

The effects of competition law on inequality—an incidental by-product or a path for societal change?

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ABSTRACT

Rising economic inequality presents society with unprecedented challenges. Direct instruments designed to address these worrying trends have often under performed. As a result, we find ourselves on a potentially dangerous and downward path. In this article we explore whether, in parallel to other efforts to mitigate the rise of inequality, there can be a role for competition law in the quest to reduce the widening inequality gap. We begin by outlining the possible relationship between competition law enforcement, market power, and economic inequality. We supplement the theoretical discussion with a review of empirical analysis of these linkages. We look at macro and micro data and emphasize the role of labour compensation as a key mechanism which links competition law enforcement, competition dynamics, and economic inequality. We then reflect on the policy implications and possible means to utilize competition enforcement in a manner that could reduce economic inequality.

KEYWORDS: Competition law, consumer welfare, economic inequality, labour markets

JEL CLASSIFICATIONS: B10, D63, J01, J30, K21, L40, N30

I. INTRODUCTION

Social and economic inequality is on the rise. The rich are becoming wealthier, the income of the middle class is declining, and the poor are struggling to remain afloat. Despite decades of growth and prosperity, despite political promises and perceived efforts to promote equality in some jurisdictions, social polarization is increasing, and is tearing apart the fabric of our society.

The data is striking. While the world, and particularly industrialized countries, have become considerably richer in aggregate,¹ the spoils of this growth have been unevenly distributed, to the extreme. The gap between those with the highest income and those on the lowest income has expanded since the early 1970s.² The economic elite across the world has made significant gains over past decades, while the earnings of the rest of society have steadily declined.³ In the face of the current economic downturn and rising costs of living, these trends have intensified.

The effects of the widening ‘inequality gap’ are felt across the board, with significant consequences. They undermine the (already fragile) social solidarity, threaten trust in state institutions, and confidence in the ability of the market economy to deliver prosperity to all. They position us on an unsustainable path, which risks tearing up our social contract, triggering economic instability.

The tale of modern inequality is a complex one and is affected by a multitude of factors—from historical, legal and economic contexts, through societal and political trends, and institutional endowment, to current public policies on taxation, expenditure, investment, and growth.⁴ Reflecting the multitude of factors, the toolbox at the disposal of the state includes a wide range of instruments and policies which can target economic and social inequality. Such policies influence, directly or indirectly, the transfer of income and wealth in society, earnings, subsidies, educational needs, and mobility.

Many would agree that the solutions to address the inequality gap lie in traditional instruments and policies—including taxation and subsidies. And yet, despite the many levers which could be used by the state, the inequality gap widens. Be it the result of underlying societal and economic barriers, government failure, ideology or capture; public policies over the past decades struggled to effectively address this gap. A key obstacle to change is often the focus on short term costs associated with implementation, on account of long-term benefits. Conflicting ideologies, interest groups and poor execution, also play a role. As long as inequality trends remain below the boiling point, many governments ‘manage’ the situation rather than act to resolve it—introducing patchwork policies to ease the pressure or promote elixirs such as ‘trickle-down’ effects to justify feeble action.

To instill change, much needs to be done by policy makers and politicians who control the key levers. In this article we consider whether, in parallel with these efforts, there can be a role for competition law in the quest to reduce the widening inequality gap. The limited success of traditional (and theoretically optimal) instruments, leads us to consider competition law as a possible complementary instrument.

We begin our analysis by outlining the possible relationship between competition law enforcement, market power, and economic inequality. We supplement the theoretical discussion with a review of our empirical analysis of these linkages. We look at macro and micro data and emphasize the role of labour compensation (measured as the labour share out of total compensation for labour and capital) as a key mechanism which links competition law enforcement, competition dynamics and economic inequality. With this in mind, we then

¹ At the global aggregated level, economic growth has increased by 73% per capita (USD constant) since 1980, with growth was even higher at 85% for the world’s most industrialised countries. World Bank, ‘GDP per capita, PPP’ <<https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD?end=2018&start=1960&view=chart>> accessed 24 April 2022.

² Pasquale Tridico, ‘The Determinants of Income Inequality in OECD Countries’ (2018) 42(4) *Cambridge Journal of Economics* 1009. In the UK for example, the decline in wealth concentration ended around 1980, and since then there is evidence of an increase in top shares. Facundo Alvaredo, Anthony B Atkinson and Salvatore Morelli, ‘Top Wealth Shares in the UK over more than a Century’ (2018) 162 *Journal of Public Economics* 26.

³ In 2017 the global top 1% owned more than 33% of total wealth while the bottom 50% owned less than 2%. United Nations Development Programme, *Human Development Report* (2019) at 111, 132.

⁴ For a review, see AB Atkinson, ‘Income Inequality in OECD Countries: Data and Explanations’ (2003) 49(4) *CESifo Economic Studies* 479. Also see: Tarunabh Khaitan, ‘Political Insurance for the (Relative) Poor: How Liberal Constitutionalism could Resist Plutocracy’ (2019) 8(3) *Global Constitutionalism* 536.

reflect on the policy implications and ways in which competition law enforcement might form part of a solution.

II. TWO KEY INTERFACES

When considering the potential effect competition law may have on inequality of income,⁵ consumption,⁶ and wealth,⁷ one can identify two key interfaces through which inequality may be targeted.

The first interface, which we refer to as ‘internal’—concerns the possibility of embedding equality considerations as part of the substantive assessment of anti-competitive actions. In essence, this will often require a certain widening of the goals of competition laws to target inequality. The second interface, which we refer to as ‘external’—ignores the normative scope of the competition provisions (that is, the goals of competition) and concerns the effect competition law enforcement generates through the promotion of greater competitiveness.

Internal provisions targeting inequality

The first interface concerns the utilization of specific provisions in the competition rule book to reduce inequality. Such may be the case when the legislator incorporates specific references or goals related to equality, or more generally, to fairness as part of the competition law provisions.

A striking example is South Africa, where the Constitution requires affirmative action empowering historically disadvantaged groups,⁸ and in line with this requirement, the competition laws incorporate inclusiveness as a relevant value.⁹ The South African Competition Act aims to promote, alongside the more traditional provisions: ‘greater spread of ownership, in particular to increase the ownership stakes of historically disadvantaged persons’.¹⁰

Such direct reference to equality is rather unique.¹¹ More common are related values that may potentially address inequality by means of other factors. For example, the competition laws of the European Union make reference to the value of fairness,¹² target unfair pricing and trading conditions, and can be applied and developed with a view to wider policy concerns such as social¹³ and consumer¹⁴ protection. In Indonesia, competition law is aimed at safeguarding the public interest and enhancing the efficiency of the national economy with

⁵ Income Inequality refers to differences in the revenues received by individuals or households, which may include wages from employment, returns or dividends from investments in property or shares, or social security payments or benefits.

⁶ Consumption Inequality refers to differences in the expenditures by individuals or households on nondurable or small semi-durable goods and services. Numerous empirical studies have shown a divergence between income inequality and consumption inequality over time, with some studies concluding that consumption inequality is often lower than income inequality reflecting the fact savings and borrowing can be used to address temporary shocks to income.

⁷ Wealth Inequality refers to the way in which the stock of financial and non-financial assets such as real-estate, consumer durables, cash, deposits, shares, equity interests are distributed among individuals and households. Understanding trends in wealth inequality is seen as increasingly critical as wealth is substantially more concentrated than income, and as such, changes in capital income could be linked to the increase in income inequality observed at the top of the distribution over the past three decades.

⁸ Constitution of South Africa s 9(2).

⁹ Eleanor M Fox, ‘Equality, Discrimination, and Competition Law: Lessons from and for South Africa and Indonesia’ (2000) 41 *Harvard International Law Journal* 579.

¹⁰ Competition Act 1998 (as amended), chap 1, s 2(f) <<https://www.gov.za/documents/competition-act>> accessed 24 April 2022.

¹¹ Fox (n 9); Michal Gal, ‘The Social Contract at the Basis of Competition Law’ in Damien Gerard and Ioannis Ilanos (eds), *Reconciling Efficiency and Equity: A Global Challenge for Competition Policy* (CUP 2019).

¹² Consolidated Version of the Treaty on the Functioning of the European Union (TFEU) [2012] C 326/47, art 101(3); art 102 (a).

¹³ art 9 TFEU refers to ‘the promotion of a high level of employment, the guarantee of adequate social protection, the fight against social exclusion, and a high level of education, training and protection of human health’.

¹⁴ TFEU, art 12; Charter of Fundamental Rights of the European Union [2000] C 364/01, art 38.

the aim of improving the people's welfare.¹⁵ In South Korea, competition law encourages, among other things, the promotion of a balanced development of the national economy by encouraging fair and free competition.¹⁶ In Taiwan, competition law seeks to maintain trading order, protect consumers' interests, ensure fair competition, and promote economic stability and prosperity.¹⁷

The list goes on, but the mechanisms remain similar—a consideration of values which could address inequality, as part of the application of the law. The potential implication of such provisions is that the competition agency could, if it wishes to do so, take inequality considerations into account when it determines whether an activity is allowed or disallowed. Accordingly, an adverse effect which 'increases' inequality may contribute to a finding that a merger, agreement, or unilateral action are prohibited. By contrast, measures that 'reduce' inequality could support the view that an activity should be permitted.

The inclusion of inequality as a parameter in the application of competition laws is summarized via a simple direct link:

Competition law provisions target inequality → Reduced economic inequality

While theoretically appealing, the inclusion of fairness and equality parameters in the competition provisions or in their interpretation, is not without controversy. It raises challenges with respect to subjective value judgments, difficulties in quantification, and legal uncertainty. It also raises questions as to the desirability of directly empowering competition enforcers with the power to determine redistribution of wealth in society, a task that is commonly left to elected officials.

These challenges contribute to an ongoing normative debate on the adequate scope and purpose of competition law and the formulation of intervention benchmarks, which is as old a debate as competition law itself. Unsurprisingly, that debate is charged, as it affects the relevant parameters considered and the threshold for intervention.¹⁸ Even in jurisdictions in which the law allows the consideration of 'inequality related' parameters, a subsequent debate emerges on the extent to which competition enforcers should seek, in practice, to promote these values and the relationship and hierarchy between these and other goals of the competition regime.

Looking at these variations, it is worth remembering that competition law in each jurisdiction forms part of a political and social construct which stems from the domestic foundations and values of society, and changes to reflect their development.¹⁹ While competition laws draw their core analytical framework from the same source, they often differ in scope and application. There is no doubt, the important debate on the soul of competition law will

¹⁵ Law of the Republic of Indonesia Number 5 Year 1999 Concerning the Prohibition of Monopolistic Practices and Unfair Business Competition <https://asean-competition.org/file/pdf_file/law_5_year_1999_.pdf> accessed 24 April 2022.

¹⁶ Monopoly Regulation and Fair Trade Act (MRFT), art 1; Meong-Cho Yang, 'Competition Law and Policy of the Republic of Korea' (2009) 54 *Antitrust Bulletin* 621, 624–25.

¹⁷ Fair Trade Act 2011, art 1.

¹⁸ Lina Khan and Sandeep Vaheesan, 'Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents' (2017) 11 *Harvard Law and Policy Review* 235; Michal Gal, 'The Social Contract at the Basis of Antitrust: Should we Recalibrate Competition Law to Limit Inequality?' (2019) 3(1) *CPI Antitrust Chronicle* <https://www.competitionpolicyinternational.com/wp-content/uploads/2019/12/AC_December_Lpdf> accessed 23 April 2022; Ioannis Lianos 'Competition Law as a Form of Social Regulation' (2020) 65 *The Antitrust Bulletin* 3; Maarten Pieter Schinkel, 'On Distributive Justice by Antitrust: The Robin Hood Cartel' (2021) *Amsterdam Law School Research Paper No 2021-16*, <<https://ssrn.com/abstract=3869561>> accessed 23 April 2022.

¹⁹ Ariel Ezrachi, 'Sponge' (2017) 5 *Journal of Antitrust Enforcement* 49.

continue for years to come. In those jurisdictions that do enable consideration of fairness, equality and other similar values, the debate on the practical utilization of these tools will likely intensify.

For the purpose of our discussion, suffice it to say that the utilization of internal provisions is only available in some jurisdictions and often applied restrictively.

External effects (via competition dynamic) on inequality

Our main interest lies in the second interface that concerns the effects of competition law enforcement on competitive dynamics and subsequently on economic inequality. We term this interface ‘external’ to reflect it not being conditioned on the normative scope of the law (the presence, or lack of specific provisions aimed to promote fairness or reduce inequality). This interface concerns the way in which effective enforcement of competition law—through merger control, investigations of anticompetitive agreements and abuse of market power, market and sector investigations, and advocacy efforts—may reduce economic inequality.

The underlying hypothesis is that efficient competition law enforcement supports greater market competitiveness, which in turn will reduce economic inequality.²⁰ These ‘external effects’ through market competitiveness, can be illustrated as follows:

Competition law → Increased competition dynamics → Reduced economic inequality

Let us elaborate on this external interface by looking at product and service markets, and consider the effects on labour markets.

Looking at product and service markets, competition law enforcement that promotes competitive dynamics, supports lower prices, better quality, and better services. Competitive prices offer customers better value for their money. For those groups in society that spend much of their income and savings on consumption, a competitive environment offers a significant benefit. It may enable them to acquire new products and services, gain access to resources and education and to save. In this way, competitive markets can potentially slow the decline of living standards and opportunities of those on the lowest incomes and, at the same time, promote social mobility which enlarges the size of the middle-income groups. Competition in product markets also promotes demand for labour, as a factor of production, when lower prices increase demand for products, and the equilibrium wage.²¹ In addition, competitive pressure limits businesses’ profit margins and supports a transfer of wealth from producers to consumers.²² Under certain assumptions, competition can limit excessive

²⁰ The assumption that competition law can affect inequality is widely held. eg as Shapiro asserts: ‘antitrust enforcement does tend to reduce income inequality’. See Carl Shapiro, ‘Antitrust in a Time of Populism’ (2018) 61 *International Journal of Industrial Organisation* 714. Similarly Stiglitz notes: ‘While market power has long been front and center in competition policy, recent advances have, as we have noted, provided new arguments for the importance of attacking it. It leads to inequality, and inequality leads to poorer economic performance, including lower growth and more instability’. Stiglitz, ‘Towards a Broader View of Competition Policy’ (2017) <<https://academiccommons.columbia.edu/doi/10.7916/d8-4s5f-0810/download>>, and Catherine Bosley, ‘Joseph Stiglitz Wants to Tackle US Inequality With Antitrust Rules’ (CPI, 24 April 2019) <<https://www.competitionpolicyinternational.com/joseph-stiglitz-wants-to-tackle-us-inequality-with-antitrust-rules/>> accessed 23 April 2022; Also note comments by the former Chairman of the UK Competition Authority: Andrew Tyrie, ‘Is competition enough? Competition for consumers, on behalf of consumers’ (8 May 2019) <<https://www.gov.uk/government/speeches/is-competition-enough-competition-for-consumers-on-behalf-of-consumers>> accessed 23 April 2022.

²¹ De Loecker, Jan Eeckhout and Gabriel Unger, ‘The Rise of Market Power and the Macroeconomic Implications’ (2020) 135(2) *Quarterly Journal of Economics* 561; Jan Eeckhout, *The Profit Paradox: How Thriving Firms Threaten the Future of Work* (Princeton University Press 2021).

²² Alan A Fisher and Robert H Lande, ‘Efficiency Considerations in Merger Enforcement’ (1983) 71 *California Law Review* 1580; Arnold C Harberger, ‘Monopoly and Resource Allocation’ in S Estrin and others (eds), *Essential Readings in*

remunerations to executives and shareholders and curtail the growth of those in the very highest income groups.

These generally beneficial effects of competition become evident when we look at the opposite effects generated by market power.²³ When market power is present some of the lower income groups may be priced out as they are unable to pay for otherwise affordable goods. Others will have to spend a higher proportion of their income to obtain these goods. Limited competition and high concentration may also facilitate rent seeking behaviour and corruption of other public efforts to address inequality.²⁴

Looking at labour markets, effective competition law enforcement which stimulates competition will impact wages, income, and the quantity of labour. When only a small group of employers are looking to hire employees in a geographic area, or place restrictions on hiring, there is potential for monopsony market power (ie buyer market power).²⁵ The effect of this monopsony (wage-setting power) from an economic perspective is similar to the analysis of monopoly power in product markets.²⁶ The exercise of market power in labour markets may result in both reduction in the 'quantity' of employment that is offered, as well as a reduction in the wages offered. Limited competition may result in some workers being unable to access employment, accept lower wages and be exposed to transfer of income from their pockets to their employers.

While it is tempting to draw a clear and simplified link between market competitiveness and reduced inequality, the real-life relationship may be more complicated. This is because many individuals occupy a range of different positions on product and labour markets. They earn a salary, buy goods, own shares in companies that employ others, invest, save, and may be exposed to debt. The multitude of positions complicates the interlinkages as an individual may benefit from competition in one role, and from market power in another.

Let us illustrate this by using a simple scenario in which a market is controlled by few firms (selling one product each) that can charge high prices and benefit from high mark-ups. The market is characterized by low skilled (non-unionized) employees, which enable the powerful companies to limit their rent sharing. In this scenario, firms charge high prices and transfer wealth from customers to their pockets. They are sharing this rent with a small group of senior directors and shareholders. Low skilled employees earn a limited salary and face high prices when they purchase goods and services. While the companies, their directors and shareholders enjoy the spoils of market power, the low skilled employees are relatively worse off.²⁷ Market power adversely impacts both consumers and low skilled employees. In this simple scenario we see how limited competition adversely affects inequality.

Economics (Macmillan Publishers Limited 1995) 77; Jerry Hausman and Ephraim Leibtag, 'Consumer Benefits from Increased Competition in Shopping Outlets: Measuring the Effect of Wal-Mart' (2007) 22 *Journal of Applied Economics* 1157.

²³ John Creedy and Robert Dixon, 'The Relative Burden of Monopoly on Households with different Incomes' (1998) 65 *Economica* 285; Martha Martinez Licetti and others (eds), *A Step Ahead: Competition Policy for Shared Prosperity and Inclusive Growth* (World Bank Group, 2017) <<http://elibrary.worldbank.org/doi/book/10.1596/978-1-4648-0945-3>> accessed 23 April 2022. A note of caution is in order, as competition laws do not condemn market power which is the result of the competitive process. Still, sustained increased mark-ups and high returns on capital, beyond levels necessary for investment and research and development, may point to the market failing to self-correct.

²⁴ Stefan Voigt, 'The Effects of Competition Policy on Development—Cross-Country Evidence using Four New Indicators' (2009) 45(8) *Journal of Development Studies* 1225; Jerg Gutmann and Stefan Voigt, 'Lending a Hand to the Invisible Hand? Assessing the Effects of Newly Enacted Competition Laws' (8 February 2014) <<https://ssrn.com/abstract=2392780>> accessed 24 April 2022.

²⁵ Note generally: OECD, 'Competition Issues in Labour Markets' <<https://www.oecd.org/daf/competition/competition-concerns-in-labour-markets.htm>> accessed 23 April 2022.

²⁶ Suresh Naidu, Eric A Posner and Glen Weyl, 'Antitrust Remedies for Labor Market Power' (2018) 132 *Harvard Review* 536.

²⁷ On the income gap and CEO-to-worker compensation ratio, see: Lawrence Mishel and Jessica Schieder, 'CEO Compensation Surged in 2017' (16 August 2018) Economic Policy Institute <<https://www.epi.org/publication/ceo-compensation-surged-in-2017>> accessed 24 April 2022.

Now, let us imagine a more complex reality in which employees of these high profit-margin firms can demand a greater portion of the profits from their employers. This can be the case when they are skilled or unionized and benefit from better bargaining power. They may have unique human capital which is in demand in the labour markets. In addition, some of these employees may also own shares or a stake in other powerful companies either through direct shareholding, pension funds or bonuses. In this example, market power can both harm and benefit individuals and generate a heterogeneous effect on inequality. Looking around us, we can note many instances in which employees benefit from the spoils of market power.

To discern the effects of competition on individuals and households, one would need to identify systematic ‘winners and losers’. To do so, it is helpful to note the labour share (which reflects the share of labour compensation from the total production) as another important variable. This measure can be aggregated from the firm level, to an industry and country level, in a way that reflects the systematic shares of labour versus capital over time.

Labour share, as a systematic variable, is helpful to our overall understanding of the linkages between competition and equality. In broad terms, when prices rise and labour compensation is stagnant, mark-ups will rise together with profit rates (via the biggest and most productive firms). When this happens across industries, national labour share is likely to shrink. In other words, low and medium skilled workers will systematically receive a smaller share of the profits, while a small group of high-skilled workers of firms and their owners will benefit from the fruits of progress. It is interesting to note that the labour share of national income has steadily declined in many developed countries since the 1980s.²⁸ At the aggregated macro-level, the rise of inequality—is connected with this decline of the labour share and the rise of market power.²⁹ Other scholars have linked these trends with the rise of ‘Superstar’ firms, their innovations or superior efficiencies.³⁰ In both cases, markups rise and income shares decrease. We will return to this debate in the next sections.

In Fig. 1 we aim to capture these linkages in a simple chart that illustrates how competition policy and enforcement affect the competitiveness of product markets and could also be applied to labour markets (although historically, there has been limited antitrust action in these markets). The competitiveness of product and labour markets affect firms’ markups. As for the effects on inequality, we note two channels: product markets (marked as A) which reflect the ‘price’ effects, and the channel of labour compensation (marked as B) which reflects the ‘wage’ effects. Most of us will be influenced through these two channels, and even a third one which is not captured directly in our study: the dispersion of capital ownership.³¹

²⁸ Loukas Karabarbounis and Brent Neiman, ‘The Global Decline of the Labor Share’ (2013) 129 *Quarterly Journal of Economics* 61. Mai Chi Dao and others, ‘Understanding the Downward Trend in Labor Income Shares’ in IMF, *World Economic Outlook April 2017: Gaining Momentum* (2017) 121.

²⁹ Simcha Barkai, ‘Declining Labor and Capital Shares’ (2016) Stigler Centre for the Study of the Economy and the State Working Paper No 2 <<https://research.chicagobooth.edu/-/media/research/stigler/pdfs/workingpapers/257.pdf?la=enhash=C465705E04AE217819398574706CAA372C2F6BDF>> accessed 24 April 2022. Jan De Loecker, Jan Eeckhout and Gabriel Unger, ‘The Rise of Market Power and the Macroeconomic Implications’ (2020) 135 *Quarterly Journal of Economics* 561; Jan De Loecker and Jan Eeckhout, ‘Global Market Power’ (2018) NBER Working Paper No w24768 <<https://ssrn.com/abstract=3206443>> accessed 24 April 2022.

³⁰ Superstar firms is a term coined by David Autor and others, ‘The Fall of the Labor Share and the Rise of Superstar Firms’ (2020) 135 *Quarterly Journal of Economics* 645. It should not be confused with big-tech giants or with any reference specifically to American technological sector (eg Google, Apple, and Amazon). According to Autor et al., superstar firms are the most productive and efficient firms in each sector. The rise of such firms refers to the global phenomena of firms in a ‘winner takes most’ competition which leads in a dynamic process to concentration of market shares and profits by a few leading firms in each sector.

³¹ Where ownership of firms with market power is highly concentrated, such that there is high degree of horizontal cross-ownership of firms by a small group, then the effects of the exercise market power across different products might be to further increase inequality between the small group of citizens that are ‘producers’ and the larger group of citizens that are ‘consumers’. In contrast, in settings where ownership is more dispersed such that many citizens of a society hold an ownership share in some firms with market power—for example, through pension funds—then it is more complex to disentangle and assess the

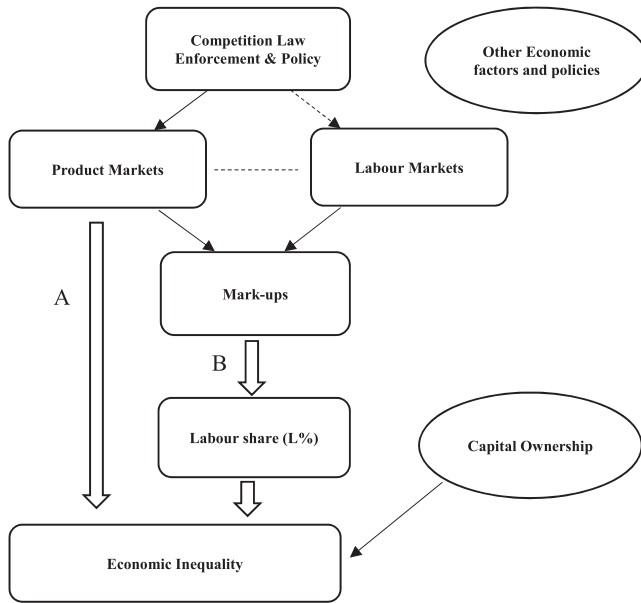


Figure 1. The effect of competition law enforcement and policy on competition dynamics and economic inequality.

These interlinks offer a useful illustration of the key channels through which competition law enforcement could reduce economic inequality. Needless to say, the magnitude of these effects will depend on a multitude of other variables, including societal composition, distribution of ownership, types (eg level of technological advances) of product markets, and global trade.

In the next section we discuss the findings from a number of empirical studies carried out by a research group based at the University of Oxford Centre for Competition Law and Policy (CCLP group), that used macroeconomic, cross-country industry, and household data, to explore these effects.³²

III. THE RELATIONSHIP BETWEEN COMPETITION LAW ENFORCEMENT AND INEQUALITY AT THE MACRO LEVEL

To explore the link between competition law enforcement and inequality, let us start with country level data to see whether there is an association at the macro level between the scope of competition laws, enforcement efforts, and economic inequality. This inquiry, which considers the relationship between law enforcement and inequality, differs from other literature which considers the relationship between competitiveness of markets and

impact of product market power on inequality. Brian Bell, Pawel Bukowski and Stephen Machin, 'Rent Sharing and Inclusive Growth' (CEP Discussion Paper No 1584, November 2018) <<https://cep.lse.ac.uk/pubs/download/dp1584.pdf>> accessed 18 May 2022.

³² The discussion in Section III summarises findings of three key papers:

1. Amit Zac and others, 'Competition Law and Income Inequality: A Panel Data Econometric Approach' (2020) <<https://ssrn.com/abstract=3402436>> accessed 24 April 2022.
2. Amit Zac and others, 'Competition Policy and the Decline of the Labour Share' (2021) <<https://ssrn.com/abstract=3824115>> accessed 24 April 2022.
3. Christopher Decker and others, 'Competition Law Enforcement and Household Inequality in the United Kingdom' (2022) CCLP Working paper.

equality (ie: Are more competitive markets associated with higher or lower levels of inequality?). The latter relationship has been explored in several empirical papers which we review in detail elsewhere.³³ The relationship between competition law enforcement and inequality at the macroeconomic level has had limited empirical exploration in literature.³⁴

Our interest lies in the impact that competition law enforcement may have on limiting economic inequality. Exploring this link is challenging not only due to the complexities described earlier, but also due to the multitude of possible contributing factors that can affect inequality and need to be accounted for. Furthermore, objective data on competition law enforcement and its effectiveness is not often readily available. Even when it is, there remains the challenging question of whether enforcement efforts were optimal. That is, whether the scope of the laws, or the enforcement actions, promoted or chilled competition. As one would expect, there is no perfect metric which captures all the complexities and subtleties of the various concepts that need to be examined (competition law, intensity of competition, and economic inequality).

Competition law and income inequality

In a companion paper the CCLP group utilizes a large cross-country macroeconomic dataset and multiple indexes of competition law and economic inequality to examine whether the scope and trends of enforcement of competition law may be associated with changes in income inequality.³⁵ We began our inquiry by looking at the Competition Law Index (CLI), that offers a comprehensive and current account of the scope of competition laws. The index, compiled by Bradford & Chilton encompasses almost all of the countries in the world that enacted competition laws between 1889 and 2010.³⁶ The CLI quantifies the elements of the authority granted to regulate competition, and the substance of competition laws in force in each jurisdiction.³⁷ It is important to note that the CLI measures the *scope* of the law (the legal text) but does not reflect enforcement trends—such as an increase in cartel enforcement or decrease in merger scrutiny. In a similar way, the index does not reflect de-facto powers of enforcement authorities, budgets, staff and independence. Still, despite its limitations, the CLI provides comprehensive coverage of the development of competition laws worldwide and as such merits our attention. In addition to the CLI, we also explored the relationship between the World Economic Forum Global Competitiveness Index (GCI), and income inequality. The GCI covers a narrower timeframe (2007 until today) in comparison to the CLI (Early 1900 until 2010) and has been constructed using ‘survey’ data on effectiveness of enforcement. It provides an interesting (albeit imperfect) proxy for the effectiveness of enforcement and is a useful supplement to the measure of the scope of the law.

³³ Amit Zac, ‘Competition Law and Economic Inequality: A Comparative Analysis of Text Similarity using General Synthetic Control Method’ (2020) Working Paper CCLP(L) 53 <<https://ssrn.com/abstract=3703633>> accessed 24 April 2022; William S Comanor and Robert H Smiley, ‘Monopoly and the Distribution of Wealth’ (1975) 89 *Quarterly Journal of Economics* 177; Licetti and others (n 23); De Loecker, Eeckhout and Unger (n 29).

³⁴ Noteworthy is research by Dierx and others, who studied a model connecting competition policy, competition, and wealth distribution. Their research explores a narrow point of time (year 2014) and investigates the effects of EU competition policy on households with different skill levels and across types of income earners. See Adriaan Dierx and others, ‘Distributional Macroeconomic Effects of the European Union Competition Policy: A General Equilibrium Analysis’ in Martha Martinez Licetti and others (eds), *A Step Ahead: Competition Policy for Shared Prosperity and Inclusive Growth* (2017) 155–85, 160–63; Also noteworthy is a study by Zac (2020), which looks at textual similarity between competition laws and linkages to economic inequality, and tests the possible effects of the scope of antitrust provisions and institutional structure of antitrust on economic inequality. Zac (n 33).

³⁵ Amit Zac, Carola Casti, Christopher Decker and Ariel Ezrachi, ‘Competition Law and Income Inequality: A Panel Data Econometric Approach’ (2020) <<https://ssrn.com/abstract=3402436>> accessed 24 April 2022.

³⁶ A Bradford and AS Chilton, ‘Competition law around the world from 1889 to 2010: The competition law index’ (2018) 14(3) *Journal of Competition Law & Economics* 393.

³⁷ The main datasets mentioned above were compared against the CLI in Bradford & Chilton, *ibid*, 420–425.

In our analysis we explored the relationship between the two competition law indices and three income inequality measures: the gross Gini (pre-taxes and transfers), the net Gini (after taxes and transfers)³⁸ and the EHII index (Estimated Household Income Inequality).³⁹

We analysed the data through econometric estimation to explore whether changes in the CLI and the GCI correlate with increases or decreases in each of the three inequality indexes.⁴⁰ While the relationship between the competition law indices and income inequality is consistently negative across most of the econometric specifications, it is not statistically significant in all cases. The precise relationship appears to be sensitive to factors such as, the competition law index used, and the income inequality measure applied. Given the considerable heterogeneity in the data and the macro-scale of the analysis, these results are neither surprising nor conclusive. Nevertheless, they suggest that competition law could have an impact on income inequality, but required us to continue to search for more granular level data, and to focus on the link between competition policy and the labour share.

The labour share mechanism

In Fig. 1 above, we outlined the channels through which competition law enforcement and policy could affect inequality. One of the channels flows through price effects (consumers), and the other impacts inequality via the labour share (employees). This latter channel can be illustrated in a simplistic manner:

Competition law → Firms' markups → Labour share → Economic inequality

We believe this channel offers a valuable insight into the mechanism through which competition law affects competition dynamics and innovation, which in turn affect firms' markups and profits. While high mark-ups have been identified as a factor contributing to the decrease in the labour share across countries,⁴¹ the link between mark-ups (or other measures of market power), labour share, and competition law is not often explicit, or was hardly tested empirically.⁴²

In an accompanying paper the CCLP group focused on the relationship between competition law, average profits and subsequently, labour shares.⁴³ For this inquiry we used the Competition Policy Index (CPI) compiled by Buccirossi et al.⁴⁴ The CPI measures the 'quality' of competition policy, the effectiveness of enforcement, and covers competition law

³⁸ The Gini index offers indication as to the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, while an index of 1 implies perfect inequality.

³⁹ Respectively taken from the SWIID (Standardized World Income Inequality Database) and from the UTIP-UNIDO, which is a dataset of industrial pay inequality (University of Texas Inequality Project – United Nations Industrial Development Organization). See: James Galbraith and others, 'The UTIP Global Inequality Datasets: 1963-2008' (2015) <<https://ideas.repec.org/p/unu/wpaper/wp-2015-019.html>> accessed 24 April 2022

⁴⁰ We analyse the changes in the CLI index, after the enactment of competition law in the country. In other words, we exclude zero values from the analysis. This could be considered as a conservative assumption, considering the possible 'jump' associated with the enactment of the law. For more details see: Zac and others (n 35)15-16 and specifically footnote 24.

⁴¹ De Loecker, Eeckhout, and Unger (n 29). Note, Markups are usually defined (such as in Autor and others (n 30)) as the ratio of product price to marginal cost ($m = \frac{p}{c}$).

⁴² We focus on economic inequality rather than poverty in our studies as we mostly analyse data from developed countries. Yet we recognize that poverty reduction is a valid and important policy goal in itself, one that can also be tackled using competition laws, as others have argued. See for example, Thomas K Cheng, *Competition Law in Developing Countries* (OUP 2020)

⁴³ Amit Zac, Carola Casti, Christopher Decker and Ariel Ezrachi, 'Competition Policy and the Decline of the Labour Share' (2021) <<https://ssrn.com/abstract=3824115>> accessed 24 April 2022

⁴⁴ Paolo Buccirossi and others, 'Competition Policy and Productivity Growth: An Empirical Assessment' (2013) 95 The Review of Economics and Statistics 1324.

infringements and merger control.⁴⁵ Since the index comprises only high-income jurisdictions, there is limited heterogeneity in comparison to the other two indexes we presented above (the CLI and GCI). Despite this, the CPI qualitative focus offers a valuable prism through which to explore the relationship between effective competition enforcement and the labour share (via changes in market power proxied by average profits at the industry level).

When observing the effectiveness of competition law enforcement through the CPI prism, we noted that some countries have displayed a relatively flat trend over the years. For example, a flatter trend is apparent for Italy, Japan, Germany, and USA, while Canada and Sweden show a slight decreasing trend in the CPI. Only four countries in our sample have witnessed a major increase in the CPI between 1995 and 2005: The Netherlands, United Kingdom (UK), Hungary, and Czech Republic.

Within the group of stagnant CPI countries (the CPI considers, among other things, investment in resources (budget, staff, skills), sanction policy, and damages) the labour share trend is mostly negative, such as the case of USA and Canada, while the labour share in the second group is trending, on average, upwards, like the case of the UK or Hungary. This observation reinforces the hypothesis that competition policy might have an effect on the aggregated labour share via firms' profits and the demand for labour and wages.⁴⁶ In Fig. 2 we plot the labour share data by country (1995–2005) and in Fig. 3 the correlation (at country level) between the CPI and the labour share.

Our econometric analysis further examines this hypothesis using a unique country–industry estimation strategy, which includes fixed effects, Instrumental Variable and interaction models. We find evidence that the main transmission mechanism via which competition policy affects the labour share is through average profits.⁴⁷

We run the analysis on each part of the causal chain. Competition policy is negatively correlated to average profits, while the latter are negatively correlated to the labour share (see Fig. 4), which taken together, confirms why we observe a positive association between an effective and effective competition policy and the labour share.⁴⁸

Interestingly, our results are strengthened in environments characterized by low levels of labour protection and labour bargaining power, suggesting a broader impact of competition policy acting as a constraint on how economic gains are distributed between the

⁴⁵ *ibid*: 1327–29. The aggregate CPI is calculated by combining the four high-level indices which are: antitrust CPI; mergers CPI; institutional CPI; enforcement CPI. The antitrust and merger CPI's aggregate (and cut) the data vertically, while the institutional and enforcement aggregate the data horizontally in relations to the areas of policy.

⁴⁶ Jan De Loecker, Jan Eeckhout and Simon Mongey, 'Quantifying Market Power and Business Dynamism in the Macroeconomy' (2021) Working Paper 28761 National Bureau of Economic Research <<https://www.nber.org/papers/w28761>> accessed 24 April 2022. It is important to emphasize that the effects on the labour share are 'price' effects. The higher prices of products naturally reduce consumption, which in turn reduces the scale of production and subsequently leads to a reduction in the demand for labour (especially for low-skilled workers). The decline in competitiveness in the output market causes a sharp decline in wages, even if wages are determined in competitive labour market. This aggregated decline is then manifested in the decline of the labour share.

⁴⁷ We follow Buccirosi and others (n 44) using a simple proxy, which can be estimated with the EU-KLEMS for both service and manufacturing sectors, based on the method of Rachel Griffith, Rupert Harrison and Gareth Macartney, 'Product Market Reforms, Labour Market Institutions and Unemployment' (2007) 117 *Economic Journal* C142. Average profits are defined as value added over the input costs and it captures the average level of profits for each country–industry:

$$\text{Average Profits}_{i,j,t} = \frac{\text{Value Added}_{i,j,t}}{\text{Labour Costs}_{i,j,t} + \text{Capital Costs}_{i,j,t}}$$

⁴⁸ To assess the relationship between competition policy (CPI) and the country–industry level labour share, L_share :

$$L_share_{i,j,t} = \alpha + \beta CPI_{i,t-1} + \sum X_{i,j,t-1} + \sum Z_{i,t-1} + \varepsilon_{i,j,t}$$

' i ' refers to country, ' j ' to industry and ' t ' to year. We include a set of country–industry controls $X_{i,j,t-1}$ related to the main dependent variable (such as human capital and import penetration), while $Z_{i,t-1}$ captures country-specific controls (such product market regulation (pmr) and scope of law, CLI). Following Buccirosi and others (n 44), we model the unobserved heterogeneity through the error term's structure: $\varepsilon_{i,j,t} = \psi_{i,j} + \varphi_t + u_{i,j,t}$. Specifically, we control for country–industry specific fixed-effects $\psi_{i,j}$ to capture a variety of specific time invariant unobservable factors, and year fixed effect φ_t , to take into account macroeconomic shocks that might affect the labour share (L_share) in all countries at the same time. Zac and others (n 43).

Share of labor compensation (wages) as a proportion of total production measure based on the EU KLEMS data

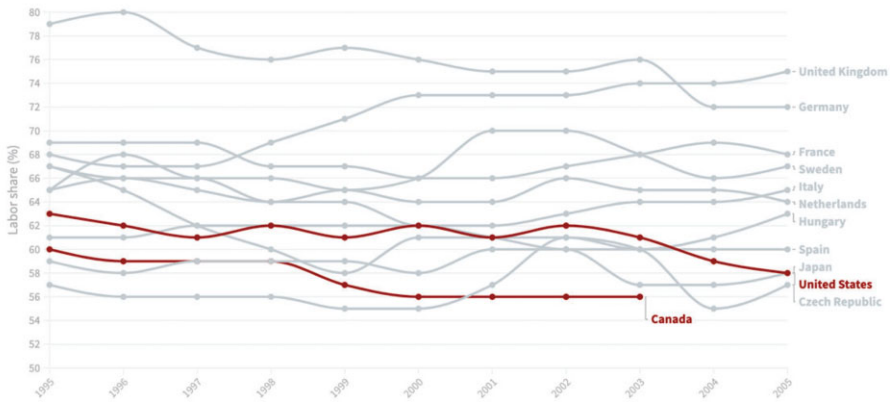


Figure 2. Labour share by Country, 1995–2005.

Source: Amit Zac and others, 'Competition Law and the Labour Share' (2021); The figures were recreated by ProMarket blog (2022).

different factors of production (capital and labour). To clarify, competition laws are hardly enforced in labour markets and as such their influence in the past is mostly associated with competition in product markets. Theoretically a firm can increase profits by increasing prices to consumers or reducing wages to employees. In heavily regulated labour markets, the second option is more limited. Indeed, we find a stronger statistically significant negative correlation between a more effective competition policy and average profits in the presence of weak labour bargaining power, as compared to scenarios with stronger labour protection.

The decline of the labour share and the rise of markups has been connected to dominant firms in recent influential studies.⁴⁹ In our study, we rely on industry data rather than firm level data and it is therefore not possible to determine to what extent these firms either hold a superior technology, operate in a sector with network effects and scale economies naturally leading to a monopoly, or are benefitting from hidden or artificial barriers to entry and market power.⁵⁰ We conjecture that a relative deterioration in effective competition law enforcement in many developed countries (due to failure to keep up with changing market reality), may have contributed to decline in market competitiveness, rise of market power, and reduction in labour share. Of course, there are other explanations to these trends and in our econometric analysis we took note of possible omitted variables.⁵¹

With these limitations in mind, our findings suggest that competition policy (proxied by the CPI) is positively correlated with the labour shares at country-industry level in 12 OECD (Organisation for Economic Co-operation and Development) sample of economies during the period 1995–2005. In other words, more effective competition policies are, *ceteris paribus*, statistically associated with higher labour shares, while less effective and efficient competition policies may have contributed to the decline of the labour share over time. This matters for

⁴⁹ Autor and others (n 30); De Loecker, Eeckhout and Unger (n 29).

⁵⁰ These are all factors which many papers see as important. See for example Philippe Aghion, Reda Cherif and Fuad Hasanov, 'Competition, Innovation, and Inclusive Growth' (2021) IMF Working Paper 21/80 <<https://www.imf.org/en/Publications/WP/Issues/2021/03/19/Competition-Innovation-and-Inclusive-Growth-50269>> accessed 24 April 2022, who focus on the connection between the two-sided effects of innovation on inequality.

⁵¹ The key limitation of our study is its short time span (the data covers only one decade), which limits our ability to generalize our finding further and our industry aggregated data (which does not allow us to observe between firms' variations).

Competition policy index and labor share (%) for 12 countries

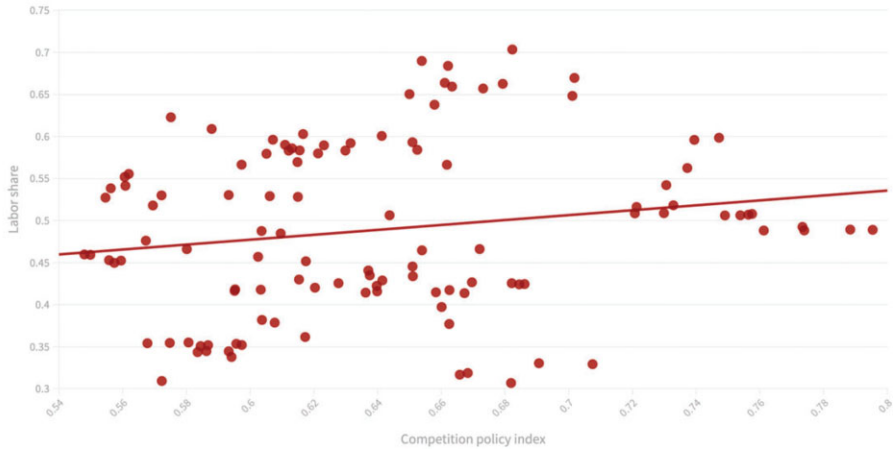


Figure 3. Competition policy and the Labour Share.

Notes: The scatterplot depicts the direction of the relationship between the labour share and the competition policy as captured by the CPI. *Source:* Amit Zac and others, 'Competition Law and the Labour Share' (2021); The figures were recreated by ProMarket blog (2022).

Labor share (%), capital share (%), and average profits by industry for 12 countries

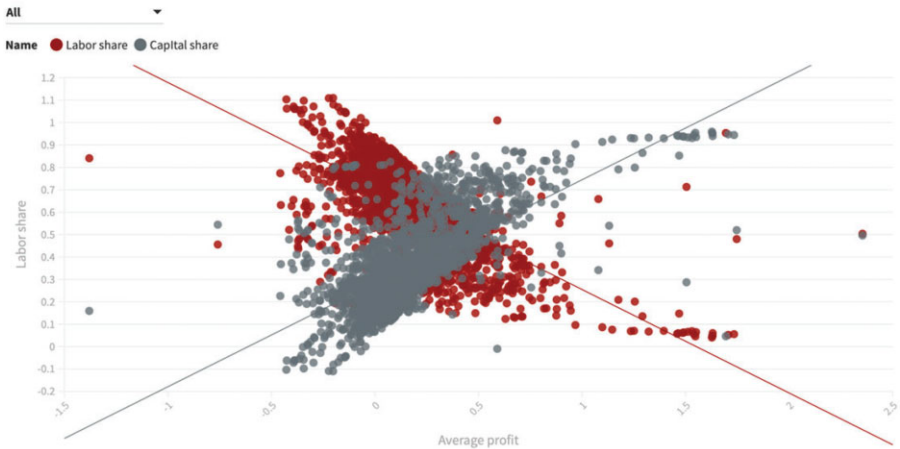


Figure 4. Average profits and the labour share, 1995–2005.

Notes: The scatterplot depicts the direction of the relationship between the labour share and the average profits (in logs) in red, while in blue with respect to the capital share (being complementary to the labour share by construction). *Source:* Amit Zac and others, 'Competition Law and the Labour Share' (2021); The figures were recreated by ProMarket blog (2022).

our understanding of economic inequality, because decreases in labour share would, other things equal, be expected to increase economic inequality. This is so, since labour income is more dispersed than capital income, and this might eventually translate into a more unequal income distribution (in relative terms).

What do we learn from the macroeconomic datasets?

Our empirical analysis of macroeconomic datasets suggests a positive relationship between competition law scope and enforcement, and reduced inequality. These results need to be

considered while acknowledging the limitations of each of the indices used—their different scope and time frame—and the wider challenges of exercises of this type. Objective criteria such as scope of the law offer certainty but limited insight into actual enforcement. Data which focuses on perceived effectiveness may be more directly relevant but naturally affected by subjective views. There are also acknowledged limitations with each of the inequality indexes we use.

In our research, we aimed to address these limitations by using multiple competition law and inequality indexes (three in total), to investigate the assumed link between competition enforcement and equality. Our analysis of the two competition law indices (CLI, GCI) presented in Section 2 does not show causality, but it does offer support for the intuition that legislation and enforcement of competition law may be associated with reductions in income inequality. When our estimations are based only on OECD countries, the results seem to reflect a stronger link.

Our findings using industry-country data, suggest a causal relationship between competition policy and the labour share. This study, despite the limitations, offers a closer look at the economic mechanism in play, considering different labour market environments. However, as our independent variable (the measure of competition law) is not random phenomena, we recognize that omitted variable bias could be affecting some of our estimations. In other words, the correlations could reflect uncontrolled heterogeneity arising, for example, from institutional differences between countries rather than differences in competition laws, and further studies are required to establish this complicated economic links between competition law and distributional outcomes.

MICROECONOMIC ANALYSIS OF HOUSEHOLD EXPENDITURE DATA

The macroeconomic analysis discussed above sheds light on how competition law and inequality interact across countries, industries, and over time. Considering the limitations of the macroeconomic datasets, we subsequently moved to review the relationship between competition law and inequality at the household level using microeconomic data.⁵² Examining the interaction at the micro level enables us to see where the impact of competition law enforcement could be most directly felt.

In an accompanying paper the CCLP group investigated the impact that the enforcement of EU and UK competition law has had on low, average, and high-income households in the UK over the period 2006–2020. Our analysis is based on a database we compiled, which encompasses decisions of the European Commission DG Competition, UK competition agencies (the Competition and Markets Authority (CMA), and predecessor bodies—Competition Commission and Office of Fair Trading) and UK sectoral regulators with concurrent competition powers.⁵³ We combine key information in each decision (such as case type, relevant market, market share, outcome) with information contained in the UK Office of National Statistics Living Costs and Food Survey to estimate the annual expenditure by households at different income levels. We then estimate the price ‘reduction’ for each relevant product as a result of the competition law decision, using the standard or default assumptions used by the Competition and Markets Authority (and predecessor bodies) to

⁵² Christopher Decker and others, ‘Competition Law Enforcement and Household Inequality’ (2022) CCLP Working paper; forthcoming *Journal of Competition Law & Economics*

⁵³ While we analysed every decision taken by these bodies over the 15-year period, some decisions, particularly relating to intermediate products, were unable to be assigned to a specific expenditure category or group of categories and were excluded from our analysis.

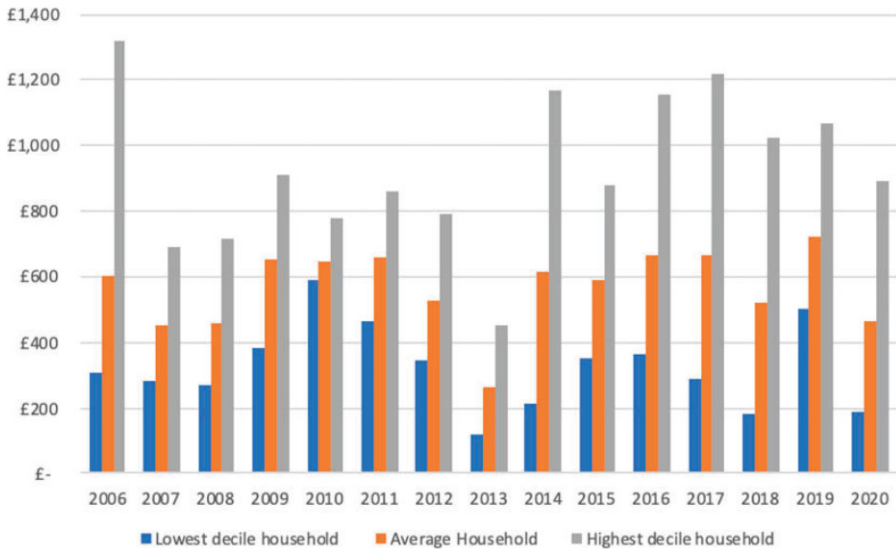


Figure 5. Annual combined savings for low, average and high-income households, 2006–20, (£per household).

Notes: The figure shows estimated combined savings (direct and deterrent effects) per household from decisions taken in each year shown to the lowest decile household (blue bar), average household (orange bar) and highest decile household (grey bar). Source: Decker et al (2022).

estimate the consumer impacts for different types of decisions (eg: mergers, restrictive agreements, abuse of dominance etc).⁵⁴

Taking account of the direct and measurable deterrent effects of competition law enforcement,⁵⁵ we find that over the 15-year period the enforcement of EU and UK competition law resulted in greater combined savings (in £per year) for higher income households than lower income households (Fig. 5). However, when expressed as a proportion of annual household budget, the savings resulting from competition law enforcement were generally greater for the lowest income households relative to the highest income households (Fig. 6).

While these headline figures are illuminating, the analysis also provides insight into which areas of competition law enforcement tend to have a greater relative impact on low income households vis-à-vis the highest income household.

Overall, merger investigations resulted in the largest direct and combined savings across all households, with the average savings (as a proportion of household income) being marginally greater for the lowest income households than for the highest income households. However, on a *per product investigated* basis we find that UK market investigations yielded the greatest direct savings (excluding deterrence effects) for lowest and average income

⁵⁴ A number of assumptions underpins the analysis including: that the impacts of competition law decisions can be monetised; that consumers purchase a fixed volume of each relevant product over the entire duration of the period in which a price reduction associated with a relevant decision is in effect; that the price reduction associated with a relevant decision is uniformly applied across all consumers; that the benefits to consumers of a particular relevant product accrue from the year prior to that in which a decision was taken. We also rely on the robustness of the default assumptions used by the CMA (and predecessor bodies) to estimate the price reductions and duration of benefit for the different types of relevant decisions. For some products we had to estimate the proportion share of that product in an expenditure category which involved judgement. Critically, however, all of these assumptions are applied uniformly to both low income, average and high-income households which allows us to examine *relative* impacts across households which is our main focus.

⁵⁵ To take account the deterrent effects of competition law we applied a multiplier to the 'direct' savings to estimate the 'combined savings'.

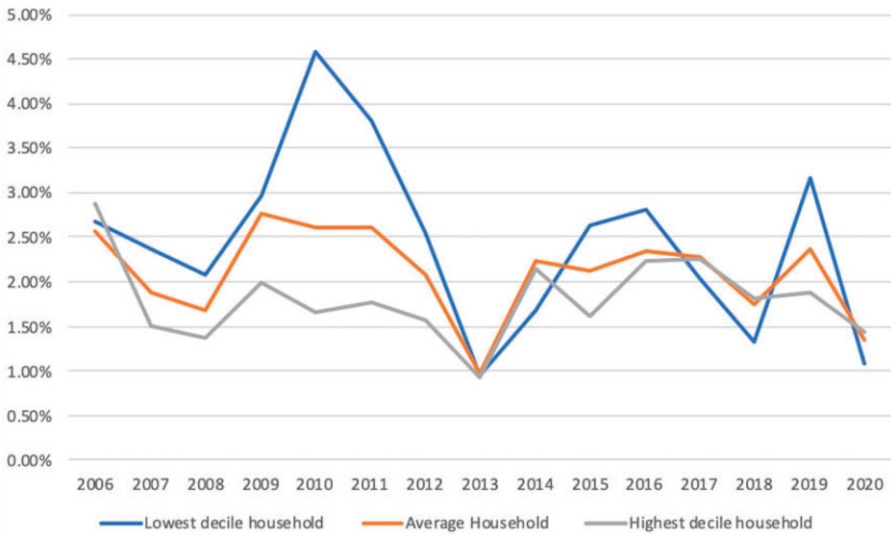


Figure 6. Annual combined savings as a % of household budget for low, average and high-income households, 2006–20 as a % of household budget).

Notes: The figure shows combined savings (direct and deterrent effects) per household as a proportion of household expenditure from decisions taken in each year shown. The % savings for lowest decile household is the blue line, the % savings for average household is orange line and the % saving for the highest decile household is the grey bar. Source: Decker et al (2022).

households (as a % of household budget).⁵⁶ This no doubt reflects the types of investigations that have been undertaken which cover sectors such as groceries, payday lending, local bus services, energy and funerals.

More broadly, the analysis reveals that enforcement actions for products in the food, housing, alcoholic drink and tobacco and communications sectors yielded substantially greater savings (as a per cent of household budget) for lower and average income households compared to higher income households. In contrast, enforcement actions involving transport (such as air travel), restaurants and hotels, and education were of more benefit to the highest income households during the period.

Finally, the analysis sheds light on the relative impact of enforcement by three bodies: DG Competition, the UK competition agencies (CMA, Competition Commission and the Office of Fair Trading) and the sectoral regulators that can enforce competition law (including the Civil Aviation Authority (CAA), Office of Communications (Ofcom), Gas and Electricity Markets Authority (Ofgem), Office of Rail and Road (ORR), and Water Services Regulation Authority (Ofwat)).

Figure 7 shows that around 58 per cent of the savings to households of all incomes came from enforcement by the UK competition agencies, while for the lowest income households around 10 per cent of the savings came from enforcement by the sectoral regulators with remaining 31 per cent coming from enforcement at the European level. However, when expressed in terms of *savings per product investigated* the sectoral regulators saved low-income

⁵⁶ Once deterrence effects are considered (ie: the combined effects), the picture changes again. Specifically, on a basis, abuse of dominance investigations generated the greatest combined savings to lowest and average income households *per product investigated*, followed by restrictive agreement. This reflects the higher assumed multiplier effect of such actions as compared to mergers and market investigations.

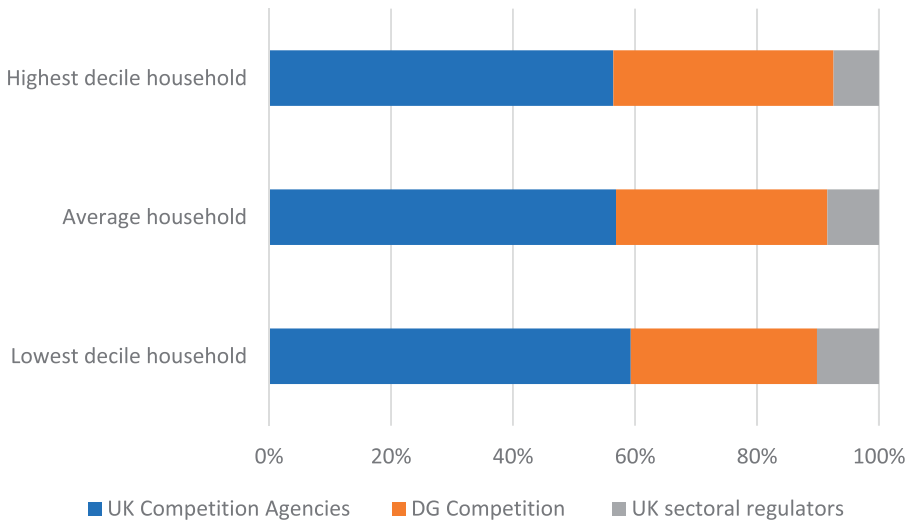


Figure 7. Proportion of combined savings to different household income deciles generated by enforcement from different bodies.

Notes: The figure shows the distribution of savings by enforcement bodies. For example, for the lowest income households around 10% of estimated savings accrued from decisions of the sectoral regulators compared to 7% of the estimated savings of the highest income household. Source: Decker et al. (2022).

consumers more per decision compared to the UK competition regulators and DG competition.⁵⁷

Our microeconomic analysis offers further support to the link between competition law and inequality and provides a more nuanced understanding of the type of enforcement action and the industry which can have the highest impact on economic inequality. It highlights the potential for proactive targeting of certain industries/markets for enforcement and the differentiated impact on inequality generated by market investigations, merger control and antitrust enforcement.

V. COMPETITION LAW ENFORCEMENT AS A STRATEGIC LEVER?

Our empirical observations, outlined above, support the notion that competition law enforcement can play a role in limiting inequality. But how does one translate this insight into meaningful enforcement action? Could the apparent positive relationship between effective competition law enforcement and economic equality be utilized more fully by harnessing the law as a strategic lever aimed at fostering greater economic equality?

This is a challenging question which would make many competition enforcers and practitioners feel uncomfortable. After all, many would say that their expertise lies in assessments of market competition, not in addressing economic inequality. Recall, however, that our focus is not on a change to the substantive analysis and the possible integration of equality benchmarks to the competition appraisal (what we termed as ‘internal interface’). Nor is our focus on a change in the overall goals of the regime, to the extent that these affect the substantive analysis in a given jurisdiction. These elements relate to the normative scope of competition law and the trade-offs between values and goals. Evidently, some competition

⁵⁷ This is calculated as the combined savings from enforcement decisions by each type of body (UK competition regulator, DG competition or sectoral regulators) divided by the number of decisions taken.

regimes can utilize specific provisions aimed at fairness and equality, turning the competition tool to a versatile instrument. When these provisions are applied, they may well support a more equal society. However, being mindful that the inclusions of such provisions is the subject of national variation and debate, our inquiry sets aside the normative debate and considers *external* effects. It focuses on the relationship between competition law enforcement and equality and the strategic use of the former, as a complementary instrument, in a manner that could maximize its effect on economic inequality.

Returning to the question we posed above—how can we utilize competition law to play a more effective role in limiting inequality?

One option is to acknowledge the above linkages and view them as another argument in favour of effective competition law enforcement. To put this simply, enforcement actions by well-resourced agencies, that target anticompetitive activities (and are applied in a manner that does not chill competition), will support greater competition in the market, and likely generate a positive effect by helping reduce the economic inequality gap. As long as the adequate level of intervention is observed, more effective enforcement will result in more competition and less inequality. At this level of generalization, the effects of competition enforcement on economic inequality are treated as a by-product. A desirable effect which may support investment in enhancement of the competition regime and its effectiveness.

But rather than celebrate these effects as incidental by-products, could we perhaps do more and utilize competition enforcement and form an additional path for societal change?

In light of the link between competition law and reduced inequality, we may want to consider how the ‘external effects’ of competition law can be best leveraged in the fight against growing inequality. Such strategic leveraging may take different forms and could be implemented gradually, with incremental changes. We explore various possibilities below, drawing where relevant on examples from other areas of policy.

Prioritization of cases

One way to enhance the ‘external effects’ of competition law is to firmly embed equality considerations in case prioritization. Such an approach, which could include inequality among the relevant parameters affecting the choice of cases, could help utilize the competition law lever in a manner that supports competition while targeting areas of inequality. It will require an adaptation of the lens used by competition agencies when they review complaints and possible cases they may pursue. As competition agencies consider how to best utilize their limited resources in their quest to protect consumer welfare and market competitiveness, inequality can form part of the equation.

Case prioritization is not always the result of a precise or structured process, but one which may intuitively address inequality concerns. To the extent to which they are able to, some agencies already do so informally, as they focus on issues that most citizens worry about or seek to justify their budget request by showing wider impact on the average consumer or community. Indeed, many investigations have focussed on food, energy, transport, healthcare and retail products, and services.

The inclusion of inequality in prioritization consideration may necessitate distributional judgements, but not such which affect the analysis of the anti-competitive activity. Such an approach is consistent with approaches advocated elsewhere to address the extremes of inequality. One such example is the approach advocated by World Bank economists to address the asymmetric impacts that natural disasters have on the well-being of poorer citizens in a community.⁵⁸ Like us, the World Bank acknowledges that the same harm or losses can have

⁵⁸ Hallegatte and others, *Unbreakable : Building the Resilience of the Poor in the Face of Natural Disasters* (World Bank, 2017) <<https://openknowledge.worldbank.org/handle/10986/25335>> accessed 24 April 2022.

differential effects on wealthier and poorer citizens of a society and that the *severity* of a loss depends on who experiences it: '\$1 in losses does not mean the same thing to a rich person and a poor person'.⁵⁹ In recognition of this, the World Bank advocates that future investment decisions be assessed on the basis of 'who' would experience a loss and 'how' such a loss would impact on their well-being, rather than solely focussing on 'aggregate' losses.⁶⁰

We note that some agencies feature parameters in current 'checklists' or impact assessments, that could be used to take account of inequality considerations. As empirical research offers us further insights as to the links between competition law enforcement and inequality, we believe there is room for a more direct and informed consideration of inequality in case prioritization. Such an approach can increase the added value generated through the enforcement action, and in so doing, help to achieve what is presumably one of the aims of competition policy—promote the overall welfare for a larger proportion of a community. Importantly, the formal inclusion of inequality as parameter for prioritization, does not override other considerations. This is an ongoing balancing act which should not result in 'abandonment' of investigations in sectors that service higher income customers. This, of course, is key to avoiding unintended signalling that encourages anticompetitive activity that targets these groups.

One may envisage an 'equality impact checklist' or template which sets out a series of questions or prompts that a decision maker could consider, and which embeds various indicators related to the distributional impacts of a decision, such as the elasticity of consumption at different income levels. Data at the micro level could also help with the development of a standard set of (weighted) parameters used to identify instances in which harm to competition is likely to have contributed to economic inequality.⁶¹ Our analysis of the relative impacts of the enforcement of EU and UK competition law on UK households suggests that it should be relatively straightforward, using available expenditure data and standardized assumptions, to develop a simple checklist to estimate the relative distributional impacts of acting in different markets and using different competition law tools. Such a simple checklist can provide decision makers with estimates of what the average savings that could accrue to the lowest, average, and higher incomes from taking action in a specific market. This type of analysis is also a useful complement to, and builds on, work that is already undertaken by some agencies—such as the UK and Dutch competition authorities and certain UK sectoral regulators—to estimate the consumer impacts of their decisions.

Targeted compensation

Another way through which competition law enforcement may enhance its role in reducing economic inequality may be through the use of targeted compensation. This hybrid mechanism may be used to enable the competition agency, at the end of a public investigation, to impose not only a fine but also award a certain form of compensation to the injured class. Such compensation may be in the form of cash transfer or in-kind benefit.⁶² While it may be

⁵⁹ In this context the World Bank observes that 'the same loss affects poor and marginalized people far more because their livelihoods depend on fewer assets, their consumption is closer to subsistence levels, they cannot rely on savings to smooth the impacts, their health and education are at greater risk'.

⁶⁰ They provide the following example: 'Imagine two flood protection projects with similar costs. The first would cover a wealthy neighborhood in a capital city. Because of the density of high value assets, it would avert on average \$10 million a year in damages. The second project would target poorer areas in a second-tier city and prevent just \$5 million a year in losses. A traditional analysis would unambiguously select the first project. But a \$5 million loss may matter more to poor people than a \$10 million loss to richer people. If the second project benefits very poor people, it may generate greater benefits for well-being. And because well-being is the ultimate goal of public policy, the second project may be more attractive.'

⁶¹ Like checklists, standardized indexes are widely incorporated into the day-to-day practice of competition authorities in many jurisdictions—eg the Gross Upward Pricing Pressure Index (GUPPI) and the Herfindahl–Hirschman Index (HHI).

⁶² There is longstanding debate about the different effects of cash-in versus in-kind (or 'noncash') transfers in terms of consumers and social welfare. Some argue that cash-in transfers might be better and more efficient in terms of welfare gain and for

addressed to individuals, it is more likely that it will be used to compensate a group with sufficient nexus to the violation.

The possible inner workings of ‘targeted compensation’ have been explored elsewhere as a mechanism which can support and supplement damage claims.⁶³ While not common, there are numerous examples of instances in which public enforcement has resulted in payments or refunds to the complainant or the injured class. Some embedded in law,⁶⁴ while others in practice. Such, for example, has been the case when gas suppliers charged excessive prices and were ordered to refund their victims, or when a price fixing conspiracy between fee paying schools resulted in *ex gratia* payment to an educational charitable trust.⁶⁵ The approach has also been adopted in some regulated sectors where firms that breach regulations—including requirements to treat customers fairly—and are required to directly refund and compensate consumers.⁶⁶ In some cases additional penalty payments have been given to charities that work with vulnerable consumers or to specialist fuel poverty charities.⁶⁷

For our purposes, we consider the use of targeted compensation as an attractive corrective ex-post tool that can be utilized to reduce the inequality gap. Targeted compensation may enable the competition agency not only to prioritize cases which can help address the inequality gap, but also offer corrective measures. When a case has been prioritized (also) due to its effects on inequality, and when the investigation concludes with a fine, part of that fine can be channelled back to the class of injured parties. In such cases, the level of the targeted compensation may be derived from the fine levied on the parties, either as a portion of the original fine, or an addition to the original fine (subject to the maximum level of fine set in legislation). In other cases, when an investigation concludes with agreed commitments or settlement, these may include voluntary targeted compensation. When the harm is clear and individuals identified, compensation may be channelled to each of the victims (in the form of direct payment, rebate, or increased subsidy). In other instances, indirect transfer may be used, compensating a group of victims, contributing to an affected community or region, or supporting wider policies which target inequality.

This form of corrective justice may be of significance, in particular, in cases which address the inequality gap. Those cases often concern injured parties that are less likely to obtain effective relief through damage claims. Difficulties with access to justice, and shortcomings of possible class actions, provide support for such approach. The transfer of value to the class or individuals in these cases is likely to have a distinct impact on available income, thus reducing economic inequality.

Targeted compensation, as we envisage it, does not replace damage claims. As always, injured parties should be encouraged to launch damages actions in court. Domestic legislation may be amended to take note of the relationship between the two. For example, where part of the targeted

redistribution purposes, as they do not constrain the behaviour of the beneficiaries recipients. See Henry J Aaron and George M Von Furstenberg, ‘The Inefficiency of Transfers in Kind: The Case of Housing Assistance’ (1971) 9(2) *Economic Inquiry* 184. Conversely, others argue that in-kind transfers are superior in certain settings because they: may interfere less with the labour supply, can lead to an increase of the supply of goods as well, by eventually decreasing the level of prices; they are linked to paternalism and interdependent preferences. See Jesse M Cunha, Giacomo De Giorgi and Seema Jayachandran, ‘The Price Effects of Cash versus in-kind Transfers’ (2019) 86(1) *The Review of Economic Studies* 240.

⁶³ The possible normative and practical foundations of such instrument are explored in: Ariel Ezrachi and Maria Ioannidou, ‘Public Compensation as a Complementary Mechanism to Damages Actions: From Policy Justifications to Formal Implementation’ (2012) 3 *Journal of European Competition Law and Practice* 536.

⁶⁴ Note for example the Voluntary Redress Schemes framework in the UK: CMA, ‘Guidance on the approval of voluntary redress schemes for infringements of competition law’ (14 August 2015) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/453925/Voluntary_redress_schemes_guidance.pdf> accessed 24 April 2022.

⁶⁵ *ibid.*

⁶⁶ See OFGEM, ‘npower to pay £26m for failing to treat customers fairly’ (18 December 2015) <<https://www.ofgem.gov.uk/publications-and-updates/npower-pay-26m-failing-treat-customers-fairly-0>> accessed 24 April 2022.

⁶⁷ Centrica, ‘British Gas pay £11m to charity for late CERT/CESP delivery’ (03 December 2014) <<https://www.centrica.com/media-centre/news/2014/british-gas-pay-11m-to-charity-for-late-certcesp-delivery/>> accessed 24 April 2022.

compensation was directly paid to these parties, that sum could be deducted from any future compensation they obtain through the court. Another approach could be to treat it as a separate compensation which would not affect future damage claims. Such an approach would increase the deterrent and punitive effects, retain incentives to launch damage claims and increase the impact of the corrective measure. In any event, recall that the proposed targeted compensation does not change the scope of illegality, the application of the substantive law or its normative properties.

Damage claims

The more traditional route for corrective justice relies on damage claims for antitrust violations. Be it follow-on or stand alone, these claims can assist in transferring back losses to the injured parties.

Independent of the discussion on targeted compensation, one can explore additional support for damage claims which (also) address economic inequality. As noted above, such cases will often involve weaker communities or individuals who may have limited access to justice. The cost of litigation,⁶⁸ and difficulties to establish liability⁶⁹ may reduce incentives for consumer private litigation. Treble damages (where available), and class actions may offer partial solution, but not always deliver effective corrective justice. Indeed, individuals from low-socio-economic minorities are less likely to bring successful claims in civil courts and, when doing so, are likely to receive lower damages than other victims.⁷⁰

To address this, one can consider the use of increased incentives, subsidies, and measures for cost and risk mitigation which would apply when a case also involves inequality considerations.⁷¹ No doubt, the issue is complex and requires fine tuning that ensures incentives do not result in frivolous litigation. Still, careful embodiment of inequality considerations may offer three distinct benefits—increased competition law enforcement in cases which address economic inequality, direct compensation to injured class, and increased deterrent effect for anticompetitive actions which target weaker communities.

Support lower income groups to pool complaints

Alongside the measures set out above it may be possible to introduce procedural changes that facilitate the initiation of a complaint with a competition authority, and which can encourage greater access to justice for those without the resources to actively make a complaint.

Groups representing consumers on lower incomes might be given a privileged status in bringing competition complaints before an agency. This can address some of the challenges that consumers on lower incomes have in petitioning a competition authority to investigate a complaint. Such a mechanism might build on the 'super-complaint' procedure which exists in the UK where certain designated consumer bodies have a special ability to bring complaints on behalf of the interests of consumers, and the competition authority must respond within 90 days about how it proposes to deal with it.

This super-complaint process could be expanded to take account of the special challenges faced by those on lower incomes. This might involve widening the pool of bodies that are designated as being able to bring such complaints to include those which focus on specific

⁶⁸ A Mitchell Polinsky and Daniel L. Rubinfeld, 'The Welfare Implications of Costly Litigation for the Level of Liability' (1988) 17 *Journal of Legal Studies* 151.

⁶⁹ Robert D. Cooter, 'Punitive Damages for Deterrence: When and How Much' (1989) 40 *Alabama Law Review* 1143; A Mitchell Polinsky and Steven Shavell, 'Punitive Damages: An Economic Analysis' (1998) 111 *Harvard Law Review* 869: The authors offer a damages multiplier formula: damages should equal the amount of loss in a case, multiplied by the inverse of the probability that the injurer will be found liable.

⁷⁰ Jeffrey J. Rachlinski and others, 'Does Unconscious Racial Bias affect Trial Judges?' (2008) 84 *Notre Dame Review* 1195.

⁷¹ eg one might consider lower courts fees, procedural changes, shifts to the burden of proof, ADR and so on. Needless to say, it is challenging to strike a balance between tinkering at the margins and being too radical to achieve acceptability. However, we note facilitating measures have been introduced in other areas of law.

types of consumers, such as those which represent large number of households on low incomes. It might also include formal recognition that one basis for making a super complaint is because of the asymmetric impacts that specific behaviour might be having on lower income consumers.

An example, from the UK, illustrates how the impacts of competitive conduct on different consumers can be considered as part of such complaint. In 2018, a super-complaint was lodged with the UK competition authority (CMA) alleging that longstanding customers of mobile phone services, broadband, home insurance, mortgage and savings providers were charged more than new customers for the same services (so-called 'loyalty penalties'). In making its assessment of the complaint, the CMA expressly examined how such loyalty penalties might impact on those on low incomes, noting that such consumers might be more at risk of paying the loyalty penalty and may be least able to afford it.⁷²

Advocacy efforts

Broader advocacy efforts of competition authorities can also highlight the differential impacts that specific policies can have for consumers on different incomes. For example, if a government department is proposing to introduce a new regulation that could potentially adversely affect competition, but where the losses associated with less competition would likely be most acutely experienced by those on lower incomes, a competition agency might draw attention to this fact.

To take another concrete example from the UK, in 2015, the UK competition authority (CMA) made a submission to Transport for London which argued that proposed changes to its private hire regulations would impose regulation that excessively and unnecessarily weakens competition, to the overall detriment of users of taxi and private hire services in London.⁷³ While the CMA did not seek to show the potential impact that such a regulation might have on different users of private hire or car sharing service users, it could potentially have done so perhaps drawing on available evidence about how such restrictions might affect competition in ways which adversely impact those on lower incomes.⁷⁴

Enforcement efforts in labour markets

Lastly, in our work we recognized that the decline in the labour share and the rise of market power might also be affected by changes in labour market competition. In other words, the ability of firms to sustain high mark-ups and profits could also reflect increased employer market power in labour markets. While typical explanations for observed wage stagnation refer to weakening labour protection and de-unionising of the labour supply,⁷⁵ recent studies have investigated whether higher levels of employer market power and concentration of labour markets might also provide a greater ability to suppress wages.⁷⁶

⁷² CMA, "'Loyalty penalty' super-complaint" (28 September 2018) <<https://www.gov.uk/cma-cases/loyalty-penalty-super-complaint>> accessed 24 April 2022.

⁷³ CMA, 'Competition and Markets Authority response to Transport for London's Private Hire Regulations Proposals' (2 December 2015) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/481450/CMA_response_to_TfL.pdf> accessed 24 April 2022.

⁷⁴ This is relevant in the context of recent research from the USA which show that there are often lower levels of car ownership among lower income and minority groups, and that some poorer areas have reduced mobility options using traditional taxi services. See: Anne Elizabeth Brown, 'Ridehail Revolution: Ridehail Travel and Equity in Los Angeles' (PhD Thesis, UCLA 2018) <<https://escholarship.org/uc/item/4r22m57k>> accessed 24 April 2022.

⁷⁵ David Card, 'The effect of Unions on the Structure of Wages: A Longitudinal Analysis' (1996) 64(4) *Econometrica* 957–79; Tali Kristal, 'Good Times, Bad Times: Postwar Labor's Share of National Income in Capitalist Democracies' (2010) 75 *American Sociological Review* 729; Henry S Farber and others, 'Unions and Inequality over the Twentieth Century: New Evidence from Survey Data' (2018) NBER Working Paper 24587 <https://www.nber.org/system/files/working_papers/w24587/w24587.pdf> accessed 24 April 2022.

⁷⁶ See Sónia Félix and Pedro Portugal, 'Labor Market Imperfections and the Firm's Wage Setting Policy' (2016) IZA Discussion Paper No 10241 <<https://ssrn.com/abstract=2846332>> accessed 24 April 2022, measuring elasticity of labour

In principle, this might suggest a greater role for competition policy in tackling high employer market power in labour markets where it has the effect of suppressing wages, and, as a consequence, reduces the labour share and increases inequality. In most countries, competition policy is rarely applied in labour market settings. Anticompetitive behaviour to suppress wages, documented recently,⁷⁷ was always illegal, but only lately enforced.⁷⁸ Similarly, while mergers can change the bargaining power between managers and employees and affect rent-sharing,⁷⁹ they are only rarely reviewed by competition agencies.⁸⁰

Increased yet measured enforcement in labour markets could potentially help address economic inequality, again, without changing the current application of the substantive law or its normative properties.

VI. FINAL REFLECTIONS

Rising economic inequality presents society with unprecedented challenges. Direct instruments designed to address these worrying trends have often underperformed. As a result, we find ourselves on a potentially dangerous and unsustainable path.

In this reality, competition law may serve as a valuable complementary instrument, which can be used to reduce economic inequality. It can do so without triggering push backs which often undermine increased budget allocations on more direct policies that target inequality. Furthermore, it can do so as part of its mandate to protect free market rivalry.

That market rivalry, which embodies ideals of individualism and self-interest, delivers the competitive dynamic and consumer welfare that benefits all of us. As we illustrated in this article, that market rivalry also has the potential to promote economic equality and stability. 'Championing capitalism, rivalry and self-interest, while supporting a fairer distribution of wealth?' Competition law may just be the tool for the job.

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market power. Efraim Benmelech Nittai Bergman Hyunseob Kim, 'Strong Employers and Weak Employees: How Does Employer Concentration Affect Wages?' (2018) NBER Working Paper 24307 <<http://www.nber.org/papers/w24307.pdf>> accessed 24 April 2022 and José A Azar and others, 'Concentration in US Labor Markets: Evidence from Online Vacancy Data' (2018) NBER Working Paper 24395 <<https://www.nber.org/papers/w24395>> accessed 24 April 2022, measuring concentration levels effect on wages.

⁷⁷ Alan B Krueger and Orley Ashenfelter, 'Theory and Evidence on Employer Collusion in the Franchise Sector' (2018) NBER Working Paper 24831 <<http://www.nber.org/papers/w24831.pdf>> accessed 24 April 2022; Evan Starr, James J Prescott and Norman Bishara, 'Noncompetes in the US Labor Force' (2021) 64(1) *Journal of Law and Economics* 53.

⁷⁸ The Antitrust Division of the Department of Justice (DOJ) declared its plan to criminally prosecute collusion in labour and employment markets when it announced on 10 December 2020 its first wage-fixing prosecution, charging the former owner of a Texas home healthcare staffing agency with violating Section 1 of the Sherman Act by participating in a conspiracy to suppress rates for physical therapists and physical therapy assistants. See US Department of Justice, 'Former Owner of Health Care Staffing Company Indicted for Wage Fixing' (10 December 2020) <<https://www.justice.gov/opa/pr/former-owner-health-care-staffing-company-indicted-wage-fixing>> accessed 24 April 2022.

⁷⁹ Sumit K Majumdar, Rabih Moussawi and Ulku Yaylacioglu, 'Mergers and Wages in Digital Networks: a Public Interest Perspective' (2019) 19(4) *Journal of Industry, Competition and Trade* 583.

⁸⁰ Ioana Elena Marinescu and Eric A Posner, 'Why Has Antitrust Law Failed Workers?' (2019) SSRN Electronic Journal <<https://www.ssrn.com/abstract=3335174>> accessed 24 April 2022; OECD, 'Competition Concerns in Labour Markets – Background Note' (5 June 2019) <[https://one.oecd.org/document/DAF/COMP\(2019\)2/en/pdf](https://one.oecd.org/document/DAF/COMP(2019)2/en/pdf)> accessed 24 April 2022; Ioana Elena Marinescu and Herbert Hovenkamp, 'Anticompetitive Mergers in Labor Markets' (2019) 94 *Indiana Law Journal* 1031.