group vis-à-vis another group in society. In this case, the principle of insubordination may practically mean that no social group’s fortune may be subordinated to anyone else’s.

Some, for instance, argue that inter-generational inequality, which refers to the inter-generational transmission of income, wealth, employment, social mobility and socio-economic conditions seems to have increased in recent years, at least in developed economies³⁵. Young people are now struggling more than previous generations³⁶, particularly since the global financial crisis. Whereas previously (meaning a few decades ago) the over-65s represented the majority of the EU’s low-income groups, by 2014 this group had been

²⁸ J. Sullivan, Increasing inequality plunging millions more Europeans into poverty (9 September 2015) Oxfam Press Release, available at <<https://www.oxfam.org/en/pressroom/pressreleases/2015-09-09/increasing-inequality-plunging-millions-more-europeans-poverty>>.

²⁹ These figures refer to the AROPE rate, which measures poverty in the EU. The AROPE rate is the share of the total population which is at risk of poverty or social exclusion. T. Cavero, A Europe for the many, not the few (2015) 206 Oxfam Briefing Paper, 3-4, 10.

Eurostat data on people at risk of poverty after taxes and transfers for the 28 EU countries, <http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_peps01&lang=en>, cited by T. Cavero, A Europe for the many, not the few (2015) 206 Oxfam Briefing Paper, 8.

³⁰ Credit Suisse ‘Global Wealth databook’ (2014) cited by T. Cavero, A Europe for the many, not the few (2015) 206 Oxfam Briefing Paper, 14.

³¹ Eurostat data, <http://ec.europa.eu/eurostat/statistics-explained/index.php/Unemployment_statistics>, cited by T. Cavero, A Europe for the many, not the few (2015) 206 Oxfam Briefing Paper, 8.

³² Eurostat data, <<http://ec.europa.eu/eurostat/data/database>>, cited by T. Cavero, A Europe for the many, not the few (2015) 206 Oxfam Briefing Paper, 9.

³³ T. Cavero, A Europe for the many, not the few (2015) 206 Oxfam Briefing Paper, 9.

³⁴ D. Markovits, ‘How Much Redistribution Should There Be?’, (2003) 112 Yale Law Journal 2291, 2293.

³⁵ On inter-generational inequality see, R. Erikson & J. H. Goldthorpe, ‘Intergenerational Inequality: A Sociological Perspective’, (2002) 16(3) Journal of Economic Perspectives 31. On the rise of intergenerational inequality, see M. Corak, ‘Income Inequality, Equality of Opportunity, and Intergenerational Mobility’, (2013) 27(3) Journal of Economic Perspectives 79.

³⁶ See S. Bowles & H. Gintis, ‘Intergenerational inequality’, (2002) 16(3) Journal of Economic Perspectives 3

overtaken at the bottom of the income distribution scale by those aged 18 to 29³⁷. There are now more young people that are on low-pay or are unemployed than pensioners at the bottom of the income distribution scale³⁸. This same group is increasingly likely to be living in poverty: in 2013, nearly 32 percent of young people in the EU were living in poverty, more than 13.1 million young citizens, almost half a million more than in 2010³⁹. While the incidence of poverty continued to fall among the elderly in the United States after 1980, albeit at a slower rate than before, poverty has stagnated or slightly increased with regard to younger generations⁴⁰. This may reflect a bias in US social spending in favour of the elderly⁴¹.

Different forms of inequality, because of race or gender, also persist, including among developed economies⁴². Labour market discrimination through discrimination in hiring⁴³, gender-based unemployment gap⁴⁴, and pay differentials between ethnicities and/or genders⁴⁵ are significant sources of economic inequality. One may therefore focus on equal opportunities as some groups are also more in risk of poverty, such as migrant workers, single mothers and younger people.

Inequality may also characterize the relation between capitalists and workers, an issue broadly commented upon during the second part of the 19th century and the 20th century by Marxian economists who advanced the labour theory of value focusing on “exploitation”,⁴⁶ and which now receives attention in debates about Artificial Intelligence and the evolution of the labour share in the gig economy.⁴⁷ Indeed, the share of wages (or labour) has been steadily declining in recent years, the main cause for this being the reduction of competition and higher economic concentration⁴⁸, leading some to conclude that “improvements in macroeconomic performance may not translate into commensurate improvements in personal

³⁷ M. Matsaganis and C. Leventi, Distributive Effects of the Crisis and Austerity in Seven EU Countries, ImPRovE Working Paper 14/04, 18, cited by T. Caverio, A Europe for the many, not the few (2015) 206 Oxfam Briefing Paper, 12.

³⁸ Ibid.

³⁹ Eurostat data <<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>> cited by T. Caverio, A Europe for the many, not the few (2015) 206 Oxfam Briefing Paper, 12.

⁴⁰ M. Ravallion, *The Economics of Poverty: History, Measurement and Policy* (OUP 2016), 101.

⁴¹ P. Lindert, Private Welfare and the Welfare State, in L. Neal and J. Williamson (eds), *The Cambridge History of Capitalism* (CUP 2014), cited by M. Ravallion, *The Economics of Poverty: History, Measurement and Policy* (OUP 2016), 101.

⁴² S. Bowles, R. Edwards, F. Roosevelt & M. Larudee, *Understanding Capitalism – Competition, Command, and Change* (OUP, 2018), 341-349.

⁴³ M. Bertrand & S. Mullainathan, ‘Are Emily and Greg more Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination’, (2004) 94(4) *American Economic Review* 991.

⁴⁴ See, S. Albanesi & A. Şahin, ‘The gender unemployment gap’, (2018) 30 *Review of Economic Dynamics* 47.

⁴⁵ See, V. Wilson & W. M. Rodgers III, Black-white wage gaps expand with rising wage inequality, (2016) Economic Policy Institute, (Sept. 20, 2016); F.D. Blau & L.M. Kahn, ‘The Gender Wage Gap: Extent, Trends, and Explanations’, (2017) 55(3) *Journal of Economic Literature* 789. However, gender wage differentials seem to be slowly narrowing down.

⁴⁶ See, K. Marx, *Capital: Critique of Political Economy*, Volume 1 (Penguin 1990 [1867]).

⁴⁷ See, E. Byrnfjolfsson and A. McAfee, *Race Against the Machine: How the Digital Revolution is Accelerating Innovation, Driving Productivity, and Irreversible Transforming Employment and the Economy* (Digital Frontier Press 2011); G. Friedman, ‘Workers without employers: shadow corporations and the rise of the gig economy’ (2014) 2(2) *Review of Keynesian Economics* 171.

⁴⁸ S. Barkai, Declining Labor and Capital Shares (London Business School, 2017), available at <https://www.london.edu/faculty-and-research/academic-research/d/declining-labor-and-capital-shares#.WrTDAkxFz4g>.

incomes of households”⁴⁹. This has certainly effects on inequality, with workers seeing their economic situation stagnate or decline, even as the profits of entrepreneurial capital and those deriving income from financial titles to property increase⁵⁰. Arguably, one may also include other groups than capitalists and workers: for instance, the issue may be raised if consumers get a “fair” share of the benefits of the expansion of markets, and consequently the profits engendered by the various forms of commodification of resources, natural or social⁵¹.

The complexity of the issues, first of what is to be equalised, and then between whom, is also exacerbated by the difficulty of identifying reasons for equalisation as well as the methods of proceeding to such equalisation, should this be deemed justifiable. There is a considerable debate over those that want to distinguish between situations these individual agents (or more arguably groups of agents) are held responsible for, because of wrong choices they have made that led to their misfortune, so that those who have chosen well are not subordinated (offering some sort of slave labour) by compensating the ‘losers’, and those that argue that it is quite difficult to distinguish between luck and responsibility⁵², to the extent that the choice-set offered to each individual agent (or group) may have been different for reasons that are not of their own making or fault/negligence (bad parenting, defective genes, inequality that becomes entrenched through generations, structural power and institutional factors). One may argue that markets naturally lead to some form of inequality, because of the fact that the higher productivity of some individuals is rewarded by the capture of higher shares in the surplus value produced in the specific society. However, one may also criticise the fact that the affluence and inequality currently observed may “have little or no association with economic productivity”⁵³ and could be due to the other factors, such as the

⁴⁹ ILO & OECD, *The Labour Share in G20 Economies*, Report prepared for the G20 Employment Working Group (Antalya, 2015), available at <https://www.oecd.org/g20/topics/employment-and-social-policy/The-Labour-Share-in-G20-Economies.pdf> 2. See also, L. Karabarbounis, & B. Neiman, ‘The Global Decline of the Labor Share’ (2014) 129(1) *Quarterly Journal of Economics* 61.

⁵⁰ See, C. Schapiro, *Antitrust in a Time of Populism* (October 24, 2017), at 18 (noting that “there has been a very substantial increase in corporate profits as a share of GDP over the past thirty years: roughly a 50% increase from 7% to 8% of GDP up to 11% to 12% of GDP”). There is research linking a significant rise in income/wage inequality with the “remarkable rise in the share of income and wages taken by those toward the very top of the distribution”, in particular CEOs and management: B. D. Bell & J. Van Reenen, ‘Extreme Wage Inequality: Pay at the Very Top’, (2013) 103(3) *American Economic Review* 153. More recent research has linked the drop in the share of labour to the development of “superstar firms”, in particular in the digital economy: D. Autor, D. Dorn, L. Lawrence, F. Katz, C. Patterson & J. Van Reenen, ‘Concentrating on the Fall of the Labor Share’, (2017) 107(5) *American Economic Review* 180, or has proven a correlation across industries between increases in concentration over time and declines in the labour share of valued-added over time: S. Barkai, *Declining Labor and Capital Shares* (London Business School, 2017), available at <https://www.london.edu/faculty-and-research/academic-research/d/declining-labor-and-capital-shares#.WrTDAkxFz4g>.

⁵¹ An example of the later may be personal data. Some have indeed argued that digital economy users should enjoy property rights on their data in view of the surplus value these generate (data becoming a means of production), this value being for the moment captured to a significant extent by digital monopolies and digital platforms: see, I. Arrieta Ibarra, L. Goff, D. Jiménez Hernández, J. Lanier & G. E. Weyl, *Should We Treat Data as Labor? Moving Beyond 'Free'* (December 27, 2017). *American Economic Association Papers & Proceedings*, Vol. 1, No. 1, Forthcoming. Available at SSRN: <https://ssrn.com/abstract=3093683>.

⁵² For a discussion, see D. Markovits, ‘How Much Redistribution Should There Be?’, (2003) 112 *Yale Law Journal* 2291 and the references included.

⁵³ W. Scheidel, *The Great Leveler* (Princeton Univ. press, 2017), 419 (noting that “it has been claimed that the sixfold increase in stock market value of large companies between 1980 and 2003 can fully account for the concurrent sixfold increase in CEO pay in the United States).

growing financialisation of the economy and the generation of financial market value, sometimes just from hot air⁵⁴. Inequality may not grow indefinitely, as concepts like “the inequality possibility frontier” imply, as predatory “extraction rates” in modern and relatively affluent economies are lower than those observed in pre-modern times⁵⁵.

Other instruments than competition law have traditionally been employed in order to deal with situations of economic, and in particular income and/or wealth, inequality. Welfare and tax systems constitute an obvious example. For instance, countries such as Germany, Denmark and Sweden see their Gini coefficients⁵⁶ fall dramatically after taking into account redistribution through taxes and transfers⁵⁷. Other countries like Bulgaria and Spain see a much smaller change in their Gini coefficient before and after taxes and transfers⁵⁸. There is, however, increasing doubt as to the effectiveness of traditional mechanisms of progressive income taxation to alleviate economic inequality⁵⁹, in view of the intense tax competition for high income earners between developed jurisdictions⁶⁰, the complex interaction of income taxation and wealth inequality⁶¹, and the existence of various loopholes in the taxation of international capital⁶². It is also clear that we may have reached, in some jurisdictions, a plateau of social spending, in particular in view of the lower rates of economic growth, that diminish the additional total surplus to be distributed, and political constraints in view of the evolution of redistributive preferences for less re-distribution in increasingly heterogeneous societies⁶³. Hence, if more action is needed to cure inequality, this cannot always take place

⁵⁴ D. Tuckett, *Minding the Markets - An Emotional Finance View of Financial Instability* (Palgrave Macmillan, 2011) (showing the important role of human emotions in financial markets and the generation of financial market value).

⁵⁵ W. Scheidel, *The Great Leveler* (Princeton Univ. press, 2017), 445-456 citing work by B. Milanovic [see, in particular, B. Milanovic, *Global Inequality: A New Approach for the Age of Globalisation* (Harvard univ. press, 2016)] (noting that extraction rates never reach or come close to the highest Inequality Possibility Frontier even in societies that are ruled by colonial powers or a foreign conquest elite as this would put social stability and the stability of the elite at risk). The “extraction rate” “measures the theoretically possible inequality that was actually extracted by earners of income above subsistence”, this term being for modern economies re-interpreted as also taking into account the “social dimension of subsistence” or “social minima”, due to the psychological and comparative element of “poverty” that takes a more central role as economic complexity (and the level of development) increases.

⁵⁶ The Gini coefficient constitutes the most commonly used measure of inequality. It measures the statistical dispersion of the income or wealth distribution in a society/jurisdiction.

⁵⁷ T. Caverio, A Europe for the many, not the few (2015) 206 Oxfam Briefing Paper, 16-17.

⁵⁸ Ibid.

⁵⁹ OECD, *Divided We Stand: Why Inequality Keeps Rising* (2011) (noting rising inequality in wages and salaries, but also the fact that tax and benefit systems have become less redistributive in many countries since the mid-1990s)

⁶⁰ L. Seelkopf & J. Lierse, Taxation and Inequality: How Tax Competition Has Changed the Redistributive Capacity of Nation-States in the OECD in M. Wulfgramm, T. Bieber & S. Leibfried (eds) *Welfare State Transformations and Inequality in OECD Countries. Transformations of the State* (Palgrave Macmillan, 2017) 89.

⁶¹ Y. Berman, E. Ben-Jacob & Y. Shapira, The Dynamics of Wealth Inequality and the Effect of Income Distribution, (2016) 11(4) PlosOne e0154196. <http://doi.org/10.1371/journal.pone.0154196>; D. Altman, To Reduce Inequality, Tax Wealth, not Income, <http://www.nytimes.com/2012/11/19/opinion/to-reduce-inequality-tax-wealth-not-income.html> (2012); T. Piketty, *Capital in the Twenty-First Century* (Harvard Univ. press, 2014) (suggesting a wealth tax on capital globally implemented)

⁶² T. Rixen, ‘Tax Competition and Inequality: The Case for Global Tax Governance’, (2011) 17(4) Global Governance: A Review of Multilateralism and International Institutions 447.

⁶³ W. Scheidel, *The Great Leveler* (Princeton Univ. press, 2017), 426-429 (discussing research exploring the way immigration and ethnic diversity may affect the level of social spending and redistribution through taxation. This research is still non-conclusive).

with the traditional tool of taxation and the welfare state. These approaches also tend not to deal directly the sources of inequality, but to intervene *ex post*, thus leaving the root cause of the problem unresolved, a strategy that may be criticised.

The strategies available to deal with inequality are indeed a contentious matter. One may adopt the strategy of *removing* the various obstacles identified that generate and support the specific form of inequality of interest and/or the preferred strategy of *compensating* through the transfer of adequate resources the individuals (or groups) affected by inequality, the latter being the strategy preferred by economists because of the separation in welfare economics of issues of efficiency from issues of distributive justice⁶⁴.

The example of taxation also shows that the tools usually employed against inequality take roots in systems of redistribution that are specific to each jurisdiction, and that are heavily dependent on the sentiments of social solidarity, intrinsically linked to family/friendship/tribe links, or to the development of Nation States. There are some very scarce examples of instruments of inter-jurisdictional removal of inequalities and of their compensation through inter-jurisdictional transfers, beyond the communities of solidarity of Nation States⁶⁵. This explains why international economic integration was not initially designed to include mechanisms to compensate losers, as these were to be organised within each Nation State.

What could be the implications of this political demand for a more equity-driven competition law? Could it be left unsatisfied, either because focusing on inequality will harm the competitive process, or because other tools may be, in comparison, superior to competition law in order to achieve equality? My answer to this is that the current state of competition law, in terms of substance, and to a certain extent, in terms of enforcement institutions, should surely attempt to oblige the democratic quest for a more active competition enforcement role in tackling economic inequality and poverty. Competition law should be conceptualised from a social contract perspective, rather than compartmentalised in its sole economic efficiency function. There were reasons for the economic efficiency function to take precedence, following the ‘antitrust revolution’ and the ‘modernisation’ of competition law the last four decades, reasons mainly exogenous to antitrust as such⁶⁶, that

⁶⁴ See, for instance, the way this debate is framed in the recent book by M.J. Trebilcock, *Dealing with Losers - The Political Economy of Policy Transitions* (OUP, 2015).

⁶⁵ Although, to a certain respect, the EU may be considered as a good example, one must not forget that these transfers are still quite limited, in comparison to those occurring in a federal system or Nation-State, and that, at least for the German constitutional court, the EU cannot be a “transfer union”.

⁶⁶ An argument often put forward to justify the focus of antitrust on economic efficiency and the goal of ‘consumer welfare’ is that competition law institutions (in particular courts and competition authorities) should focus on one goal, rather than being submerged by a number of conflicting goals, the mono-goal approach guaranteeing better performance. This claim is therefore about the appropriate antitrust institutions, rather than exogeneous circumstances, such as socio-economic and political transformations. For this argument, see F.H. Easterbrook, ‘The Limits of Antitrust’, (1984) 63 Texas Law Review 1, and more recently, D.A. Hyman & W.E. Kovacic, Competition Agencies with Complex Policy Portfolios: Divide or Conquer? (February 20, 2013). Illinois Program in Law, Behavior and Social Science Paper No. LE12-14; GWU Legal Studies Research Paper No. 2012-70; GWU Law School Public Law Research Paper No. 2012-70, available at SSRN: <https://ssrn.com/abstract=2110351> or <http://dx.doi.org/10.2139/ssrn.2110351>. This argument is inspired by a similar approach chosen in the separation between economic and monetary policies, with central independent banks focusing only on monetary policy *stricto sensu* with the aim to reduce inflation. This view has inspired the European Monetary (but still not fully Economic) Union. Some however argue that the European Central Bank should be more inspired by the US model, which gives the Fed the broader goal of ‘fostering economic

had to do with the socio-economic and political conditions in the United States (and other jurisdictions) at the time, and more broadly with the way the social contract was shaped by them. The quite different socio-economic and political conditions prevailing now should challenge the primacy of efficiency, if one takes a social contract perspective.

One may nevertheless doubt of the ability of competition law, following the “modernisation” movement in the US and Europe, to deliver the “promised land” of the new social contract, unless it incurs significant changes to its genetic code. This is not an unfeasible hypothesis, but its realization may require the revision of many substantive doctrines of mainstream competition law and possibly the establishment of different kinds of competition law institutions, a topic that will be developed more extensively in a separate study⁶⁷.

The next part explores the hybrid nature of competition law, which is split apart between its conceptualisation as forming part of the economic order, increasingly global, and its role as a form of social regulation, which still remains largely linked to the nation state, in the absence of significant inter-jurisdictional social solidarity systems. This is an important step in my argument, as I want to bring into the picture the social contract perspective of competition law, which has, for the most part⁶⁸, been ignored by competition law scholarship.

I then examine the difficulties that one needs to overcome before achieving the enrichment of competition law with equity concerns.

First, the current paradigm of competition law has developed concepts and measurement tools that justify, from a welfare perspective, the recourse to state intervention in markets, the concept of welfare being narrowly defined. I argue that, contrary to its claim of ignoring distributive justice issues, neoclassical welfare economics entrenches a bias in favour of the existing distribution of income and wealth, thus, not only accepting inequality, but also promoting it. I find the mainstream approach both conceptually and ethically impoverished and explore alternative traditions in economic thought that are more compatible with an egalitarian perspective, should this be put forward. Social contract theory again provides the necessary theoretical foundations for the claim that competition law should (also) focus on equality.

Second, I examine the various instruments that governments dispose in order to equalise, and the respective role of more conventional tools against inequality, such as taxation. My aim here is to engage with the institutional argument, which is that competition law may not be the best tool to struggle against inequality, even if one takes an equality

conditions that achieve both stable prices and maximum sustainable employment’. Simply put, and for similar reasons criticising the total separation of the economic and monetary policy, the claim that antitrust authorities cannot focus on more things than economic efficiency (or consumer welfare narrowly defined) does not stand serious scrutiny. This depends on a comparative institutional analysis, which should be performed for each competition law system. The essential thing is not to limit the goals to one, instead of two or more, but to ensure that the authorities in charge of competition law are rules-based, even if they pursue broader goals than consumer welfare, rather than offered wide policy discretion which may lead to arbitrary decision-making.

⁶⁷ I. Lianos, Polycentric competition law (CLES Research Paper 3/2018 forth.), (2018) Current Legal Problems (forth.).

⁶⁸ With the exception of M.S. Gal, The Social Contract at the Basis of Competition Law (August 6, 2017). Forthcoming, Competition Policy: between Equity and Efficiency (Lianos and Gerard eds., Cambridge University Press, 2018), available at SSRN: <https://ssrn.com/abstract=3014354>.

perspective. I delve into the availability of equally effective alternative institutions and compare their advantages and disadvantages to competition law.

Third, I critically assess the argument that there is a trade-off between equality and efficiency, and that focusing on equality may harm economic efficiency, which has often led to prioritise economic efficiency concerns to the price of less equality.

The final part revisits the question of what is to be equalised. With a view on the principle of insubordination, as well as on the idea of “complex equality”, I argue for a fairness-driven competition law. Its purpose will be to equalise the structural position of the individual (or collective) agents in the various overlapping social spheres they are active, so that economic power is not easily converted to cultural or political power. It will therefore cater for situations of ‘structural inequality’⁶⁹. I will briefly examine the contours of this fairness-driven competition law, hopefully showing that competition law’s enrichment with equity concerns is both politically necessary and conceptually appealing.

This study forms part of a larger project on the necessary and ongoing process of metamorphosis of competition law, in view of the recent technological challenges and subsequent economic and social transformations. The purpose of this study is to kick off this discussion by engaging with the mainstream paradigm of competition law at the “horizon” level, that is the conglomeration of “pre-judgments” before engaging in a hermeneutic conversation, in other words, the fore-structure for understanding the meaning to be given to competition law, fairness and efficiency⁷⁰. The usual antagonistic conceptualisation of efficiency and fairness in the quite extensive by now discussion on the “goals of competition law”, initiated during and at the aftermaths of the Chicago school revolution, makes one understand this as forming a pair of “binaries”, in the way Derrida understood this term, that is a pair of related concepts opposite in meaning, but also, as he explains, an opposition that remains profoundly arbitrary and unstable⁷¹. I believe that the disputes we may have over the way the principle of justice is implemented in the area of competition law, reflect differences not only over what the political and legal culture of our societies means with regard to the level of acceptable economic power to be exercised in markets, or the “normal” level of economic inequality that a markets-based society could aspire to⁷², but also differences over which institutional arrangements could better fit such public political and legal culture and levels of acceptable economic power and/or “normal inequality”⁷³.

⁶⁹ 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/>.

⁷⁰ One may refer to the work of H.H. Gadamer, *Truth and Method* (Bloomsbury, 2013, paperback ed. of *Wahrheit und Methode* published in 1960).

⁷¹ J. Derrida, *Margins of Philosophy* (Harvester Wheatsheaf, 1982) 195.

⁷² See, for instance, Bourguignon, *The Globalization of Inequality* (Princeton Univ. press, 2015), 163 referring to “normal” level of economic inequality as the conditions “prior to the last two or three decades”.

⁷³ As I have explained in a different paper, exploring the question of the goals of competition law should be preceded first by examining the question of institutional choice, by performing some comparative institutional analysis. See, I. Lianos, Some Reflections on the Question of the Goals of EU Competition Law, in I. Lianos & D. Geradin, *Handbook on European Competition Law: Substantive Aspects* (Edward Elgar, 2013) 1 (also available at the SSRN).

I want to engage here with the core claim of the efficiency thesis, at this “pre-judgment” or “narrative⁷⁴” level, before exploring more thoroughly in a different study with the legal hermeneutics’ discussion on how to deal with, in the context of a specific legal and political culture, that of the liberal democracy in the West, and even more precisely in the legal system of the EU, with the interpretive conflict that may oppose us with regard to the principles for adjudicating between the various preferences expressed in each legal order regarding the role of competition law. The reason the discussion takes this broader direction in this study, is that I believe that the opposition between the efficiency and fairness narratives has been at the core of the project of diffusion of modern competition law in now more than 130 jurisdictions around the world. This was often perceived in contrast to former conceptualisations of this discipline that did not abide by the logic of the binarity of efficiency and fairness⁷⁵. Hence, the discussion at this broader and more abstract level, in this study, may serve the purpose of “aesthetic” criticism of the mainstream view, enabling us hopefully to enrich our hermeneutic conversation, in all political and legal systems in which competition law has been implemented, by adopting insights from a different perspective. I also consider it more important to engage in this criticism of the mainstream narrative, as the community of competition law and policy experts, is hybrid, composed by different professions that may give different meaning and weight to issues of efficiency and fairness, as it is often the case between lawyers and economists. Hence, in addition to a work of interpreting legal texts, the hermeneutic discussion in this area would command an effort of translation of economic concepts to legal concepts and tools, and *vice-versa*⁷⁶. It is on the basis of this hermeneutic conversation that in subsequent studies I will deal with, first, the issue of legal hermeneutics in competition law (and in particular the debate between the various interpretive methods in establishing the necessary coherence between the legal texts and the political and economic context in the act of interpreting competition law)⁷⁷, second, the re-conceptualisation of competition law in a non mono-centric (economic efficiency focused) way, which is in my view a pre-requisite for the richer perspective I put forward, one that would engage more thoroughly with issues of fairness⁷⁸, and third, the concrete implications of the act of interpreting EU competition law from a fairness perspective with the development of fairness-sensitive operational concepts and standards⁷⁹.

II. The hybrid nature of competition law: between economic policy and social regulation

⁷⁴ In the sense P. Ricoeur, *The Conflict of Interpretations* (Northwestern Univ. press, 1974) used this term, as a support to obtain meaning and understanding.

⁷⁵ See, for instance, the excellent study of A. Palacios Lleras, *Competition Law in Latin America: Markets, Politics, Expertise* (PhD thesis, UCL, 2016) on the intellectual history of the diffusion of competition law in three Latin American jurisdictions and the way this led to the re-conceptualisation in conformity with the economic efficiency narrative, or even the complete exclusion, of past efforts in these jurisdictions to tame economic power and to promote competition.

⁷⁶ I have explored this additional complexity of the hermeneutic conversation in competition law in my past work advancing the paradigm of translation, as a way to understand this area of law: see, I. Lianos, *Lost in Translation? Towards a Theory of Economic Transplants*, (2009) 62 *Current Legal Problems* 346.

⁷⁷ I. Lianos, *Legal Hermeneutics and Competition Law* (forth. CLES Research Paper 6/2018).

⁷⁸ I. Lianos, *Polycentric Competition Law* (forth. CLES Research Paper 3/2018).

⁷⁹ I. Lianos, *Implementing fairness in EU competition law* (forth. CLES Research Paper 7/2018).

At the time of the 1929 Wall Street Crash, nation-states' economies were relatively open following a wave of globalisation spanning the second half of the nineteenth and beginning of the twentieth centuries, yet the vast unemployment and economic inequality witnessed during the Great Depression led to a surge of protectionist regulation⁸⁰, as the rudimentary national welfare systems of the time were not able to cope with the extent of the problem⁸¹. Keynesians understood that the resulting political tensions could render particularly difficult the maintenance of the liberal order and argued for “embedded liberalism”⁸². For them public policy, including antitrust law in the US (as there was no equivalent tool in Europe, at least as effective), had to deal with the social question, by guaranteeing that competition would be fair, that small and medium undertakings and workers will be protected. Fairness-driven competition law statutes, such as the *Robinson Patman Act*⁸³, were adopted. At the same time, once the temptation of corporatism was abandoned⁸⁴, antitrust was enforced vigorously to protect market access and the process of competition⁸⁵. Hence, at least until the early 1970s, antitrust was conceived of as a form of social regulation, in order to ensure that small and medium size undertakings may have access to the market, without being smashed by the corporate behemoths, while workers could be protected from “exploitation” through the institution of countervailing powers, such as the unions⁸⁶. Market access and the protection of the competitive process were essential in order to ensure that markets could be considered as fair and providing equal opportunities to all. The need to ensure systemic resilience in the face of the revisionist forces of fascism and communism constituted the political backbone of the expansion of antitrust law during this period.

⁸⁰ See, B. Eichengreen & D. Irwin, The protectionist temptation: Lessons from the Great Depression for today, Vox (March 7th, 2009), available at <https://voxeu.org/article/protectionist-temptation-lessons-great-depression-today>

⁸¹ Note that protectionism was primarily seen as a means to protect domestic industry and jobs. In the US, the Smoot-Hawley tariff Act (1930), which instigated this round of protectionism, predates the establishment of the US federal welfare system by five years (Social Security Act 1935).

⁸² See, J.G. Ruggie, ‘International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order’, (1982) 36(2) *International Organization* 379, 393-398 (coining the expression “embedded liberalism” to describe the emergence of a post-World War II consensus on the combination of “internal social policy” with the “external” trade and financial liberalisation as conditions for domestic stability); S. Pitruzzello, Trade Liberalization, Economic Performance, and Social Protection: Nineteenth Century British Laissez-Faire and PostWorld-War II US – Embedded Liberalism, in J. Ruggie (ed.), *Embedding Global Markets – An Enduring Challenge* (Ashgate, 2008), 73, at 76-77 (describing the Keynesian criticisms to the belief that competitive and self-regulating markets will “endogenously converge” towards optimal economic and welfare equilibria without state intervention, which formed the intellectual foundation of the post-World War II consensus).

⁸³ 15 U.S.C. § 13.

⁸⁴ See, for instance, the National Industrial Recovery Act (“NIRA”), which created the National Recovery Administration (“NRA”), allowing industries to create a set of industrial “codes of fair competition” setting industries’ prices and wages, establishing production quotas, and imposing restrictions on entry.

⁸⁵ It was not until 1937, during the second Roosevelt Administration, that the country saw a revival of antitrust enforcement: C Varney, Assistant Attorney General, Antitrust Division, US Department of Justice, ‘Vigorous Antitrust Enforcement in this Challenging Era’ Remarks as Prepared for the Center for American Progress, May 11, 2009, available at <http://www.justice.gov/atr/speech/vigorous-antitrust-enforcement-challenging-era>.

⁸⁶ Which benefitted from a regime of antitrust exemption, established by Section 6 the Clayton Act in 1914, and developed further with the Norris-LaGuardia Act (1932).

In Europe, the purpose of EC, and later EU, competition law was different, precisely because of the absence of a community of solidarity among the peoples of the EU Member States: its aim was to assist the formation of a Common or Single Internal Market, any social policy dimension being left to the policy discretion of Member States⁸⁷, some of which have made the choice of developing their domestic model of competition law, focusing on some form of social regulation of their specific brand of capitalism⁸⁸, while others relied, for a significant period of time, on price regulation and regulation through public ownership of significant parts of their economy⁸⁹. Hence, in contrast to the US model, the EU model of competition was initially conceived as a tool of economic, rather than, social policy⁹⁰.

Global economic integration was to be achieved through the gradual erosion of barriers to trade and the expansion of foreign direct investments, although this crucially did not include the free movement of private capital. Its aim was to open markets for international trade, while clearly separating the economic field, which was subject to global or regional economic integration rules, and the social field, which was perceived as being the remit of the domestic politics of redistribution. Indeed, neither the text of the GATT, nor that of the European Coal and Steel Community or the EEC Treaties included any social dimension, as each of them

⁸⁷ This may be explained by the strategy of neo-functionalism followed by the EC (EU), as the Member States ascribed authority to supra-national institutions for activities based on areas of agreement between them, every function left to generate others gradually. This did not initially cover social regulation.

⁸⁸ On the development and the influence of German ordoliberalism, a specific form of neoliberalism, on German competition law, see, H. Rieter and M. Schmolz, 'The Ideas of German Ordoliberalism 1938-1945: Pointing the Way to a New Economic Order' (1993) 1(1) *European Journal of the History of Economic Thought* 87; D. Gerber, 'Constitutionalizing the Economy: German Neo-Liberalism, Competition Law, and the "New" Europe' (1994) 42(1) *American Journal of Comparative Law* 25; A. Nicholls, *Freedom with Responsibility: The Social Market Economy in Germany 1918-1963* (Oxford: Clarendon Press, 1994). Although some groups in ordoliberal thought were quite close to neoclassical economics, other groups were inspired by the principle of 'social market economy': V. Vanberg, *The Freiburg School: Walter Eucken and Ordoliberalism* (Freiburg Discussion Papers on Constitutional Economics 04/11, 2004), available at <https://www.econstor.eu/handle/10419/4343>. An important element of the German neo-liberal programme was that the "juridical", the Rule of Law, should be implemented in the economic order: as Foucault has presciently explained in his lectures on *The Birth of Biopolitics*, applying the principle of the Rule of Law in the economic order "means that the state can make legal interventions in the economic order only if these legal interventions take the form solely of the introduction of formal principles". This is the complete opposite of a plan, that is, "the adoption of precise and definite economic ends": M. Foucault, *The Birth of Biopolitics- Lectures at the Collège de France*, (Palgrave Macmillan, 2010), 171-172. Ordoliberalism thus essentially consists in the application of the rule of law in the economy. Contrary to central planning or laissez faire liberalism, it does not rely on state intervention on the market through regulation, but on *judicially enforceable* rules, courts being transformed to "organs of national economic policy": W. Röpke, *The Social Crisis of Our Times*, (Transaction Publishers, 1942), Part II, chapter 2, 193. To the extent that fairness norms may be judicially enforceable, they could be a better option than wealth transfers effectuated through the welfare system, a sufficiently well-ordered market economy where discretion is highly contained being judged a superior option, for ordoliberals, than a regime offering policy makers broad discretion to intervene in competitive markets.

⁸⁹ This would be the example of all other Member States founding the EU. The relatively little role of competition law as a tool of social regulation may also be explained by the European social model which relies on the constitution of a powerful social welfare State.

⁹⁰ This may also explain why the EU model of competition law did not include initially merger control, as economic concentration was not considered a problem, to the extent that it could lead to economies of scale and the emergence of European industrial champions, this being added at a later stage, and was certainly not conceived of at the time of the adoption of the EUMR as a social policy tool, to the same extent as the adoption of the Clayton Act was in the US.

pursued the sole aim of reversing the ‘disintegration’ of the world economy that spawned from the national protectionist legislation of the previous two decades⁹¹.

Competition (or antitrust) law, in the early post-second World War period, was therefore thought as being animated by different principles than trade law. In the US, “populist” antitrust was, to a certain extent, a tool of social regulation, in order to ensure that smaller firms had a fair chance to participate to the economic expansion generated by trade liberalisation, and this despite the rise of economic concentration with the development of multinationals. In contrast, as the EU did not dispose of any redistributive purpose or mechanisms, at least the first decades of its existence, competition law was perceived as a tool to promote the competitive process, not so much for micro-economic efficiency reasons, but for broader macro-economic aims: the constitution of a European single market.

The Chicago cultural revolution of the 1970s and 1980s changed beyond recognition the US model of antitrust, by transforming it from a tool of social regulation, dealing with the social question, to an instrument aiming to promote economic efficiency, making heavy use of the toolkit of neoclassical economics in interpreting the law⁹². The current neoliberal model of competition law that emerged from this “economics-based model” of competition law focuses on consumer welfare/surplus, that is, the ability of consumers to benefit from lower prices and higher output. The issue of the allocation of that surplus between different groups of consumers, for instance the most vulnerable ones, or more generally defining a standard for a fair allocation of this surplus, is ignored by purpose and design, simply because it raises complex questions of distributive justice, which neoclassical economics assumes away. Focusing on the allocation of the surplus would have transformed competition law (antitrust) to a form of social policy, something to which the adepts of the Chicago revolution were categorically opposed to. Social policy concerns about redistribution and inequality are thought of in the discipline of neoclassical economics, as normative questions involving difficult value judgments that each Nation State and their elected officials, have to decide. It was also thought that social policy (compensating the losers) would be better achieved by other tools than competition law, such as taxation, the welfare state etc. The distinction between positive and normative was nevertheless conveniently forgotten by the practical emphasis of Chicago economists on the sole aim of economic efficiency in all areas of social policy, including taxation. There was not also any mechanism, at the international level, to deal with the social consequences of the global expansion of markets and economic

⁹¹ Starting with the *Smoot–Hawley Tariff Act* 1930, 19 U.S.C. Ch. 4., in the U.S.

⁹² On the Chicago antitrust “revolution”, see among the many publications, H. Hovenkamp, ‘Antitrust Policy after Chicago’, (1985) 84(2) Michigan Law Review 213. According to this paradigm, antitrust law presumably animated by various concerns, such as justice and social stability, had to be interpreted with only economic efficiency as being the only value of interest: W. Davies, ‘Economics and the ‘nonsense’ of law: the case of the Chicago antitrust revolution’, (2010) 39(1) Economy and Society 64. There are various ideological factors that may explain the Chicago revolution, but, in my opinion, a significant one was the prevalent view among political personnel at the time in the US, in particular after the 1973 oil crisis, that the US economy was in decline, in comparison to the more economically efficient Japanese and German economies. Promoting economic equality and social cohesion and stability therefore lost ground in favour of economic efficiency as the primary goal of competition (antitrust) law, the Chicago antitrust revisionists relying on the consensus among economists at the time that there was a trade-off between inequality and growth. See our analysis *infra* Part V.

concentration. Each State was left on its own to deal with the social dimension of the global economic concentration.

The idea that antitrust was moving to a “new equilibrium”⁹³ became an important feature of the global competition law discussion throughout the 1980s, 1990s and early 2000s, as competition law also was expanding geographically. This consensus was occasionally broken by disagreement between the US and the EU over a “wide” or a “narrow” approach in defining economic efficiency, consumer welfare and the protection of the competitive process⁹⁴, or discussions to provide developing countries the necessary policy-space for choosing a different model than the competition law mainstream, followed in developed countries, in particular focusing on poverty alleviation, and reflecting their local conditions of imperfect markets and imperfect institutions⁹⁵.

This consensus seems to move, as economic inequality is now thought as related to the rise of economic concentration and market power⁹⁶, and there are now various ‘official’ voices arguing in favour of integrating fairness and equality concerns in the operational concepts and tools of competition law⁹⁷.

To give some examples, although a more in-depth analysis of specific legal and political contexts will be provided in a different study, this trend towards a new equilibrium is particularly clear in EU competition law. Initially focusing on the aim of market integration, EU competition law progressively developed a jurisprudence that limited the freedom of action of dominant undertakings, these being considered as having a ‘special responsibility’ not to harm the competitive process⁹⁸. Based on this ‘special responsibility’ the case law has

⁹³ E. M. Fox, ‘Modernization of Antitrust: A New Equilibrium’, (1981) 66 Cornell L. Rev. 1140.

⁹⁴ See, E.M. Fox, ‘We Protect Competition, You Protect Competitors’, (2003) 26(2) World Competition 149.

⁹⁵ E. M. Fox, ‘Antitrust, Economic Development and Poverty: The Other Path’, (2007) 13 Southwestern Journal of Law and Trade in the Americas 211.

⁹⁶ See, J. Stiglitz, America has a Monopoly Problem- and it’s Huge, The Nation (October 23, 2017); D. Wessel, Is Lack of Competition Strangling the U.S. Economy?, Harvard Business Review (march-April 2018). Other authors have also assessed the negative effects of the reduction of competition and the higher levels of concentration on the reduction of business dynamism, the decline of both the capital and labour shares, the high profitability for some firms only, this leading to interfirm inequality, the deterioration of the job ladder and of the labour market situation overall: S. Barkai, Declining Labor and Capital Shares (London Business School, 2017), available at <https://www.london.edu/faculty-and-research/academic-research/d/declining-labor-and-capital-shares#.WrTDAkxFz4g>; R. Decker, J. Haltiwanger, R. S. Jarmin, J. Miranda, Where Has All The Skewness Gone? The Decline In High-Growth (Young) Firms In The U.S. (NBER Working paper series, Working Paper 21776, December 2015); J.Furman, & P. Orszag, A Firm-Level Perspective on the Role of Rents in the Rise in Inequality (Washington DC: Council of Economic Advisers, 2015) (noting that due to market concentration, firms are earning outsized profits, particularly in health care and finance)

⁹⁷ See, M. Vestager, EU Competition Commissioner, Competition for a Fairer Society (Speech at the 2016 Global Antitrust Enforcement Symposium, Georgetown, 20 September 2016) <https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/competition-fairer-society_en>; R. Hesse, US Acting Assistant Attorney General, And Never the Twain Shall Meet? Connecting Popular and Professional Visions for Antitrust Enforcement (Speech at the the 2016 Global Antitrust Enforcement Symposium, Georgetown, 20 September 2016) <<https://www.justice.gov/opa/speech/acting-assistant-attorney-general-renata-hesse-antitrust-division-delivers-opening>>.

⁹⁸ See, Case C-322/81 *Nederlandsche Banden-Industrie Michelin NV v Commission* [1983] ECR 3461, para. 57 (the dominant undertaking ‘has a special responsibility not to allow its conduct to impair genuine undistorted competition on the common market’); Case C-413/14 P, *Intel Corp. v European Commission*, ECLI:EU:C:2017:632, para. 135. According to Advocate General Kokott in Case C-95/04P *British Airways v Commission* [2007] ECR I-2331, para 23,

‘[w]ithin the scope of the application of Article [102 TFEU], a dominant undertaking is subject to certain limitations that do not apply to other undertakings in the same form. Because of the presence of

frequently found (i) an inference of consumer harm from the fact that the structure of the market has been affected or from the fact that (efficient) competitors have been excluded⁹⁹ and (ii) has developed a rather strict burden of proof rule for dominant undertakings, shifting the burden of production of exculpatory evidence of an abuse to the dominant undertaking once some inference of likely anticompetitive effect is made. The concept of special responsibility means that dominant firms' commercial freedom is restricted in comparison to non-dominant undertakings¹⁰⁰. To this approach that seems to focus on protecting smaller competitors, the process of modernisation of competition law in the 2000s has added the protection of the consumers¹⁰¹. Exploitation of consumers became an important concern for EU competition law¹⁰² and the consumer rhetoric an essential legitimating device, which may be associated with distributive justice concerns¹⁰³. The possibility of EU competition law authorities to sanction 'excessive prices' by dominant undertakings in order to protect final consumers, in particular in socially sensitive economic sectors, such as pharmaceuticals, illustrates the ascendancy of the social policy dimension of EU competition law¹⁰⁴. Exceptionally, the Commission and the European Courts have also found that the imposition of unfair trading conditions may constitute an abuse of a dominant position¹⁰⁵. This trend intensified following the Treaty of Lisbon which introduced a new Article 3 in the TEU merging the old Articles 2 and 3 TEC into an integrated framework that includes the broad economic and non-economic objectives and tasks of the Union. Article 3(3) TEU provides

the dominant undertaking, competition on the market in question is weakened. Therefore, whatever the causes of its dominant position — that undertaking has a particular responsibility to ensure that its conduct does not undermine effective and undistorted competition in the common market. A practice which would be unobjectionable under normal circumstances can be an abuse if applied by an undertaking in a dominant position'.

⁹⁹ I added in brackets 'efficient' competitors as this seems only to be required for the inference of consumer harm for 'pricing practices', the exclusion of less efficient competitors being considered sufficient for the inference of harm to competition for non-pricing practices. See, Case C-209/10 *Post Danmark A/S v Konkurrencerådet (Post Danmark I)*, ECLI:EU:C:2012:172, para. 25; Case C-413/14 P, *Intel Corp. v European Commission*, ECLI:EU:C:2017:632, para. 136.

¹⁰⁰ Case T-201/04, *Microsoft Corp. v Commission*, [2007] ECR II-3601, para. 1096. See also, *Streetmap Limited v. Google Inc.*, [2016] EWHC 253 (Ch), para. 83.

¹⁰¹ For a critical perspective, see A. Jones & A. Albors Llorens, The Images of the 'Consumer' in EU Competition Law, in D Leczykiewicz and S Weatherill (eds), *The Image(s) of the 'Consumer' in EU Law: Legislation, Free Movement and Competition Law* (Hart Publishing 2016), 43.

¹⁰² R Joliet, *Monopolization and Abuse of Dominant Position* (Martinus Nijhoff, 1970) 250–251 and more recently, P Akman, 'The Role of Exploitation under Article 82 EC' in *Cambridge Yearbook of European Legal Studies* (Oxford: Hart Publishing 2009) 165. These authors were mostly concerned with consumer surplus, hence adhering (at least symbolically) to an economic efficiency rhetoric. However, focusing only on consumer surplus (and not producer surplus) does not amount to a real economic efficiency perspective. See our analysis *supra* on the concept of 'consumer welfare'.

¹⁰³ I. Lianos, Some Reflections on the Questions of the Goals of EU Competition Law, in I. Lianos & D. Geradin (eds.), *Handbook on European Competition Law – Substantive Aspects* (Edward Elgar, 2013), 1.

¹⁰⁴ Following a period with relatively little enforcement activity against excessive and unfair pricing, in particular in the pharmaceutical sector, the Commission has opened in May 2017 an investigation in relation to Aspen Pharma's pricing practices for cancer medicines: European Commission, Commission opens formal investigation into Aspen Pharma's pricing practices for cancer medicines, Press Release, IP/17/1323. See also the recent case by Competition and Markets Authority (CMA), Case CE/9742-13, Unfair pricing in respect of the supply of phenytoin sodium capsules in the UK in the UK (2015); *Flynn Pharma Ltd v. CMA*, [2017] CAT 1. In 2016, the CMA also opened a new investigation, this time for excessive and unfair pricing of Hydrocortisone tablets.

¹⁰⁵ Case C-127/73 *Belgische Radio en Televisie v SN SABAM and NV Fonior* [1974] ECR 313; Case T-139/98 *Amministrazione Autonoma dei Monopoli di Stato (AAMS) v Commission* [2001] ECR II-3413.

that the Union shall establish an internal market with the goal of achieving ‘a highly competitive social market economy’, aiming at full employment and social progress. Broad horizontal integration provisions aim to manage the interaction between the different policies pursued by the Treaty, including competition law¹⁰⁶, while services of general interest are also explicitly recognised¹⁰⁷. Although one may not identify to the same extent a similar trend in US antitrust law, there have been a number of calls for more active antitrust enforcement in order to protect consumers from excessive prices, in particularly with regard to the high price of off-patent pharmaceuticals¹⁰⁸, and to limit economic concentration¹⁰⁹.

However, in order to achieve this metamorphosis, competition law should gradually escape from the narrow straitjacket knitted by welfare economics, which forms the essence of its intellectual foundations, and envision additional/alternative sources of wisdom that may be more relevant for an area of law that aims to fulfil the complex task of becoming both part of economic policy and a tool of social regulation, compatible with the social contract approach put forward by this study.

III. Is economic inequality a competition law problem? The economic foundations of competition law

The quest for equality has been a constant in various political endeavours in human history: from revolutions, rebellions and wars to electoral contests, calls for reform, and broader social movements. The quest for the political equality of representation and equal participation to decision-making was inherently linked to the call for a more extensive use of markets and equal economic opportunity, which before industrial revolution times, was motivated by “left” wing concerns against the power of privileges and monopoly, as the ascending bourgeoisie felt constrained by the rigid social hierarchy of the “*ancient regime*” and dreamed of a “market society as a free society of equals”¹¹⁰. Concerns over economic

¹⁰⁶ See, for instance, the general integration clause at Article 7 TFEU, ‘(t)he Union shall ensure consistency between its policies and activities, taking all of its objectives into account and in accordance with the principle of conferral of powers’. These are included in Title II of the TFEU entitled ‘Provisions having general application’.

¹⁰⁷ Services of general interest are recognised by Protocol No 26, while the concept of Services of General Economic Interest appears in Articles 14 and 106(2) TFEU and in Protocol No 26 to the TFEU. See also Article 36 of the Charter of Fundamental Rights, according to which “The Union recognises and respects access to services of general economic interest as provided for in national laws and practices, in accordance with the Treaty establishing the European Community, in order to promote the social and territorial cohesion of the Union”.

¹⁰⁸ By employing Sections 2 of the Sherman Act and Section 5 of the FTC Act. See, H. First, ‘Unfair Drug Prices and Section 5’, (NYU Centre for Law, Econ. & Org., Working Paper No. 16-03, 2015); F. M. Abbott, ‘Excessive Pharmaceutical Prices and Competition Law: Doctrinal Development to Protect Public Health’, (2016) UC Irvine Law Review 281; M. A. Carrier, N.L. Levidow & A. S. Kessel, ‘Using Antitrust Law to Challenge Turing’s Daraprim Price Increase’, (2017) 31 Berkeley Technology Law Journal 1379; J.L. Graber, ‘Excessive Pricing of Off-Patent Pharmaceuticals: Hatch it or Ratchet?’, (2017) 92 New York University Law Review 1146.

¹⁰⁹ See, *inter alia*, L. Khan, ‘The New Brandeis Movement: America’s Antimonopoly Debate’, (2018) 9(3) Journal of Competition Law & Practice 131.

¹¹⁰ E. Anderson, *Liberty, Equality, and Private Government – Lecture 1 When the Market was Left*, The Tanner Lectures in Human Values (Princeton Univ. lecture March 4-5th, 2015), 64 (referring to the view put forward by Adam Smith in his work on the Wealth of Nations).

inequality were somehow dissociated from the call for free markets and were increasingly seen as a justification for collective (state) intervention in markets in order to correct “externalities”¹¹¹, in particular as the effects of the first industrial revolutions unfolded, in particular in the second half of the 19th century, and its transformative impact felt, in what was a period of disruptive innovation. As the third industrial revolution with the advent of the digital economy comes to maturity, and the fourth industrial revolution, which has been described as a range of new technologies that are fusing the physical, digital and biological worlds is emerging¹¹², both produce significant impacts on labour, the distribution of income and wealth and the democratic process, it is expected that the quest for economic equality takes again centre-stage, in particular as the digital economy re-configures the way markets operate.

During the 19th century, the growing concern for economic inequality has led to the development of specific policies and institutions in order to respond to the quest for collective action, essentially from the State, as the usual non-State institutions, such as the family and/or the church, were considered largely inadequate to deliver the more systematic forms of intervention required in order to correct economic inequalities. This also led to the development of a more aggregate conception of economic inequality, that would require the development of some measurement tools, to the extent that the issue was not any more the preservation of the individual equality of opportunity of traders (their freedom to trade and compete) vis-à-vis the chartered monopolists and those granted exclusive privileges by the Crown, but to ensure the “greatest happiness for the greatest number”. The development of utilitarianism gave new intellectual foundations to the quest for equality, in the sense that equality was not seen as intrinsically desirable and consubstantial to the right to participate to markets and to the political decision-making process (actually for most of the 19th century reserved only for some “happy few”)¹¹³, but a means to increase total or average utility, or welfare, thus partially sacrificing the principle of insubordination, to the extent that the focus is not on the distribution of utility among distinct persons considered as equal, but about total or average utility¹¹⁴.

In this more aggregate conception, egalitarianism was expressed through the idea of diminishing marginal utility, which postulates that the amount of extra or marginal utility declines as a person consumes more and more units of a specific product. This provided arguments for redistribution¹¹⁵. Although this principle (cardinalism) constitutes one of the foundations of the welfarist approach against inequality, it was soon forgotten by the mainstream welfare economics tradition (ordinalism), following the re-definition of the professional project of economics in the 1930s to a venture obsessively focused on economic efficiency. This re-making of economics also led to the subsequent conceptual separation of

¹¹¹ On the history and genealogy of this concept, see, A. Marciano & S. Medema, ‘Market Failure in Context: Introduction’, (2015) 47 History of Political Economy (Suppl. 1) 1 and the articles included in the special issue.

¹¹² K. Schwab, *The Fourth Industrial Revolution* (World Economic Forum, 2016).

¹¹³ Before universal suffrage was extended to popular masses in a limited number of countries in the 19th century and for most other jurisdictions during the 20th century.

¹¹⁴ See J. Bentham, *An Introduction to the Principles of Morals and Legislation* (Clarendon Press 1907 [1789]); J.S. Mill, *Utilitarianism*, R. Crisp (ed.) (OUP 1998 [1861]).

¹¹⁵ On the “Law of the Diminishing Marginal Utility”, see, P.A. Samuelson & W.D. Nordhaus, *Economics* (McCraw-Hill, 2010), 108.

efficiency and distributive justice. In this part, I will first explore the welfarist approaches to inequality, before delving into alternative approaches that put forward other *equalisanda* than welfare, which may better accommodate fairness or equity concerns (and eventually the principle of insubordination) in competition law.

A. Welfarist approaches to inequality: the decline of cardinalism

1. Abandoning equity: the origins of the sole focus of traditional welfare economics on economic efficiency

In the course of the 19th century, the Benthamite concept of utility progressively gave course to the concept of welfare. This was redefined from a measure of the wealth of a nation into a measurement of the mental state (pain and pleasure) of an economic subject, which, as it is not amenable to direct measurement and observation, may be measured through indirect, but observable effects on markets, notably through prices representing the exchange value (relative price) of a commodity¹¹⁶. Two points need to be made at this point.

First, under the so called marginalist revolution, utility became marginal, in the sense that the focus of the economic inquiry is on the marginal utility that an individual enjoys from the consumption of a product, in comparison to or another alternative of consumption. This can be measured by the money the individual agent is willing to pay in the marketplace to purchase an additional unit of that product, assuming that the utility of money is constant. It is important to repeat here that economists assume that decisions are always reached by comparing additional benefits to additional costs at each instance of decision-making, what is called marginal analysis or marginalism. This followed early marginalists' work, in particular Stanley Jevons, who abandoned the idea that (marginal) utility could be measured directly, and in the absence of a direct measure, suggested its indirect measurement by taking into account the exchange value(s) of products in a market¹¹⁷.

Second, utility is conceived at the level of individual utilities only, people rationally maximizing their utility. This further assumes that the social good is the aggregation of personal goods of the representative agents (here people). Morally relevant factors that cannot be dispersed to a personal good do not form part of the welfare analysis. Hence, equality can form part of the analysis, not as a value in itself, on the basis of a "right" to equality, but as a *personal good* that is valued by each individual in a specific society. This may come out of the fact that people, individually, derive pleasure from a more equal society, so that this is considered as forming part of their order of preferences. This enables someone

¹¹⁶ Marginalists focused on the *marginal utility*, that is, the additions and subtractions to the enjoyment of an agent, which are observable and measurable, rather than on the *total utility* enjoyed by that person, which would be more difficult to measure.

¹¹⁷ This was essentially due to the lack of adequate measurement technologies. Jevons, in particular, was open to the possibility of new technologies of measurement that would make utility amenable to direct measurement: "We cannot weigh, or gauge, or test the feelings of the mind; there is no unit of [...] suffering, or enjoyment [...] If we trace the history of other sciences, we gather to lessons of discouragement. In the case of almost everything which is now exactly measured, we can go back to the time when the vaguest notions prevailed": S. Jevons, *The Theory of Political Economy* (1st ed., 1871, Macmillan & Co), 8-9.

to take a social contract perspective, while still adhering to the utilitarian framework¹¹⁸. Welfare theory soon abandoned the hedonic concept of utility for its representation as a preference ordering (the so called ordinal revolution). The concept of preference was itself interpreted in terms of choice, preferences representing comparative evaluations (choice).

An essential characteristic of the modern welfare approach is its effort to avoid the slippery slope of paternalism and, in particular, to make judgments that are “inconsistent with the preferences that guide people’s own choices”¹¹⁹. This would be, for instance, argue against a deontological approach that would have defined welfare on the basis, not of empirical observation of people’s preferences, and/or of some form of deductive approach starting from actual preferences, as these are expressed in the people’s actions, but on the foundations of some expression of the principle of categorical imperative. The welfarist approach of inequality is henceforth uncharacteristically marked by consequentialism.

As an illustration of this deductive approach, one may cite Alfred Marshall¹²⁰ who took into account in his work the contributions of French mathematician Augustin Cournot, the first to define demand (the requested quantity of a product) as a function of price in a market, rather than as a function of individual demand, integrating them into the marginalist framework of utility theory¹²¹. Marshall did not assume, as Cournot had, that market demand was an empirical fact, but proceeded by deriving individual demand from the maximization of utility, and then added up individual demand functions, which identify the quantities an individual is willing to purchase at a given price, with the aim of obtaining market demand. Marshall assumed a decreasing marginal utility, as the first unit of consumption of a product yields less utility than the consumption of a second or n unit(s) [e.g. my demand for a second ice cream is less than for the first]. Utility is also cardinal, in the sense that it is measurable and can be quantified by e.g. the levels of utility with the amount of pleasurable (or painful) feeling the consumer received from a bundle of goods, or the monetary units that the consumer is prepared to pay for another unit of the commodity in question. In the context of cardinal utility, specific numerical values were provided to the variations of utility generated by various consumption bundles, these numerical values being comparable between different individuals (and thus relying on inter-personal comparisons of utility).

Ordinalists abandoned the concept of cardinal utility and replaced it with the concept of a scale of preferences, which assumes that individuals can always rank consumption bundles by order of preference. However, contrary to cardinal utility, ordinal utility does not measure the difference in utility between each ordered preference. Hence, we cannot determine how more strongly the specific consumer prefers option 1, from option 2, as this may be either by

¹¹⁸ See, for instance, the perspective of J. Harsanyi, ‘Cardinal welfare, individualistic ethics and interpersonal comparisons of utility’, (1955) 63 *Journal of Political Economy* 309. For Harsanyi, expected social welfare would be the weighted sum of expected individual utility functions, assuming that whenever all individuals are indifferent between any two probability distributions over social states, then so is society.

¹¹⁹ M. Ravallion, *The Economics of Poverty* (OUP, 2016), 132.

¹²⁰ A. Marshall, *Principles of Economics* (8th ed., 1890, Macmillan & Co.).

¹²¹ For Cournot, demand was not linked to the theory of utility maximization but was taken as an empirical fact, linked to the (empirical observation) that demand is inversely correlated to market price, the higher the price, the lower the demand (the so-called law of demand of sales): A. Cournot, *Recherches sur les principes mathématiques de la théorie des richesses* (1838) translated in English as A. Cournot, *Researches on the Mathematical Principles of the Theory of Wealth* (1897, Macmillan & Co.).

a close or by a large margin. What we can only determine is the order of preference. The utility that one derives from the consumption of a product does not only depend on that good, but also on the quantities of other possessed and consumed goods, that is, the consumer's entire consumption. The economists of the ordinalist school were therefore able to dispense with the issue of measuring utility, by relying on an ordinal principle (ordinal utility function) on the basis of the facts of objective (observable) experience about the preferences of consumers.

Behind this seemingly technical change was a broader disagreement over the purpose of the economic inquiry and its focus. In his influential work, economist and sociologist, Vilfredo Pareto, had rejected the idea of the direct measurability of utility¹²². Pareto employed indifference curves to show that equilibrium could be reached, without the need to make any assumptions about the (subjective) expected utility of a specific consumer, by simply relying on an empirical (observable) statement about which combinations of goods were equally acceptable to the consumers in question¹²³. The knowledge of observed behaviour was sufficient to derive the equilibrium, as indifference curves were obtainable from observed behaviour. Individual utility functions were represented by indifference maps. Pareto's focus on consumer behaviour avoided the problem of comparing one person's subjective value judgment of utility with another's. As preferences represent comparative evaluations (choice), utility is deprived of substantive content: it does not denote, as in the classic utilitarian framework, an expected advantage or satisfaction of desire(s). Instead it is purely formal and instrumental. That said, it proved difficult to construct these indifferent curves on the basis of economic data at the time, in view of the absence of elaborate statistical information on consumption. This lack of empirical foundation of Pareto's theory of choice was not however considered to constitute a problem, as long as there was a theoretical possibility of constructing indifference curves empirically¹²⁴. This purely formal view on utility came at the price of the gradual abandonment of the decreasing marginal utility principle and the rejection of interpersonal comparisons of utility.

Similarly, it is not possible to aggregate surplus in order to evaluate social welfare. Pareto introduced instead a new criterion, that of "maximum ophelimity" or "Pareto optimum", which is indifferent to questions of the measurement of increases or decreases of utility, or the comparison of losses and gains of different individuals but assesses instead if the departure from one position leads to a utility loss to (a least) one individual. This approach aims to dispense economics from the difficult and ethical/philosophical questions of distributive justice and the adequate level of inequality (of outcomes) between the various economic actors, following a change, to the extent that this change is Pareto optimal, that is, it does not lead to a utility loss for anyone. The fact that some individuals may gain more from this change than others and that some of the affected individuals by this change may not accrue any benefits is not relevant.

¹²² V. Pareto, *Manual of Political Economy* (Kelley, 1909).

¹²³ Indifference curves are a curve on a graph, whose axes represent quantities of two commodities that link these combinations of quantities the consumers regard as being of equal value, the consumer having no preference for one combination or bundle of products over a different combination on the same curve.

¹²⁴ J.S. Lenfant, 'Indifference Curves and the Ordinalist Revolution', (2012) 44(1) *History of Political Economy* 113, 120.

This change formed part of a wider effort to redefine the discipline of economics. Marshall's cardinalist utility-based approach (also called the material welfare school) defined economics as the discipline that "examines that part of individual and social action which is most closely connected with the attainment and with the use of material requisites of well-being"¹²⁵. Robbins advanced instead a definition of the discipline that focuses on "a particular aspect of behavior, the form imposed by the influence of scarcity"¹²⁶. According to Robbins, "(t)he economist studies the disposal of scarce means. He is interested in the way different degrees of scarcity of different goods give rise to different ratios of valuation between them, and he is interested in the way in which changes in conditions of scarcity, whether coming from changes in ends or changes in means- from the demand side or the supply side – affect these ratios. Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses [...] There are no limitations on the subject-matter of Economic Science save this"¹²⁷.

Economic inequality was at the core of the material welfare school, to the extent that this adhered to the extended law of diminishing marginal utility. As it is well explained by Cooter and Rappoport¹²⁸, Marshall and his successor in Cambridge, Arthur Cecil Pigou, defined narrowly economic welfare as the purely economic or material part of a hierarchy that proceeded from a material end of the scale concerned with the goods essential for survival and health, such as "food, clothing, house-room and firing", followed by other goods, which were considered as "necessaries" and ending with purely noneconomic or nonmaterial products at the other end of the scale, which could not be seen or touched, such as legal and medical services, entertainment, secretarial support etc.¹²⁹. Economists assessed the effects of policies on material welfare, which led Pigou to develop a measure of the increase of that material welfare which was heavily biased towards re-distribution in favour of the poor, so that they could satisfy more of their material needs, on the assumption that a pound was worth more to a poor person than to a rich one (the extended law of diminishing marginal utility). Policies that would increase the "national dividend" or national product, while not leading to a fall of the absolute share accruing to the poor, or policies that would shift the distribution of the dividend towards the poor, without decreasing its total, would be considered as increasing material welfare.

This premise relied on a specific concept of utility, which is different from that of the ordinalist school. The economists of the material welfare school perceived utility objectively, as socially useful for the material well-being of an individual (or people), and thus relating to the *needs* of the individual as defined by the material end of the hierarchy of goods or satisfactions (products essential for survival and health of the human race). On the contrary, ordinalists perceived utility as a subjective concept, what Pareto called *ophelimity* (or Pareto efficiency), understood as the capacity to satisfy the *desires/wants* of an individual, "whether

¹²⁵ A. Marshall, *Principles of Economics* (Macmillan and Co., Ltd, 8th ed. 1920, 2st ed. 1890), I.I.1.§1.

¹²⁶ L. Robbins, *An Essay on the Nature and Significance of Economic Science* (Macmillan & Co., 1932), p 16.

¹²⁷ *Ibid.*, pp. 16-17.

¹²⁸ R. Cooter & P. Rappoport, 'Were the Ordinalists Wrong About Welfare Economics?', (1984) 22(2) *Journal of Economic Literature* 507.

¹²⁹ A.C. Pigou. *The Economics of Welfare* (Macmillan and Co, 4^h ed., 1932).

legitimate, or not”¹³⁰. This led to different views over the possibility of interpersonal comparisons of utility, which was deemed possible for the proponents of the material welfare school, while impossible for ordinalists, in view of the fact that this would have required a comparison of *desires* in one mind with that in another. Transferring income from a relatively rich person to a relatively poor person would have enabled the latter one to satisfy more intense needs, with the result that the aggregate level of economic welfare would have increased.

Finally, for the proponents of the material welfare school, the comparisons of utility were not made between specific persons, but between classes of people, sociological categories such as “poor”, “rich”, “consumers”, “producers” and describing averages rather than individuals. Hence, it was possible to proceed to a comparison of the welfare between two individuals, after locating the positions of individuals on the material hierarchy. Those deprived of “necessaries”, such as food, were considered as enjoying a greater level of utility from the consumption of this product, than someone deprived of an allegedly less materially important product, such as a luxury product or entertainment. Focusing on *desires* and applying the same utility analysis for any type of good, to the extent that these are considered as scarce means to satisfy the individual’s desires, ordinalists regarded utility as relating to preferences, objectively observed through behaviour at the market, thus avoiding the question of identifying social classes (probably a concept considered as Marxist!) and thus not recognizing the heterogeneity across people on the way their utility may be expected to derive from a given consumption bundle on a market¹³¹. Because one cannot observe the satisfaction enjoyed by other people, the extended law of diminishing marginal utility could not be justified as it involved “an element of conventional valuation” and was thus “essentially normative”¹³².

Ordinalists did not take into account the personal characteristics of individuals, and the fact that these are largely heterogeneous, in the sense, for instance, that the level of satisfaction an individual gets depends on her/his psychological predispositions, or that the needs of a child are different from those of an adult. This complexity is assumed away by the population-level approach of the general competitive market equilibrium theory, when it aims to translate individual preferences into aggregated social outcomes, as this assessment is based on the concept of household. One cannot expect that these differences among individuals will properly be reflected in the observed demand and supply behaviour, as there can be “multitude utility functions (reflecting the heterogeneous characteristics) that can support the observed behaviour as an optimum”¹³³.

Consumer welfare approaches prevalent in competition law are based on a “representative consumer” theory of distribution. In the words of Caselli and Ventura, the representative consumer is “a fictional consumer whose utility maximization problem when facing aggregate resource constraints generates the economy’s aggregate demand

¹³⁰ R. Cooter & P. Rappoport, ‘Were the Ordinalists Wrong About Welfare Economics?’, (1984) 22(2) Journal of Economic Literature 507, 515 (quoting Vilfredo Pareto).

¹³¹ M. Ravallion, *The Economics of Poverty* (OUP, 2016), 134.

¹³² L. Robbins, *An Essay on the Nature and Significance of Economic Science* (Macmillan & Co., 1932), p. 123.

¹³³ M. Ravallion, *The Economics of Poverty* (OUP, 2016), 135.

functions”¹³⁴. According to the same authors, the representative consumer assumption “does not rule out consumer heterogeneity, but only requires that potential sources of consumer heterogeneity have sufficient structure to ensure that the sum of all consumers behave *as if* it were a single consumer”¹³⁵. Hence, if people differ in their welfare-relevant characteristics, it is not possible “to rely on utility derived from consumer choice in deciding whether one person is better off than another” and more data on people’s actual choices will not solve the problem¹³⁶.

Summarizing the discussion so far, ordinalists believed that households act in order to maximize their utility. This involves the reconciliation of their preference ordering (or utility function) with their given budget (income). The budget constraint, along with the agent’s preferences, provide the necessary information required to determine the consumption bundle (as established by the indifference curves) that would maximize the agent’s utility up to a point of tangency, which indicates that there is no possibility of increasing utility by moving along the budget constraint. This theoretical maximum is however difficult to reach as consumers’ tastes frequently change by moving along the budget constraint. Agents constantly adjust their purchases to reflect changes in tastes.

Indeed, ordinal utility theory places restrictions on preference ordering with a number of axioms: (i) among the alternatives they believe to be available, it is assumed that agents will choose one that is at the top of their preference ranking, so that any two bundles of commodity can always be compared and ranked. It is assumed households instantaneously and perfectly evaluate bundles (*‘homo economicus’*) and can make decisions on the preference ordering of these bundles (completeness); (ii) if A is preferred to B and B to C, then A should be preferred to C (transitivity); (iii) whether an agent prefers A to B remains stable across contexts (context- independence). An additional axiom often invoked is that more of a commodity is preferred to less (*nonsatiation*), the assumption being that the commodity is desirable. In conclusion, preferences are always comparative and cannot be defined in terms of well-being. Consequently, the idea that utility may be measurable was abandoned.

The behaviourist dimension of ordinalist consumer theory was further reinforced by contributions in the 1930s. In a seminal article published in 1934, Hicks and Allen brought a further blow to the idea that utility can be measured, adopting Pareto’s behaviourist approach and making a strong case for behaviourism, by replacing ordinal utility with the marginal rate of substitution (MRS) between two goods, something which is empirically observable¹³⁷. MRS denotes the rate of exchange between some units of goods *x* and *y* that the consumer equally prefers. The marginal rate of substitution of *x* for *y* is the amount of *y* that would compensate the consumer for obtaining each additional unit of *x*. The concept measures the rate at which the consumer is ready to give up a unit of a good in exchange for another good, while maintaining the same level of utility. The approach views prices and consumer income

¹³⁴ F. Caselli & J. Ventura, ‘A representative consumer theory of distribution’, (2000) 90(4) American Economic Review 909,

¹³⁵ Ibid., 909.

¹³⁶ M. Ravallion, *The Economics of Poverty* (OUP, 2016), 135.

¹³⁷ J.R. Hicks & R.G.D. Allen, A reconsideration of the theory of value, (1934) 1(1) *Economica*, New Series, 52.

in terms of elasticity, and decomposes the effects of a price change on demand (the substitution effect). From that perspective it develops an approach that is connected to marginal utility only remotely. (MRS actually measures the ratio of marginal utility of commodity x to that of y). One may recognize here the foundations of market definition analysis in competition law and its emphasis on product substitutability.

In 1938, economist Paul Samuelson published 'A Note on the Pure Theory of Consumer's Behaviour', proposing a new theory of consumer behaviour based on a postulate of consistency of consumers' behaviour¹³⁸. His aim was to drop off "the last vestiges of utility analysis". His approach relied only on observable behaviour, the 'revealed preferences', thus becoming amenable to empirical verification or refutation¹³⁹. 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 behaviour¹⁴⁰. 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. One could infer the preferences of consumers from the economic choices they made. However, Samuelson's approach was hardly empirical, as the link between market choices and preferences was made at the price of the assumption that the agent conforms to certain modes of decision-making, including the assumption that his consumer behaviour is coherent.

The next episode in this saga was the further axiomatisation of preferences and their disconnection from empirical or experimental observations. Mathematicians John von Neumann and Oskar Morgenstern, published their *Theory of Games and Economic Behaviour* (1944)¹⁴¹, putting forward an axiomatic treatment of preferences. Von Neumann and Morgenstern identified utility with money and assumed that each participant in the economic system attempts to maximize his monetary payoffs, money be transferable and therefore having the same value for all economic agents. These individuals' utility functions are derived from preferences over risky alternatives (called lotteries or gambles), which are considered as a probability distribution over a *known*, finite set of outcomes (the expected utility hypothesis). The approach relies on an axiomatic analysis of preferences. A rational player will choose a minimax strategy, which would aim to minimize their own maximum possible loss and consequently minimize their opponent's maximum possible payoff. Coalition between players, where they will agree on a joint plan of action or find a way to distribute payoffs among them are allowed (cooperative game theory). If these postulates are

¹³⁸ P.A. Samuelson, 'A note on the pure theory of consumer's behaviour', (1938) 5(17) *Economica*, New Series, 61.

¹³⁹ See also in P. Samuelson, 'Consumption Theory in Terms of Revealed Preference', (1950) 15 *Economica*, 243.

⁵³ In 1950, economist Hendrik Houthakker proved the logical equivalence of revealed preference theory with ordinal utility theory: H.S. Houthakker, 'Revealed Preference and the Utility Function' (1950) 17 *Economica*, 159–74.

¹⁴⁰ S. Wong, *The Foundations of Paul Samuelson's Revealed Preference Theory: a study by the method of rational reconstruction* (Routledge, 1978).

¹⁴¹ J. von Neuman & O. Morgenstern, *Theory of Games and Economic Behavior* (Princeton University press, 1944).

satisfied it is possible to use information about consumer's demand to discover his preferences.

Although von Neumann and Morgenstern's approach opened the possibility of a cardinal conception of utility, which would have enabled interpersonal comparisons of utility and therefore the integration of inequality concerns, their use of an axiomatic approach, which provided a characterization of the expected behaviour by an "idealized individual" and did not aim to describe the behaviour of a real individual, was interpreted by proponents of the ordinal approach as essentially compatible with ordinalism¹⁴². It follows that if a choice of an individual satisfies the postulates of the so called *Strong Axiom of Revealed Preference*, then his choices on the market may be interpreted as the result of a constrained maximization of his utility¹⁴³.

The axiomatization process further progressed with the development of the notion of personal, subjective probability that gave rise to the concept of Subjective Expected Utility (SEU)¹⁴⁴. This combines the individual's personal utility function and its subjective probabilities distribution. Different people may make different decisions on the basis of the same objective probabilities data, as they may have different personal utility functions and share different beliefs about the probabilities of an event occurring. Savage and Friedman attempted to gauge individual expected utility by disconnecting it from real empirically observable individuals and focusing on an idealised individual conforming to certain postulates of decision-making. But their assumptions were criticised¹⁴⁵ for not taking into account that the variance of "psychological value" (a form of cardinal utility) that may exist among various individuals: for instance, a monetary stimulus of 1 pound cannot have the same psychological value for a millionaire than for a lower income employee, so that they will eventually make a different choice. This value can only be explored through introspective observation, which could eventually challenge the rationality axiom predominately used by welfare economics.

In conclusion, the mainstream welfare approach strayed away from a direct consideration of inequality of outcomes between the various economic agents affected by a policy/or business conduct change, to the extent that it opted for an axiomatised analysis that relies on a representative agent behaving according to the postulates of rational choice theory and without any consideration of the broader social context to which the agent's action is embedded. To the extent that the mainstream approach moved away from cardinal utility, and clearly separated economic efficiency from distributive justice issues, the existing allocation of wealth or income does not enter into the picture in assessing the real welfare effects of a

¹⁴² M. Friedman & L. J. Savage, 'The Expected-Utility Hypothesis and the Measurability of Utility', (1952) 60(6) *Journal of Political Economy*, 463

¹⁴³ The Strong axiom formulates equivalent systems of axioms on preferences and axioms on demand functions and proceeds from an axiomatic analysis of preferences, which need to be characterized by completeness, monotonicity, transitivity, independence, and continuity, remaining stable across time: H.S. Houthakker, 'Revealed preference and utility function', (1950) 17(66) *Economica*, New Series, 159.

¹⁴⁴ M. Friedman & L. J. Savage, The utility analysis of choices involving risk, (1948) 56 *Journal of Political Economy* 279, 298.

¹⁴⁵ Most notably by M. Allais, Allais paradox, in S.N. Durlauf & L.E. Blume (eds.), *The New Palgrave Dictionary of Economics* (Palgrave Macmillan, 2008), available at http://www.dictionaryofeconomics.com/article?id=pde2008_A000074 > doi:10.1057/9780230226203.0032 .

practice or conduct, as one-pound worth of commodities is expected to have the same impact on the welfare of a millionaire and the welfare of a poor individual. On the contrary, inequality in the distribution of income is considered, in the context of a competitive market, as reflecting the “underlying distribution of innate characteristics of people – their preferences, talents, and aptitudes”¹⁴⁶, as these result from the natural order of the market, the process of competition and free markets rewarding people according to their individual efforts and initiatives.

2. Criticisms to the mainstream welfarist perspective: re-connecting with the social contract

Some authors have put forward the need for adjustment of the mainstream welfarist approach, taking into account not the *rational* desires or aims of individual agents but their *fully informed idealised* desires, assuming that these will include a preference for equality and fairness. One may distinguish at least between three strands in this literature.

First, some argue that there is indeed consistent empirical evidence that humans are a “cooperative species”¹⁴⁷, and that the separation between material interests and moral sentiments, on which modern economics is founded since the times of Adam Smith, does not hold¹⁴⁸. There is a solid literature in experimental game theory showing that actual human behaviour routinely violates the assumption of self-interest, and that humans are motivated by “social preferences”, such as “altruism, reciprocity, intrinsic pleasure in helping others, aversion to inequity, ethical commitments, and other motives that induce people to help others more than is consistent with maximizing their own wealth or material payoff”¹⁴⁹. Hence, mainstream welfarism is descriptively wrong, as it does not account for a significant, if not predominant, dimension of human motivation.

Second, there is a distinct tradition in welfare economics that incorporates explicitly distributive justice concerns. Bergson and Samuelson advanced a social welfare function which is understood to depend on all the variables that might be considered as affecting welfare¹⁵⁰. The Social Welfare Function (SWF) aims to weigh the utilities of different agents, which may include fairness and equality considerations. Economists who use the

¹⁴⁶ M. Ravallion, *The Economics of Poverty* (OUP, 2016), 389 referring to this model of the causes of poverty and inequality as the “Roy model” following A.D. Roy, ‘Some Thoughts on the Distribution of Earnings’, (1951) 3 Oxford Economic Papers 135.

¹⁴⁷ S. Bowles & H. Gintis, *A Cooperative Species: Human Reciprocity and its Evolution* (Princeton Univ. Press, 2011).

¹⁴⁸ S. Bowles, *The Moral Economy – Why Good Incentives are no substitute for Good Citizens* (Yale Univ. Press, 2016), 21-25.

¹⁴⁹ For a summary of this experimental game theory literature, see S. Bowles, *The Moral Economy – Why Good Incentives are no substitute for Good Citizens* (Yale Univ. Press, 2016), 41-77; E. Fehr & H. Gintis, ‘Human Motivation and Social Cooperation: Experimental and Analytical Foundations’, (2007) 33 Annual Review of Sociology, 43; E. Fehr & J.-R. Tyran, ‘Institutions and Reciprocal Fairness’, (1996) Nordic Journal of Political Economy 1; E. Fehr & S. Gächter, Altruistic punishment in humans, (2002) 415 Nature 137; E. Fehr & S. Simon Gächter, ‘Fairness and Retaliation: The Economics of Reciprocity’, (2000) 14(3) Journal of Economic Perspectives 159; H. Gintis, ‘Strong Reciprocity and Human Sociality’, (2000) 206 Journal of Theoretical Biology 169; H. Gintis & E. Fehr, ‘The social structure of cooperation and punishment’, (2012) 35(1) Behavioral and Brain Sciences 28; H. Gintis, *The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences* (Princeton Univ. Press, 2009).

¹⁵⁰ For a discussion, see R.A. Pollak, ‘Bergson-Samuelson Social Welfare Functions and the Theory of Social Choice’, (1979) 93(1) Quarterly Journal of Economics 73.

Bergson/Samuelson SWF approach are comfortable with interpersonal utility comparisons. Under normal conditions, one can estimate individuals' preferences by looking to the ordinary preference data and use behaviour or surveys to infer individuals' preferences over outcomes concerning the consumption of bundles of attributes such as health, income, leisure, or environmental goods, hence making inferences about their "extended preferences", with the aim to perform interpersonal comparisons of utility¹⁵¹. From then on, they employ a "prioritarian social welfare function" in order to compare different arrangements of individual utility¹⁵². A "prioritarian" SWF gives greater weight to utility changes affecting individuals at lower utility levels, as compared to individuals at higher utility levels. A cost benefit analysis with *distributional weights* would sum individual willingness to pay or willingness to accept amounts adjusted by weighting factors. Under this approach, it is possible, on the basis of information on people's "extensive preferences", to aggregate the utility functions of all the individuals in the society, on the basis of individual utilities, not consumption bundles, and arguably include fairness or equality in the social welfare function.

As with the material welfare school's cardinal utility approach, the Bergson/Samuelson social welfare function relies on an interpersonal utility comparison, and shares with Pareto efficiency the reliance on a "voting theory of collective choice" to determine what members of society individually prefer. The "voting" does not necessarily involve an actual process of voting, but the expression of individual preferences, following a judicious assessment by each person of their own interest. Among the intellectual foundations of social choice theory is the democratic belief that social judgments and public decisions must depend, on individual preferences, broadly understood, as these are expressed in a transparent social process¹⁵³. Pareto efficiency assumes unanimous voting, but in real life, this is a quite unrealistic criterion, and subsequent approaches, such as Kaldor-Hicks efficiency, broadly employed in cost benefit analysis, rely on majority voting¹⁵⁴. This is also the case for the Bergson/Samuelson SWF approach. However, as Arrow's impossibility

¹⁵¹ The concept of "extended preferences" has been first used by J. Harsanyi, *Rational Behavior and Bargaining Equilibrium in Games and Social Situations* (Cambridge Univ. press, 1977), Chapter 4, with the aim to enable inter-personal comparisons of utility on the basis of "extended empathy" via empathetic projection had he occupied the other person's objective position, while acquiring the subjective attributes and personal preferences that each subject has in her history: (Ibid, pp. 51-52.)

"Our model [of interpersonal comparisons] is based on the assumption that [...] each individual *i* will try to assess the utilities $U_j(A)$ that any *other* individual *j* would derive from alternative social situations *A* and will try to compare these with the utilities $U_i(A)$ that he *himself* would derive from these (or from other) social situations. That is, he will try to make *interpersonal utility comparisons*. Moreover, we have assumed that *i* will attempt to assess these utilities $U_j(A)$ by some process of *imaginative empathy*, i.e. by imagining himself to be *put in the place* of individual *j* in social situation *A*.

This must obviously involve his imagining himself to be placed in individual *j*'s *objective position*, i.e. to be placed in the objective conditions (e.g. income, wealth, consumption level, state of health, social position) that *j* would face in social situation *A*. But it must also involve assessing these objective conditions in terms of *j*'s own *subjective attitudes and personal preferences*".

¹⁵² On the operation of concept of "social welfare function" and the prioritarian view, see M.D. Adler & C. W. Sanchirico, 'Inequality and Uncertainty: Theory and Legal Applications', (2006) 155 *University of Pennsylvania Law Review* 279-377; M.D. Adler, 'Future Generations: A Prioritarian View', (2009) 77 *George Washington Law Review* 1478-1520.

¹⁵³ A. Sen, 'The Informational Basis of Social Choice', in K. Arrow, A. Sen & K. Suzumura (eds.), *The Handbook of Social Choice and Welfare* (Elsevier, 2010, vol II), 29.

¹⁵⁴ On Kaldor-Hicks efficiency, see Part V below.

theorem has shown, in the absence of a cardinal measure of utility across individuals, it becomes quite difficult to identify an adequate social welfare function; To the extent that there are problems to identify preferences through voting schemes, voting cannot measure the intensity of the individuals' preferences, and voting can lead to intransitive preferences¹⁵⁵. Arrow's theory questions the existence of any rule, majority voting or otherwise, that could establish social preferences from arbitrary individual preferences and which could be procedurally fair.

How could then equality be transposed in the utilitarian/welfare economics framework? One possibility is that it is conceived as an equality of outcomes, or state of affairs, in the sense that each person gets an equal share of utility/welfare. For instance, in a perfectly competitive market, allocative and productive efficiency are maximised in the sense that no one gets less or more than their willingness to pay (for consumers) or to sell (for suppliers). Hence, in the welfarist tradition, equality would mean equality of welfare or utility. As we have examined above, this may be also assessed at an aggregate level if one accepts the possibility of interpersonal comparisons of utility. However, it becomes clear that such an approach does not take into account the heterogeneity of economic actors and the different starting points each of them has, for instance in terms of wealth, or income. Aggregating total utility or welfare may also lead to what has been called by philosopher Derek Parfit "the repugnant conclusion", that is the idea that "(f)or any possible population of at least ten billion people, all with a very high quality of life, there must be some much larger imaginable population whose existence, if other things are equal, would be better even though its members have lives that are barely worth living"¹⁵⁶. This raises questions as to the adequacy of an egalitarian welfare analysis when our decisions may have an impact on the future welfare of a population, or on individuals not yet born. This could be for instance the case if the competition law adjudicator needs to assess the effect of a specific conduct on innovation.

Another option would be to abandon interpersonal comparisons of utility, and eventually any reference to preferences. One may integrate equity concerns in the utilitarian calculus by relying on a social contract approach. Such an approach assumes that there can be a legitimate/optimal inequality of welfare in certain circumstances, if the social process through which this inequality in welfare or utility was achieved is judged to be legitimate. Two approaches may be put forward.

John Harsanyi's work takes a utilitarian perspective by adopting an expectational utility function where utility is not assessed in terms of a better outcome, but according to the betterness of the prospects of each person separately, before these separate evaluations are added up¹⁵⁷. Harsanyi aimed to transform the "normative question" of the adequate/optimal distribution of welfare to a "descriptive question of what income distribution an individual would choose in a hypothetical original position before knowing her identity in the

¹⁵⁵ K.J. Arrow, *Social Choice and Individual Values* (Wiley, 1951).

¹⁵⁶ D. Parfit, *Reasons and Persons*, (Oxford: Clarendon Press, 1984), 388.

¹⁵⁷ J. Harsanyi, 'Cardinal welfare, individualistic ethics and interpersonal comparisons of utility', (1955) 63 *Journal of Political Economy* 309. Harsanyi's approach postulates a tight link between interpersonal aggregation across people and intrapersonal aggregation under uncertainty.

society”¹⁵⁸. Relying on subjective expected utility theory and the assumption of common priori, that is the idea that individuals having the same information will, according to the postulate of rational choice, end up having a common view of the state of the world, Harsanyi was able to establish a link between intrapersonal and interpersonal comparisons of utility.

Philosopher John Rawls’s framework also relies on a social contract framework¹⁵⁹. He was careful not to put forward a utilitarian framework, as Harsanyi, and relied instead on the maximin or difference principle, that is the promotion of equality through the maximization of some index of “primary goods”, the inputs that are necessary for any person to live a good life, for the benefit of the least advantaged. By focusing on primary goods bundles, Rawls avoided any reference to individual preferences. More specifically, Rawls introduced the idea that society should be conceived as a system of cooperation designed to advance the mutual advantage of each members and of *each* of its members. Individuals should be recognized primary social goods, as rights and liberties, powers and opportunities, income and wealth, chosen by the parties to the social contract from an original position under uncertainty, behind a veil of ignorance that prevents them from knowing anything about their future position. These devices of the original position, and the veil of ignorance, are just ways to identify an “overlapping consensus” while limiting the risk of bias, in the specific society¹⁶⁰, or on the basis of a general normative moral theory framework¹⁶¹, on justice as fairness¹⁶².

According to Rawls’ first principle of social justice, each person was recognized an equal right to the most extensive liberties compatible with similar liberties for all, a principle to be inscribed in the political constitution. Rawls’ second principle of social justice advances that social and economic inequalities are to satisfy two conditions: first, they are to be attached to offices and positions open to all under conditions of fair equality of opportunity; and second, they are to be to the greatest benefit of the least-advantaged members of society (the Difference Principle or maximin)”¹⁶³. His justification of this principle of justice makes use of a thought experiment, a hypothetical situation called the “original position”, where individuals (an impartial observer) choose the basic principles of the society behind a “veil of ignorance”, that is without knowing their own position in the resulting social order, as well as being ignorant of their personal identities, individual social standing and chances in life¹⁶⁴. The original position thought experiment relies on several assumptions. First, Rawls assumes

¹⁵⁸ C-Y. Liang, ‘Optimal inequality behind the veil of ignorance’, (2017) 83 Theory Decision 431, 432.

¹⁵⁹ See, most notably, J. Rawls, *A Theory of Justice*, (Harvard University Press, 1999, first pub. 1971).

¹⁶⁰ In the more recent work of J. Rawls it is made clear that his approach to the social contract is profoundly linked with the shared political culture of the liberal and democratic societies of the West (and in particular in the Anglo-american tradition): see J. Rawls, *Political Liberalism* (Columbia Univ. press, 1996) and relates to what some authors have called the “political” turn towards a hermeneutic approach: see G. Warnke, *Justice and Interpretation* (Polity press, 1992) 3-12.

¹⁶¹ That would be the more Kantian and less-contextualist perspective in J. Rawls, *A Theory of Justice*, (Harvard University Press, 1999, first pub. 1971).

¹⁶² Other social contract perspectives make use of other devices such as putting oneself in another’s place: see T.M. Scanlon, Contractualism and Utilitarianism, in A. Sen & B. Williams (eds.), *Utilitarianism and Beyond*. Cambridge University Press. 103 and, more recently, T.M. Scanlon, *What We Owe to Each Other* (Harvard Univ. press, 1999).

¹⁶³ J. Rawls, *A Theory of Justice*, (Harvard University Press, 1999, first pub. 1971), 63-73.

¹⁶⁴ Rawls’ impartial observer arrives to rational decisions under conditions of uncertainty. In contrast, Harsanyi’s impartial observer makes decisions under conditions of risk and therefore may take into account the frequencies of different income levels.

that people are self-interested and make choices in order to maximize the primary goods they would dispose for carrying out their life plan, without however having any knowledge as to the distribution of endowments in society. Second, Rawls assumes that people are extremely risk averse, hence their choice, at the original position, to promote the situation of the least advantaged group.

Under the Difference Principle, Rawls favours the establishment of institutions that would maximize the improvement of the “least-advantaged” group in society, by enabling these individuals to exercise control of wealth and other economic resources. This avoids Rawls the need to make any inter-personal comparisons of utility, between rich and poor persons, as what counts is the welfare of the least well-off person. By “least advantaged” group Rawls refers to “those belonging to the income class with the lowest expectations”¹⁶⁵. Although the advantaged may deserve their greater share of surplus because of their greater contribution to production, it is important to also aim to the improvement of the “least advantaged group” in society so as to enhance their active participation in the communal deliberative life of the community¹⁶⁶. Rawls also recognizes the role of “reflective equilibrium” which enables a deliberative process under a coherence account of justification that may adjust the initial decision of general justice principles, that is, the current set of beliefs deduced from the hypothetical thought-experiment of the original position, with a process of reflective deliberation incorporating a wide range of diverse moral commitments into a coherent moral system in which all moral beliefs are consistent and mutually supporting.

Would a Rawlsian approach incorporating an equality concern in the sense of a maximin social welfare function be compatible with the consumer welfare approach, which is often followed in competition law¹⁶⁷? If one refers to the criterion of income, in order to define the “least advantaged” category, it will not necessarily follow that competition law should protect consumers, as opposed to shareholders or employees. In some circumstances (e.g. a luxury good market), final consumers may have a higher, on average, income than the suppliers of these goods, in particular if the latter are small and medium firms. However, in most cases, this does not occur. It may also be argued that final consumers are the “least advantaged” group if one focuses on the competitive process, as they may be exploited by intermediary consumers (e.g. retailers) or suppliers, without having the possibility to pass on

¹⁶⁵ J. Rawls, *Justice as Fairness: A Restatement*, (Harvard University Press, 2001), 59.

¹⁶⁶ Hence, this is independent from their eventual contribution to the productive process: see, G. Warnke, *Justice and Interpretation* (Polity press, 1992) 10, although as Rawls remarked “it seems impossible to avoid a certain arbitrariness” in defining the category: J. Rawls, *A Theory of Justice*, (Harvard University Press, 1999, first pub. 1971), 98, in his most recent work J. Rawls, *Justice as Fairness: A Restatement*, (Harvard University Press, 2001), 57-61, he defined the “least advantaged” in relation to the share they have of primary goods, noting also (fn 26) that “the least advantaged is not a rigid designator”. However, even if one takes the view that Rawls requires some form of participation to the productive process for the “least advantaged” category, it may easily be argued that in the digital economy consumers participate to the production process by enabling their data to be harvested by digital platforms and then used as input in the input-output process that ends up with the monetisation of “Big Data” in product or financial markets.

¹⁶⁷ The concept of consumer welfare may include multiple dimensions of consumer harm. For a discussion of the consumer welfare approach, and of its various dimensions, in the context of EU competition law, but also more broadly, see I. Lianos, Some Reflections on the Questions of the Goals of EU Competition Law, in I. Lianos & D. Geradin (eds.), *Handbook on European Competition Law – Substantive Aspects* (Edward Elgar, 2013), 1, 20-25.

these losses to anyone else in the value chain (unless, for example, they are also suppliers in other relevant markets). All market actors are, to a certain extent, final consumers, while not all of them are necessarily suppliers, competition law being non-applicable to employment relations. Hence, the category of “final consumer” may be considered as the “least advantaged” category, whose interests an impartial observer may opt to protect, when designing the desirable social order behind a veil of ignorance. This may provide a theoretical justification for a distributive justice principle that would promote the interest of final consumers in competition law. The same principle may justify weighing more the effects of an anticompetitive conduct on low income categories of final consumers, as opposed to efficiency gains passed on to a wealthier category of final consumers or suppliers, by integrating some distributional weights, on the assumption that it is more likely that corporate shareholding, either directly, or indirectly through pension funds, is more widespread for the rich than for the poor¹⁶⁸.

B. Alternatives to mainstream welfarism

Inequality and distribution effects are also important concerns for alternative approaches to welfare or well-being. Amartya Sen has put forward a view of well-being that does not draw on cardinal utility, but assesses well-being mainly in terms of a person’s capabilities and the “functionings” an individual achieves.¹⁶⁹ Other theorists proposed an approach that breaks with welfare egalitarianism in an attempt to insert personal responsibility as a limit to the degree of equality that is “ethically desirable”, by focusing on the principle of equality of opportunity. Finally, behavioural economics has contributed to a different understanding of the decision-making process, not only at the individual level, but also, more broadly, in theorizing collective social choice. In particular, the application of prospect theory may lead to different results than expected utility theory when envisioning the optimal degree of inequality, in a context of a social choice performed by an impartial observer in a hypothetical original position under conditions of risk. The focus on behavioural biases and internalities also raises interesting question about a possible causal link between inequality/poverty and the prevalence of behavioural biases in certain categories

¹⁶⁸ On the use of distributional weights in competition law, see *Superior Propane*, where the Canadian Bureau of Competition when considering the possible trade-off between efficiencies and likely anticompetitive effects, took into account, with regard to the latter, not only the loss in allocative efficiency but also the socially adverse portion of the wealth transfer from lower-income residents (the consumers) to bulk propane retailers (the suppliers), thus adhering to a “balancing weights” approach: see, Federal Court of Appeal, *Canada (Commissioner of Competition) v. Superior Propane Inc. and ICG Propane Inc.*, [2001] 3 F.C. 185, paras 139-140; *Canada (Commissioner of Competition) v. Superior Propane Inc.* (“Propane”), Competition Tribunal redetermination (2002), paras 47-57; upheld by Federal Court of Appeal, *Canada (Comm’r) v. Superior Propane Inc. and ICG Propane Inc.*, [2003] F.C. 529. For a discussion, see R.O. Zerbe & S. Knott, An Economic Justification for a Price Standard in Merger Policy: The Merger of Superior Propane and ICG Propane, (2004) 21 Research in Law & Economics 409.

¹⁶⁹ A. Sen, *Commodities and Capabilities*, (North-Holland, 1985), advancing the moral significance of individuals’ capability of achieving the kind of lives they have reason to value. On Sen’s view on welfare economics and inequality, see A. Sen, Welfare Economics and Inequality, in *Inequality Reexamined* (OUP, 1995), 88.

of the population, which could constitute an argument in favour of taking a bolder curative action in order to level the playing field.

1. Capabilities, Functionings and Inequality

With the exclusion of cardinal utility from the mainstream approach in welfare economics, and the general bias of utilitarianism against rights, inequality was considered as a secondary, or even external, concern, the focus of welfare economics being on the policies and practices increasing the size of the pie, rather than on the allocation of the pie to the poorer members of the society. According to the Kaldor-Hicks economic efficiency approach, a policy entailing losses to the poorest members of the society could be justified if it provided sufficiently large gains to the richest members of the society, so that the latter could hypothetically compensate the former. The dominant approach in welfare economics was however subject to criticism by legal philosophers who were increasingly interested in economic efficiency as the law and economics movement expanded its influence in the legal sphere, but also by economists attached to the idea of equity and to the existence of rights by virtue of being human. These authors diverge from the utilitarian approach and the “sum-ranking” of individual utilities, that of incomes, or any other criterion of economic status, that characterize it¹⁷⁰, as they underscore the individual freedom of each human being to live the kind of life she/he have reason to value.

The work of Amartya Sen and its capabilities or functionings approach has been particularly influential in this regard¹⁷¹. Sen focused on well-being, rather than utility/welfare, the former being a broader concept, at least in the way it has been defined by mainstream welfare economics. Sen’s approach aims to incorporate in the definition of well-being human diversity in terms of each person’s maximum potential. According to Sen, “the evaluation of inequality has to take note of both the plurality of spaces in which inequality can be assessed, and the diversity of individuals”¹⁷². This diversity was something overlooked by traditional welfare economics, which “has tended to take everyone as being exactly similar (including *inter alia* having the same maximal potentials)”¹⁷³. The “space choice” for each individual can involve “different concentrations, e.g. liberties, rights, incomes, wealth, resources, primary goods, utilities, capabilities, and so on, and the question of inequality assessment turns on the selection of the space in which equality is to be assessed”¹⁷⁴. Well-being is therefore conceptually linked to freedom. For Sen, selecting the appropriate “space choice” “depends ultimately on the motivation underlying the exercise of inequality evaluation”, as “inequality is measured for some purpose” and the choice of the “particular inequality measures in that space would have to be made in the light of that purpose”¹⁷⁵.

¹⁷⁰ A. Sen, *Inequality Reexamined* (OUP, 1995), 93.

¹⁷¹ See, more generally, A. Sen, *Commodities and Capabilities* (North Holland, 1985); A. Sen, *The Standard of Living* (Cambridge Univ. press, 1987); A. Sen, *Inequality Reexamined* (OUP, 1995); A. Sen, *Development as Freedom* (OUP, 2001).

¹⁷² A. Sen, *Inequality Reexamined* (OUP, 1995), 88.

¹⁷³ *Ibid.*, 92.

¹⁷⁴ *Ibid.*

¹⁷⁵ *Ibid.*

A possible motivation is well-being comparison (between different groups or classes of people, or different countries) in which case, for Sen, “the comparison in the functioning space may be more relevant for the analysis of well-being than in the spaces of incomes, primary goods, or resources”, to the extent that this will account better of the heterogeneity of the human beings whose well-being is to be compared¹⁷⁶. Sen’s focus is on the purpose of the enquiry, which should determine the appropriate criteria for assessing well-being, rather than on some abstract conception of utility or welfare. As he clearly explains, “(t)he argument for paying greater attention to functionings (or capabilities) in assessing inequalities of well-being (or freedom) must not be seen as an all-purpose preference for those variables”¹⁷⁷.

Sen distinguishes two possible approaches when one aims to determine the well-being of an individual. The first is to focus on the level of achievement of this individual; the second on the shortfall vis-à-vis what she could have maximally achieved¹⁷⁸. A further distinction is made between calculating a shortfall according to the maximal potential of the specific person and evaluating this assuming that the same maximal value is taken for all persons. If human diversity is to be strongly recognized, then one should accept interpersonal variations in maximal potentials. Hence, according to Sen, “equality between persons can be defined either in terms of attainments, or in terms of the shortfalls from the maximal values that each can respectively attain”¹⁷⁹. To the extent that attainment equality compares the actual level of achievement of each person, it is more concerned with “equal absolute levels of achievement (no matter what the maximal potentials are)”¹⁸⁰. Selecting one of these options clearly depends on the consideration given to human diversity, the shortfall approach accommodating more human diversity, and the specific circumstances of a person. However, Sen accepts Rawls’ maximin logic and believes that a policy of attainment equality, with the aim to make the worst off as well off as possible, “certainly provides reason enough to take seriously the claims of attainment equality even when the maximal achievements are quite diverse”¹⁸¹. Sen notes that attainment equality may be in tension with economic efficiency, yet he recognizes that even in a “mixed framework”, where both equality and efficiency concerns are relevant, attainment equality may still be feasible, even if this may not be fully attained¹⁸².

The concept of “functioning” is quite central in the approach. “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. Hence, the term has a neutral connotation, its goodness or badness derives from the specific context and/or normative theory. 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.

¹⁷⁶ Ibid., 89.

¹⁷⁷ Ibid.

¹⁷⁸ Ibid.

¹⁷⁹ Ibid., 90.

¹⁸⁰ Ibid.

¹⁸¹ Ibid., 92.

¹⁸² Ibid., 93.

Capabilities constitute a person's real freedoms or opportunities to achieve these specific functionings. These “functionings” and “capabilities” provide an excellent metric for most kinds of interpersonal evaluations, capabilities enabling interpersonal comparisons of the freedom to pursue well-being, while “functionings” may operate as metrics for an interpersonal comparison of well-being, to the extent that they are constitutive of a person's being¹⁸³. For Sen, recognizing the “fundamental fact of human diversity” has far-reaching implications, as it requires to move away from the sole emphasis on “income space”, to the “constitutive elements” of well-being and of freedom¹⁸⁴. The evaluation of inequality should also reflect this profound transformation. Hence, 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)”¹⁸⁵.

Focusing on the promotion of capabilities, rather than on providing resources or assistance to functionings directly, leaves an important space to be occupied by individual choice, which seems at first sight compatible with the logic of markets and competition law. Although certainly intellectually appealing, this approach presents several difficulties, the first of which is to determine the capabilities that count for the analysis. One may think that there could be some philosophical disagreement over the content of the list of objective capabilities. Nussbaum suggests a number of possible capabilities, while Sen leaves this decision to the democratic process¹⁸⁶. Some recent work advocates a multi-dimensional view of the objective-list approach and identifies a number of dimensions of well-being, including material living standards (income, consumption and wealth), health, education, personal activities including work, political voice and governance, social connections and relationships, environment (present and future conditions) and insecurity of an economic or physical nature¹⁸⁷. Although it is clear that wealth is only one factor among the many determining well-being, the incorporation of this approach in competition law adjudication will 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.

The approach also appears at odds with the idea inspiring modern (but non-behavioural) welfare economics, that there is a linkage between “preference” and “choice”, preferences representing comparative evaluations on a marketplace (choice). More fundamentally, objective list theories reject the subjectivist claim that what count for welfare is the person’s attitude and in particular the fact that it gets what it wants (a desire theory of welfare). The decision procedures required for the implementation of such an approach are

¹⁸³ Ibid., 92.

¹⁸⁴ Ibid., 101.

¹⁸⁵ Ibid., 95.

¹⁸⁶ See, M. Nussbaum, *Creating Capabilities: The Human Development Approach*, (Harvard University Press, 2001). For Sen, well-being depends on the agent using these capabilities, while for Nussbaum this is not essential, her point being that there is cross-cultural agreement enabling us to form an objective list. Being well-nourished is of course an essential component of well-being, in particular ensuring bodily health (see the list in M. Nussbaum, pp. 416-418).

¹⁸⁷ See, J. Stiglitz, A. Sen & J.P. Fitoussi, Report by the Commission on the Measurement of Economic Performance and Social Progress (Report to the President of France N. Sarkozy, 2009).. This led the OECD to establish a High-Level group on the measurement of economic performance and social progress: <https://www.oecd.org/statistics/measuring-economic-social-progress/aboutthehigh-levelexpertgroup.htm>

also 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 (as opposed to aggregate welfare) up to a threshold level¹⁸⁸. Quantitative balancing could face the incommensurability problem, in case there is no ready-made cardinal unit of measure representing the value of both capabilities. One may also add the problem of incomparability, which is even more crucial than that of incommensurability, and relates to the impossibility of two capabilities to stand in an evaluative relation, that is one being better than, worse than, or equally as good as the other.

2. Equality of Opportunity

One may be dissatisfied with Rawls’ emphasis on primary goods, instead of individual preferences, and for the lack in his theory of more space for personal responsibility, in the sense that in the original position everyone is assumed to be exceedingly risk-averse. Some approaches go therefore further than Rawls in requiring further information than final welfare outcomes in order to make a judgment as to the legitimacy of inequalities of outcomes. The idea behind this literature is that a certain degree of individual responsibility should be incorporated in the analysis of inequality (responsibility-sensitive egalitarianism). These authors therefore do not focus on equality of social outcomes (resources), but on equality of opportunity. The latter concept is interpreted as equality in the choice sets of all the outcomes an individual agent can reach given her/his “will”. This concept is defined as englobing all factors within the individual agent’s control for which the individual agent can be deemed morally responsible¹⁸⁹.

There are various strands in this literature, some emanating from work in philosophy, while others from work in social theory and economics. I will not provide a detailed analysis of these works here, but will just aim to explain how this approach differs from welfare egalitarianism. I think that the crucial element is that this approach makes a distinction

¹⁸⁸ For an analysis of how these various capabilities may be balanced in the context of a competition law assessment, see R. Claassen & A. 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>. Claassen and Gerbrandy discuss various alternatives to the 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, (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 and, (iii) their preferred capability approach, which is a non-welfarist standard.

¹⁸⁹ “Will” is therefore distinguished from “talent”, the latter concept including all factors that are outside the individual agent’s control: M. Fleurbaey, ‘Equal Opportunity or Equal Social Outcome?’, (1995) 11 Economics and Philosophy 25, 26 (arguing for a “factor selective” egalitarianism that would not aim to compensate for inequalities of social outcomes due to factors that are within the individual agent’s control and for which he/she is morally responsible. He notes that “factor selective” egalitarianism aims to “neutralize the effect of certain variables on the individual outcomes, in order to make these outcomes reflect other variables only”, without necessarily rigorously implying any mention of responsibility or choice, although responsibility may offer a useful criterion in order to make a cut and distinguish the relevant factors (Ibid., 30).

between legitimate inequalities and illegitimate inequalities. Equality of opportunity focuses on the fact that “each (agent) faces an array of options that is equivalent to any other (agent’s) in terms of the prospects for preference satisfaction it offers”¹⁹⁰. However, authors adopting the principle of equality of opportunity accept that inequalities of social outcome (be these welfare, advantage or functionings) may sometimes be justified and that people, or firms in our context, should be held responsible for their failings. The reason is that curing these failings, for instance through state curative action against inequalities of welfare, will impose burdens to society (e.g. by taxing efficient individuals or companies), leading to worsen everybody’s prospects. Hence, responsibility-sensitive egalitarianism relies on two principles: “a compensation principle saying that inequalities not due to responsibility should be eliminated and the [liberal] ‘reward’ principle saying that inequalities due to responsibility should be left untouched”¹⁹¹.

The main point of this literature is that inequality of social outcomes should be cured when it is the product of luck¹⁹². A further distinction separates the members of the group with regard to the variables someone should be held responsible for. Some hold that people should be responsible for their preferences, when these are the product of a personal choice (“option luck”), rather than resulting from “brute luck”¹⁹³. Hence, justice will require the correction of all situations where inequalities of welfare are explained by brute luck, but not when these differential effects, in terms of welfare, are explained by option luck¹⁹⁴. Some authors make a distinction between circumstances that are attributes of a person’s environment for which he should not be held responsible, and efforts, which is the choice variable for which he should be held responsible¹⁹⁵. Others argue that individual agents should be responsible only for what they control, and hence, not held responsible for

¹⁹⁰ R.J. Arneson, ‘Equality and equal opportunity for welfare’, (1989) 56 *Philosophical Studies*, 77, 85-86 (also noting: “Equal opportunity for welfare obtains among persons when all of them face equivalent decision trees - the expected value of each person’s best (= most prudent) choice of options, second-best ... n-best is the same”). The same author nevertheless recognizes that this criterion is incomplete, the idea being that individual agents must be able to “attain identical welfare levels with the same effort”. *Ibid.*, 84. He explains (*Ibid.*, 86):

“People might face an equivalent array of options, as above, yet differ in their awareness of these options, their ability to choose reasonably among them, and the strength of character that enables a person to persist in carrying out a chosen option. Further conditions are needed. We can summarize these conditions by stipulating that a number of persons face effectively equivalent options just in case one of the following is true: (1) the options are equivalent and the persons are on a par in their ability to ‘negotiate’ these options, or (2) the options are nonequivalent in such a way as to counterbalance exactly any inequalities in people’s negotiating abilities, or (3) the options are equivalent and any inequalities in people’s negotiating abilities are due to causes for which it is proper to hold the individuals themselves personally responsible. Equal opportunity for welfare obtains when all persons face effectively equivalent arrays of options”.

¹⁹¹ M. Fleurbaey, *Fairness, Responsibility and Welfare* (OUP, 2008), 7 (later questioning the “liberal” principle of compensation and arguing for equal autonomy giving a less prominent role to the principle of responsibility).

¹⁹² This is why these approaches have been characterised as “luck egalitarianism”: E. Anderson, ‘What is the point of Equality?’, (1999) 109 *Ethics* 287.

¹⁹³ The distinction is made by R. Dworkin, *Sovereign Virtue* (Harvard Univ. press, 2000), 73. “Option luck is a matter of how deliberate and calculated gambles turn out—whether someone gains or loses through accepting an isolated risk he or she should have anticipated and might have declined”, while brute luck is “a matter of how risks fall out that are not in that sense deliberate gambles”.

¹⁹⁴ See, for instance, R. Dworkin, *Sovereign Virtue* (Harvard Univ. press, 2000), 74, according to whom, “[...] people should pay the price of the life they have decided to lead, measured in what others give up in order that they can do so”.

¹⁹⁵ J.E. Roemer, *Equality of Opportunity* (Harvard Univ. press, 1998).

circumstances that are beyond their control, this including, at least some situations of option luck¹⁹⁶. Indeed, individual agents should be at least entitled to a minimum of welfare, even if they are responsible for their misfortunes, in particular if entering into the risky activity may be essential for their flourishing¹⁹⁷.

With regard to the first category (luck), Dworkin argues for an equality of resources, that would take into account not just wealth and income, but all possible assets that may be converted to welfare, such as resources relating to the biological constitution of an individual, such as talent or genes¹⁹⁸. His theoretical framework relies on a thought experiment of an insurance market, carried out behind the veil of ignorance at the original position, each soul being allocated an equal amount of currency when participating to the social lottery in which resource endowments are allocated to souls¹⁹⁹. With this hypothetical experiment Dworkin is able to dispense Rawls's assumption of strong risk aversion, as the insurance market mechanism aims to hold people responsible for their risk preferences.

Other authors abandon the thought-experiment conducted under the veil of ignorance, and address the circumstances that may lead to an unequal "access to advantage", where "advantage is understood to include, but to be wider than, welfare"²⁰⁰, or an unequal "access to opportunities for welfare"²⁰¹. Theoretically, this could justify the effort to cure only the impact of factors that a person is deemed to be responsible for, taking into account the person's specific circumstances, or in other words, the unfavourable objective circumstances of the group of people to which this person belongs to. The aim will be to take into account inequalities due to important differences of socio-economic background, to the extent that resource availability may influence preferences. However, assume that someone has, due to her/his upbringing, developed preferences for expensive tastes. Would a reduction of her/his welfare be compensated under this theory? By focusing on "equal access to advantage" the theory postulates that each individual's action should take into account the principle of maximin, thus dealing with the issue of expensive tastes²⁰².

The source of inequality also matters, as inequality of outcomes resulting from income, wealth, race, gender etc. may be considered illegitimate. But should we eliminate differential rewards based on the talent or desert of the individual? Should accepting unequal rewards for people with different amounts of 'human capital' be considered in a similar way

¹⁹⁶ S. Segall, 'In Solidarity with the Imprudent: A Defence of Luck-Egalitarianism', (2007) 33 *Social Theory & Practice* 177.

¹⁹⁷ See also, G.A. Cohen, *On the Currency of Egalitarian Justice and Other Essays in Political Philosophy* (Princeton Univ. press, 2011).

¹⁹⁸ R. Dworkin, *Sovereign Virtue* (Harvard Univ. press, 2000), 92; R. Dworkin, 'Equality, Luck and Hierarchy', (2003) 31 *Philosophy and Public Affairs* 190

¹⁹⁹ R. Dworkin, *Sovereign Virtue* (Harvard Univ. press, 2000), 91-92.

²⁰⁰ G.A. Cohen, 'On the currency of egalitarian justice', (1989) 99 *Ethics* 906, 907.

²⁰¹ R.A. Arneson, 'Equality and equal opportunity for welfare', (1989) 56(1) *Philosophical Studies* 77. Arneson defines welfare as preference satisfaction. "The more an individual's preferences are satisfied, as weighted by their importance to that very individual, the higher her welfare". According to him, equality of welfare is a "poor ideal": "Individuals can arrive at different welfare levels due to choices they make for which they alone should be held responsible". Hence, he considers that equal opportunity for welfare is "the appropriate norm of distributive equality".

²⁰² J.E. Roemer, *Equality of Opportunity* (Harvard Univ. press, 1998), 15, "My equal-opportunity rule is to distribute resources in that way which equalizes (more precisely, maximins) outcomes for all those at the same centile of their type distributions of effort".

as accepting unequal rewards for people with superior innate aptitudes for particular tasks? One may argue that providing equal rewards to people with aptitude, than to those without, may affect the incentives of the first group to develop their talents for the benefit of society. What if acquiring human capital requires some effort from the specific individual (e.g. an effort to develop talent through time-consuming practice), and cannot thus be exclusively linked to circumstances beyond her control? These are of course difficult questions that are still debated in philosophy and social theory showing the complexities of implementing equality of opportunity enhancing policies²⁰³.

John Roemer's approach on equality of opportunities offers a possible direction, as he does not focus on the equality of opportunities of specific individual agents, but on the equality of opportunity of different *categories/types* of individuals/units of analysis²⁰⁴. To give a competition law related example, for instance, one may distinguish between firms established in developed nations and firms established in developing nations, or large firms and small medium sized firms, or rich and poor consumers, as different types/categories of individual agents. Should the outcomes in terms of welfare (for individuals) and of market power and profits (for firms) be judged unequal, one should aim, according to this theory, not to reward/cure the inequalities between the individuals/firms of the same category/group, but only those resulting for the unfavourable objective circumstances which led to this differential of outcomes. Hence, inequalities between the individuals of the same kind are acceptable, as these depend, for instance, on the degree of effort put by each individual in the specific category. Within a given type, a differential in outcomes across individuals with the same circumstances is acceptable, to the extent that their degree of effort may enable the decision-maker to proceed to a ranking of an individual in the effort distribution in the specific type.

However, it should be possible to cure inequalities between individuals of different types, as, in view of the differential in their objective circumstances, their level of effort may lead to different results. According to Roemer, "individuals should be held accountable for their degrees of effort but not their levels of effort"²⁰⁵. The underlying criterion of desert, for opportunity enhancing policies to compensate people for their disadvantageous circumstances, is therefore contextualised by taking into account the objective circumstances in which the action of this individual is embedded. This is how one may understand the focus on the degree of effort of the individual/firm, in comparison to the other individuals/firms of the same type. For instance, prohibiting a dominant undertaking enjoying a large installed base of consumers to adopt a specific business practice, while not doing the same thing for a

²⁰³ See, for instance, F. Cunha & J.J. Heckman, 'The Economics and Psychology of Inequality and Human Development', (2009) 7(2-3) *Journal of the European Economic Association* 320 (noting how inequalities in family environments and investments in children are substantial and may causally affect the development of capabilities); J. Currie & D. Almond, Human capital development before age five, (2011) 4B *Handbook of Labor Economics* 1315 (noting the important role of child and family characteristics until age five for the future development of the child).

²⁰⁴ J.E. Roemer, *Equality of Opportunity* (Harvard Univ. press, 1998); J. E. Roemer & A. Trannoy, Equality of Opportunity, Chapter 4 in *Handbook of Income Distribution* (Volume 2A, Elsevier, 2013), 217, 218. On inequality of opportunity, see also the work of F. Bourguignon, F. Ferreira & M. Walton, Equity, 'Efficiency and Inequality Traps: A Research Agenda', (2007) 5 *Journal of Economic Inequality* 235.

²⁰⁵ J.E. Roemer, *Equality of Opportunity* (Harvard Univ. press, 1998), 18.

small and medium undertaking makes sense, if the aim of the law is to enhance the equality of opportunity of the small undertaking, in view of the fact that these undertakings are facing a significantly higher burden, because of their different objective circumstances (market shares and a large installed base of consumers), and whichever is the intensity of their competitive efforts, or their efficiency and merit, they will not be able to compete effectively for the benefit of consumers and the public at large. One may therefore understand competition on the merits as a way to promote equality of opportunity²⁰⁶.

This approach raises questions as what is meant by “effort” and how different “types” of individual are defined. Roemer considers that “autonomously taken effort” should be taken into account²⁰⁷, thus not integrating in his analysis efforts that are conditioned by the participation of the individual to the specific “type”, to the extent that preferences (here for hard work) may be determined by resources. Some have even proceeded by putting forward the principle of effective freedom, understood as the power to choose from a wide range of opportunities, which serves, instead of welfare, as a normative criterion, freedom being realised through a fair distribution of “opportunities to achieve whatever outcomes (people) may care about”²⁰⁸. The ultimate aim here is to pursue equality without undermining personal responsibility.

The equality of opportunity approach may, however, run into informational problems, as in comparison with the principle of equality of social outcomes (which can be more easily observed) equality of opportunity (or any other “factor-selective egalitarianism”) would require information on a number of possible causal factors, some of which may not be easily observable²⁰⁹. One may not also expect that all people/firms would have equal capabilities to proceed to the choice of opportunities they will take up (the bad choosers problem), and to take full advantage of their freedom of choice, hence equalization of opportunities will not necessarily mean equalization of outcomes. Hence, one cannot avoid some degree of inequality of outcomes. Some criticize that it will be unfair for bad choosers to seek equality only in the domain of freedom, in view of the unequal distribution of the ability to make good choices, freedom being viewed not as an aim in itself but as the means to allow the individual agent to “lead the kind of life that she has reason to value”²¹⁰. This assumes that there is some broader conception about the nature of welfare or well-being in this case, and that we should be ready to undo the consequences of people’s bad choices.

Problems in decision-making and more generally the issue of “bad choosers” have been thoroughly examined by behavioural economics, which may provide important insights as to the way economists engage with the issue of inequality. Although one may consider that

²⁰⁶ This approach may explain the recent focus of competition authorities in Europe on leveraging practices, with the aim to ensure the “equality of opportunity” of economic operators (see, European Commission, Case AT 39.740 – Google Search, paras 332 & 334), as well as recent ideas to regulate from a fairness perspective platform to business relations (see, Inception Impact Assessment, Fairness in Platform to Business Relation, Ares(2017)5222469, available at https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5222469_en).

²⁰⁷ J.E. Roemer, *Equality of Opportunity* (Harvard Univ. press, 1998), 22.

²⁰⁸ R. Arneson, Real Freedom and Distributive Justice in F. Laslier, M. Fleurbaey, N. Gravel, A. Trannoy (eds.), *Freedom in Economics: New Perspectives in Normative Analysis* (Routledge, 1998), 165, 199.

²⁰⁹ M. Fleurbaey, ‘Equal Opportunity or Equal Social Outcome?’, (1995) 11 *Economics and Philosophy* 25, 52.

²¹⁰ R. Arneson, Real Freedom and Distributive Justice in F. Laslier, M. Fleurbaey, N. Gravel, A. Trannoy (eds.), *Freedom in Economics: New Perspectives in Normative Analysis* (Routledge, 1998), 165, 182.

when bad choosers are firms, there should be no curative action adopted, as this would unduly interfere with the prevalence of the free markets principle, unless one of the firms enjoys superior bargaining power, a different perspective may be taken if bad choosers are final consumers, should there be a significant informational asymmetry between them and businesses.

3. Behavioural economics, prospect theory and inequality

Following the footprints of Herbert Simon, a new shift took place in the late 1970s with the work of psychologists Daniel Kahneman and Amos Tversky, who attracted greater attention to psychology in contemporary economic theory²¹¹. The psychological trend, that transpires in many recent economic movements, such as behavioural law and economics, experimental economics and neuro-economics, transforms economics to a sort of cognitive science, where economic behaviour is reconceived on the basis of “psychological facts” discovered with the method of experimental introspection. The psychological experiments showed that individuals discount hyperbolically, as some consequences of choice (rewards) are delayed and individuals prefer rewards that arrive sooner rather than later, thus discounting the value of later rewards. They have also demonstrated that the same individual may have inconsistent inter-temporal choices, as an individual may express a preference for option A instead of B, but after a lapse of time prefer B instead of A.

More importantly, Kahneman’s and Tversky’s research showed that human behaviour may be described as the outcome of two different cognitive systems/processes of choice, which inhabit every individual²¹². Decisions are reached through intuition, emotional and affective elements playing an important role in decision-making, which relies on heuristics. According to Kahneman, “people rely on a limited number of heuristic principles which reduce the complex tasks of assessing probabilities and predicting values to simpler judgmental operations”²¹³. Tversky and Kahneman also advanced a theory explaining decision-making under conditions of risk, as well as uncertainty, in the name of prospect theory. They argued that most people violate all the axioms of expected utility theory and that prospect theory provides a different account and a more accurate prediction, of how people really behave²¹⁴.

Richard Thaler applied this learning in consumer choice theory and suggested that the neoclassical price theory of consumer behaviour, which was based on a rational maximizing model describing both how consumers should choose, but also how they do choose, may make systematic errors in predicting behaviour as consumers act in a manner that is inconsistent with the theory. From a legal perspective, the quasi-rationality framework and the new positive theory of consumer behaviour proposed by Thaler has far-reaching

²¹¹ For an overview see, D. Kahneman, ‘A Psychological Perspective on Economics’, (2003) 93 American Economic Review 162.

²¹² D. Kahneman, *Thinking, Fast and Slow* (Allen Lane, 2011).

²¹³ A. Tversky and D. Kahneman, Judgment under Uncertainty: Heuristics and Biases, (1974) 185 (4157) Science, New Series, 1124.

²¹⁴ D. Kahneman and A. Tversky, ‘Prospect Theory: An Analysis of Decision under Risk’, (1979) 47(2) Econometrica, 263 & A. Tversky & D. Kahneman, ‘Advances in prospect theory: cumulative representation of uncertainty’, (1992) 5(4) Journal of Risk and Uncertainty 297 (advancing “cumulative prospect theory”).

implications, as it identifies a new form of “market failure”, this time not due to externalities, which identify imperfections of the price system because of a divergence between private (to the parties of a transaction) and public benefits and costs, but due to internalities, that is situations in which people do not internalise all consequences of their actions on themselves because of bounded rationality²¹⁵.

There are different ways in which behavioural economics’ research may be relevant in our context.

First, one may apply prospect theory in analysing the claim for equality from a welfare or utilitarian framework. The approach may lead to different results than the approach followed by Harsanyi, which relied on subjective expected utility theory (EUT).

Prospect theory constitutes a “descriptive theory of choice that strives to explain actual human behaviour not just for risk, but also for uncertainty and ambiguity”²¹⁶. Its main contribution to the conceptualization of human behaviour, in comparison to EUT, is its emphasis on reference point dependence, the idea that “humans derive utility from changes in outcomes relative to some reference outcome [point]; if the outcome is equal to or greater than the reference outcome it is in the domain of gains, otherwise it is in the domain of losses”²¹⁷.

Under prospect theory it is not the absolute levels of wealth or income that matter in order to measure utility, but deviations of actual wealth or income levels from a *reference point*. If an outcome turns out to be worse (or better) than this reference point, then the decision maker is considered to be in the domain of losses (or gains). This reference dependence indicates that people are more attuned to changes in attributes rather than in their absolute magnitudes²¹⁸. For instance, it was found that informal entitlements of customers or employees to the terms of reference transactions, may prevent firms from imposing new terms that may be considered unfair, with regard to the reference point of past transactions, thus providing them the incentive to frame the terms of exchange in a way that will make this change to appear as fair²¹⁹.

People's attitudes toward risks concerning gains may also be quite different from their attitudes toward risks concerning losses, losses biting more than equivalent gains²²⁰. This phenomenon is known as loss aversion. Similar findings have been made with regard to riskless choice, the so called “endowment effect”²²¹, the most common idea being that there is a gap between Willingness to Accept (WTA) and Willingness to Pay (WTP), although

²¹⁵ See also OFT1228, What does Behavioural Economics Mean for Competition Policy?, (March 2010), 10, (indicating that “behavioural biases can be viewed simply as a fourth type of market failure”, in addition to market power, asymmetries in information between consumers and firms and externalities.

²¹⁶ S. Dhami, *The Foundations of behavioural Economic Analysis* (OUP, 2016), 26.

²¹⁷ Ibid.

²¹⁸ N.C. Barberis, ‘Thirty Years of Prospect Theory in Economics: A Review and Assessment’, (2013) 27(1) *Journal of Economic Perspectives* 173, 175.

²¹⁹ D. Kahneman, J.L. Knetsch, R.H. Thaler, ‘Fairness as a Constraint on Profit Seeking: Entitlements in the Market’, (1986) 76(4) *American Economic Review* 728.

²²⁰ A. Tversky & D. Kahneman, ‘The framing of decisions and the psychology of choice’, (1981) 211(4481) *Science* 453.

²²¹ R. H. Thaler, ‘Toward a Positive Theory of Consumer Choice’, (1980) 1(1) *Journal of Economic Behavior and Organization* 39.

according to EUT there should be almost no difference between these two measures²²². Loss aversion and endowment effect imply that the minimal compensation people demand to give up a good is often several times larger than the maximum amount they are willing to pay for a commensurate entitlement²²³.

Prospect theory thus challenges two important features of EUT first, the fact that utility does not differ in the domain of gains and losses, and second, the idea that decision maker's preferences over prospects are represented by linear responses to variations in probability.

As a result of these findings, the utility function (termed value function in prospect theory), is concave in the domain of gains and convex in the domain of losses (diminishing sensitivity). People tend to be risk averse over moderate probability gains [for instance they would prefer a certain gain of €500 rather than a 50% chance of €1000], while they are risk seeking over losses [they would prefer a 50% chance of losing €1000 to the certain loss of €500]²²⁴. The value function has therefore an S-shape [see figure 1].

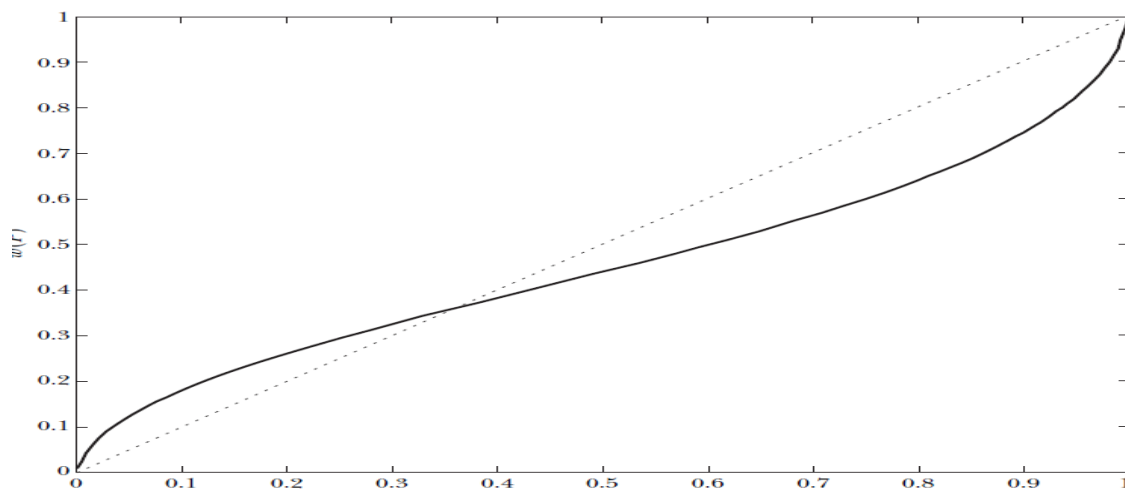


Figure 1: The prospect theory value function

The value function may also be shaped by some probability weighting function, which, as we explained above, is not linear. In contrast to EUT, people do not weight outcomes by their objective probabilities. According to prospect theory, attitudes to risk are *jointly* determined by the shapes of the probability weighting function *and* the utility (value) function. Experimental evidence shows indeed that low probabilities (e.g. extreme or unlikely events) are subjectively overweighted, while high probabilities are subjectively underweighted. Kahneman and Tversky therefore suggest that the preferences of subjects can best be modeled by a weighting function that enhances small probabilities and reduces higher

²²² N.C. Barberis, 'Thirty Years of Prospect Theory in Economics: A Review and Assessment', (2013) 27(1) Journal of Economic Perspectives 173, 186.

²²³ The loss aversion biases include endowment biases (consumers value something more once they have owned it than before they own it).

²²⁴ .C. Barberis, 'Thirty Years of Prospect Theory in Economics: A Review and Assessment', (2013) 27(1) Journal of Economic Perspectives 173,175.

probabilities. At the end points the weighting function is therefore sensitive to changes, while it is less so for changes in probability in the middle region.²²⁵

Two different phases of decision-making are also distinguished. During the *editing/framing phase of decision making*, Kahneman and Tversky observed the influence of framing effects, as choosing an option may be affected by the order or manner in which it is presented to a decision maker and choice can be affected by trivial manipulations in the construction of available options. Various options are coded as either losses or gains in relation to the reference point. The value function estimated according to the principle of diminishing sensitivity, while a different function, the *weighing* function, measures the impact of the probability of an event on the desirability of a prospect. Although Kahneman and Tversky did not explain what this reference point may be, the status quo can operate as a useful endogenous reference point. For instance, a person's entitlements, bargaining power, or historical norms may constitute possible reference points²²⁶. However, exogenous reference points may also be possible, such as a fair outcome or a new legal entitlement²²⁷. For some authors, the reference point may also be made more endogenous by referring to rational expectations of people for future wealth (targeted expected income) on the basis of "beliefs" held in the recent past about outcomes, but also on the basis of their current consumption levels, on the assumption that people derive utility from the difference between consumption and *expected* consumption²²⁸.

During the *valuation phase* in decision-making, the prospects are adjusted and fitted within the specific reference point, which, as we indicated above, may be the *status quo*. The value function of the prospect is in this case valued in terms of a deviation from the reference point. The prospect with the highest overall value constitutes the optimal choice.

Kahneman and Tversky were careful not to challenge the normative foundations of Rational Choice Theory and its axiomatic view of individual behaviour. The mainstream behavioural economics programme did not challenge the fundamental assumption of a fixed universal benchmark of full rationality as a normative criterion for making decisions, although it improved the empirical realism of economic models by describing instances in which individuals' behaviour violates the principles of full rationality.

Prospect theory may provide some interesting insights as to the definition of inequality in the social contract tradition, should one take a utilitarian perspective. This may indeed be considered as a decision under risk (in case the frequencies of different income/wealth levels are known), or uncertainty (in case they are not). One would need to consider the option in the original position that would lead to the most equitable distribution among the people considered, with regard not to some absolute value of wealth or income, but with regard to the changes in relation to some reference point. This is established, for instance, on the basis of the distribution of natural talents between them or on the basis of the

²²⁵ The two authors also developed a cumulative prospect theory where cumulative probabilities are "transformed": these do not represent wrong beliefs but decisional weights. A. Tversky & D. Kahneman, 'Advances in prospect theory: cumulative representation of uncertainty', (1992) 5(4) *Journal of Risk and Uncertainty* 297.

²²⁶ S. Dhami, *The Foundations of behavioural Economic Analysis* (OUP, 2016), 30.

²²⁷ *Ibid.*, 130.

²²⁸ See, B. Köszegi & M. Rabin, 'Reference-Dependent Consumption Plans', (2009) 99(3) *American Economic Review* 909.

rational expectation for wealth/income/resources that someone may expect from these natural talents, for each specific type of economic organization (different types of natural talent may be fostered in a capitalist system as opposed to a forager/hunter-gatherer society). Losses from this reference/anchoring point will carry more disutility than gains carry utility. One should also overweight probabilities of large gains and losses compared to probabilities of small gains and losses.

According to authors that have applied prospect theory in the context of the original position experiment in devising an optimal social contract and in evaluating social welfare, determining if inequality is desirable “depends on the exact parameterization of prospect theory”. They have found that “prospect theory decision makers are in general *more* inequality averse than an expected utility decision maker”, but they also contend that inequality is socially desirable when it comes to an income distribution characterized by few superstars having very high income and many individuals having low income.²²⁹ It is also possible to use reference dependence and the diminishing sensitivity principle when assessing, from a welfare perspective, the levels of inequality of opportunity, by, for instance, assessing more negatively (policy) changes that lead to a loss of equality of opportunity even if these same changes could lead to higher welfare (wealth or income) for some.

Second, one may integrate the learning of behavioural economics in developing welfare criteria. The idea is that revealed preference theory, prevalent in conventional welfare economics, cannot be used as a basis for welfare analysis because rationality cannot reasonably be assumed, preferences may also be reversed, and people in real life may have conflicting motivations to act, to the extent that their preferences may not always be consistent. Hence, one cannot interpret individual choice behaviour as seeking the maximization of well-defined preferences. Observed choices cannot provide adequate information on the considered judgment of a person about her/his welfare. It is also important to go beyond the sole criterion of Pareto improvements, and the ethically contestable Kaldor-Hicks criterion of economic efficiency, by developing a concept of interpersonal comparable well-being that will be ethically attractive²³⁰.

Behavioural economics questions the assumption of revealed preferences. One may distinguish between revealed preferences by choice, which might not be good indicators of individual well-being, and “authentic” or “core” preferences that a behaviourally-informed analysis will aim to uncover²³¹. However, consumers do not make decisions in isolation, in order to satisfy a given order of preferences. They also embedded in social environments, which inevitably influence, one might even say “construct”, their preferences²³². Preferences are also influenced by social roles, and more broadly social norms, which vary across cultures and contexts. Preferences may even follow choice, instead of guiding it, the order of preferences aiming mainly to rationalize/justify actions after the fact.

²²⁹ C.Y Liang, ‘Optimal inequality behind the veil of ignorance’, (2017) 83 Theory Decision 431.

²³⁰ M. Fleurbaey & E. Schokkaert, Behavioral ‘Welfare Economics and Redistribution’, (2013) 5(3) American Economic Journal: Microeconomics 180.

²³¹ “Authentic” preferences have been defined as “preferences that would be revealed, under ‘perfect’ (or sufficiently good) circumstances, by well-informed individuals who consider all the relevant aspects of life and are not misled by cues of the environment”: M. Fleurbaey & E. Schokkaert, ‘Behavioral Welfare Economics and Redistribution’, (2013) 5(3) American Economic Journal: Microeconomics 180.

²³² S. Lichtenstein & P. Slovic (eds.), *The Construction of Preference* (CUP, 2006).

One could therefore challenge the existence of “authentic”, extant preferences, which competition law should be deemed to protect, but which can also be considered as previously-constructed preferences that may have “stabilized over time, with repeated exposure to sufficiently similar stimuli, so that now they are retrieved from memory rather than constructed ad-hoc when consumers face a similar (even if not identical) choice”²³³. One may also doubt if individuals “have a complete preference relation over all possible lives”, to the extent “that this would imply that they can order states with which they are not at all familiar”²³⁴. Hence, as Avishalom Tor notes, “(t)o form even a single final product preference [...] consumers must engage in myriad of complex processes of translating more abstract attributes and then integrating them or trading them off-against one another”²³⁵. This choice construction may partly depend on consumer’s more abstract values, but also partly on the context of the specific choice and the options to be evaluated²³⁶.

There are different options here. One possibility may be to recognize that we do not dispose of better instruments to evaluate well-being, sticking to the idea that consumer choice may at least be considered as a “meaningful-if-imperfect” welfare proxy and a reliable measure of welfare²³⁷. According to a different approach, the assumption that choice indicates ordinal preferences may be relaxed in order to include in the analysis the consideration of the psychological states of individuals when exercising their choice, or experience utility, as opposed to decision utility. This will move beyond ordinal preference information, and will opt for an approach that would measure individual subjective welfare or happiness²³⁸. Approaches on the basis of subjective utility have been subject to criticism, in particular as it remains even more difficult to proceed to intra-personal comparisons at different dates, let alone inter-personal comparisons, in view of the fact that standards of individual evaluation evolve with the situation²³⁹.

Finally, another approach would be to stick to preferences but base interpersonal comparisons of well-being only on information about “ordinal ‘non comparable’ preferences”²⁴⁰. For instance, a possibility would be to rely on the concept of equivalent income, by integrating in the evaluation of well-being individual preferences (or better profiles of preferences), determined on the basis of broader information, and give some

²³³ D. Hausman, *Preference, Value, Choice and Welfare* (CUP, 2012) 27.

²³⁴ M. Fleurbaey & E. Schokkaert, ‘Behavioral Welfare Economics and Redistribution’, (2013) 5(3) *American Economic Journal: Microeconomics* 180.

²³⁵ A. Tor, *Justifying Antitrust: Prediction, Efficiency, and Welfare* (2016), available at the SSRN <http://ssrn.com/abstract=2730670>, 73.

²³⁶ The arguments criticizing reliance on preferences as indicators of welfare have been older than the behavioural economics challenge. See, for instance, A. Lerner, *The Economics and Politics of Consumer Sovereignty*, (1972) 62(1) *American Economic Review* 258, “(I) confess I still find a similar rising of my hackles when I hear people’s preferences dismissed as not genuine, because influenced or even created by advertising, and somebody else telling them what they ‘really want’. In a rich society like ours, only a very tiny part of what people want is determined by their physical and chemical makeup. Almost all needs and desires are built on observation and imitation”.

²³⁷ A. Tor, *Justifying Antitrust: Prediction, Efficiency, and Welfare* (2016), available at the SSRN <http://ssrn.com/abstract=2730670>, 74.

²³⁸ See, for instance, B. Köszegi, & M. Rabin, ‘Choices, situations, and happiness’, (2008) 92 *Journal of Public Economics* 1821; R. Layard, *Happiness: lessons from a new science* (Allan Lane, 2005).

²³⁹ See, the criticisms by M. Fleurbaey & E. Schokkaert, ‘Behavioral Welfare Economics and Redistribution’, (2013) 5(3) *American Economic Journal: Microeconomics* 180.

²⁴⁰ M. Fleurbaey & F. Maniquet, *A theory of fairness and social welfare* (CUP, 2011).

priority to the worst or worse of (by looking for instance to social endowments)²⁴¹. Behavioural-welfare criteria, such as “choice-based welfare”, may be employed in this case,.

Contrary to the conventional welfare criteria of revealed preferences, which specify the preferences “revealed” by the choice and then derive a choice function from them, “choice-based welfare” analysis does the opposite: it starts with a choice function and then derives implications for preferences²⁴². The approach takes into account context-dependence by integrating in the analysis of individual preferences generalized choice situations that take into account the possibility of “behavioural anomalies”²⁴³. Information on individual preferences in different generalized choice situations, as well as information on the relevant context or frame, leads to the development of a structural model of behaviour that aims to explain how preferences together with frames determine choice. This structural model is then used in order “to derive a preference relation that is consistent with observed behaviour conditional on the model used”²⁴⁴. One could at this stage integrate distributional considerations in the evaluation of welfare. Indeed, as explained below, aversion to inequality is a consistent feature of behavioural law and economics’ learning. People show that they prefer fairness and reciprocity over inequality and pursuing one’s own self-interest²⁴⁵. It is not only monetary incentives that count, but also people’s perception of self, in other words, their social identity²⁴⁶. This should lead to the development of appropriate operational standards integrating equality for curative action against all sorts of market failure, internalities and externalities.

Third, behavioural economics attempts to draw a map of bounded rationality, by exploring the systematic biases that people show in their day-to-day behaviour in relation to choices a fully rational agent would have made in similar circumstances. For instance, people may make choices that could satisfy their immediate (hot) preferences (e.g. smoking a cigarette), which they would have changed had they behaved as if they were fully rational agents (cold preferences). This extends the type of “market failures” that may be considered in order to give rise to some form of curative action, eventually competition law intervention.

Decisions in risky, uncertain or ambiguous situations are often influenced by anticipatory feelings and emotions experienced in the moment of decision-making²⁴⁷. Humans are also averse to change and exhibit a status quo bias, the formation of a habit making it difficult to disengage, unless the incentive to do so is strong. This may indicate that higher prices may not be enough for consumers’ to switch their existing suppliers,

²⁴¹ Ibid. One could base itself on leximin or maximin approaches.

²⁴² See, the analysis in S. Dhami, *The Foundations of behavioural Economic Analysis* (OUP, 2016), seq. 1611. See also, D. Bernheim & A. Rangel, ‘Beyond revealed preference: choice theoretic foundations for behavioral welfare economics’, (2009) 124(1) *Quarterly Journal of Economics* 51.

²⁴³ M. Fleurbaey & E. Schokkaert, ‘Behavioral Welfare Economics and Redistribution’, (2013) 5(3) *American Economic Journal: Microeconomics* 180

²⁴⁴ Ibid.

²⁴⁵ E. Fehr & S. Gächter, ‘Fairness and Retaliation: The economics of reciprocity’, (2000) 14 *Journal of Economic Perspectives* 159.

²⁴⁶ G. Akerlof & R. Kranton, *Identity Economics* (Princeton University Press, 2010).

²⁴⁷ The risk as feelings model of decision-making: G. Loewenstein, ‘Emotions in economic theory and economic behaviour’, (2000) 90(2) *The American Economic Review* 426. G. Loewenstein, E.U. Weber, C.K. Hsee, N. Welch, ‘Risk as feelings’, (2001) 127(2) *Psychological Bulletin* 267.

procrastination and inertia eventually limiting their ability to exercise an active choice²⁴⁸. Of particular interest is also the fact that human beings often attach more importance to present events than future events, discounting future benefits for actual benefits. Thus discounting is non-linear and its rate may vary over time. Time inconsistency bias may also manifest itself by the impossibility to predict accurately our preferences in the future²⁴⁹. As we have also previously explained, preferences are context-dependent, the framing of the choice exercising an important influence over the decision of consumers²⁵⁰.

Behavioural economics (BE) tends to argue for some limited State intervention in order to re-set the choice architecture in a way that will be compatible with the “cold” preferences of economic agents. Such state intervention relies on asymmetric paternalism (also called libertarian paternalism²⁵¹), that is, the idea of framing options in a way so as to promote the individual’s freedom of choice, by “creating large benefits for those who make errors, while imposing little or no harm on those who are fully rational” may satisfy the “true”, “cold” preferences of consumers²⁵². These approaches do not challenge the normative value of the rationality assumption, but acknowledge that this may not describe well the interactions between the different actors in real world situations.

An interesting concept for our discussion is the idea of protecting individuals with less capacity for “rational” decision-making, while taking care of not increasing the costs for individuals or economic actors who are less prone to “bounded rationality” problems, or more generally to heuristics and biases. To the extent that such an approach would take into account the differential capacity of individuals/economic actors in collecting and processing information and in making decisions in a rational and unbiased way, according to their extended and cold preferences, it could be considered as a form of curative action aiming to address certain unacceptable/illegitimate forms of inequality.

The question here is what would make inequality in the capability of unbounded rational decision-making illegitimate. One might indeed argue that if worthiness or desert is the criterion for the evaluation of the “fairness” of a distribution of goods/welfare, and that awarding some economic benefits depends on the degree to which individuals themselves, or their actions, meet certain standards of merit, then, depending on the prevalent conception of worthiness or desert, inequality of outcomes finding its source in unequal capabilities for unbounded rational decision-making should be considered as legitimate, if the analytical capacities of a person (a special talent), or the amount of analytical effort that person has made (prior activity) are considered as a justification for punishment or economic reward.

²⁴⁸ D. Kahneman & A. Tversky, ‘The psychology of preference’, (1982) 246 *Scientific American* 160; W. Samuelson & R.J. Zeckhauser, ‘Status quo bias in decision making’, (1988) 1 *Journal of Risk and Uncertainty*, 7.

²⁴⁹ OFT1228, What does Behavioural Economics Mean for Competition Policy?, (March 2010), 6, “The time inconsistency biases include: projection bias (consumers expect that they will feel the same tomorrow as they do today); over optimism (consumers over estimate how much they will use a good, or underestimate how much it will cost them); and hyperbolic discount biases (consumers value today disproportionately greater than tomorrow”.

²⁵⁰ D. Kahneman & A. Tversky, ‘Choices, Values and Frames’, (1984) 39(4) *American Psychologist* 341.

²⁵¹ R.H. Thaler & C. R. Sunstein, ‘Libertarian Paternalism’, (2003) 93(2) *American Economic Review* 175.

²⁵² C. Camerer., S. Issacharoff., G. Loewenstein, T. O’Donoghue & M. Rabin, ‘Regulation for Conservatives: Behavioral Economics and the Case for “Asymmetric Paternalism”’. (2003) 151(3) *University of Pennsylvania Law Review* 1211.

However, to the extent that some actors may convert capital in higher capacity for unbounded and rational decision-making, thus gaining a significant advantage vis-à-vis other economic actors, which may lead to some permanent unequal distribution of resources/benefits transferred through generations²⁵³, one may raise questions as to the legitimacy of this inequality of outcomes, to the extent that this does not emanate from the application of the criteria of desert or merit that are prevalent in this specific sphere of activity in order to justify the distribution of resources or benefits.

First, one may consider that a firm will be able to behave more rationally than an individual person consumer, even if the latter makes any possible effort to choose rationally in conformity with his “true” preferences. The standard approach to firm behaviour assumes that firms are always instrumentally rational as they pursue the single objective of profit maximization. This asymmetry of capabilities in rational decision-making between firms and consumers may justify some form of curative state action with the aim to mitigate this asymmetry and enable the consumer to choose the “right” option for them. One may nevertheless argue that consumers are not always natural persons and that in many cases suppliers sell to intermediary consumers, which are also firms, and presumably less prone to the challenge of “bounded rationality”. Furthermore, behavioural economics insights have also been applied to analyse firm behaviour, and there is ample empirical evidence that the literature on heuristics and biases may also apply in the context of natural as well as moral persons²⁵⁴.

Second, in the modern economy, such sources of inequality related to differential processing and evaluation capabilities may be quite prevalent, as a number of economic actors may be considered as holding “asymmetrical bargaining power” vis-à-vis consumers, through the collection of Big Data and the use of algorithms²⁵⁵. Some authors have even coined the term of “algorithmic power²⁵⁶” in order to convey an additional, quite important, source of power, in the sense that this is based on the “technological dependence²⁵⁷” of economic actors that work and consume in an increasingly complex computational environment, and the capability of some actors to control the “agenda” of decision-making²⁵⁸. This is for instance exemplified by control over the choice architecture framing individual

²⁵³ If one is to consider desert as an equilibrium of burdens and benefits experienced by individuals so that one truly gets what he deserves: see W. Sadurski, *Giving Desert its Due: Social Justice and Legal Theory* (Dordrecht Holland, 1985).

²⁵⁴ M. Armstrong & S. Huck, ‘Behavioral Economics as Applied to Firms: A Primer’, (2010) 6(1) Competition Policy International 3.

²⁵⁵ See, F. Pasquale, *The Black Box Society: The Secret Algorithms that Control Money and Information* (Harvard Univ. press, 2015), Chap. 2; A. Ezrachi & M. Stucke, *Virtual Competition* (Harvard Univ. press, 2016), 125-128, 225 (discussing “asymmetric bargaining power”).

²⁵⁶ See, T. Bucher, ‘Want to be on the top? Algorithmic power and the threat of invisibility on Facebook’, (2012) 14(7) New Media and Society .

²⁵⁷ See, the opinion of Advocate general Whatelet in Case C-170/13 *Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH* [2015] ECLI:EU:C:2014:2391, paras 71 & 74 who coined the term. The AG found in this case that the incorporation of a patent-protected element into the industry standard and the fact that a licence to use that patent was therefore indispensable had created a relationship of dependence between the SEP-holder and the undertakings which produce products and services in accordance with that standard. According to the AG, “(t)hat technological dependence leads to economic dependence”.

²⁵⁸ On the various definitions of “power” in economics and sociology, see M. Granovetter, *Society and Economy* (Harvard Univ. press, 2017), Chapter 4.

choice in the context of an economic transaction. These economic actors will therefore be in a position to exploit their superior “algorithmic power” and/or “manipulate” the choice and eventually the preferences of consumers²⁵⁹. Of course, a possible option for consumers would be to also turn “algorithmic” and to use Big Data in their own advantage²⁶⁰. But one may raise doubts about the effectiveness of such countervailing bargaining strategies, first in view of the difficulties of larger groups with disparate tastes and preferences to get organised (the classic collective action problem), and second, the risks that such aggregation of purchasing decisions may also raise with regard to the exercise of buying power, which in some situations may be equally damaging, as it may put small and medium sellers at disadvantage²⁶¹.

A different group of economists inspired by psychological insights took issue with the approach followed by behavioural economists. They accused them of disguising a neoclassical economics agenda, in view of their reliance on “as if arguments to justify psychological models”, and of their choice to leave unchallenged the normative ideal of rationality for individuals when making decisions²⁶². This group of scholars identifying with “experimental economics” do not consider that departures from the normative ideal of rationality result in welfare losses for individuals that need to be corrected through State intervention. They argue instead for an alternative non-axiomatic normative framework inspired by the idea of “bounded rationality”, that of “ecological rationality”, which explores the match between the process of decision-making and the environment in which it is situated, for instance by looking to which “fast and frugal” heuristic(s) are usually selected in a specific environment²⁶³. According to this view, the existence of a disconnect between an individual’s choices and its “true preferences” will not constitute a problem necessarily requiring State intervention, in some form of risk-averse “defensive decision-making”. Risk-taking, sometimes through intuitive decision-making, is essential for innovation. The possible collective action in this context will be to educate people about risk, rather than more state

²⁵⁹ See the literature on market manipulation, providing evidence that firms take advantage of the specific characteristics of consumers and manipulate their cognitive biases: J.D. Hanson & D. A. Kysar, ‘Taking Behavioralism Seriously: Some Evidence of Market Manipulation’, (1999) 112 Harvard Law Rev. 1420; R. Calo, ‘Digital Market Manipulation’, (2014) 82 The George Washington Law Rev. 995; E. Kamenica, S. Mullainathan & R. Thaler, ‘Helping Consumers Know Themselves’, (2011) 101(3) American Economic Review: Papers & Proceedings 417 (noting that “when the seller has more information about expected usage than the customer, they may try to exploit this information by targeting specific offers to specific consumers” and raising the problem of “adverse targeting”, that is the ability of sellers “to use this informational advantage to construct special offers that the consumers will overvalue”); Ph. Hacker & B. Petkova, ‘Reining in the Big Promise of Big Data: Transparency, Inequality, and New Regulatory Frontiers’, (2017) 15 Northwestern Journal of Technology and Intellectual Property (available at the SSRN).

²⁶⁰ M. S Gal & N. Elkin-Koren, ‘Algorithmic Consumers’ (2017) 30(2) Harvard Journal of Law & Technology 309 (noting that consumers outsource purchasing tasks to algorithms, thereby minimizing the direct role they play in purchasing decisions and overcoming biases “to enable more rational and sophisticated choices”).

²⁶¹ Ibid., pp. 331-334.

²⁶² N. Berg & G. Gigerenzer, ‘As-if behavioral economics: Neoclassical economics in disguise?’ (2010) 18(1) History of Economic Ideas, 133.

²⁶³ G. Gigerenzer & D.G. Goldstein, ‘Reasoning the fast and frugal way: Models of bounded rationality’, (1996) 103 Psychological Review 650; P. M. Todd & G. Gigerenzer (eds.), *Ecological Rationality: Intelligence in the World* (OUP, 2012).

interventionist approaches²⁶⁴. But could education mitigate inequalities pertaining to the differential capacity of people for learning?

This general discussion about the various dimensions of inequality, and the different theoretical frameworks on offer about what is to equalise, illustrate the complexity of integrating inequality concerns in competition law. However, it also shows that ignoring inequality could also be subject to criticism, as the various approaches followed in mainstream welfare economics also make implicit choices as to the distribution of resources. Surely, the various social arrangements promoted have impact on income inequality and the distribution of wealth in society. The mirage of separating issues of efficiency from issues of distributive justice may be one of the most important weaknesses of the economic model promoted in competition law in the last three decades, an issue that I will discuss in a subsequent Section. However, the argument against integrating inequality concerns in competition law may be more specific and modest and may relate to the availability of other, more effective and more direct, means to address such concerns, something that I will discuss in the following Section.

IV. Is Competition Law an adequate tool to deal with specific forms of inequality?

I will attempt to address this question in two parts. In the first part, I will discuss the link between economic inequality and economic power or market distortions, to the extent that competition law has always been thought of as a mechanism/tool designed to tame economic power, or as a form of soft regulatory action aimed to cure market distortions. In the absence of such link, the intervention of competition law on the basis of equity concerns would have looked unwarranted. It is important here to note that I do not take in this Section a position in favour of competition law intervention, on the sole basis of equity concerns, as I assume that in any case the specific criteria for the application of competition law require, prior to most competition law interventions, evidence of the presence of economic power, and, at least, some probability or likelihood of (an even potential) market distortion. In the second part, I will focus on the argument often made, that even if there is a link between economic inequality and market distortions, this would be better dealt through other means of, allegedly more direct, curative action by the State, such as wealth transfers effectuated through the tax system (progressive taxation) or subsidies.

A. Is there a link between economic power/market distortions and inequality?

At its simplest, the case for intervention against market power, albeit not directly, is based on an understanding that a substantial position of market power is a classic case of market failure. Market failure is a general term describing situations in which market outcomes are not Pareto efficient. Pareto efficiency, which focuses on allocative efficiency, occurs when resources are so allocated that it is not possible to make anyone better off

²⁶⁴ See, for instance, G. Gigerenzer, *Risk Savvy* (Allen Lane, 2014).

without making someone else worse off, or stated otherwise, where (scarce) resources are used to produce the mix of good and services which is most valued by society.

This is an abstract concept, which is grounded on the theoretical construct of general equilibrium, which looks at the economy in its entirety, that is, where all markets are considered together. In practice, though, the case against monopoly (as the archetypal example of market failure due to market power) is based on partial equilibrium analysis, which looks at only one market at a time, characterised by its demand and supply curves.²⁶⁵ In a nutshell, to focus on a single market rests on the assumption that the levels of income and the prices of both substitute and complement products are fixed. Otherwise, an increase in income levels would shift the demand schedule outwards²⁶⁶. By definition, this assumption does not consider the implications of a change of prices of substitute or complement products in a market on income levels, a quite heroic assumption to the extent that each market is analysed independently from others and interdependencies between prices in one market and income levels in another are not taken into account. Although the partial equilibrium model may be useful for analysing distributional consequences within the same relevant market, it ignores distributional implications in the other parts of the economy. Although from the point of view of economic efficiency, this simple summary of a complex system may be sufficient information when analysing the effects of a price change on a specific market, from the point of view of equality, it is less so, to the extent that the interest of the analysis here is to analyse the distribution of wealth among the people of a community, who by definition are active in multiple markets, as consumers, workers, shareholders etc. But this is the price to pay for the benefits of the simplicity of the model and the capacity to draw inferences from it.

Consequently, the distributional implications of an anti-competitive activity within a relevant market are the bread and butter of competition law. The trigger for competition law enforcement is (likely) changes to consumer surplus caused by an increase in price/restriction in output due to the exploitation of market power (or, more concretely, the likelihood that an increase in market power will lead to its exploitation). This is basically treated as a proxy for consumer welfare, although the exact definition of this term is a matter of controversy²⁶⁷.

²⁶⁵ See, for a discussion, G.J. Werden, *'Antitrust's Rule of Reason: Only Competition Matters'*, (Mimeo Washington, DC: U.S. Department of Justice - Antitrust Division, 2013).

²⁶⁶ The same holds for a reduction in the price of complement products (which correspond to a discount in the price for the combination of products); whereas a reduction in the price of substitute products would shift the demand schedule inwards (since consumer would demand a similar price reduction to keep purchasing the product sold).

²⁶⁷ One may, for instance, refer to the use of the term "consumer welfare" by R.H. Bork, *The Antitrust Paradox: A Policy at War with Itself* (The Free Press, 1978), 66, advancing a "consumer welfare prescription" for US antitrust law, but basically confusing this concept with allocative efficiency (loss of total surplus), as he conceived "consumer welfare" as an efficiency and not a distributive justice goal. For a discussion, see K. Heyer, 'Consumer Welfare and the Legacy of Robert Bork', (2014) 57(S3) *The Journal of Law & Economics* S19.

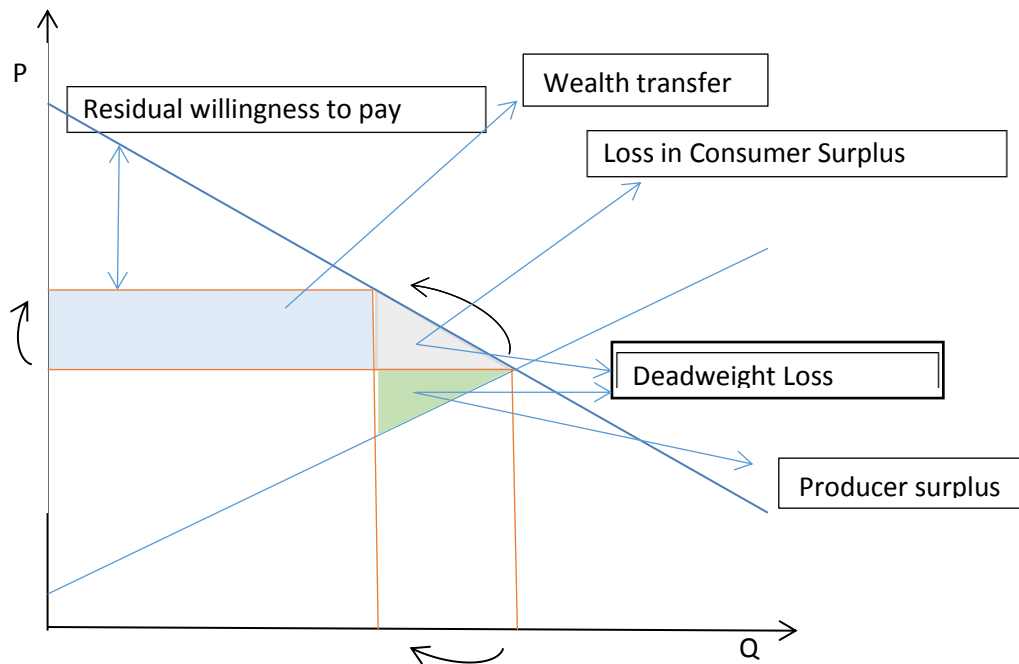


Figure 2: Market power and efficiency

Consumer surplus can be graphically depicted as the area under the downward sloping demand curve but above the price charged (i.e., the residual consumer willingness to pay) [see Figure 2]. Total surplus is the sum of consumer and producer surplus, the latter roughly corresponding to the accounting concept of operating profit margin, so that changes in producer surplus should equate to changes in profits.

Usually, looking at changes in total or consumer surplus makes no difference in practice, since both tend to move in the same direction, as graphically captured by the deadweight loss, which is the loss of consumer and producer surplus due to a restriction in output caused by an increase in price, and stands to signify how allocative efficiency has worsened due to the exploitation of market power. As put by Werden “[a]nything enlarging the metaphorical pie offers a potential Pareto improvement because it is possible to make at least one individual better off while no one is worse off²⁶⁸.”

In this sense, the case against the exploitation of substantial market power, if one takes an economic efficiency perspective, is not linked to the transfer of wealth from consumer to producers over those (infra-marginal) units of output still sold (i.e., the light blue rectangle in the graph above, also called wealth transfer), but merely on the lost transactions which could have taken place under a more competitive scenario (i.e. the deadweight loss).²⁶⁹ In any case, for operational purposes the focus is on consumer harm, as captured by the (likelihood of) higher prices and lower quantity; bearing in mind that in practice hardly

²⁶⁸ G.J., Werden, ‘*Antitrust’s Rule of Reason: Only Competition Matters*’, (Mimeo Washington, DC: U.S. Department of Justice - Antitrust Division, 2013) 28.

²⁶⁹ The irrelevance of distributional concerns is normally justified with reference to the ‘compensation principle’ (also labelled Kaldor-Hicks efficiency criterion, or Potential Pareto Improvement) which posits that, if gainers can compensate losers and still be better-off, the change observed in the partial equilibrium analysis is desirable. That is to say, even if the compensation never actually takes place, it is down to the political system to take care of the redistribution of the ‘pie’ (the separability thesis).

anyone in the field of enforcement ever actually attempts to measure/estimate actual changes in either total or consumer welfare.²⁷⁰

Beside allocative efficiency, it is often argued that a competitive equilibrium will also maximise productive efficiency, where output is produced with the least amount of resources, given the current set of production technologies – i.e., demand is served by the most efficient firms. This is not always the case, though, in the sense that there are market configurations where a trade-off between allocative and productive efficiencies triggered by an increase in a position of substantial market power might emerge. The possibility of an efficiency trade-off between allocative inefficiency and productive efficiency has been put forward by Oliver Williamson, who came to the conclusion that small cost savings may offset relatively larger price increases, thus entailing a more permissive standard for antitrust enforcement²⁷¹. However, his conclusions were reliant on strong assumptions, such as that the market configuration before the increase in market power was competitive; whereas if firms had already some degree of market power (so that prices were already above costs) total welfare would most likely be reduced, i.e., alongside consumer welfare²⁷².

Furthermore, the Williamsonian trade-off between productive and allocative efficiency takes place within a static framework, that is holding technology and the product space fixed. In reality, though, firms compete also through innovation, which could either be process oriented (i.e., increasing productive efficiency) or product oriented (improving the variety and/or quality of their offer). Under these circumstances, though, the trade-off is not as much between productive and allocative efficiency, but between dynamic and allocative efficiency, the former, more elusive, concept capturing the idea that product innovation, where firms compete on quality (horizontal and vertical) attributes, as opposed to price/quantity in a static fashion, is equally important for the maximisation of social welfare in the long run.

At the extreme, competition can take place ‘for’ the market, rather than ‘in’ the market, in the sense that rivalry occurs through highly-risky ‘races’ to innovate with the aim of utterly displacing the incumbent in order to enjoy the financial reward of monopoly power. This competitive mode, made of sequential monopolies, is labelled Schumpeterian, after the economist Joseph Schumpeter who listed innovation as a central feature of modern economies.²⁷³

Traditionally, the analysis of market power, and the corresponding trade-offs outlined above, focus on economic efficiency and do not explicitly deal with distributional issues. The case against monopoly is motivated by the desire to correct for the inefficiency caused by lost

²⁷⁰ There are some examples of competition authorities commissioning studies into the effects of their past decision, thus basically assessing whether their intervention (or lack thereof) has increased consumer surplus. For an overview, see, OECD (2011), *Impact Evaluation of Merger Decisions*, available at <http://www.oecd.org/daf/competition/Impactevaluationofmergerdecisions2011.pdf>.

²⁷¹ O.E. Williamson (1968), ‘Economies as an Antitrust Defense: Welfare Tradeoffs’, (1968) 58 *American Economic Review*, 18.

²⁷² M.D. Whinston (2007), ‘Antitrust Policy Towards Horizontal Mergers’, *Handbook of Industrial Organization*, vol. 3, ch. 36, 2371-2440 (2374)..

²⁷³ J. Schumpeter (1942), ‘*Capitalism, Socialism and Democracy*’, 84 (“[C]ompetition from the new commodity, the new technology, the new source of supply, the new organization (...) competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and outputs of the existing firms but at their very foundations and their very lives.”)

(marginal) transactions (or volume effect) - the deadweight loss - rather than the implicit wealth transfer from consumers to producers over (infra-marginal) transactions. Moreover, reliance on firms' profitability as a guide for enforcement is problematic in light of the difficulty to tell whether high profits are the results of superior efficiency/quality, or the outcome of anticompetitive entry and expansion barriers. Focusing on the source of the superior profits of the firms, superior efficiency/quality or anticompetitive strategies, indicates some form of "moral" judgment on the worthiness of curative action, which may be motivated by the idea that competition law should promote competition "on the merits", and that a successful competitor should not be turned away when he wins. It may also result from a more Schumpeterian idea that superior profits may lead to an innovation race that would be overall welfare-enhancing (in the sense that technological progress will lead to an increase of total surplus).

However, it is possible to build a broader narrative for intervention, on the basis of some wider conception of "consumer welfare", or better to use the concept of avoiding "consumer harm". The following possible interpretations of consumer harm, beyond pure economic efficiency concerns, have been put forward²⁷⁴:

- It is possible to decide that consumer surplus should be preserved at any cost thus rejecting any possible Williamsonian trade-off in which the supplier does not compensate actually and effectively the losses incurred by the consumers suffering from the volume effect.
- One may go beyond consumer surplus and include in the analysis the wealth transfer that consumers have incurred because of the overcharges following the restriction of competition. These may not only relate to higher prices but could cover any other parameter of competition, such as quality, variety, innovation. In this case, both the loss of consumer surplus and wealth transfers will be compared to the total efficiency gains pertaining to the supplier(s), thus enabling a cost benefit analysis of the effect of the conduct on the welfare of a specific group of market actors, direct and indirect consumers (not all market actors). The idea is that following the change from an equilibrium situation to another, the consumers of the specific product will benefit from a surplus and/or wealth transfer, in the sense that their ability to satisfy their preferences will increase.
- One may strive to achieve an optimal level of "consumer choice", defined as "the state of affairs where the consumer has the power to define his or her own wants and the ability to satisfy these wants at competitive prices"²⁷⁵. This concept seems broader than the concepts of "consumer surplus" as it may include other parameters than price, in particular "variety". The authors promoting this concept have used it interchangeably with the term of "consumer sovereignty", which is defined as "the set of societal arrangements

²⁷⁴ For a more detailed analysis, see I. Lianos, Some reflections on the objectives of EU competition law. in I. Lianos & D. Geradin (eds.), *Handbook in EU Competition Law* (Edward Elgar, 2013), 1.

²⁷⁵ See, R.H. Lande, 'Consumer Choice as the Ultimate Goal of Antitrust', (2001) 62(3) University of Pittsburgh Law Review 503.

that causes that economy to act primarily in response to the aggregate signals of consumer demand, rather than in response to government directives or the preferences of individual businesses²⁷⁶. The narrative of consumer choice may be difficult to square with the economic tools mostly now used by competition authorities and has been criticised for being a “disguised form of competitor protection”²⁷⁷. One may, however, interpret consumer choice as the ability of consumers to influence the characteristics of the product bundle according to their own hypothetical revealed preferences²⁷⁸. Hypothetical revealed preference theory defines an agent’s preferences in terms of what she would choose if she were able to choose, thus switching from actual to hypothetical choice²⁷⁹. A greater focus on consumer sovereignty could, in some cases, lead to more intensive competition law intervention to establish the parameters of independent consumer choice and specific presumptions against commercial practices that deny the sovereignty of consumer choice. Open and contestable markets are a prerequisite for the empowerment of consumers. The consumer choice or consumer sovereignty standard may also accommodate the psychological aspect of the formation of these preferences, which is usually ignored in neoclassical price theory.

All these various expressions of consumer harm may be linked, to varying degrees, to emphasis put on distributive justice and, ultimately equality. Certainly, the concept of distributive justice has multiple dimensions and its meaning has evolved through time²⁸⁰, but it is possible to define it as referring to the morally required distribution of shares of resources among members of a given group, either because of their membership to that group or in accordance with some measure of entitlement which applies to them in virtue of their membership. This is understood dynamically, that is across various situations in the specific jurisdiction. Rights and duties in distributive justice are thus “agent-general”, as they relate to a specific category of actors or group. In the various examples cited above, the concept of “consumer harm” has been used to promote the view that competition law takes into account only the interests of a group, consumers, to the detriment of other groups of actors in the economy (e.g. managers, shareholders, employees).

There may be various theoretical justifications for such an approach, as they all assume that there is a state of inequality in the structural position of the group of “consumers” vis-à-vis other groups in society. This hypothesis may find support from multiple sources. One could argue for a public choice/political economy view based on the

²⁷⁶ N.W. Averitt & R. H. Lande, ‘Consumer Sovereignty: A Unified Theory of Antitrust and Consumer Protection Law’, (1997) 65 Antitrust Law Journal 713, 715

²⁷⁷ See, R. Nazzini, *The Foundations of European Union Competition Law – The Objective and Principles of Article 102*, (OUP, 2011), 31 (noting that “when consumer choice is seen as an objective in its own right, it may become a disguised form of competitor protection: a competitor deserves to be protected solely on the basis that it offers a differentiated product”)

²⁷⁸ See, I. Lianos, Some reflections on the objectives of EU competition law. in I. Lianos & D. Geradin (eds.), *Handbook in EU Competition Law* (Edward Elgar, 2013), 1.

²⁷⁹ For a critical analysis see, D.M. Hausman, *Preference, Value, Choice, and Welfare*, (Cambridge University Press, 2012), 31-33, citing as the main proponent of this theory K. Binmore, *Playing Fair*, (MIT Press, 1994).

²⁸⁰ See, S. Fleischacker, *A Short History of Distributive Justice*, (Harvard University Press, 2005).

relative weakness of consumers' lobbying compared to firms' or workers' lobbying²⁸¹, to the extent that their heterogeneity and their great numbers make collective action in their interests more difficult to organize. Competition law may also have been designed so as to offer an institutional bias in favour of consumers²⁸², to the extent that other areas of law prioritize the interest of other societal groups (e.g. labour law the interest of workers, company law the interest of shareholders, intellectual property law the interest of inventors). One may also advance a Rawlsian perspective if the aim here is to establish institutions that would maximize the improvement of the group of consumers as the "least-advantaged" group in society²⁸³. It has been rightly noted that if one takes into account, as Rawls does, the criterion of income in order to determine the "least-advantaged" group, it may easily be objected that final consumers may in some cases (think, for instance, of the market for luxury goods) have a higher on average income than suppliers or their shareholders, in particular if the latter are small and medium firms²⁸⁴. It is possible to argue, however, that final consumers are the "least advantaged" group, if one focuses on the competitive process, rather than its outcomes, as they may be exploited by intermediary consumers (e.g. retailers) or suppliers, without the possibility for them to pass on these losses to anyone else in the market chain (notwithstanding of course their capacity as suppliers in other relevant markets, which is, by definition, something that is ignored by partial equilibrium analysis). The criterion is also encompassing, as all market actors can potentially be final consumers, while not all of them are necessarily suppliers, competition law being non-applicable to employment relations. Such a theoretical basis would build a claim for taking the view that competition law should aim to protect final consumers, but not necessarily intermediary consumers. In economies with some degree of State intervention, this would eventually amount to protecting tax payers, if the anticompetitive activity aims sectors in which the State is procured goods and services.

But are inequality and poverty the result of market distortions and of the exercise of market power? There are certainly many causes that could explain the recent rise in poverty and inequality: the globalization of production, the erosion of collective bargaining systems, the continued drop in real wage values, tax evasion or unfair tax systems. However, it is increasingly accepted that market power may be a significant source of both inefficiency *and* inequality. Joseph Stiglitz notes that 'today's markets are characterised by the persistence of high monopoly profits'²⁸⁵, rejecting Joseph Schumpeter's view that monopolists would only

²⁸¹ See, D. Neven & L.-Hendrik Röller, 'Consumer surplus vs. Welfare Standard in a Political Economy Model of Merger Control', (2005) 23 *International Journal of Industrial Organization* 829.

²⁸² J. Farrell & M. Katz, 'The Economics of Welfare Standards in Antitrust', (2006) 2(2) *Competition Policy International*.

²⁸³ For a discussion, see I. Lianos, Some Reflections on the Questions of the Goals of EU Competition Law, in I. Lianos & D. Geradin (eds.), *Handbook on European Competition Law – Substantive Aspects* (Edward Elgar, 2013), 1,

²⁸⁴ Although it has been convincingly argued that this holds only in very few situations and that, in most cases, "[t]he returns from market power go disproportionately to the wealthy—increases in producer surplus from the exercise of market power accrue primarily to shareholders and the top executives, who are wealthier on average than the median consumer", as highlighted by J. B. Baker & S. C. Salop, 'Antitrust, Competition Policy, and Inequality', (2015) 104 *Georgetown Law Journal* 1, 11-12.

²⁸⁵ J Stiglitz Monopoly's New Era, (2016) available at www.project-syndicate.org/commentary/high-monopoly-profits-persist-in-markets-by-joseph-e--stiglitz-2016-05.

be temporary. He also argues that “policies aimed at reducing market power can accordingly play some role in the reduction of inequality”, although he remains careful of setting this as an explicit aim of competition law²⁸⁶. Other economists have been equally vocal on the need for a robust competition law and policy against inequality. Tony Atkinson has argued for public policy to aim at a proper balance of power among stakeholders, and in particular suggested the integration of explicitly distributional dimension into competition policy, among some of his proposals for limiting the growing inequality²⁸⁷. A recent report of the Council of Economic Advisers to the White House published in April 2016, tracks the rise of the concentration of various industries in the US, and notes that the ‘majority of industries have seen increases in the revenue share enjoyed by the 50 largest firms between 1997 and 2012’.²⁸⁸ Is increasing economic concentration leading to higher degrees of inequality of wealth? This may be a difficult question to answer in view of the overall tendency of wealth concentration that has been observed during the twentieth century and at least part of the nineteenth century²⁸⁹, and according to more recent studies, apparently since the fourteenth century²⁹⁰, although one should note that there are various measurement and data related difficulties for such research endeavours.

The effects of concentration on the unequal distribution of wealth may, however, be linked as in the Age of “secular stagnation²⁹¹” and intense financialisation, return to capital exceeds economic growth, the result being that rentiers or senior executives, which form the bulk of the richest 1% of the population, see their share of total wealth increase. One may also rely on empirical evidence linking higher concentration following mergers to higher prices²⁹², and evidence showing that in “winner-take-most” competition where “superstar

²⁸⁶ J. Stiglitz, Towards a Broader View of Competition Policy, in T. Bonakele, E. Fox & L. McNube (eds.), *Competition Policy for the New Era – Insights from the BRICS Countries* (OUP, 2017), 4, 15; J. Stiglitz, N. Abernathy, A. Hersh, S. Holmberg, and M. Konczal, *Rewriting the rules of the American economy: an agenda for growth and shared prosperity*, New York: W.W. Norton (The Roosevelt Institute, May 2015, <http://www.rewritetherules.org>.)

²⁸⁷ T. Atkinson, *Inequality: What can be done?* (Harvard University Press, 2015), 126-127 (“[...] competition policy should embody explicit distributional concerns”).

²⁸⁸ White House CEA, Benefits of Competition and Indicators of Market Power (April 2016), available at www.whitehouse.gov/sites/default/files/page/files/20160414_cea_competition_issue_brief.pdf ; See also, G. Grullon, Y. Larkin & R. Michaely, Are U.S. Industries Becoming More Concentrated? (August 31, 2017). Available at SSRN: <https://ssrn.com/abstract=2612047> ;

²⁸⁹ See, for instance, F. Alvaredo, A B Atkinson, T Piketty & E Saez, ‘The Top 1 Percent in International and Historical Perspective’, (2013) 27(3) *Journal of Economic Perspectives* 3-20; A. Atkinson, T Piketty & E Saez, ‘Top incomes in the long run of history’, (2011) 49(1) *Journal of Economic Literature* 3; T. Piketty, G. Postel-Vinay, & J.-L. Rosenthal, ‘Wealth Concentration in a Developing Economy: Paris and France, 1807-1994’, (2006) 96(1) *American Economic Review* 236; J. Roine, & D. Waldenström, Long Run Trends in the Distribution of Income and Wealth, in A. Atkinson & F. Bourguignon (eds.), *Handbook of Income Distribution*, (vol 2A, North-Holland, 2015), 469.

²⁹⁰ G. Alfani, ‘Economic Inequality in Northwestern Italy: a Long-Term View (Fourteenth to Eighteenth centuries)’, (2015) 75(4) *Journal of Economic History* 1058; G. Alfani, ‘The rich in historical perspective. Evidence for preindustrial Europe (ca. 1300-1800)’, (2017) 11(3) *Cliometrica* 321.

²⁹¹ L. Summers, ‘The Age of Secular Stagnation: What It Is and What to Do About It’, *Foreign Affairs* (February 17, 2016) (noting the imbalance between excessive savings and investment, pulling down interest rates, savings tending to flow into existing assets, causing asset price inflation and possible

²⁹² See, J. Kwoka, *Mergers, Merger Control, and Remedies* (MIT press, 2014); J. Kwoka, ‘Does Merger Control Work? A Retrospective on U.S. Enforcement Actions and Merger Outcomes’, (2013) 78(3) *Antitrust Law Journal* 619.

firms” command growing market shares and become highly profitable, one may observe a larger decline in labour’s share²⁹³, which has obviously an impact on economic inequality.

A recent paper of the OECD on Market Power and Wealth Distribution has also attracted attention, as it shows a substantial impact of market power on wealth inequality.²⁹⁴ According to the study which relies in terms of methodology on some work previously completed by Comanor and Smiley in 1975²⁹⁵, market power may account for a substantial amount of wealth and income inequality²⁹⁶. The report found that the increased margins charged to customers as a result of market power will disproportionately harm the poor who will pay more for goods without receiving a counter-balancing share of increased profits as they are not usually shareholders, while the wealthy benefit more from higher profits, due to their generally higher ownership of the stream of corporate profits and capital gains. This study only explored eight developed jurisdictions, thus showcasing the need for equivalent studies do be performed in the context of BRICS and emergent/developing countries.

Tackling market power in order to improve the position of consumers is therefore good for inequality given that lower prices (or, better still, higher quality/price ratios) improve the purchasing power of disposable income and consequently benefit the poorest quintile, in particular if this leads to lower prices for goods/items they usually purchase. Moreover, where high profits are siphoned off by corporate elites (ie, rather than returned to dispersed shareholders), the concern might be that the resulting concentration of income (and, over time, accumulated wealth) is deployed to lobby against redistribution fiscal policies aimed at addressing economic inequality. From a macro-economic perspective, the concern may be that high profits induced by anticompetitive entry and expansion barriers are not re-invested. The resulting low levels of corporate investments would not only reduce aggregate demand, but also suppress productivity growth, which would ultimately constraints wage growth.²⁹⁷ As shareholders and senior executive managers benefit from returns to capital, and constitute eventually the primary group to gain from market power and monopoly rents, their share in the total income and wealth will increase, in comparison to other groups in society, in view of the evidence that returns to capital exceed the rate growth of output and income (wages)²⁹⁸ and that the rise of “economic rents”, that is “payments to factors of production above what is required to keep them in the market” or excess profits, as well as that these rents are mostly enjoyed by capital, rather than by labour, contributes to inequality²⁹⁹. Firstly,

²⁹³ D. Autor, D. Dorn, L. Lawrence, F. Katz, C. Patterson & J. Van Reenen, ‘Concentrating on the Fall of the Labor Share’, (2017) 107(5) *American Economic Review* 180.

²⁹⁴ OECD, *Market Power and Wealth Distribution*, DAF/COMP(2015)10, available at [www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP\(2015\)10&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP(2015)10&docLanguage=En)

²⁹⁵ WS Comanor & RH Smiley, ‘Monopoly and the Distribution of Wealth’ [1975]89(2) *The Quarterly Journal of Economics* 177.

²⁹⁶ See, A.K. Dutt, ‘Stagnation, Income Distribution and Monopoly Power’, (1984) 8 *Cambridge Journal of Economics* 25 (on a model constructed so as to depict the Indian economy arguing that reducing monopoly power may have positive effects on both economic growth and income distribution).

²⁹⁷ *The Economist*, Too much of a good thing - Profits are too high. America needs a giant dose of competition, May 26, 2016, available at <http://www.economist.com/news/briefing/21695385-profits-are-too-high-america-needs-giant-dose-competition-too-much-good-thing>.

²⁹⁸ As shown by T. Piketty, *Capital in the Twenty-First Century* (Harvard Univ. press, 2014).

²⁹⁹ See, the analysis in J. Furman & O. Orszag, A Firm-Level Perspective on the Role of Rents in the Rise in Inequality (October 16, 2015), available at https://obamawhitehouse.archives.gov/sites/default/files/page/files/20151016_firm_level_perspective_on_role

it is possible that in the long run, the situation of the largest part of the population (wage-workers, small and medium firms shareholders and unemployed following the exclusion from the market of “inefficient” firms and economic sectors) see their income and/or share of wealth stagnate or decrease, while the most affluent parts of the population benefit from a phenomenal increase of wealth, as this has been documented, at least since the 1970s³⁰⁰. Secondly, inequality may rise even if the lowest quintiles may also benefit from some additional growth, and the absolute level of poverty could be reduced. Here, however, the issue may be “relative” and “subjective poverty”, and inequality, rather than “absolute poverty”³⁰¹. Hence, under these circumstances, aggressive antitrust enforcement ought to be welcome from a distributional perspective as well.

Would this argument hold if one moves to a general equilibrium plus approach and takes into account income effects in other markets on which the specific agents are present in one way or another (as consumers, senior executives, shareholders, workers)? Some have argued that, at least in the developed world, all consumers are also owners of businesses, and hence they could benefit from monopolistic price increases³⁰². Professor Crane has expressed doubts as to the possibility of performing the complex analysis that would be required for an explicitly distributive competition law, as competition authorities would need information about a large number of factors, such as “the relative wealth of producers and consumers, overcharge pass-on rates, the effects of market power on employees of the firm, the distribution of rents between managers and shareholders, the progressive or regressive effects of antitrust violations where government entities are the purchasers, and the distribution of rents among classes of managers”³⁰³.

Such concerns should obviously be watered down if one takes into account developing and emerging economies, where a few local conglomerates or global multinationals control the economy, there is lack of capital for new entrepreneurs and labour mobility is quite limited³⁰⁴. There is significant empirical literature on the welfare losses

of [rents in inequality.pdf](#) citing also the work of J. Stiglitz, *The Price of Inequality: How Today's Divided Society Endangers Our Future* (W&W Norton & Company, 2012).

³⁰⁰ See, M. Ravallion, *The Economics of Poverty – History, Measurement and Policy* (OUP, 2016), 102-105; F. Bourguignon, World changes in inequality: an overview of facts, causes, consequences and policies (Bank of International Settlements, August 2017) 17-21 (noting the common forces behind the rising trend observed over the two or three last decades in a sizeable number of countries with regard to inequality but also observing that some country-specific factors have been at play).

³⁰¹ M. Ravallion, *The Economics of Poverty – History, Measurement and Policy* (OUP, 2016), 106-110 (noting that “(u)nder absolute poverty, the poor are defined as those who fall below a threshold of income or consumption that is fixed in real terms across all subgroups being compared”, while “relative poverty” and “subjective poverty” looks to the social context by taking into account the “relative deprivation experienced by a poor person living in a rich country” and sets relative poverty lines to that of a relevant reference group (in most cases a proportion of the current median income)).

³⁰² The argument was first made by R.H. Bork, *The Antitrust Paradox: A Policy at War with Itself* (The Free Press, 1978) 110 when criticizing Oliver Williamson’s trade-off. See also, D. Crane, ‘Antitrust and Wealth Inequality’, (2016) 101(5) Cornell L. Rev. 1171, 1186 (noting that “[s]hareholding is far from an exclusively upper class vocation” and also arguing (Id., 1192) that the argument that “senior managers are the primary beneficiaries of anticompetitive market structures is weak, at best”. Crane argues instead that “increases in market power yield higher wages for blue-collar employees”).

³⁰³ Ibid. 1174.

³⁰⁴ This point is conceded by D. A. Crane, ‘Is More Antitrust the Answer to Wealth Inequality?’, (Winter 2015-2016) Regulation 18, 19.

resulting from monopoly power for the poorest parts of the population³⁰⁵, and on the benefits of competition for taming corrupt elites that want to take advantage of the liberalisation process³⁰⁶.

Furthermore, it has also been claimed that an “undifferentiated increase in antitrust enforcement—actions to augment and strengthen enforcement as a general matter” may also produce regressive effects as it can block voluntary action by private firms, or in the EU public authorities, pursuing wealth redistribution goals³⁰⁷. There are indeed circumstances, where the relationship between policies aimed at promoting competition and economic inequality is not straightforward. Low levels of corporate investment may be the result of excessive capacity spurring cut-throat price competition. This can be particularly the case where competition takes place on a global scale and the bargaining power of the local workforce is greatly undermined (e.g., steel production). Similar dynamics can take place where the mobile factor of production is not capital (ie, with employers threatening to relocate where the cost of labour is lower) but labour itself, thanks to immigration at all skill levels, from seasonal or construction workers to knowledge-economy professionals. Under these circumstances, the popular (or, better still, populist) belief is that only firms’ top executives can emerge as winners from these ultra-competitive labour markets, whereas the rest of us (ie, the 99.9%) feel the pressure to keep up with the Joneses. These concerns may prompt protectionist calls for state intervention aimed at restricting competition, with the result that both productive and allocative efficiency would suffer. That is to say, policies that may cause economic inefficiencies may be called upon to address economic inequality.

One should also integrate in the analysis dynamic efficiency concerns. It is often argued that hyper-competitive rivalry is the norm in digital industries subject to ‘winners-take-all’ competitive dynamics, where a position of super-dominance is the market outcome of strategies based on very aggressive pricing and/or relentless product and process innovation. On the one hand, competition ‘for’ (rather than ‘in’) the market means that consumers benefit greatly from lower prices, more convenient mode of consumption and strong innovation. On the other hand, ‘winner-takes-all’ dynamics raise concerns about excessive economic (and, thus, political) power concentrated in very few massive corporations, to the benefit of a new breed of corporate elites consisting of technical (rather than finance) experts. The picture is made dooier by the concern that these high-tech giants are the driving force behind automation, which threatens to further weaken the employment prospects of future generations and therefore could have important distributional

³⁰⁵ See, for instance, G. Porto, N. Depetris Chauvin & M. Olarreaga, *Supply Chains in Export Agriculture, Competition, and Poverty in Sub-Saharan Africa* (World Bank & CEPR, 2011) (exploring a number of case studies in Africa with regard to crops on cotton, coffee, tobacco and cocoa); J. Argent & T. Begazo, *Competition in Kenyan markets and its impact on income and poverty : a case study on sugar and maize*, (World Bank Policy Research Working Group 7179, January 2015); and the examples included in World Bank & OECD, *A Step Ahead : Competition Policy for Shared Prosperity and Inclusive Growth. Trade and Development* (World Bank, 2017).

³⁰⁶ See, for instance, A. Banerjee, R. Hanna, J. Kyle, B.A. Olken, S. Sumarto, *The Role of Competition in Effective Outsourcing: Subsidized Food Distribution in Indonesia* (March 2017), available at https://www.povertyactionlab.org/sites/default/files/publications/553_The-role-of-Competition-in-Effective-Outsourcing_March2017.pdf (regarding outsourcing of food-delivery services);

³⁰⁷ D. Crane, ‘Antitrust and Wealth Inequality’, (2016) 101(5) Cornell L. Rev. 1171, 1175.

consequences to a large part of the population³⁰⁸. In summary, this would be a world where economic scarcity is no longer the foundation of the market-driven allocation mechanisms underpinning modern capitalistic societies, and where policies aimed at promoting competition in the pursuit of (allocative, productive and dynamic) efficiency could be seen as self-defeating. In contrast, an approach focusing on equality of opportunity for small local entrepreneurs to prosper and achieve a larger scale may become more appealing, despite the possibility of economic inefficiencies.

B. Competition law for reducing inequality: a populist approach?

A number of authors have recently put forward the idea that competition law should aim to reduce inequality, in addition to its more conventional set of objectives. Arguing that “(m)arket power also contributes to growing inequality”, and providing the examples of

³⁰⁸ The effects of automation on labour wages and more generally the share of labour in comparison to that of capital is a matter of controversy. To the extent that automation may relieve humans from certain tasks, so that they can spend time on more valuable work, or enable the splitting up of activity previously exercised by humans in various activities, some of which may be automated, or eventually replace an entire job once performed by a human, this may have important implications on employment in certain economic sectors and/or social inclusion.

The unskill-biased technical change introduced by the first industrial revolution in the 19th century led to oblivion the highly skilled artisans that were threatened by the competition of massive production techniques relying on low-skilled workers. In contrast, the development of the IT revolution led to a skill-biased technical change, to the extent that a number of low-skilled activities were replaced by new technologies and automation. An Obama administration report [Executive Office of the President, Artificial Intelligence, Automation and the Economy, December 2016] suggested that the effects of AI on the labour market in the near future will continue the trend that computerization and communication innovations have driven in recent decades. Some researchers estimate the scale of threatened jobs over the next decade or two to range from 9 to 47 percent, all concentrated among lower-paid, lower-skilled, and less-educated workers [see, C-B. Frey & M. A. Osborne, *The Future of Employment: How Susceptible are Jobs to Computerization?*, Oxford Martin School, University of Oxford, Sept. 2013)].

The labour share of the GDP has considerably decreased in recent years while that of the corporate profits increased [see, ILO, IMF, OECD, World Bank, *Income inequality and labour income share in G20 countries: Trends, Impacts and Causes* (G20, 3-4 September 2015)]. Furthermore, “superstar-biased technological change” may lead to the vast majority of the value generated by automation benefitting only a small portion of the population [E. Brynjolfsson & A. McAfee, *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies* (W&W Norton & Company, 2014)].

Other economists are less alarmed by automation. J. Bessen, argues that although automation could lead to job losses in some sectors, such as manufacturing, warehouse operations, and truck driving, the overall impact of automation across most industries will be to increase employment in non-manufacturing industries [see, J.E. Bessen, *Automation and Jobs: When Technology Boosts Employment* (November 28, 2017). Boston Univ. School of Law, Law and Economics Research Paper No. 17-09. Available at SSRN: <https://ssrn.com/abstract=2935003>]. However, it is unclear if these predictions take fully into account the potential of AI in replacing also white-collar jobs.

Furthermore, wild predictions about the possible financial returns in the future of new IT technologies, such as Big Data, machine learning, blockchain and, more broadly, artificial intelligence, have also led to significant wealth being created out of a phenomenal increase in the market value of the companies involved in these technology markets, sometimes because of the perception that these companies will establish bottlenecks, reduce potential competition (eventually by merging with potential competitors) and will therefore siphon the largest part of the total surplus produced by their value chains: see I. Lianos, *Digital Value Chains and Competition Law*, CLES Research Paper 4/2018); L.M. Khan, ‘Amazon’s Antitrust Paradox’, (2016-2017) 126(3) *The Yale Law Journal* 564. Hence, “taming the Masters of the Tech-Universe” becomes essential in view of the macro-economic implications of their dominance. See, M. Wolf. *Taming the Masters of the Tech-Universe* (Financial Times, November 14, 2017).

network effects and the role of IP rights, which may entrench positions of economic power, a number of authors are ready to contemplate the possibility of a competition policy response³⁰⁹. This may lead to more aggressive competition law enforcement against the abuse of market power³¹⁰, with a continued reliance on the consumer welfare standard³¹¹, calibrated so as to prioritise antitrust action that takes into account the distribution of income and wealth and benefits the middle class and the less well advantaged³¹², eventually leading to the possibility that “anticompetitive conduct by the less well-off that extracts wealth from the rich might not be condemned”³¹³, as well as to antitrust remedies that primarily benefit less advantaged consumers³¹⁴. It is common for these authors to consider that the Chicago school’s emphasis on an economic efficiency standard has enabled powerful firms across sectors to control markets and, consequently to exercise market power, further contributing to inequality³¹⁵.

These authors are supportive of a competition law policy that would lead to conduct being considered anticompetitive “if it harms middle- and lower-income consumers, even while benefiting wealthier consumers and shareholders”³¹⁶. This would include an explicit distributional perspective in the enforcement of competition law, a proposal that has also been made by others³¹⁷. There are various ways this concern may be operationalised: economic and social equality can be recognised as one of the goals of competition law, along with consumer welfare and efficiency³¹⁸, for instance by forming part of a broader and explicit “public interest” standard, which would consider distributional considerations as explicit and higher priority public interest goals than consumer welfare and efficiency, such standard being applied also in non-merger cases³¹⁹. These authors are also open to the possibility of enforcing competition law provisions against excessive prices, as they refer to the European experience, and consider various ways in US law to implement this, such as conceive excessive pricing by monopolies or oligopolies as an unfair practice in violation of Section 5 of the Federal Trade Commission Act³²⁰. Other authors put forward the importance

³⁰⁹ J. B. Baker & S. C. Salop, ‘Antitrust, Competition Policy, and Inequality’, (2015) 104 *Georgetown Law Journal* 1, 11. See also, L. Khan & S. Vaheesan, ‘Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents’, (2017) 11 *Harvard Law & Policy Review* 235, 245 noting that “(g)iven managerial norms that prize the interests of the generally affluent shareholder class, the inability of workers to demand a share of market power rents, and the higher fraction of income devoted to consumption by working and middle class Americans, market power in most sectors can be expected to redistribute wealth upwards”.

³¹⁰ J. B. Baker & S. C. Salop, ‘Antitrust, Competition Policy, and Inequality’, (2015) 104 *Georgetown Law Journal* 1, 22-23.

³¹¹ *Ibid.*, 15-17.

³¹² *Ibid.*, 18-20.

³¹³ *Ibid.*, footnote 61.

³¹⁴ *Ibid.*, 20.

³¹⁵ L. Khan & S. Vaheesan, ‘Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents’, (2017) 11 *Harvard Law & Policy Review* 235, 269; J. B. Baker, ‘Economics and Politics: Perspectives on the Goals and Future of Antitrust’, (2013) 81 *Fordham Law Review* 2175, 2184.

³¹⁶ J. B. Baker & S. C. Salop, *Antitrust, Competition Policy, and Inequality*, (2015) 104 *Georgetown Law Journal* 1, 24.

³¹⁷ See, T. Atkinson, *Inequality: What can be done?* (Harvard University Press, 2015).

³¹⁸ J. B. Baker & S. C. Salop, ‘Antitrust, Competition Policy, and Inequality’, (2015) 104 *Georgetown Law Journal* 1, 25.

³¹⁹ *Ibid.*

³²⁰ *Ibid.*, 23.

of simplifying antitrust rules, away for the complicated and expensive to implement rule of reason approaches, which are perceived as defendant-biased, also adopting structural remedies, instead of “complicated conduct remedies”, rendering antitrust agencies more accountable and transparent, presumably in setting their priorities in a way that is understandable to citizens, ultimately adopting a “citizen interest standard”³²¹.

According to these authors, the goals of antitrust should be to tame economic concentration and distribute economic ownership and control, to prevent unjust wealth transfers from consumers to firms with market power, and to preserve open markets so that independent entrepreneurs have an opportunity to enter³²². The simplification of antitrust should aim to restore “a progressive-populist antitrust under the citizen interest standard”, breaking with the past lax approaches towards mergers, monopolization and vertical restraints, eventually also challenging the possession of damaging monopoly and oligopoly power by firms through some form of “no-fault” monopoly or oligopoly doctrine, whenever possessing a monopoly or an oligopoly “inflicts substantial injury and cannot be justified on operational grounds, such as economies of scale”³²³.

The emphasis on “populist” antitrust is understood as a counterpoint to the technocratic consensus built the last three decades, first in the US, and then in the EU and some other jurisdictions, which is that competition law should build on the learnings of neoclassical price theory and should rely, although to an extent that varies from jurisdiction to jurisdiction, on economic efficiency considerations³²⁴. Technocracy pre-supposes the systematic integration of scientific (here exclusively economic) expertise in policy-making and at the implementation level. In addition to the criticisms, mostly coming from academics and activists outside the community of “mainstream” antitrust experts, a growing number of competition law scholars have also expressed concern over the apparent dissociation of competition law technocracy, relying on neoclassical price theory economics, with the political sphere, and the resulting “democratic deficit” that has probably ignited the “populist” backlash we have observed in recent years³²⁵.

These different proposals have been criticised, and the debate is still ongoing among the competition law and economics community. Although it seems relatively uncontroversial that lack of competition and market power may contribute to inequality, a more fundamental issue consists in understanding if the lack of competition in markets constitutes one of the

³²¹ L. Khan & S. Vaheesan, ‘Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents’, (2017) 11 Harvard Law & Policy Review 235, 276.

³²² Ibid., 279.

³²³ Ibid., 285. These proposals are reminiscent of some suggestions made in the past. On the basis of this declaration of the inability of Section 1 of the Sherman Act to deal with the “oligopoly problem” and the difficulties of expanding the scope of both Sections 5 of the FTC Act and 2 of the Sherman Act, the White House Task Force on Antitrust Policy (The Neal report in 1968), and the Industrial Re-organization Act proposed by Senator Philip Hart in 1972 suggested the targeted breakup of tightly oligopolistic industries, a prospect that was heavily opposed by antitrust conservatives, influenced by the Chicago school of antitrust economics, whose intellectual influence began to rise in the 1970s. P. C. Neal, W. F. Baxter, R. H. Bork & C. H. Fulda, ‘Report of the White House Task Force on Antitrust Policy’, (1968) 2 Antitrust Law and Economics Review 11; S. 3832, 92nd Congress, 2nd Session (1972).

³²⁴ This could be considered as the essence of the “economic approach” in competition law. For a discussion of the view of antitrust as technocracy, see, D.A. Crane, ‘Technocracy and Antitrust’ (2009) 86 Texas Law Review 1159.

³²⁵ H First & S Weber Waller, ‘Antitrust’s Democracy Deficit’, (2013) 81(5) Fordham Law Review 2543.

most significant sources of inequality, or if it plays a relatively minor role, in which case, it may be argued that one should take care of the other, more “significant” “causes”, should we adhere to some form of causal pluralism and consider inequality as a multifaceted phenomenon. These other causes may relate to inheritance of wealth and human capital inequality, which acts cumulatively along the various generations and may lead to substantial differences in economic power or inequalities in income. These may be exacerbated by the possibility of those possessing capital to use these assets as a collateral in order to obtain loans on financial markets, fund productive activities and, consequently, further economic inequality, something that is not possible for those that do not hold any capital (property, tangible and intangible assets), and exclusively rely on their labour, which cannot be used as a collateral³²⁶.

There are possible ways to deal with this problem, without that requiring any intervention from a competition law perspective, such as providing assets/property rights to everyone in society so that they can employ these as a collateral in financial markets, or eventually a more equal distribution of the property of productive assets³²⁷. In the modern digital and data-hungry economy that could also involve the possibility, for instance, of personal data to be considered as labour that should give rise to some residual claim over the value, on at least part of the value, generated by this data in financial and/or product markets³²⁸, for instance, the development of property-like rights for the individuals or companies generating this data at the first place³²⁹.

Yet, however appealing these proposals may be, they may require some considerable institutional upheaval that could be difficult, or even impossible, to implement in the short or medium term. The question one may therefore ask is if relying on these uncertain possibilities of future reform in order to question the need for action, in the narrow field of competition law, may be legitimate in the presence of actual harm and growing inequalities, which competition law may address, at least to a certain extent, even if arguably there may be various other causes of this complex phenomenon than the abuse of economic power. Wouldn't that be making a similar argument than that of the theory of second best against competition law intervention to correct a market failure on a specific market, on the basis of some diversion from partial equilibrium, when the essence of the problem may have resulted from broader problems somewhere else in the economy? Yet, one may argue that, for similar

³²⁶ For a discussion of this distinction between capital and labour as a contributing factor to inequality, see G.M. Hodgson, *How Capitalism Actually Generates More Inequality* (Economics), available at <http://evonomics.com/how-capitalism-actually-generates-more-inequality/>.

³²⁷ G. Aslan, C. Delechat, M. Newiak and F. Yang, *Inequality in Financial Inclusion and Income Inequality* (2017) IMF Working Paper WP/17/236, available at https://www.researchgate.net/profile/Corinne_Delechat/publication/321057898_WP17236_Inequality_in_Financial_Inclusion_and_Income_Inequality/links/5a0af6ab458515e482743af0/WP-17-236-Inequality-in-Financial-Inclusion-and-Income-Inequality.pdf

³²⁸ A. Weigend, *Should tech companies pay us for our data?* (14 February 2017, Los Angeles Times) <http://www.latimes.com/opinion/op-ed/la-oe-weigend-nanopayments-20170214-story.html>; I. Arrieta Ibarra, L. Goff, D. Jimenez Hernandez, J. Lanier and E. Glen Weyl, *Should We Treat Data as Labor? Moving Beyond 'Free'* (2017) 1(1) American Economic Association Papers & Proceedings, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3093683

³²⁹ N. Duch-Brown, B. Martens and F. Mueller-Langer, *The economics of ownership, access and trade in digital data* (2017) JRC Digital Economy Working Paper 2017-01, available at <https://ec.europa.eu/jrc/sites/jrcsh/files/jrc104756.pdf>

reasons than those widely accepted in the case of the theory of the second best, competition law action may be warranted³³⁰. Hence, it appears more legitimate to address the argument against competition law intervention for combatting inequality, by exploring how competition law compares with widely-used tools to combat inequality, in particular the taxation system.

C. Is competition law the most adequate tool against economic inequality?

The implicit assumption for those criticizing competition law intervention with the aim to reduce the occurrence of inequality, is that the tax system is a more efficient way of engaging in redistribution than the regulatory system, or a specific facet of it, such as competition law³³¹. However, one may reverse the order of these arguments and suggest instead that it is *only* if the question of fair and equitable income distribution is addressed by the political system that it may be legitimate for competition law to focus exclusively on economic efficiency.

It is therefore important to take into account the institutional framework for equality-focused state action, such as progressive taxation in the specific jurisdiction, before arriving to any conclusion as to the superiority of other mechanisms of re-distribution, such as taxation, than competition law. Turning to the EU, it becomes important to take into account the inability of the EU to employ fiscal instruments to systematically redistribute wealth across the Union. EU member States differ greatly in their levels of wealth, a disparity that is currently increasing as a result of the expansion of the EU to the east and the important economic crisis affecting southern Europe. McDonnell and Faber note that powerful firms are not randomly distributed across Europe, and hence “producer surplus is likely to accrue primarily to the most powerful and wealthy EU members, increasing existing wealth disparities at the margins”³³². Efficient rules that would focus only on total surplus with no attention to the allocation of that surplus between producers and consumers (which is excluded by efficiency analysis as a distributive justice issue) will tend to pump wealth in the “wrong” direction³³³. In the absence of adequate resources and a competence for the EU to mitigate these distributional consequences across the Union [in view of the absence of an EU corporate income tax and the low wealth transfer from rich to poor Member States (assuming

³³⁰ R.G. Lipsey & K. Lancaster, ‘The General Theory of Second Best’, (1956-1957) *The Review of Economic Studies*, 24(1) 11–32, suggesting that government interventions to make a market more competitive, may not make consumers better off, as if the first best solution is not realized (e.g. perfect competition), then there is nothing to choose between the second or the third best. This is contrary to the belief in welfare economics that if first best is unattainable, then second best may be attained, even if some Pareto optimality conditions are not satisfied (Kaldor-Hicks efficiency).

³³¹ This is related to the discussion over the comparison between taxation by regulation and direct taxation, the latter being considered more efficient, *under* very specific conditions, see A. Atkinson & J. Stiglitz, ‘The Design of Tax Structure: Direct versus Indirect Taxation’ (1976) 6 *Journal of Public Economics* 55-75, or more generally the relative efficiency of the income tax system vis-à-vis the legal system in general for redistributing income: see, L. Kaplow & S. Shavell, ‘Why the Legal System is Less Efficient than the Income Tax in Redistributive Income’, (1994) 23 *Journal of Legal Studies* 667.

³³² B. McDonnell & D.A. Farber, ‘Are Efficient Antitrust Rules Always Optimal?’ (2003 Fall) *Antitrust Bulletin* 807-835, 825.

³³³ *Ibid.*

that the qualification of “rich” and “poor” States represents average disposable income for consumers)], there may be a less strong argument for separating efficiency, allegedly the domain of competition law, and equality, which should be dealt with another instrument, such as taxation, in the EU than in jurisdictions, such as the United States, which possess the adequate fiscal instruments to pursue redistribution at the federal level.

More generally, it is questionable that redistributive policies implemented through the taxation system could be considered as a superior option to integrating redistributive concerns in competition law. The claim that the tax system is superior to competition law in redistributing income relies on the idea that the economic system is designed in such a way that it would be possible to eliminate disparities of economic power that lead to wealth and income inequality by introducing changes in the tax schedule so as to improve the position of the weaker parties. An extreme scenario would be to consider that taxing monopoly profits will be a superior option than implementing competition law remedies with the aim to take care of the monopoly problem. Taxing monopoly profits and the subsequent wealth transfers this will entail (for instance could be fed through to consumers) does not however deal with the underlying imbalances of economic/bargaining power between the economic actors, which have been the source of inequality. What it does, as Emmanuel Voyiakis rightly notes in a different context, is to “increase consumers’ *purchasing* power, leaving their bargaining position unchanged”³³⁴. The differential of economic power is converted to an imbalance in the “structural position” of the least advantaged, for instance the poorer consumers, vis-à-vis those with a stronger structural position, the well-off in the specific context, i.e. a firm in a dominant position³³⁵. Indeed, having additional resources, through the wealth distribution effect of taxation, in the specific context would not put the consumers in a better bargaining position, insofar as they would still occupy the structural position that led to their structural weakness at the first place, in essence the lack of a next best alternative in a monopolized market³³⁶. To the extent that such structural weakness is to continue, the maintenance of the wealth transfer mechanism, necessary for the transaction to be considered “fair”, would require the consumers to dispose of some bargaining power in the overlapping game of the political sphere. However, to the extent that economic power may be converted to political power, one may doubt that such a structural position equalizer may operate effectively.

More fundamentally, Voyiakis asks what makes us think that consumers or citizens will have “a general reason to favor increases in their purchasing power over protections against the use of businesses’ superior bargaining power”³³⁷? Surely, purchasing more and cheaper products is an option that any consumer has reason to value, but, as Voyiakis rightly observes with regard to private law, but also relevant in our context, it is not always in the consumers’ general reasonable interest to favour rules that value increases in purchasing power rather than preferring competition law enforcement that would leave their structural

³³⁴ E. Voyiakis, *Private Law and the Value of Choice* (Hart Pub. 2017), 195,

³³⁵ On the concept of structural position, see A.J. Julius, ‘Basic Structure and the Value of Equality’, (2003) 31 *Philosophy and Public Affairs* 321.

³³⁶ E. Voyiakis, *Private Law and the Value of Choice* (Hart Pub. 2017), 196.

³³⁷ *Ibid.*

position less exposed³³⁸. This is true, in particular, if one takes into account the risk that structural unbalances will not be corrected by effective wealth-transfers in the future, in case the economic bargaining power of the dominant undertakings, for instance, is leveraged to political bargaining power that may oppose progressive taxation.

It therefore seems that the argument often made that taxation will be a superior system of wealth redistribution than regulation or competition law, takes a quite narrow perspective, first by ignoring the institutional framework, which might be different in each jurisdiction, and the likelihood that redistribution through taxation may not be a realistic option in the specific political or economic context, and second, by assuming that consumers, or the least advantaged category, will prefer an increase in their purchasing power following the implementation of a system of progressive taxation, which nevertheless will deal only superficially with the problem of the structural weakness of their position vis-à-vis the monopoly, to the implementation of competition law with the aim to tame, or eventually eradicate, the main source of the unequal outcomes in this case, the imbalance of structural positions between the consumers and the monopoly.

Similar arguments have been made with regard to the possibility of satisfying equity concerns through other instruments of state intervention than competition law, for instance economic regulation. It has been argued that competition law should focus on economic efficiency and the interrelated concept of consumer surplus, leaving to regulation the task to take into account equity concerns³³⁹. This position rests on the following implicit assumptions: (i) economic regulation is available in the specific economic sector, (ii) economic regulators offer a superior institutional mechanism than competition authorities to take into account fairness concerns, (iii) economic regulation can take sufficiently into account equity concerns so that there is no need for additional intervention by competition law, (iv) there is some form of allocation of tasks between economic regulators and competition authorities, the latter focusing on making markets work better for people, only from a (narrow) economic efficiency perspective, while the former is perceived as a tool whose purpose is to replace the price signalling role of the market³⁴⁰, through price regulation, or to “correct” the market outcome, markets, as a form of social organisation, failing in this case to satisfy social welfare.

In my view, these assumptions and the position put forward by these authors in general reflect a theoretical confusion and conceptual misunderstandings. First, economic regulation is not always available, and for good reason! In most cases markets work relatively well for social welfare and there is no need for the State to step in because of a market failure. Our analysis puts forward the idea that in monopolistic and concentrated markets, market

³³⁸ E. Voyiakis, ‘Contract Law and Reasons of Social Justice’, (2012) 25 Canadian Journal of Law & Jurisprudence 393. One may arrive to a similar conclusion if one takes the no-envy approach to determining what is a fair allocation of resources (see our analysis note 263 below). Indeed, as Ayal rightly notes, “(e)nvoy of consumers (or other producers, unable to enter the lucrative market) granted, it is aimed not at the profit itself, but at the superior position granted to the monopolist pre-existing market imperfections”: A. Ayal, *Fairness in Antitrust* (Hart, 2014), 179.

³³⁹ See, for instance, D.D. Sokol, Antitrust, Industrial Policy, and Economic Populism, in D. Gerard & I. Lianos, *Reconciling Efficiency and Equity: A Global Challenge for Competition Law?* (CUP, forth. 2018), Chapter 13.

³⁴⁰ This is the classic perception of the price system by F.A. Hayek, ‘The Use of Knowledge in Society’, (1945) 35(4) *The American Economic Review* 519.

failure may take different forms than the traditional output, price or innovation effects, and may negatively affect the type of equality cherished by the specific social contract³⁴¹. These equality effects may be taken into account by economic regulation, but in case they have not, and this is clear if the sector is not regulated, then there is no reason for competition law to ignore these concerns. To the extent that opportunities for regulation are often limited, and the regulatory process burdensome, competition law may be a cheaper institutional alternative to take into account these equity concerns.

Second, it is possible that regulation may take sufficiently into account fairness concerns. However, this is not always the case, and it is not clear that this will be done in the most efficient (that is less wasteful) way. Regulation is a quite intrusive tool to economic freedom and free markets. It is more prone to capture than competition law (which is applied horizontally to all sectors and thus raises lower risks of capture), and disposes, in most cases, of a less advanced arsenal of “smart” regulatory technologies than competition law, either in targeting intervention, or in remedying the market problem identified. For instance, competition does not impose similar duties to dominant firms and firms without market power, and its application rests on a careful consideration of the specific economic and legal context on a case-by-case basis, or on the development of standards of intervention for specific types of practices, following some economic analysis. Competition law can be both backward-looking and forward-looking, and relies on a minimal, almost architectural, intervention on incentives so that markets operate smoothly. Economic regulation is sector specific and thus more prone to the risk of capture. It is often only forward-looking, and enables less targeting as it is usually framed in a way that casts a wide net over conduct even adopted by non-dominant firms. It also relies on the idea that market incentives, on to take taking a more actively interventionist role. Hence, because of its flexibility, the competition law tool may be a superior institutional alternative than regulation in reconciling economic efficiency and equity concerns, while still largely relying on the market system.

Third, even if regulation takes into account fairness concerns, competition law may still intervene in order to ensure that the regulatory option chosen is proportional to the market problem identified³⁴². To the extent that fairness-related regulation is often national, in view of the lack of a broader EU competence in the social sphere, EU competition law may ensure that regulation will not negatively affect, also from a fairness perspective, the population of other Member States. However, the different nature of the relation between the federal and the State levels in the U.S. may justify a different approach.

Fourth, the separation of tasks between regulators, who are presumably interested in fairness, and competition authorities, which are exclusively preoccupied by economic

³⁴¹ That could be equality of income, wealth, gender equality, or as I argue in this paper complex equality.

³⁴² EU Competition law accepts the cumulative application of competition law and economic regulation. *Ex ante* regulation by a National Regulatory Authority does not prevent the *ex post* intervention on the basis of EU competition rules. See See, Case C-280/08 *Deutsche Telekom AG v Commission* [2010] ECR I-9555; Case C-295/12, *Telefónica SA and Telefónica de España SAU v Commission*, ECLI:EU:C:2014:2062. For a more detailed analysis, see G. Monti, ‘Managing the Intersection of Utilities Regulation and EC Competition Law’ (2008) 4(2) *Competition Law Review* 123; J Tapia & D Mantzari, The Regulation/Competition Interaction, in I Lianos and D Geradin (eds) *Handbook on European Competition Law-Substantive Aspects* (Edward-Elgar 2013), 588. Concerning UK competition law, see G. Monti, Utilities regulators and the Competition Act 1998 in B. Rodger (ed) *Ten Years of UK Competition Law Reform* (Dundee University Press, 2010), 139.

efficiency, is both descriptively wrong and normatively self-defeating. Regulators take into account both economic efficiency and fairness concerns. In many jurisdictions they can implement competition law and may impose competition law remedies, in addition to regulatory ones³⁴³. Their mission statement often includes extensive duties to promote competition, as well as to preserve the public interest. Competition law may intervene in order to establish the structural conditions that will make markets work for the benefit of the people, eventually also integrating in the competition analysis broader public interest concerns that go beyond the usual focus on price and output. Competitive and contestable markets may provide sufficient opportunities for “voice” and participation of all affected interests³⁴⁴, their outcome being judged fair to the extent that adjustments are made to ensure that the problems of missing markets and asymmetrical bargaining power are neutralised. It is only if reliance on markets fails to achieve fair *and* efficient outcomes that governments should turn to economic regulation. By not giving a chance to the institution of markets, following competition law intervention and adjustment, to prove that they can deliver fair outcomes, and by bypassing markets altogether in favour of regulation, such proposals may lead to opposite results than those anticipated by their proponents.

V. Equity and Efficiency: Is there a Trade-off?

The opposition to an increasing role for equity concerns in competition law is often motivated by the perception that such inclusion will necessarily lead to the demise of economic efficiency as the main principle guiding the “soul” of competition law. As I explained above, I think that there are several problems with an excessive reliance on the principle of economic efficiency but that notwithstanding, it is, in my view, a mistake to consider that equality will chase efficiency out of competition law, that is, that there is a trade-off between equality and efficiency. Reconceiving the relation between equality and efficiency requires however in the first place some discussion of their conceptualization as separate spheres. I will then explore why conceiving their interaction as a trade-off might not reflect the true nature of their relation.

A. Equity and Efficiency: separate spheres and the static trade-off position

People enter into cooperation with other people to the extent that this cooperation may produce a joint surplus that would not be possible absent that cooperation. Assuming that individuals have the incentive to cooperate with others, and consequently limit their freedom of action to a certain extent, in order to increase their welfare through cooperation, this joint surplus will be “the difference between the benefits (net of direct costs) each gains from the joint activity and the benefits each would receive in their next best alternative”.³⁴⁵ Each

³⁴³ See, for instance, the model followed in the UK, where UK legislator has chosen a regime of concurrent jurisdiction with regard to the application of EU and national competition law by sector-specific regulators in their area of competence.

³⁴⁴ See, for instance the “participation-centered” approach of N. Komesar, *Imperfect Alternatives: Choosing Institutions in Law, Economics and Public Policy*, (University of Chicago Press, 1997).

³⁴⁵ S. Bowles, *Microeconomics – Behavior, Institutions, and Evolution* (Princeton Univ. Press, 2004), 168

participant in a joint project should therefore receive benefits at least as great as in their next best alternative, so as to maintain their incentive to participate to the joint project (the so called participation constraint).³⁴⁶ As long as the “participation constraints” of all participants to the cooperative project are satisfied, the question of distribution is settled in an economically efficient way.³⁴⁷ What matters is not the distributive outcome as such, for instance that each participant enjoys an equal share of the joint profit, but the fact that each participant has been able to get a payoff equivalent to their next best alternative. Absent this rent from the joint surplus collected by the participants, these will have no incentive to enter into the joint activity at the first place. It is possible to imagine that a single participant could gain the most important part of the joint profit if, for instance, he makes take-it or leave-it offers to the rest of the participants that are only “barely superior to their next best alternatives”.³⁴⁸

If one focuses on efficiency in consumption, the resulting allocation will be Pareto efficient as the joint surplus is net of the participants’ next best alternatives, the surplus being allocated in such a way that it would not be possible by any reallocation to make people better off without making anybody else worse off. In practice, applying such a criterion may be quite rare, as in most situations some of the participants might be incurring losses from what would have been their next best alternative, for instance had there not been a move from one state of the economy to another. Economists have put forward the Potential Pareto Improvement Criterion (or Kaldor-Hicks efficiency), which advances that if the magnitude of the gains from moving from one state of the economy to another is greater than the magnitude of the losses, then social welfare is increased by making the move even, if no actual compensation is made³⁴⁹. According to Kaldor-Hicks efficiency, an outcome is efficient if those that are made better off can, *potentially*, compensate those that were made worse off, with the resulting outcome still being Pareto optimal. The winners should, in theory, be able to compensate the losers, but there is no requirement that compensation should be effectively paid.

It is true that this outcome may not be considered fair to the extent that it leads to an unequal allocation of the joint profit, should one consider that fairness requires that the joint surplus produced be allocated equally between the participants. However, fairness, in the form of equality of outcomes in the allocation of the surplus, is not a concern for welfare economics, which simply focuses on the size of the pie, rather than the way the pie is distributed for consumption. Welfare economic analysis carefully separates questions of efficiency from questions of distributive justice. This separation is explained by a number of crucial assumptions.

The first is what has been called “the Second Fundamental Theorem of Welfare Economics”, according to which if one assumes that all individuals and producers are selfish price takers, then almost any Pareto optimal equilibrium can be supported via the competitive

³⁴⁶ Ibid., 171.

³⁴⁷ Ibid., 171.

³⁴⁸ Ibid.

³⁴⁹ J.R. Hicks, ‘The Foundations of Welfare Economics’, (1939) 49(196) *Economic Journal* 696; N. Kaldor, ‘Welfare Propositions in Economics and Interpersonal Comparisons of Utility’, (1939) 49 (145) *Economic Journal* 549.

mechanism, provided appropriate lump sum taxes and transfers are imposed on individuals and firms³⁵⁰. The main idea is that in the long run the competitive process will eliminate any benefit from the joint surplus that is higher than the participation constraints of each of the participants. This further assumes that “only competitive equilibrium transactions take place”, a quite heroic assumption which, in the best case scenario, only holds at the very long term.³⁵¹ The theorem also implies that if a particular state of the economy is judged to be desirable, it may be achieved through lump-sum transfers, for instance progressive taxation and the welfare state. This separates issues of efficiency from issues of distributive justice, but for the reasons we explained above, this may not necessarily take place.

A second assumption is that allocational outcomes may not have effect on distributional outcomes, which is also quite unlikely, as the existing allocation of resources determines the next best alternative for each of the participants and consequently the distribution of the joint surplus. Hence, the Second welfare theorem of economics denotes a *status quo* bias for the existing allocation of resources, which is deemed to be efficient. However, the existing resource allocation may be the product of an unjust initial distribution of income that may contravene principles of social justice, as these are defined by non-utilitarian theories of justice.

Conversely, conflicts relating to the fair distribution of rents may contribute to inefficiency, to the extent that resources may be spent on advancing distributional claims and rent-seeking that deviates resources away from productive activities. Participants may also be driven in their selection for technologies and the organisation of their activity to activities that increase their share of the joint surplus, rather than to those increasing the size of the joint surplus. Finally, it is possible that joint surplus generating activities may be blocked following intense conflicts over the distribution of the joint surplus and “bargaining breakdowns leading to foregone mutual beneficial opportunities”.³⁵²

Modern economics recognize that most markets are characterised by externalities, imperfect competition and generally market failures. Most of the time, curative action undertaken in order to “correct” these market failures, with the aim to establish the conditions of the First Theorem of Welfare economics, will not succeed in bringing in a Pareto efficient outcome, the best case scenario being a Kaldor Hicks efficient outcome. Hence, the situation will often call the application of the Second Welfare theorem and wealth transfers. But here comes an indirect effect flowing from this conceptualization of efficiency and fairness/equality as two separate realms: the idea that their logic may not always be convergent and that, at some level, pursuing economic efficiency may come at the price of less equality. Hence, in this view, society should face a trade-off between equality and efficiency.

Assuming that there is a trade-off, and that the domain of this trade-off is quite large (if one takes the view that the situations in which the logic of efficiency and equality are not convergent constitute the majority of cases), the question is how this trade-off should be

³⁵⁰ M. Blaug, ‘The Fundamental Theorems of Modern Welfare Economics, Historically Contemplated’, (2007) 39(2) History of Political Economy 185.

³⁵¹ S. Bowles, *Microeconomics – Behavior, Institutions, and Evolution* (Princeton Univ. Press, 2004), 172.

³⁵² *Ibid.*, 173.

made, and by whom. The separability thesis assumes that issues of efficiency should always come first, in which case I can think of two possible approaches. One approach would be to leave the decision over the appropriate trade-off to the political realm, and its own mechanisms of resolving conflicts between policy values, economics-driven competition law only focusing on the generation of efficient outcomes, rather than on the generation of fair outcomes, the appropriate level of fairness vis-à-vis the appropriate level of efficiency (the trade-off) being a value-laden judgment that unelected officials should not be authorised to make in a democratic society³⁵³. However, this approach ignores the distributional implications of relying solely on an economic efficiency criterion, something we have highlighted above (as the fact that efficiency and equality are conceived as separate does not exclude that there may be some form of interaction between the two, producing effects across the two separate realms). It does not also explain why the same argument against decisions being made by unelected officials cannot also be opposed to decisions made solely under the guise of the First Fundamental Principle of Welfare Economics, to the extent that the choice of economic efficiency inevitably produces distributional implications. Another approach would be for an economics-driven competition adjudicator to explore the social implications of the choice of different examples of trade-offs between efficiency and equality, on the basis of the dominant cultural norms prevailing in the specific political community (by elaborating, for instance, a sort of culture-dependent social welfare function).

But, these are not the only options on the table. One may conceive that the relation between efficiency and equality is not divergent, but mostly, or almost always, convergent, thus starting from a different premise. The first approach would be to consider the relation between these two values only, excluding any other value from the calculus, and on the basis of some deontological judgment. In this case, one may consider that more equality will bring more efficiency (assuming that convergence occurs all times), or (if convergence between efficiency and equality is the rule, rather than the exception) that there should be a lexical ordering where equality may come before efficiency, or a capping strategy may be followed, according to which, after reaching a certain limit we no longer count additional aggregate welfare or well-being (efficiency) if that additional aggregate welfare or well-being (efficiency) can be achieved only at a cost to equality. Alternatively, one may conceive that the two principles should be reconciled without making any decision as to the priority of one vis-à-vis the other, on the basis of some deontological judgment, but that both should “maximise” a different, third, value to which both values could relate to.

In order to illustrate with some examples how these different conceptions of the relation between equality and efficiency play out in economic scholarship, I would like here to compare two different visions on this interaction.

The first view is that of economist Arthur Okun, who in his influential book *Equality and Efficiency – The Big Tradeoff*, published in 1975, set, to a large extent the consensus view in economics and public policy, for the next three to four decades³⁵⁴. While accepting that in

³⁵³ The separability between questions of economic efficiency and issues of distribution has been criticized by L. Robbins who advanced the view that there is a distinction between normative and positive economics but that economists should avoid value-laden policy recommendations, without making explicit their normative predispositions: see, L. Robbins, ‘Economics and Political Economy’, (1981) 71 *American Economic Review* 1.

³⁵⁴ A.M. Okun, *Equality and Efficiency – The Big Tradeoff* (Brookings Institution, 1975, republished in 2015).

some cases efficiency and equality have convergent logics, Okun focused on situations where society “deliberately” opted for equality, by establishing entitlements and rights, noting that this choice could compromise efficiency, which he views as intrinsically related to the existence of markets³⁵⁵. This theoretical conception of market-free space of rights notwithstanding, Okun recognizes that, in reality, “the marketplace transgresses on virtually every right”³⁵⁶, giving the example of the disadvantaged position of the poor with regard to equality before the law, the link between money and political power (in particular campaign financing, lobbying), the fact that the transgression of equal political rights often leads to consumer harm. With regard to the “corrective strategy” that needs to be developed, he disfavours “general efforts to curb bigness and wealth”, although he notes that limiting the scope of economic activity and markets controlled by the “plutocrats” (in particular conglomerate mergers) can help a little³⁵⁷. Instead, he opts for “specific aids and sanctions”, which will not bring “complete equality”, but might correct serious transgressions of money “on the domain of rights”³⁵⁸. Okun considers both equality of income/wealth and equality of opportunity, which, he notes may lead to greater equality of income, but also constitutes “a value in itself”³⁵⁹. Okun starts from the premise that equality and efficiency are equally valued, and “in places where they conflict”, “any sacrifice of either has to be justified as a necessary means of obtaining more of the other (or possibly of some other valued social end)”³⁶⁰. He does not examine the latter option, but focuses on the bilateral relation between efficiency and equality, and on which of the two values the decision-maker should give priority. His position is that in performing this trade-off (balancing) of these conflicting values, “the social constitution should not seek to settle forever the precise weighting of inequality”, but should instead weight equality heavily, and rely on the democratic process to “select reasonable weights on specific issues as they arise”³⁶¹.

One may contrast this view with that of British economist Ken Binmore who understands the relation between equality and efficiency as complementary, rather than antagonistic, both being considered as necessary conditions for the emergence of a social contract that would bring together different people by promoting a common set of understandings allowing them to coordinate their efforts, or, in other words, “coordinate on a particular equilibrium of the game of life that we play together”³⁶². Binmore takes an “evolutionary approach to social

³⁵⁵ Ibid., 5. According to Okun, political and civil rights have three obvious “features”: first, they “are acquired and exercised without any monetary charge”, that is citizens do not pay a price for their use, and this, in his view, leads them to “lack the usual incentive to economize on exercising them”; second, they are not conferred on the basis of comparative advantage, that professes a specialisation of people to what they can do particularly well – hence, they are not necessarily awarded on the basis of some achievement and intelligence; third, they are not usually distributed as incentives, or as rewards and penalties, as rarely a society establishes a “quid pro quo in the domain of rights”; fourth, their distribution “stresses equality, even at the expense of equity and freedom”; finally, “rights cannot be bought and sold”, as they are “seen as integral to human dignity” (Ibid., 19). In conclusion, “[...] rights can be viewed as inefficient, because they preclude prices that would promote economizing”. Ibid., 4-10.

³⁵⁶ Ibid., 22.

³⁵⁷ Ibid., 30.

³⁵⁸ Ibid., 31.

³⁵⁹ Ibid., 83-84.

³⁶⁰ Ibid., 88.

³⁶¹ Ibid., 94.

³⁶² K. Binmore, *Natural Justice* (Oxford University Press 2005) 3-14, spec. 4.

contract theory”, advancing three levels of priority for a social contract to be “internally stable”, that is to be maintained without the need for a specific external enforcement agency: first, it should be stable, the social contract not needing any “glue” but holding together by coordinating human behaviour on an equilibrium in the game of life³⁶³. In my opinion, although this may slightly misrepresent Binmore’s position, that stability can be compared to the criterion of “systemic resilience”, which I will explain in more detail in a subsequent section³⁶⁴. The second priority of a social contract is efficiency, as each society competes with the social contacts in other societies and being efficient, or in other words avoiding waste, enables the specific society to compete successfully with other social groups in the game of life. The third priority for the social contract to hold together is fairness. This is a particularly important principle, as there may be various efficient equilibria available as possible social contracts, thus making it necessary for society to select one of these on which to coordinate³⁶⁵.

For Binmore, fairness norms provide an “informal equilibrium selection device” in the repeated game of life and the necessary coordination of collective decisions in society³⁶⁶. Not any efficient outcome will be considered as socially optimal. Only the efficient outcome that is also fair in the specific society and context. What counts as fair depends on the specific culture, fairness norms differing in different times and places, but also on the “deep structure” of “universal principles of justice”, devised with the assistance of the mechanism of interpersonal comparison effectuated at an hypothetical original position under the veil of ignorance, a method employed by John Rawls and John Harsanyi, although with different results in each case³⁶⁷. Binmore laments that “(m)odern economic textbooks usually have little to say about fairness” and criticizes the “myth” that “there is a necessary trade-off between equity and efficiency”. He also notes that neoclassical price economists “mostly brush the problem of distribution under the carpet altogether by defining any efficient outcome to be socially optimal”, and thus rejecting any possibility that a particular efficient outcome is unfair³⁶⁸. He expresses discontent with the one equilibrium models used in economics, such as the neoclassical ideal of a perfectly competitive market, which explain why there is no role for fairness in these models³⁶⁹. He remarks that we may need to select from a wide variety of efficient Nash equilibria and fairness norms will constitute the backbone of the selection process effectuated in the hypothetical original position. He criticizes the “schizophrenia” of micro-economics to reject interpersonal comparisons of utility, and its narrow focus on “economic surplus”, simply because “maximizing economic surplus is what happens when a perfectly competitive market operates without constraint”³⁷⁰.

³⁶³ Ibid., 4-5

³⁶⁴ Binmore notes that utilitarianism fails to recognize the first priority of stability: Ibid., 189.

³⁶⁵ Ibid., 14. Again Binmore considers that an utilitarian “will be in difficulty” at this third level of priority. Ibid., 189.

³⁶⁶ Ibid., 197.

³⁶⁷ Ibid. 15-17. The first one advanced that the application of such interpersonal comparison using the device of the original position will lead to an egalitarian distribution of goods and services, while the second argued that the use of this device will lead to an utilitarian distribution.

³⁶⁸ Ibid., 66.

³⁶⁹ Ibid., 66-67.

³⁷⁰ Ibid., 116.

According to Binmore, this “dishonest argument makes the operation of the market seem socially optimal only by slipping in the assumption that each extra dollar is equally valuable no matter to whom it is assigned”, although most of us would rather spend a tax dollar on “relieving the suffering of the poor and needy rather than providing tax breaks for the rich and powerful”³⁷¹. Binmore believes that fairness norms evolved out of the need to select among multiple efficient equilibria, therefore finding the idea that some trade-off between equity and efficiency is necessary as making “no sense at all”³⁷².

One may take stock of these criticisms and argue instead for an “envy” criterion in which a single efficient equilibrium will be deemed fair if nobody would envy the bundle of commodities assigned to someone else, or in other words that people at any given time will, at least weakly, prefer their own bundle of commodities to all others³⁷³. Although Binmore finds that this would be “a lot more respectable” than arguing for a trade-off between efficiency and fairness, he finds that the no-envy criterion is unsatisfactory, because it only focuses on the assignment of bundles of goods/possessions and their subjective valuation, and overlooks the fact that when interpersonal comparisons are made one may focus on empathetic preferences, each person imagining herself/himself in another person’s shoes. Binmore provides the example of an interpersonal comparison between a person who is poor with another who is rich but suffers from clinical depression, to show the futility of the no-envy argument so long as this only focuses on the possession of bundles of commodities.

Binmore’s conceptualization of fairness norms relies on the “mental machinery” of “empathetic preferences”, that is the ability of humans to imagine themselves into the position of other human beings, without necessarily that meaning that they feel any concern for the other human being’s welfare³⁷⁴. In a repeated game, the expression of individual’s empathetic preferences will lead to the emergence of an “empathy equilibrium” which would encapsulate the choice of a standard of interpersonal comparison in use in the specific society when the evolutionary game reaches a Nash equilibrium³⁷⁵.

The approach put forward by Binmore emphasises the futility of the trade-off between efficiency and fairness, both values being important for the stability of the social contract. Fairness norms enable the selection of one among many efficient equilibria that would maximise the chances of the specific social contract to survive and be internally stable without the presence of an omnipotent external enforcement agency³⁷⁶. This is particularly

³⁷¹ Ibid.

³⁷² Ibid.

³⁷³ An allocation is deemed fair if none envies the bundle of commodities another has. See, H. Varian, ‘Equity, Envy and Efficiency’, (1974) 9 *Journal of Economic Theory* 63; A. Feldman & A. Kirman, ‘Fairness and Envy’, (1974) 64 *American Economic Review* 995; H. Varian, *Dworkin on Equality of Resources*, (1985) 1 *Economics and Philosophy* 110; C. Arnsperger, ‘Envy-Freeness and Distributive Justice’, (1994) 8 *Journal of Economic Surveys* 155. For an application of this approach in competition law, see the excellent analysis provided by A. Ayal, *Fairness in Antitrust* (Hart, 2014), 164-181. The no-envy criterion may provide a proxy for welfare without necessarily proceeding to an interpersonal comparison of utility as it simply enables each person to make a choice about her/his preferred bundle of commodities. “Comparisons are thus *within* and according to subjective valuations, and not *across* individuals”: Ibid., 168 (emphasis in the text).

³⁷⁴ He distinguishes empathetic preferences from sympathetic preferences, which concern the individual’s personal preference to sympathise with another human being. Ibid, 114-115.

³⁷⁵ Ibid., 126.

³⁷⁶ K. Binmore, *Natural Justice* (Oxford University Press 2005), 170-175.

important if a new technology, innovation or environmental change unexpectedly expands or reduces the available set of efficient equilibria to be selected. Demands for a fair distribution of the surplus will in this case be particularly strong, making it necessary to rely on some fairness norms on the basis of an egalitarian bargaining solution as this is framed by the past history, culture and values of the society in question. In the long term, a market mechanism may erode the moral values of the society in question, but social systems “take time to find their way to an equilibrium”, while “fairness evolved to provide *short-run* resolutions to the equilibrium selection problem”³⁷⁷. Although Binmore recognizes some limits in his approach, this work shows the weak theoretical foundations of the trade-off conception of the relation between efficiency and fairness and the importance of taking care of even short-run inequality effects.

B. Equity, Growth and Innovation: the dynamic trade-off position

The trade-off conception of the relation between efficiency and equity/fairness has also been quite influential in envisioning their interaction in a dynamic or evolutionary perspective. The trade-off may not be set in present terms, but may relate to the view that pursuing equality may affect growth or innovation. There are two main strands in this literature. A group of authors focused on the interaction between growth and inequality, arguing that there is a trade-off in the sense that rising inequality may be related to higher growth, at least in developing countries. Another group of authors examined the existence of a trade-off between equity and dynamic efficiency or innovation.

1. The Equity and Growth Trade-off

With regard to the first group of authors, a number of post-Second World War growth theorists challenged the view of classical economists, such as David Ricardo, who were arguing that growth will flatten, taking into account the fact that natural resources are fixed and that there are diminishing incremental per-unit returns if an additional factor of production is added and all other factors are held constant³⁷⁸. According to the classical economics view, in the absence of technological progress, growth in the labour force would lead, at least after a period of time, to lower output per worker, thus rendering necessary redistribution, this being the only way to reduce poverty.

This view was criticized first by Lewis, who put forward the view that growth will create a modern industrial or commercial farming sector that will expand through the reinvestment of the profits (savings) generated by these more modern economic activities, while labour is drawn from the traditional sector (of subsistence agriculture for instance)³⁷⁹. The labour surplus of the traditional sector will not be quickly absorbed by the modern sector, and consequently the wage rates of the former will not raise, in view of the labour surplus, at

³⁷⁷ Ibid., 184.

³⁷⁸ M. Ravallion, *The Economics of Poverty* (OUP, 2016), 385-386.

³⁷⁹ A. Lewis, ‘Economic development with Unlimited Supplies of Labor’, (1954) 22 Manchester School of Economics and Social Studies 139.

least until the “Lewis turning point” is reached (the point where the labour surplus is finally absorbed). The wage gap between traditional and modern sectors will increase income inequality and poverty, in particular in rural areas³⁸⁰.

A similar perspective on the inverse relation between growth generated by the reinvestment of savings and inequality, at least for developing countries, was also put forward by Kuznets, who considered that inequality first increases and reaches a peak point before falling after a critical income (or industrialisation) level is reached. Consequently, for Kuznets, there is an inverted-U relationship between growth and inequality, at least for developing countries (the so called Kuznets curve)³⁸¹. Following the example of Lewis, Kuznets focused on urbanisation and on the expansion of a modern economic sector drawing on surplus labour from a traditional sector, while savings were invested in the modern sector. Capital holders were seen as having a higher propensity to save and therefore to invest (thus creating a direct link between savings and investments), with the result that inequality of income and greater savings were assumed to provide a faster way to promote growth.

These authors argued that, to the extent that the marginal propensity of the rich to save money and invest is higher than that of the poor, inequality may have positive effects on growth. Greater taxation and redistribution was thought as reducing the ability of capital owners to save and their incentive to invest, leading to the perception that there is a “trade-off between productive efficiency and social justice”³⁸². Higher and constant wages rewarding unobservable effort were also thought to discourage workers from investing any effort, this leading to a reduction in productivity³⁸³. Hence, these authors considered that inequality was a necessary evil for sustained growth. Work by Solow and Swan further suggested that there is a process of convergence that is also operating across countries, the poorer countries catching up long-term the mean incomes of richer countries³⁸⁴. These authors relied on the assumption of the diminishing returns of capital investment, as capital productivity grows at a faster rate for less developed countries, which are able to catch up after attracting more foreign investment. The consensus among growth economists was therefore that inequality and poverty both intra-State and inter-State were self-correcting in the long term and that inequality was good for incentives, and consequently growth³⁸⁵.

This view has been subject to criticism. First, several cross-country studies the last two decades have shown that inequality may be an impediment to growth³⁸⁶. In 2014,

³⁸⁰ For a discussion, see M. Ravallion, *The Economics of Poverty* (OUP, 2016), 393-396.

³⁸¹ S. Kuznets, ‘Economic Growth and Income Inequality’, (1955) 45 *American Economic Review* 1.

³⁸² Ph. Aghion, E. Caroli & C. García-Peñalosa, ‘Inequality and Economic Growth: The Perspective of the New Growth Theories’ (1999) 37(4) *Journal of Economic Literature* 1615 referring to the work of A.M. Okun, *Equality and Efficiency – The Big Tradeoff* (Brookings Institution, 1975, republished in 2015).

³⁸³ J.A. Mirrlees, ‘An Exploration in the Theory of Optimum Income Taxation’, (1971) 38(114) *Review of Economic Studies* 175; E.P. Lazear & S. Rosen, ‘Rank-Order Tournaments as Optimum Labor Contracts’, (1981) 89(5) *Journal of Political Economy* 841

³⁸⁴ R. Solow, ‘A Contribution to the Theory of Economic Growth’, (1956) 70(1) *Quarterly Journal of Economics* 65.

³⁸⁵ B. P. Fisher & J. D. Erickson, Growth and equity: Dismantling the Kaldor–Kuznets–Solow consensus, in J.D. Erickson & J.M. Gowdy (eds.) *Frontiers in ecological economic theory and application* (Edward Elgar, 2007) 53, 53; Ph. Aghion, E. Caroli & C. García-Peñalosa, ‘Inequality and Economic Growth: The Perspective of the New Growth Theories’ (1999) 37(4) *Journal of Economic Literature* 1615, 1615.

³⁸⁶ A. Berg & J.D. Ostry, *Inequality and Unsustainable Growth: Two Sides of the Same Coin?*, IMF Staff Discussion Note 11/08 (Washington: International Monetary Fund, 2011); E. Dabla-Norris, K. Kochhar, F.

research from the IMF concluded that countries with high inequality experience shortened periods of growth and that faster and more durable growth is strongly correlated with lower inequality³⁸⁷. A further IMF paper in 2015 expanded on this to state that “the income distribution itself matters for growth” as well; “if the income share of the rich increases, then GDP growth actually declines over the medium term, suggesting that the benefits do not trickle down”³⁸⁸. In contrast, an increase in the income share of the poor is associated with higher GDP growth. The OECD found, when looking back over the past 30 years, that income inequality has had a significant negative impact on growth³⁸⁹. The OECD analysis, which includes 20 EU countries, found that in Italy and the UK, the cumulative growth rate would have been 6 to 9 percentage points higher had income disparities not widened. In Sweden, Finland and Norway, the increase in inequality, in each case from initially low levels, was also found to have held back growth. On the other hand, in Spain, France and Ireland relatively lower levels of inequality prior to the financial crisis helped to increase their GDPs.

Second, inequality may affect incentives and therefore growth. Inequality may generate political and social instability as inequality leads to weak aggregate demand, which is compensated by opening up the possibilities of households to enter into debt, thus raising the risks of an asset bubble that would lead to financial instability and recession³⁹⁰. It may also lead to requests for redistribution that are higher than those that would occur had the fruits of growth been distributed more fairly (and equally)³⁹¹. It may reduce growth sustainability, in particular the duration of growth spells³⁹². Higher inequality affects productivity and incentives for investment in education, or the ability of lower-income households to accumulate physical and human capital, or to ensure inter-generational mobility³⁹³.

Third, some of the assumptions on which the previous consensus relied upon did not prove correct. For instance, some authors have remarked that the diminishing returns to capital assumption on which neoclassical growth theory relies upon in order to predict convergence, either among countries or at an intra-country level does not hold, as in reality capital markets are imperfect, and consequently the distribution of the aggregate level of

Ricka, N. Suphaphiphat & E. Tsounta, Causes and Consequences of Income Inequality: A Global Perspective, (IMF, SDN15/13. June 2015) 7 (finding an inverse relationship between the income share accruing to the rich - top 20 percent- and economic growth)

³⁸⁷ J. D. Ostry, A. Berg, & Ch. G. Tsangarides, Redistribution, Inequality, and Growth (IMF Staff Discussion Note, April 2014), SDN14/02.

³⁸⁸ E. Dabla-Norris, K. Kochhar, F. Ricka, N. Suphaphiphat & E. Tsounta, Causes and Consequences of Income Inequality: A Global Perspective, (IMF, SDN15/13. June 2015) 4.

³⁸⁹ F. Cingano, Trends in Income Inequality and Its Impact on Economic Growth, (OECD SEM Working Paper No. 163, 2014).

³⁹⁰ J. Stiglitz, ‘Inequality and Economic Growth’ (2015) 86(S1) *The Political Quarterly* 134, 143.

³⁹¹ A. Alesina & R. Perotti, ‘Income Distribution, Political Instability and Investment’, (1996) 40(6) *European Economic Review* 1203; D. Rodrik, ‘Where Did All the Growth Go? External Shocks, Social Conflict, and Growth Collapses’, (1999) 4(4) *Journal of Economic Growth* 385

³⁹² A. Berg, J.D. Ostry & J. Zettelmeyer, ‘What Makes Growth Sustained?’ (2012) 98(2) *Journal of Development Economics* 149 (defining growth spells as “periods of high growth preceded by an upbreak and ending” and finding that “growth duration is positively related to: the degree of equality of the income distribution”).

³⁹³ . Dabla-Norris, K. Kochhar, F. Ricka, N. Suphaphiphat & E. Tsounta, Causes and Consequences of Income Inequality: A Global Perspective, (IMF, SDN15/13. June 2015) 8 and the bibliography cited.

output will be important to the extent that redistributing wealth from the rich to the poor may enhance aggregate productivity and consequently growth³⁹⁴. Furthermore, contrary to the assumption of neoclassical price theory of diminishing returns to scale of capital and labour, which leads to a predictable equilibrium long term, where poorer nations, or the poorer parts of society, will naturally catch up, a number of authors raised the possibility of increasing returns to scale and path dependence resulting from positive feedbacks magnifying the effects of small random economic changes³⁹⁵. The rate of investment and the rate of return on capital may therefore increase rather than decrease with increases in the capital stock³⁹⁶. One may refer to the example of economies of scale. New technologies require important investments and fixed costs for their development. As production grows, unit costs decrease and consequently profits increase. Positive feedback loops may emerge from learning by doing effects³⁹⁷, as experience with one product makes it easier to produce other products incorporating similar technologies. The use of a product or service by any user may also increase the product's value for other users (sometimes even all users) (positive network externalities). This positive feedback loop mechanism explains why these markets are often tippy and are characterized by 'winner takes it all' competition. For instance, there might be fierce competition to conquer a market share advantage over rivals, with regard to the specific technology or standard applying in the industry, as the market may switch almost completely to the winner (competition for the market).³⁹⁸

Fourth, theoretical work by Piketty put forward the view that the rate of return to capital, r , systematically exceeds the rate of growth, g , [$r > g$]³⁹⁹. Piketty argues that as rich people hold most of the wealth, relative high returns to capital are increasing inequality, the returns not being reinvested in productive activities, but having pure distributional effects. In chapter 24 of his 1936 major work, the *General Theory of Employment, Interest and Money*, Keynes had argued that poor families tend to have a higher marginal propensity to consume (MPC) out of income gains than do the rich; and that the MPC declines steadily as income rises⁴⁰⁰. Thus, redistribution from rich to poor would increase aggregate effective demand, at least short term, even if in the longer term, as it was remarked by Keynes' opponents, the aggregate consumption impact of redistribution would vanish⁴⁰¹. Keynes however was concerned about the short run remarking that "(i)n the long run we are all dead(:) Economists

³⁹⁴ Ph. Aghion, E. Caroli & C. García-Peñalosa, *Inequality and Economic Growth: The Perspective of the New Growth Theories* (1999) 37(4) *Journal of Economic Literature* 1615,

³⁹⁵ B. Arthur, *Increasing Returns and Path Dependence in the Economy* (The Univ. of Michigan press, 1994) 4 (noting that the parts of the economy that are resource-based (such as agriculture or mining) "are still for the most part subject to diminishing returns" and thus "conventional economics rightly holds sway", while the knowledge-based parts of the economy (such as pharmaceutical, software) "are largely subject to increasing returns"); P.M. Romer, 'Increasing Returns and Long-Run Growth', (1986) 94(5) *The Journal of Political Economy* 1002

³⁹⁶ *Ibid.*, 1003.

³⁹⁷ K. Arrow, 'The economic implications of learning by doing', (1962) 29(3) *Review of Economic Studies* 155.

³⁹⁸ Usual examples include the videotape format war between VHS and Sony's BETAMAX, or the competition between Windows and Intel from one side and Apple from the other for the microcomputer market.

³⁹⁹ T. Piketty, *Capital in the Twenty-First Century* (Harvard Univ. press, 2014).

⁴⁰⁰ The MPC measures the degree of increased spending resulting from an increase in income. J.M. Keynes, *General Theory of Employment, Interest and Money* (1936, Lexington, 2014), Book 3, Chapter 10.

⁴⁰¹ M. Ravallion, *The Economics of Poverty* (OUP, 2016), Box 1.22.

set themselves too easy, too useless a task if in tempestuous seasons they can only tell us that when the storm is long past the ocean is flat again”⁴⁰².

Finally, increasing inequality and altering the distribution of income in society, even if this follows the legitimate aim to remove a market failure and may disappear in the long-run, may lead to political instability and negative political effects long-term, as existing coalitions of power and the extant political equilibrium may be affected, sometimes leading to negative effects with regard to the acceptance of political reforms, political instability, consequently diminishing future growth prospects⁴⁰³. One could thus conclude from the above that the emerging consensus among economists is that there is no trade-off between growth and equality and that growth should be equal and sustainable. Although concerns about equality and the distributional implications of competition law and policy were not central in economic scholarship, the focus being more on economic growth, more recent work focuses on “inclusive growth” as an important value that seems to be promoted by an active competition policy⁴⁰⁴.

2. The Equity and Innovation Trade-off

The second group of authors took an evolutionary perspective on economic change, emphasising the role of innovation leaders and the dynamic process of competition. Drawing on the work of Austrian economist Joseph Schumpeter⁴⁰⁵, this literature distinguishes between firms that “deliberately strive to be leaders in technological innovations” and those that “attempt to keep up by imitating the successes of the leaders”⁴⁰⁶. Competition is not static but dynamic, and thus leads to a process of continuing disequilibrium fundamentally different from the static price competition depicted by neoclassical price theory with winners and losers. The market is considered as “a device for conducting and evaluating experiments in economic behavior and organization”, leading to the elimination of the less innovative firms and tipping the market to the innovation leaders. The market structure thus evolves to one involving large firms with considerable degree of market power, but this is “the price that society must pay for rapid technological advance” as these firms have the “capability advantages” in terms of risks spreading, economies of scale in R&D, financial resources for taking care of the sunk costs of the research, as well as the “appropriability advantages” for better protecting their innovations through IP rights⁴⁰⁷.

⁴⁰² J. M. Keynes, *A Tract on Monetary Reform* [1923], (Royal Economic Society edition, Macmillan, 1971), 65.

⁴⁰³ D. Acemoglu & J.A. Robinson, ‘Economics versus Politics: Pitfalls of Policy Advice’, (2013) 27(2) *Journal of Economic Perspectives* 173.

⁴⁰⁴ A. Dierx, F. Ilzkovitz, B. Pataracchia, M. Ratto, A. Thum-Thysen & J. Varga, ‘Does EU Competition Policy Support Inclusive Growth?’, (2017) 13(2) *Journal of Competition Law & Economics* 225, 257 (noting that “procompetitive policies have important redistributive effects because, although they boost the demand for all types of workers, they significantly reduce rents that are destined to non-liquidity constrained households”).

⁴⁰⁵ J. Schumpeter, *Capitalism, Socialism and Democracy* (Harper & Row, 1942) 84 (“[C]ompetition from the new commodity, the new technology, the new source of supply, the new organization (...) competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and outputs of the existing firms but at their very foundations and their very lives.”)

⁴⁰⁶ R.N. Nelson & S. G. Winter, *An Evolutionary Theory of Economic Change* (Harvard Univ. press, 1982), 275

⁴⁰⁷ *Ibid.*, 278.

In essence, the argument is that the static costs of a concentrated market structure and the exercise of market power may lead to welfare losses because of output restriction (and higher prices). However, these losses may be traded-off by a faster rate of growth of productivity because of investments in innovation and pushing even further the production possibility frontier of the specific economy. More importantly, product innovation benefits to consumers in the long run. The following graph (Figure 3) is an attempt to portray the positive welfare implication of Schumpeterian competition long-term⁴⁰⁸.

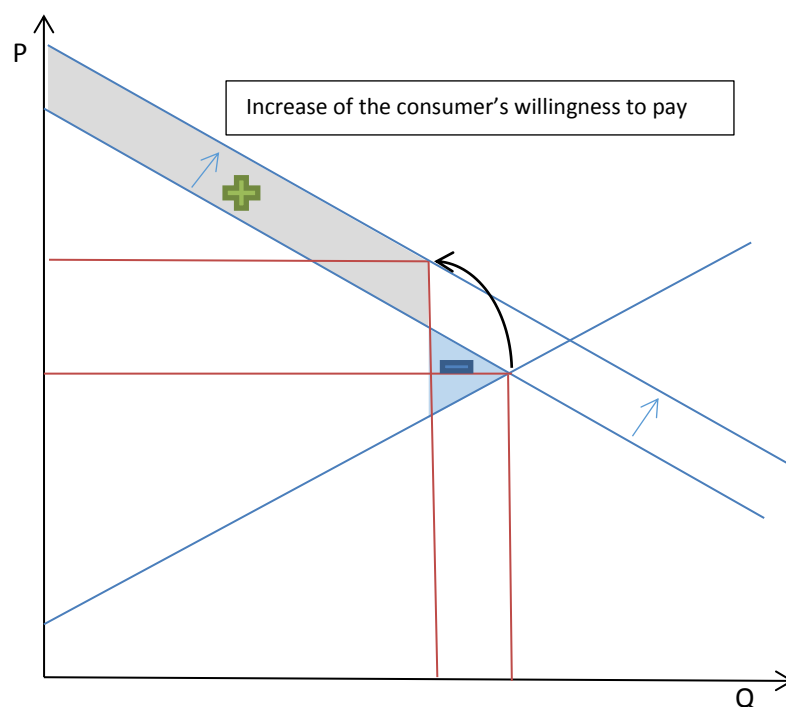


Figure 3: Dynamic efficiency and the Schumpeterian trade-off

Here, it is the demand schedule that is shifted outward to the right as a result of product innovation. This demand shift reflects the fact that consumers have higher willingness to pay for the new generation of products which, therefore, supplants the current generation. Let's assume first that the latter, however, was produced under competitive conditions (i.e., the product life-cycle reached the maturity stage of commoditisation). Similarly to the previous trade-off between productive and allocative efficiency, the assessment of the net impact in terms of total welfare requires the balancing between the anticompetitive deadweight-loss triangle and the procompetitive quadrilateral shaped area.

In this case, however, rather than being entirely appropriated by the dominant firm in the form of higher producer surplus, the procompetitive effect is mostly beneficial to consumer, thanks to higher consumer surplus. This is even more the case where the sellers of the displaced product had market power (i.e., as in the sequence of monopolist), so that allocative efficiency was already not being maximised. Under these circumstances, the disruption due to dynamic competition would be unambiguously beneficial for consumers.

⁴⁰⁸ The next two paragraphs draw on I. Lianos & V. Korah with P. Siciliani, *Competition Law: Analysis, Cases and Materials* (forth. OUP, 2018).

These approaches put forward the need to protect the incentives of large firms to innovate, on the assumption that these will invest their profits on R&D. However, there are various problems with this assumption. First, as it is recognized even by authors advocating a dynamic competition approach, the Schumpeterian trade-off may be different from industry to industry; In particular, in an industry marked by cumulative innovation, “a more sheltered competitive environment, with its associated higher mark-ups, does lead to more rapid productivity growth”⁴⁰⁹. Second, one may take with a grain of salt the argument made sometimes that the reduction of the profits of large firms following competition law enforcement, immediately and to a similar extent, affects their incentives to fund R&D. Indeed, recent studies show that, for instance in the pharma sector, companies do not invest the majority of their profits on R&D, but prefer instead to buy their own shares so as to provide higher revenues to their management and shareholders.⁴¹⁰ Other studies have shown that a lot of R&D in this sector is publicly funded, State resources funding the riskier parts of the pharma R&D effort, and that the rate of innovation has fallen with few new drugs being brought into the market, as a result of reduction of the part of profits spent on R&D and the prevalence of the share-buybacks practice.⁴¹¹

Companies prefer to retain earnings and distribute them to shareholders and the management leading to an increase of conspicuous consumption (and reinforcing asset bubbles)⁴¹², rather than invest them in R&D⁴¹³. Investments in R&D are increasingly concentrated in a few sectors across most of the mature economies⁴¹⁴. Firms may also employ cash hoarding as a defensive tool in order to protect their current stock of technology, and not in order to invest in new technologies. Statistics show that business investment has steadily declined since the late 1970s, in if measured as a share of GDP⁴¹⁵. Companies prefer to buy potential competitors rather than compete on innovation with them, as this is indicated by a considerable increase of M&A transactions in recent years. The concept of research has also

⁴⁰⁹ R.N. Nelson & S. G. Winter, *An Evolutionary Theory of Economic Change* (Harvard Univ. press, 1982), 350. The same authors remark that “[...] Schumpeterian competition selects both on inventions and on firms, and molds market structure as well as the flow of technology. But it also proceeds in part through conscious social policy. Thus, for example, antitrust laws were put in place to prevent or retard the growth of concentration”. The authors raise the possibility that an industry dominated by a large firm that has “lost its innovative prowess” and by imitating competitors, barricades the industry “from the entry and growth of small innovators”, in particular in sectors where experience counts.

⁴¹⁰ W Lazonick, ‘Profits without prosperity’ (2014) 92(9) *Harvard Business Review* 46.

⁴¹¹ M Mazzucato, *The Entrepreneurial State: debunking public vs. private sector myths* (Anthem Press, 2013).

⁴¹² On “conspicuous consumption” see, T, Veblen, *The Theory of the Leisure Class* (first ed. 1899, Pennsylvania State Univ., 2003).

⁴¹³ See, for instance, some recent research on big pharma: W. Lazonick, ‘Profits without prosperity’, (2014) 92(9) *Harvard Business Review* 46-55; W. Lazonick & M. Mazzucato, ‘The risk-reward nexus in the innovation-inequality relationship: Who takes the risks? Who gets the rewards?’, (2013) 22(4) *Industrial and Corporate Change* 1093-1128; P. Gleadle et al., ‘Restructuring and innovation in pharmaceuticals and biotech: The impact of financialisation’, (2014) 25 *Critical Perspectives on Accounting* 67-77. At a broader level, it can also be seen how financialisation alters a firm’s incentives away from investment and in favour of short-term shareholder’s return: see O. Orhangazi, ‘Financialization and Capital Accumulation in the Nonfinancial Corporate Sector: A Theoretical and Empirical Investigation on the US Economy, 1973-2004’, (2007) *MPRA Paper No. 7724*. Available at: <https://mpra.ub.uni-muenchen.de/7724/>; M. Mazzucato, ‘Financing innovation: creative destruction vs. destructive creation’, (2013) 22(4) *Industrial and Corporate Change* 851-867.

⁴¹⁴ See for example G. Clark, ‘Winter Is Coming: Robert Gordon and the Future of Economic Growth’, (2016) 106(5) *American Economic Review: Papers & Proceedings* 68-71.

⁴¹⁵ *Ibid*, p. 29.

changed – a lot of money is actually spent on product adaptation, design and development, copying a feature or add on from another product or adjusting the product stock to local demands, the D, and little is spent to the R⁴¹⁶. Growth in real investment on R&D is declining, the US National Science Foundation reporting that its measure of R&D intensity has flat-lined since 1995⁴¹⁷. Many companies have reacted to problems with their R&D strategy by outsourcing R&D to smaller firms that can take bigger risks⁴¹⁸. Once the R&D investments have begun to mature into innovative products, large companies have acquired them and integrated them into their global value chains⁴¹⁹. This may affect the innovation and entrepreneurial ethos and consequently the trade-off to be made, should one take stock of the fact that a lower percentage of profits will be invested in innovation in view of the lower profitability of R&D research⁴²⁰. In the absence of some assurance that large firms will invest their profits to promote innovation and increase the production possibility frontier, rather than in other activities, the Schumpeterian trade-off may not justify the sacrifice of allocative efficiency incurred and the resulting inequality, just because of the promise of some future consumer gains.

Challenging the idea that there is a trade-off between efficiency and equality raises the question of what a fairness-driven competition law would look like.

VI. A fairness-driven competition law?

This Section explores the possibility of a fairness-driven competition law and what this entails in practice. Our hypothetical is a competition law regime that values equality/fairness, any possible effects on economic efficiency notwithstanding. Adopting fairness as a guiding principle of competition law can be made either in utilitarian terms or on deontological terms. Hence, it becomes important to understand the meaning of fairness in this context before proceeding in elaborating a conception of fairness that will fit the challenges and criticisms to which the current model of economic efficiency-driven competition law has been subject to.

A. What is Meant by Fairness?: Between Prioritarianism and Egalitarianism

⁴¹⁶ F. Erixon and B. Weigel, *The Innovation Illusion* (Yale University Press, 2016), 33.

⁴¹⁷ Ibid., 34, noting that “R&D intensity, measured as the share of industry-level R&D expenditure to sales, increased in the seed sector from 11.0% in 1994 to 15.0% in 2000 before falling back to 10.5% in 2009”.

⁴¹⁸ See for instance, P. Gleadle et al., ‘Restructuring and innovation in pharmaceuticals and biotechs: The impact of financialisation’, (2014) 25 *Critical Perspectives on Accounting* 67-77

⁴¹⁹ Comanor and Scherer point out to how M&A may have been used as a safety net for companies against the uncertain prospects of innovation projects or to acquire synergies in R&D, W. S. Comanor and F. M. Scherer, ‘Mergers and innovation in the pharmaceutical industry’, (2013) 32 *Journal of Health Economics* 106-113. Similar analyses can also be found in P. Gleadle et al., ‘Restructuring and innovation in pharmaceuticals and biotechs: The impact of financialisation’, (2014) 25 *Critical Perspectives on Accounting* 67-77.

⁴²⁰ See P. Gleadle et al., ‘Restructuring and innovation in pharmaceuticals and biotechs: The impact of financialisation’, (2014) 25 *Critical Perspectives on Accounting* 67-77. This point is also clearly illustrated by Clark when using investment in healthcare as an example. The improvement in life expectancy means that the investment costs of adding life-years are set to increase incrementally in the future, see G. Clark, ‘Winter Is Coming: Robert Gordon and the Future of Economic Growth’, (2016) 106(5) *American Economic Review: Papers & Proceedings* 68-71, 70.

One may argue against inequality or unfairness because of concerns that an unequal distribution of resources or of opportunities will lessen economic welfare for the less well-off. Alternatively, one may object to unfairness because of the intrinsic value of equal distribution in a just society. Simply put, those espousing the first view are called “prioritarians”, as they give priority to the less well-off instead of caring about equal distribution itself. Hence, they have an instrumental perspective on equality⁴²¹. Their approach relies on the assumption that “each person’s welfare has diminishing marginal moral value and that the moral value of a person’s welfare depends only on that person’s level of welfare, and not on how anyone else fares”⁴²². This implies that “individual weights should be (positive and) inversely related to the individual initial levels of benefits”⁴²³. Their aim is to reduce the inequalities from which the better off suffer, not to level down those that are better off so as to reduce inequality between them and those that are worse off⁴²⁴. Determining who is “better off” however involves some implicit comparison with those deemed to be “worse off”, at least in identifying the relevant social ranking⁴²⁵.

Those espousing the second view place an intrinsic value on equality of distribution, which is bad in itself (as a “non-instrumental” goal), when and because it is unfair for some to be worse off than others⁴²⁶. They are called “egalitarians”, as they put emphasis on equal distribution as such. They may be, in general terms, more receptive to levelling down of the better off so as to improve equality, which indicates that they are ready to violate the strong Pareto principle in favour of equality, although they still require that all agents are better off (so the weak Pareto principle cannot be violated)⁴²⁷. However, there are some proponents of egalitarianism for whom, a lower, but egalitarian, distribution may be considered better, thus completely overriding the Pareto principle⁴²⁸. To clarify the distinction, one may hypothesise a policy maker who wishes to improve the situation of the worse off, but that any measure

⁴²¹ That will deem transfers from better off agents to worse off agents as compatible with “a socially preferred distribution” to the extent the transfer of utility does not make the situation of the better off agent worse than that of the agent who is worse off: M. Fleurbaey, ‘Equality versus Priority: How Relevant is the Distinction?’ (2015) 31 *Economics and Philosophy* 203, 207 (this complies with the Pigou-Dalton transfer principle, that is the idea, that a transfer from the rich to the poor is socially desirable, as long as it does not bring the rich to a poorer situation than the poor).

⁴²² A. Voorhoeve, ‘Introduction to the Symposium on Equality versus Priority’, (2015) 31 *Economics and Philosophy* 201, 201.

⁴²³ M. Fleurbaey, ‘Equality versus Priority: How Relevant is the Distinction?’ (2015) 31 *Economics and Philosophy* 203, 205.

⁴²⁴ D. Parfit, *Equality or Priority?*, in C. Martin & A. Williams (eds.), *The Ideal of Equality* (Palgrave-Macmillan, 2002), 81. In the extreme situation levelling down may be levelling down both the most well-off and the most-worse off, although it may decrease the level of inequality between the two categories.

⁴²⁵ M. Fleurbaey, ‘Equality versus Priority: How Relevant is the Distinction?’ (2015) 31 *Economics and Philosophy* 203, 206. However here it is considered that if “social good must be measured as the sum of weighted individual benefits, every individual’s weight must depend only on that individual’s level of benefit”. Thus this view relies on the idea of the separability of individuals to the extent that it is not necessary to enquire about “how well is anyone else” “when comparing distributions for two individuals”.

⁴²⁶ A. Voorhoeve, ‘Introduction to the Symposium on Equality versus Priority’, (2015) 31 *Economics and Philosophy* 201, 201; L. Temkin, *Equality or Priority in Health Care Distribution*. (Mimeo, Department of Philosophy, Rutgers University, 2000) 2 (noting that “the core, fundamental tenet of substantive non-instrumental egalitarianism is that it is bad for some to be worse off than others”) cited by M. Fleurbaey, ‘Equality versus Priority: How Relevant is the Distinction?’ (2015) 31 *Economics and Philosophy* 203.

⁴²⁷ M. Fleurbaey, *Equality versus Priority: How Relevant is the Distinction?* (2015) 31 *Economics and Philosophy* 203, 213.

⁴²⁸ See, L. Temkin, *Inequality*. (Oxford University Press, 1993).

adopted will also benefit the better off, thus increasing inequality⁴²⁹. The prioritarian may accept this outcome, but this will clearly not be acceptable for the egalitarian. The reason is that the prioritarian is not concerned with equality per se but only with those who are worse off. However, to the difference of a utilitarian, a prioritarian may accept that the well-being aggregate is reduced so as to transfer resources to those whose well-being is very low. The idea is to maximize the “moral value” of the distribution of resources⁴³⁰. What also matters is an individual's “absolute” level of well-being, not its relative position in a distribution⁴³¹. Consequently, “one is concerned not with how well off an individual is compared to others, but with how well off an individual is compared to how well off he or she could be”⁴³².

The distinction between prioritarians and egalitarians is controversial and has been the subject of debate, but we will accept it for the purposes of our analysis⁴³³. Egalitarians oppose inequality irrespective of the consequences that it has on the well-being of individuals or for the protection of their rights. Parfit distinguishes between two varieties of “egalitarianism”: teleological (or telic) and “deontic”⁴³⁴. Telic egalitarians accept “the Principle of Equality” and so believe that “(i)t is in itself bad if some people are worse off than others” (instrumental egalitarianism)⁴³⁵. Deontic egalitarians reject the “Principle of Equality” and argue that “(w)e should aim for equality, not to make the outcome better, but for some other moral reason” (intrinsic egalitarianism)⁴³⁶. The scope of egalitarianism is restricted to those cases of inequality that result from injustice, and thereby to cases of inequality that result from wrongdoing. Deontic egalitarians, as Parfit presents them, do not think that natural inequalities are morally significant; and hence such inequalities do not call for redress or redistribution. Telic egalitarians, on the other hand, believe that inequality is bad whatever its cause. Interestingly, the emphasis put on equality by egalitarians gives importance to non-separable social rankings, in contrast to prioritarians who are committed to the separability of persons when determining the social rankings.

One may also add that the concern with those who are worse off need not only be a concern about their welfare, but, as Hausman explains, could also touch upon the issue of their self-respect, their moral status, and the respect they are owed as equal citizens of a specific polity⁴³⁷. The idea is that all people deserve from their society an impartial and equal

⁴²⁹ D. M. Hausman, ‘Equality versus Priority: A Badly Misleading Distinction’, (2015) 31 *Economics and Philosophy* 229, 230.

⁴³⁰ D. Parfit, ‘Equality and Priority’, (1997) 10 *Ratio* 202.

⁴³¹ D. Parfit, ‘Equality or Priority?’, in C. Martin & A. Williams (eds.), *The Ideal of Equality* (Palgrave=Macmillan, 2002), 81, 101.

⁴³² D. M. Hausman, ‘Equality versus Priority: A Badly Misleading Distinction’, (2015) 31 *Economics and Philosophy* 229, 232.

⁴³³ See the articles in the symposium published in (2015) 31 *Economics and Philosophy* 201 with an introduction by A. Voorhoeve. In particular M. Fleurbaey, ‘Equality versus Priority: How Relevant is the Distinction?’, (2015) 31 *Economics and Philosophy* 203 (noting that egalitarians and prioritarians may share the same social preferences for equality although for different reasons and arguing against levelling down as a good policy even from an egalitarian perspective).

⁴³⁴ D. Parfit, ‘Equality or Priority?’, in C. Martin & A. Williams (eds.), *The Ideal of Equality* (Palgrave-Macmillan, 2002), 81, 90 (noting: “On the Telic view inequality is bad; On the deontic view, it is unjust”).

⁴³⁵ M. O’ Neil, ‘What Should Egalitarians Believe?’, (2008) 36(2) *Philosophy and Public Affairs* 119

⁴³⁶ *Ibid.* 120.

⁴³⁷ D.M. Hausman, ‘Equality versus Priority: A Badly Misleading Distinction’, (2015) 31 *Economics and Philosophy* 229, 233.

respect for their interests, they have equal worth. The underlying idea is that “equality of moral status cannot be achieved if inequalities in wealth, income, social status, and well-being are large or if they are *pervasive*”⁴³⁸. Hence, those concerned with equality of moral status, and the structural positioning of individual agents, must be “particularly concerned with pervasive inequalities, whereby those who are richer are also more powerful, more politically influential and more respected”, to the extent that inequality of income is correlated with social status or political power⁴³⁹. Hence, one may focus on struggling to lessen inequalities of all kinds and aim for “complex equality”.

B. Complex Equality as the intellectual bedrock of a fairness-driven competition law

An important feature of the recent focus on economic inequality is the perception that the concentration of economic power and rampant economic inequality is affecting other spheres of social activity that are not usually related to the market, such as politics and academia. There is a widespread perception in public opinion and commentators, that a small group of concentrated interests have rigged the political process undermining democracy, or more generally the autonomy of the political and cultural order vis-à-vis the economic order. There are studies documenting how corporate lobbying is directly related to firm size⁴⁴⁰. The highest echelons of business and multinational companies benefit from tax cuts, special tax regimes or practice elaborate forms of tax evasion at the same time as austerity policies, salary cuts and taxes rise for the least well off and the middle class⁴⁴¹. Some have put forward the view that the rising economic concentration may be explained by a “Medici vicious circle,” “where money is used to get political power and political power is used to make money”: the more firms have market power, the more they have “both the ability and the need to gain political power”⁴⁴².

⁴³⁸ Ibid., 234.

⁴³⁹ Ibid., 234.

⁴⁴⁰ M. D. Hill, G. W. Kelly & R. A. Van Ness, Determinants and Effects of Corporate Lobbying, (2013) 42(4) Financial Management 931

⁴⁴¹ See, T. Caverio and K. Poinasamy, A Cautionary Tale: The true cost of austerity and inequality in Europe (2013) 174 Oxfam Briefing Paper; European Network on Debt and Development (Eurodad), Tax Games: the Race to the Bottom (2017) Eurodad Tax Justice Report; J. Portes & H. Reed, ‘Distributional results for the impact of tax and welfare reforms between 2010-17, modelled in the 2021/22 tax year: interim findings’ (2017) Equality and Human Rights Commission Research Report.

⁴⁴² L. Zingales, Towards a Political Theory of the Firm, NBER Working Paper No. 23593 (July 2017). Of course, other (cumulative or alternative) explanations for market concentration have been put forward: (i) the rise of IT and important expenses in developing IT systems (see, J.E. Bessen, Information Technology and Industry Concentration, (December 1, 2017). Boston Univ. School of Law, Law and Economics Research Paper No. 17-41. Available at SSRN: <https://ssrn.com/abstract=3044730> finding that industry concentration – the share of revenue captured by the top firms in a sector – is largely explained by the adoption of IT and that IT systems appear to play a major role in the recent increases in industry concentration and in profit margins, more so than a general decline in competition); (ii) the importance of investments in intangibles, such as brands, software, employee training, management (see J. Haskel & S. Westlake, *Capitalism without Capital* (Princeton Univ. press, 2017); (iii) the rise of “superstar firms” or “superforecasters” which are able to take advantage of technology, including Big Data and artificial intelligence, in understanding better than “standard” firms the competitive game) (on “superstar firms” see, D. Autor, D. Dorn, L.F. Katz, Ch. Patterson, J. Van Reenen, The Fall of the Labor Share and the Rise of Superstar Firms, NBER Working Paper No. 23396 (May 2017). For a comparative discussion of various causes, see J.E. Bessen, Accounting for Rising Corporate Profits: Intangibles

One should thus have in mind that the concern over inequality and the corresponding quest for equality should not only be interpreted as a quest for an equal part of resources (as egalitarians would claim) or for improvements in available income for the worse off (as prioritarrians would ask), but a quest for equal status at the political realm, and for equal consideration in all other realms of social action. Indeed, the connection between the “spheres” of politics and markets show, as Michal Walzer wrote, that “the idea of distributive justice has as much to do with being and doing as with having, as much to do with production, and with consumption, as much to do with identity and status as with land, capital, or personal possessions”⁴⁴³.

For Walzer, there has never been a single criterion or a single set of interconnected criteria, for all distributions, “for no such criterion can possibly match the diversity of social goods”⁴⁴⁴. He puts forward three “distributive principles”, that is desert, free exchange and need⁴⁴⁵, although he accepts that these may rely on a diverse set of criteria, such as merit, qualifications, birth, friendships, loyalty, democratic decision, each having its place, along with many others, and possibly uneasily coexisting with them. Starting from the assumption that society is structured along different “spheres of justice”, he claims 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 criteria⁴⁴⁶. For him, all goods are “social goods” in the sense that they have “shared meanings because conception and creation are social processes”⁴⁴⁷. That also means that “goods may have different meanings in different societies”⁴⁴⁸. They can also be “historical in character, and so distributions, and just and unjust distributions, change over time”⁴⁴⁹. This society- and time-specific definition of “distributive justice” (or fairness) has also been important in Binmore’s work, as we have previously examined. Walzer argues that, “distributions must be autonomous: every social good or set of goods constitutes a distributive sphere within which only certain criteria and arrangements are appropriate”⁴⁵⁰. To the extent that “meanings are distinct, distributions must be autonomous”⁴⁵¹.

Walzer also distinguishes between “dominance” and “monopoly”, the former concept being more complex, as it refers to the control of a social good, whose control commands wide range of other goods, presumably in other spheres of social activity: “possess that own, and the others come in train”⁴⁵². Monopoly refers to the situations where a specific social

or Regulatory Rents?, (November 9, 2016). Boston Univ. School of Law, Law and Economics Research Paper No. 16-18. Available at SSRN: <https://ssrn.com/abstract=2778641>.

⁴⁴³ M. Walzer, *Spheres of Justice: A Defense of Pluralism and Equality* (Basic Books, 1983) 3.

⁴⁴⁴ Ibid., 21.

⁴⁴⁵ Ibid., 21-26.

⁴⁴⁶ Ibid., 3.

⁴⁴⁷ Ibid., 7.

⁴⁴⁸ Ibid., 7..

⁴⁴⁹ Ibid., 9.

⁴⁵⁰ Ibid., 10. He further explains: “(t)here is no single set of primary or basic goods conceivable across all moral and material worlds – or, any such set would have to be conceived in terms so abstract that they would be of little use in thinking about particular distributions. Even the range of necessities, if we take into account moral as well as physical necessities, is very wide, and the rank orderings are very different” and things become even more complex “as we pass from necessities to opportunities, powers, reputations, and so on”: Id. 8.

⁴⁵¹ Ibid., 10.

⁴⁵² Ibid., 11.

good is monopolized, for instance for scarcity reasons (e.g. water in the desert)⁴⁵³. For instance, economic power may lead to political and cultural power, not only in the sense that it will generate some form of resource dependence, measured by the ability to raise prices profitably on a relevant market, or the ability to exercise superior bargaining power, in the specific social sphere (monopoly), but also because it will influence the options available for each individual agent in other spheres of social activity. Dominance will therefore challenge the autonomous distribution criteria applying in the various social spheres. The claim for autonomous distribution criteria for each sphere of justice is meant to challenge the dominance of a social good, rather than just deal with situations of monopoly.

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. Focusing on “simple equality” implies a claim that the monopolised good should be redistributed so that it can be equally or at least more widely shared. This may result in “continuous state intervention to break up or constraint incipient monopolies and to repress new forms of dominance”⁴⁵⁴. Hence, once inequalities of wealth or income are dealt with through state intervention, different forms of inequality emerge, leading to new forms of dominance and therefore sites of competition. Indeed, as Walzer notes, “state power itself will become the central object of competitive struggles”⁴⁵⁵, in particular if “the state is weak to cope with re-emerging monopolies in society at large”, groups attempting to monopolize the state and then to use it in order to consolidate their control of other social goods⁴⁵⁶. The process will end up in a recurrent circle where political power will be mobilised to check monopoly, for instance undertakings with significant economic or market power, but then once the monopoly of money is challenged, political power itself will need to be checked, the process opening opportunities to “strategically placed” actors to use political power in order “seize and exploit important social goods” (“tyranny”) ⁴⁵⁷. There are incentives for adopting such strategy, as power is 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 may also “invade the different spheres” and “override” their social meanings⁴⁵⁸. This problem of recurrent circles of monopoly followed by dominance derives, in Walzer’s opinion, from “treating monopoly, and not dominance, as the central issue in distributive justice”⁴⁵⁹.

“Complex equality” takes a different perspective: it aims to narrow the range within which particular goods are convertible and to vindicate the autonomy of distributive spheres. Specific social goods may be monopolised, but with no particular good being “generally convertible”⁴⁶⁰. State intervention will not therefore be continuous in this case, and this will reduce the likelihood that the state, and political power, may become the site of competitive struggle, with the aim to capture the state and convert, for instance, political power to

⁴⁵³ Ibid.

⁴⁵⁴ Ibid., 15.

⁴⁵⁵ Ibid.

⁴⁵⁶ Ibid., 16.

⁴⁵⁷ Ibid, 14.

⁴⁵⁸ Ibid., 16.

⁴⁵⁹ Ibid.

⁴⁶⁰ Ibid., 17.

economic power. According to Walzer, in a complex egalitarian society, “(t)hough there will be many small inequalities, inequality will not be multiplied through the conversion process and expanded across different social goods, because of the autonomy of distributions and the possibility of more particularized and diffused forms of social conflict”⁴⁶¹. 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. “Pervasive equality” would just be maintained by avoiding situations of dominance and by adopting an “open-ended distributive principle” that would respect the autonomy of the different distributive spheres: “(n)o social good x should be distributed to men and women who possess some other good x merely because they possess y and without regard to the meaning of x”⁴⁶².

The decline of complex equality may explain the emergence of populist movements in Europe and the United States, as they criticize liberalism and capitalism, and challenge the value of expertise, considered as biased and rigged by economic interests, rather than being an independent source of knowledge⁴⁶³. Proponents of populism criticize the effort of promoting technocratic government instead of political antagonism as the main procedure for policy-making⁴⁶⁴. For the populist project, social antagonisms are not to be tamed by “deliberative democracy” leading to an elaborate process of consensus-building managed by independent technocrats, but are transformed to an ambitious and enthusiastic “agonistic confrontation” between hegemonic projects⁴⁶⁵. The type of “expertise” that may be required for the completion of the populist project is also different and relates to the ability of social mobilization in order to constitute the “people” (be that workers, farmers, or in the more recent versions of populism, consumers⁴⁶⁶ or even entrepreneurs⁴⁶⁷), rather than linked to the traditional conception of expertise, which relates to a body of technical knowledge, a codified body of knowledge in the context of an academic discipline. By adopting the single narrative of the antagonistic struggle of competing hegemonic projects, populism blurs the boundaries between the different “spheres of justice”, and ignores the complex interplay of various “orders of worth” functioning according to different tests of justification⁴⁶⁸.

In the competition law field the competing hegemonic projects would be the “left-wing” now consumer-focused populist movement versus the “right-wing” entrepreneurs-focused populist movement, which glorifies monopolies on the basis of a distorted

⁴⁶¹ Ibid.

⁴⁶² Ibid., 20.

⁴⁶³ EU Monitor, A profile of Europe’s populist parties Structures, strengths, potential (April 28th, 2015), available at https://www.dbresearch.com/PROD/RPS_EN-PROD/PROD000000000441777/A_profile_of_Europe's_populist_parties%3A_Structures.PDF ; Euromonitor, Deutsche Bank Research, Who is afraid of populists? (March 23, 2017), available at https://www.dbresearch.com/PROD/RPS_EN-PROD/PROD000000000441789/Who_is_afraid_of_populists%3F.pdf

⁴⁶⁴ They argue for “agonistic politics” and “agonistic democracy”. C. Mouffe, *On The Political* (Routledge, 2005); C. Mouffe: *Agonistic Democracy and Radical Politics*, Pavilion, available at pavilionmagazine.org/chantal-mouffe-agonistic-democracy-and-radical-politics/

⁴⁶⁵ E. Laclau & C. Mouffe, *Hegemony and Socialist Strategy – Towards a Radical Democratic Politics* (Verso, 2nd ed., 1985); E. Laclau, *On Populist Reason* (Verso, 2005).

⁴⁶⁶ S. Vaheesan, ‘The Evolving Populisms of Antitrust’, (2013) 93(2) *Nebraska Law Review* (Article 4).

⁴⁶⁷ See, B. Orbach, ‘Antitrust Populism’, (2017) 14(1) *NYU Journal of Law & Business* 1 (detailing the emergence of the “Anti-Bigness” and the “Anti-enforcement” populisms in US antitrust law).

⁴⁶⁸ L. Boltansky & L. Thévenot, *On Justification: The Economies of Worth* (Princeton Univ. press, 2006).

conception of innovation and technological progress on the blind belief that business leaders will be only motivated by the common good. In contrast to the populist approach, an approach relying on the complex equality principle will not view societies as a single order to be dominated by a hegemonic project winning a political “agon”, but an interweaving of multiple orders, a compromise on the basis of the “common good” eventually developing in order to settle the conflict among the actors with a variable degree of legitimacy. But crucially, this compromise is fragile, as attempts to determine the common good are bound to re-ignite the conflict, eventually leading to a different compromise. In contrast to a narrow technocratic approach, which would rely, in the neoliberal tradition, on the market as a site of “veridiction-falsification” for the action of the various agents (firms, government)⁴⁶⁹, an approach inspired by complex equality will be open to a variety of criteria, respecting the autonomy of these different “spheres” of social activity and the multiple values they cater for.

What would be the place of a competition law relying on economic, or more broadly, social science expertise, in an era of populism? Is the re-emergence of populist antitrust the only way ahead if competition law is to maintain its legitimacy in a political context characterized by a deep suspicion towards technocracy, in particular economic expertise, and the view that competition authorities, have not acted to prevent the rise in economic concentration in recent years? Or, is antitrust moving to institutional oblivion, soon to be replaced by direct forms of regulation, or regulation through public ownership, with the alleged aim to “moralize” economic activity, but in reality to subject it to the dictates of political power? If the idea of complex equality is to be taken seriously in competition law, one needs to be equally concerned with the tendency of economic power to expand to the realm of politics, as well as with the tendency of political power, becoming dominant as the sphere of politics is slowly transcending all other “spheres of justice”, to covert itself to economic power, suppressing market freedoms.

To give an example, “complex equality” concerns may also influence the competition law principles applying to digital platforms that have become the central nervous system of modern capitalist value generation. Some jurisdictions, like the EU, have been quite concerned by the transformation of these digital platforms to important gatekeepers for various economic activities in the digital economy⁴⁷⁰, and of their ability to leverage their economic power (resulting from the control of resources such as Big data, advanced algorithms and Artificial Intelligence, on which the new model of economic production depends) in various domains of activity, including the capture of an even higher percentage of the total surplus value of the respective value chain⁴⁷¹. Algorithmic firms may harvest

⁴⁶⁹ M. Foucault, *The Birth of Biopolitics – Lectures at the Collège de France 1978-1979*, (Palgrave Macmillan, 2010), 32, (noting that “[...] inasmuch as prices are determined in accordance with the natural mechanisms of the market they constitute a standard of truth which enables us to discern which governmental [but one can also add firm] practices are correct and which are erroneous”, the “natural mechanisms of the market being the invisible hand of Adam Smith and its progeny (including “perfect competition”).

⁴⁷⁰ See, EU Communication on digital platforms of 25 May 2016 (COM(2016)288 final) 12, noting that “(a)s online platforms play an increasing role in the economy, the terms of access to online platforms can be an important factor for online and offline companies. For SMEs and micro-enterprises, some online platforms constitute important, sometimes the main, entry points to certain markets and data”.

⁴⁷¹ This explains the recent focus of competition authorities in Europe on leveraging practices, with the aim to ensure the “equality of opportunity” of economic operators (see, European Commission, Case AT 39.740 – Google Search, paras 332 & 334), as well as recent ideas to regulate from a fairness perspective platform to

immense technological and ultimately economic power differential vis-à-vis their traditional non-algorithmic rivals, probably to the same extent than that enjoyed by the few hundred musketeers of Hernán Cortés vis-à-vis the hundreds of thousands of the Aztec armies in the conquest of Mexico with, as we know, devastating effects⁴⁷². Would domain expertise enable these firms to resist the technological prowess of digital platforms, and could be the appropriate role for competition law in this context? One may expect a greater use of the tool, in particular when competitive strategies by digital platforms involve exclusionary practices that may stifle the capacity of non-algorithmic firms to innovate or to develop independent technological capabilities, and thus limit their technological dependence.

Concerns over the fact that control of (personal) data by these digital platforms may affect privacy⁴⁷³, but also more generally the democratic process⁴⁷⁴, thus leading to the emergence of an entrenched dominant position or oligopolistic market structure over an essential social good (information) for the proper functioning of democratic debate have also been quite prominent in the current discussion over the economic (and political/cultural) power of the “Big five”⁴⁷⁵.

VII. Conclusion: the necessary and long-awaited enrichment of competition law

The concrete implications of a fairness-driven competition law for the various areas of competition law doctrine are explored in a different study⁴⁷⁶. However, I would like to briefly touch upon the main changes that I believe the shift towards fairness could entail for competition law.

It is clear that the approach undertaken may vary from jurisdiction to jurisdiction and will largely depend on the hermeneutic conversation that will take place within each legal and political system and the subsequent accommodation of conflicting narratives regarding the relation between the state and the market, or more generally an atomist versus a more social

business relations (see, Inception Impact Assessment, Fairness in Platform to Business Relation, Ares(2017)5222469, available at https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5222469_en).

⁴⁷² Cortés made the conquest with around 1000 Spaniards (and some allies), while the Aztec armies were 200-300000 men strong. The superior technologies of portable guns, gunpowder and domesticated horses made this difference in numbers irrelevant.

⁴⁷³ 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). Some public authorities have also looked to these questions when exploring the changes brought by platform competition: 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.

⁴⁷⁴ See, for instance, the debate about “fake news” as being an “antitrust problem”: S. Hubbard, ‘Fake News Is A Real Antitrust Problem’, (2017) Competition Policy International; S.P. Sacher & J.M. Jun, ‘Fake News is not an Antitrust Problem’ (2017) Antitrust Chronicle.

⁴⁷⁵ These are Alphabet, Amazon, Apple, Facebook, Microsoft.

⁴⁷⁶ I. Lianos, Implementing fairness in EU competition law (forth. Research Paper 7/2018).

view of men's dependence on society to realize the “human good”⁴⁷⁷. It is also clear that issues of distributive justice and fairness are essential and any effort to put them under the carpet and avoid discussion, as unfortunately has happened the last thirty years in competition law doctrine, is not only futile, as fairness concerns may return with some vengeance, but also wrong from all moral, descriptive and social theory perspectives. The implementation of fairness concerns requires from competition law enforcers delicate and difficult hermeneutical choices with regard to the principles and values of justice as fairness to be read in the competition law legislation and jurisprudence, in a way that would guarantee the coherence of the specific legal and political system.

It has been argued that the return to some form of “populist” antitrust may provide an adequate response to the current rise of inequalities, in particular those generated by the prevalence of the network effects and “winner takes all” dynamics of the digital economy⁴⁷⁸, at least as long as the existence of market concentration, market power and declining labour share, may be considered among the principal causes of these inequalities. What this means for the area of competition law has been spelled out in various publications of the “new Brandeis movement”⁴⁷⁹, essentially a hermeneutical standpoint that claims to offer a thicker and more genuine meaning to the antitrust law enterprise, arguably in a closer connection to its historical and cultural meaning.

This should not be dismissed out of hand, on the simple reason that it spoils the “consensus” arrived to in recent decades between the right and the left on the standard of consumer welfare. First, it is not clear what this consensus exactly entails in practice, as consumer welfare or consumer harm, even if it provides a general hermeneutical principle, is not yet, as some prominent authors explain, an element of a competition law offense that “must be proved independently of the law violation”⁴⁸⁰. Second, there is no an end of history moment in competition law scholarship and jurisprudence, and that cannot be: the “overlapping consensus”, to use Rawls’ term, may change and the legal interpreter should be careful to integrate the important technological and socio-economic changes that are occurring, and to address the various arguments put forward by the different hermeneutical communities of competition law. Third, although antitrust/competition law has historically focused on situations of economic coercion and restriction of competitive rivalry in markets, with the aim to tame the risk of private government, economic power may crystalize in various insidious forms, taking advantage of recent advances in science (e.g. psychology, behavioural economics, business strategy etc.) to frame preferences and influence/nudge individual decision-making. Fourth, competition law takes place in various fields, not only on

⁴⁷⁷ C. Taylor, *The Nature and Scope of Distributive Justice*, in *Human Agency and Language - Philosophical Papers* (CUP, 1985), 289. (distinguishing the atomist view of Locke and more recently Nozick to the social view of Aristotle and more recently Rawls and Walzer).

⁴⁷⁸ L. Khan & S. Vaheesan, ‘Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents’, (2017) 11 *Harvard Law & Policy Review* 235.

⁴⁷⁹ L. Khan, ‘The New Brandeis Movement: America’s Antimonopoly Debate’, (2018) 9(3) *Journal of Competition Law & Practice* 131.

⁴⁸⁰ I refer here to no other than R., Bork who observes that: “(c)onsumer harm is not an element of a Sherman Act offense that must be proved independently of the law violation., Antitrust conclusively *presumes* consumer harm when unlawful behaviour is shown”: R. Bork, *Trust the Trustbusters: Why Conservatives are Wrong About Antitrust*, in R.H. Bork, *A Time To Speak* (ISI Books, 2008)476.

traditional product markets, but also on financial markets and future markets for innovation, more so as market participants and market experts offer new imaginative market devices to respond to this growing demand for futurity in markets.

What could the practical implications for competition law of these concerns raised by the populists? These concerns may not necessarily be addressed through more aggressive competition law intervention in markets. Antitrust “conservatives”⁴⁸¹ may find comfort with approaches suggesting the expansion of markets and the re-conceptualisation of property rights⁴⁸², in order to deal with the complete markets assumption problem that has always bedevilled equilibrium analysis in economics⁴⁸³. Other approaches have also been put forward, emphasising the role of countervailing bargaining power (of final consumers or other market participants) in order to neutralise economic power and its various sources⁴⁸⁴. Such approaches may nevertheless offer, at best, partial solutions to the concentration of economic power, and its conversion to inequality in other spheres of justice, and that a more active role for competition law is indeed needed.

This may involve focusing again on economic concentration as such. Important developments in the global economy have shifted the structure of various industries towards rising levels of concentration: the large waves of mergers, acquisitions and take-overs, but also because of significant endogenous sunk costs for R&D in the knowledge-based

⁴⁸¹ By this expression I mean those that fear more type I errors (over-enforcement) than type II errors (under-enforcement).

⁴⁸² See, for instance, the recent book by E. Posner & E.G. Weyl, *Radical Markets Uprooting Capitalism and Democracy for a Just Society* (Princeton Univ. press, 2018) (suggesting a greater use of Harberger taxes and the end of the monopoly paradigm of property rights perceived as a right to exclude).

⁴⁸³ The assumption that consumers may access a full set of insurance contracts and thus be protected against any possible idiosyncratic risk that may affect their individual consumption (e.g. loss of a job, accident, stock market boom or bust) deals with the inherent uncertainty of a market system, contingent consumption claims being settled before uncertainty is revealed, and enables economists to assume that individual behaviour coincides with aggregate behaviour, thus greatly simplifying economic analysis and consequently the lessons that may be drawn for both individual and aggregate analysis just by studying either indifferently. For a critical discussion see, T. Jappelli & L. Pistaferri, Complete Markets, in T. Jappelli & L. Pistaferri, *The Economics of Consumption: Theory and Evidence* (OUP, 2017), 46.

⁴⁸⁴ See, for instance, M.S. Gal & N. Elkin-Koren, Algorithmic Consumers, (2017) 30(2) *Harvard Journal of Law & Technology* 309 (advancing the possibility of consumers to turn also algorithmic and thus tame the technological power of algorithmic firms). Other suggestions also implementing this countervailing power narrative also include the call for wider exceptions for collective bargaining of self-employed when these are economically dependent on digital platforms, in particular in order to protect those working in the gig economy who may not be within the protective scope of labour law (for a discussion, see European Parliament Report, *The Social Protection of Workers in the Platform Economy* (European Union, November 2017), available at [www.europarl.europa.eu/RegData/etudes/STUD/2017/614184/IPOL_STU\(2017\)614184_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2017/614184/IPOL_STU(2017)614184_EN.pdf) (finding that ‘the greater the level of financial dependence [of the labourer] on platform work, the lower the access that workers have to social protections’). Finally, the news media industry has also invoked the countervailing power narrative in order to ask for antitrust exemptions on collective bargaining with digital platforms: The Guardian, News Media Alliance targets Facebook and Google in the fight against fake news

(July 10th, 2017) noting that the News Media Alliance representing 2000 news organisations would need an exemption from antitrust law to be able to negotiate as a group with digital platforms, such as Google and Facebook). Another similar suggestion concerns the ability of search engines’ users to resort to collective bargaining with digital platforms: see I. Arrieta Ibarra, L. Goff, D. Jimenez Hernandez, J. Lanier and E. Glen Weyl, *Should We Treat Data as Labor? Moving Beyond ‘Free’* (2017) 1(1) *American Economic Association Papers & Proceedings*, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3093683.

economy⁴⁸⁵. One may also note the growing importance of financial capital with the recent “rise of distorporation”, as major industrial empires are controlled by master limited partnerships (MLP) managed by a few global big-equity companies and institutional investors, vast sums of institutional assets being managed by a handful of asset managers⁴⁸⁶. A complex-equality driven competition law will view more critically merger activity and the common shareholding of major corporations, which may produce anticompetitive effects across different economic sectors⁴⁸⁷, in view of the financialisation process of the global economy⁴⁸⁸.

A complex equality-driven competition law may also take a wider perspective on economic power, not just focusing on “market power”⁴⁸⁹, and consider all sources of power, re-habilitating concepts such as relational market power or superior bargaining power. This may provide grounds for action in order to avoid that the quasi-totality of the total surplus of global value chains is appropriated by “lead” companies, while leaving a number of market players without proper compensation for their efforts and contributions, when this has negative effects on innovation, productivity as well as long-term consumer interest⁴⁹⁰.

It may also mean that we focus on consumer *well-being* in markets where this makes sense from a complex equality perspective, where we know that most of the consumers (or people), affected will be among the lower income strata, or that monopolistic control of the specific social good may lead to the emergence of dominance that can be converted and extended more easily in other markets and other social spheres (outside market exchange). In other situations we may want to take a broader perspective, for instance by considering broader public interests that would preserve fairness and stability, even if this is at the price of some reduction in economic efficiency. This could include effects on employment and the interests of workers and the unemployed, the protection of privacy, the democratic process

⁴⁸⁵ J. Sutton, *Sunk Costs and Market Structure: Price Competition, Advertising, and the Evolution of Concentration*, (MIT Press, 1991) (showing that sunk fixed R&D investments can jointly determine both the levels of concentration and innovation activity in a market).

⁴⁸⁶ Posner, Scott Morton and Weyl note that “(i)nstitutional investors owned 70-80% of the US stock market, up from 7% in 1950. When combined, BlackRock, Vanguard, and State Street constitute the single largest shareholder of at least 40% of all public companies in the US. They constitute the largest owner in nearly 90% of public companies in the S&P 500, up from 25% in 2000. The fraction of US public firms held by institutional investors who simultaneously hold large blocks of other same-industry firms increased from less than 10% in 1980 to about 60% in 2010”: E A Posner, F Scott Morton, & E Glen Weyl, ‘A Proposal to Limit the Anti-Competitive Power of Institutional Investors’, (2017) 81(3) *Antitrust LJ* 669. Although the role of institutional investors is more limited in Europe, similar concerns may be raised.

⁴⁸⁷ J Azar, M C Schmalz, & I Tecu, Isabel, ‘Anti-Competitive Effects of Common Ownership’ (March 15, 2017). *Journal of Finance*, Forthcoming. Available at SSRN: <https://ssrn.com/abstract=2427345> or <http://dx.doi.org/10.2139/ssrn.2427345>; J Azar, R Raina, & M C Schmalz, ‘Ultimate Ownership and Bank Competition’. (July 23, 2016). Available at SSRN: <https://ssrn.com/abstract=2710252> or <http://dx.doi.org/10.2139/ssrn.2710252>.

⁴⁸⁸ J. Montgomerie and K. Williams, ‘Financialised Capitalism: After the Crisis and Beyond Neoliberalism’, (2009) 13(2) *Competition & Change* 99-107. For a historical and explanatory analysis of the concept financialisation, with regards to profitability, shareholder value and shifted incentives on innovation, see N. van der Zwan, ‘State of the Art: Making Sense of Financialisation’, (2014) 12 *Socio-Economic Review* 99-129.

⁴⁸⁹ See also the proposals of A. Ayal, The market for bigness: economic power and competition agencies’ duty to curtail it, (2013) 1(2) *Journal of Antitrust Enforcement* 221.

⁴⁹⁰ I. Lianos & C. Lombardi, ‘Superior Bargaining Power and the Global Food Value Chain: The Wuthering Heights of Holistic Competition Law?’, (2016) 1 *Concurrences* 22; I. Lianos, *Global Food Value Chains and Competition Law - BRICS Draft Report* (January 1, 2018). Available at SSRN: <https://ssrn.com/abstract=3076160>.

and media pluralism, or environmental concerns, to the extent that these effects result from restrictions of competition, systemic resilience becoming the driving force of competition law⁴⁹¹.

New tools may also be added to the competition law toolkit box. It is clear that market definition with its emphasis on price competition may fail to represent the various forms of competitive interaction that take place in the digital economy, and the various other values than lower prices that may animate public policy in specific markets. By focusing on ‘horizontal competition’, that is the competition from existing firms in a specific relevant market, market definition also ignores ‘vertical competition’, competition from suppliers upstream or customers downstream, in different segments of the industry, that may represent more meaningful constraints to the economic power of dominant companies, in particular in the digital economy⁴⁹². Vertical competition may play a more significant role in competition law if the analysis shifts from solely focusing on the generation of even higher surplus value to understanding the allocation of the total surplus value that is generated in the context of a value chain. To the extent that fairness and guaranteeing complex equality become important objectives of competition law, the distribution of the total surplus value may become an important concern. Restrictions to vertical competition may also affect productivity and provide ‘superstar’ large digital platforms the possibility to pull away from competition and enjoy tremendous levels of profitability, without these accumulated profits being used for productive investments. The conceptual tool of value chain (or Global Value Chain) may offer an excellent mapping tool that could be further used in competition law.

Market studies and enquiries may also provide a more complete picture of economic power and of the competitive interactions in an industry, eventually offering further opportunities for better targeting competition law enforcement or for using *ad hoc* remedies.

The realisation that for societies to stay stable, they need to stand on two legs: economic efficiency but also fairness, may call for a limited redesign of competition law. This should not only be focusing on efficiency (and consumer surplus or welfare), but also on guaranteeing complex equality. This “complex equality—driven” competition law may opt for some of the reforms suggested above by the proponents of “populist” antitrust. However, to the difference of the views put forward by the populists, the boundaries of competition law enforcement should also be clear and limiting principles to state intervention developed in order to avoid the dominance of politics over the marketplace, considered as a separate sphere of justice. Accepting that some degree of inequality of resources may be the consequence of the operation of the various criteria adopted by the different spheres of justice (in the marketplace, that could be competition on the merits), and that promoting equality of opportunities needs to stand on well-designed standards that provide equal consideration to

⁴⁹¹ See, I. Lianos, Polycentric competition law (CLES Research Paper 3/2018 forth.), (2018) Current Legal Problems (forth.). For instance, it can be argued that these concerns should be integrated in the competition law analysis in EU law, in view of the social and economic rights included in the Charter and the broader horizontal clauses in the EU Treaties, such as Article 9 TFEU. For a discussion, see I. Lianos, Legal Hermeneutics and Competition Law (forth. CLES Research Paper 6/2018).

⁴⁹² For a more in depth analysis of the role of “vertical competition” in the digital economy, see I. Lianos, Digital Value Chains and Competition Law, CLES Research Paper 4/2018 (forthcoming).

the various interests affected (including the rights of the monopolists and oligopolists)⁴⁹³ constitute some of the necessary steps ensuring that competition law furthers complex equality and systemic resilience.

Competition law cannot be transformed again to being just a tool of social regulation. In contrast to the period of antitrust populism that followed the Bretton Woods agreements⁴⁹⁴, free circulation of capital globally constitutes one of building blocks of modern financial capitalism, thus intensifying competition between capitals for the most profitable investment⁴⁹⁵. Hence, as long as the free flow of capital remains an essential element of the global capitalist system, competition law should also accommodate broader economic policy concerns, such as attracting foreign direct and indirect investments.

Competition law may not reverse the trend towards economic inequality, in operation for thousands of years, which was temporarily interrupted only because of the impact of the “four horsemen”: war, revolution, systemic collapse and pandemics⁴⁹⁶. However, in view of the difficulty of the traditional tools of the welfare state to deal with some of the causes of economic inequality, in particular monopoly power, and the plateau of social expenses that has been reached in some societies, competition law may fulfil a quite important role in the struggle against inequality. From this perspective, the systemic resilience of the social contract may offer a high-end goal that would accommodate both efficiency and fairness concerns⁴⁹⁷. Under these limitations, competition law should provide the necessary balancing force to populism and may become an important tool in promoting complex equality. The choice appears therefore to be broader than the dilemma between the return of “Populist” Antitrust and a competition law marginalised in an era of “Populism”.

⁴⁹³ For an interesting argument in favour of considering also the rights of the monopolists, see A. Ayal, *Fairness in Antitrust* (Hart, 2014), 122-143.

⁴⁹⁴ The international economic system resulting from the Bretton Woods included capital controls for the first time at a broad basis so as to guarantee financial stability after the Second World War. These restrictions were gradually taken away after the collapse of the Bretton Woods system in the early 1970s. However, the Asian crisis of 1997 and the most recent 2008 financial crisis brought back the view that capital controls are not just a tool to mitigate financial crises, but can become a regular monetary policy tool, even if there is no crisis: See, IMF, *Strengthening the International Monetary System – A Stocktaking* (February 22, 2016), available at www.imf.org/external/np/pp/eng/2016/022216b.pdf.

⁴⁹⁵ This of course creates constraints for national governments with regard to adopting more “aggressive” competition law enforcement, although the size of their market, and not just the rates of return on capital, could also play some role in the decision of global capital to flee elsewhere, should competition law enforcement significantly halve its returns on investment.

⁴⁹⁶ See the analysis in W. Scheidel, *The Great Leveler* (Princeton Univ. Press, 2017), observing the “common root” of these in the (443) “massive and violent disruptions of the established order” and noting that “the periodic compressions of inequality brought about by mass mobilization dwarfed any known instances of equalization by entirely peaceful means”. But again, the standards of equality to which one may aspire to return to may not be those of the forager societies prior to the Holocene!

⁴⁹⁷ To the extent that systemic resilience may be considered as favouring the status quo in terms of distribution of resources (and productive assets), it may still be criticised from an equality perspective. However, the other option would be to question in a more profound way the modern capitalist system, and argue for a more egalitarian (socialist-like) economic system, something that this paper has not ventured into, in view of the uncertainty over the costs of such upheaval and over the possible outcomes of such a drastic change. It is, however, noted that one may take a different perspective on the continuation of the capitalist economic order, even a reformed one: see, *inter alia*, I. Wallerstein, ‘The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Analysis’, (1974) 16(4) *Comparative Studies in Society and History* 387; W. Streeck, *How Will Capitalism End? Essays on a Failing System* (Verso, 2016); P. Mason, *Post-Capitalism – A Guide to our Future* (Penguin, 2016).