9 The Power of Big Tech Corporations as Modern Bigness and a Vocabulary for Shaping Competition Law as Counter-Power

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The market value of the five largest technology firms is higher than most countries' GDP. In spring 2021, Apple and Microsoft were both worth more than \$2 trillion; Amazon was valued over \$1 trillion, Facebook (Meta) and Alphabet (Google's parent company) a little under. Each of these companies has a global, or almost global, reach. Each has built its own intricate system around several core digital services - each conglomerate is a 'platform ecosystem' by itself - and between them they dominate markets as diverse as online search, digital advertising, social networking, cloud computing, logistics, wearables and smart phones, gaming, and software-as-a-service. These firms have contributed significantly to the digitalisation of society and the economy, by which we mean the increasing use of digital technologies, as well by their datafication. By datafication we mean the process of turning human actions and behaviours into digitised data. In aggregated form big tech, and other firms, can use these data for analyses and predictions to profit-making ends. Big tech firms are branching out into robotics, healthcare, and education, and in response to the COVID-19 pandemic, they were invited to 'share skills and talent with the government' in order to tackle the pandemic (Volpicelli 2020). Much innovation in the current digital age comes from these conglomerates, and if it doesn't, it often gets snapped up by them. Also, their (former) CEOs are among the richest men in the world. Conglomeration and wealth are concentrated within these 'big tech' companies. It seems safe to assume that there is power too. This chapter's first goal is to tease out how the corporate wealth of the big techs translates into power.

Power in *markets* can be countered by, inter alia, competition law, called 'antitrust law' in the United States. Currently, it is contested how competition law (ought to) function(s) with respect to the digital platform economy. Generally, competition law is a set of legal rules and institutions supporting the market mechanism. Market theory posits that markets deliver the greatest economic welfare when competition is

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unhindered. Market power is assumed to be reined in by the competitive process itself, but where market power becomes problematic, competition law can step in. It aims to keep companies disciplined to compete 'on the merits' so that the market can deliver its promise of optimal economic welfare. Competition rules support the market mechanism by preventing companies from engaging in anti-competitive behaviour, prohibiting anti-competitive agreements or concerted practices ('cartels') and checking against the abuse of powerful ('dominant') positions. ¹ In this sense, competition rules are held to be neutral and non-political, based on the purely economic-factual logic of market theory, and applied within the boundaries of the market sphere. However, the question is whether competition law works well (enough) in the platform economy. Considering the possibly far-reaching power of big tech platform companies (big techs in short), this chapter's second goal is to show how the market-theory's interpretation of the aim of competition law might become difficult to uphold.

This chapter hence focuses on one arena in which the wealth-power nexus that is central to this book has appeared in recent times: the platform economy. We show how the power of big techs, while related to their wealth-generating functions, manifests itself beyond market power in non-economic spheres of society. Second, adding to the other institutional pathways suggested in this book, we focus on competition law and show how it needs to be changed if it is to be able to counter this power. To this end we first provide a general introduction of the debate on the aims of competition law (Section 1). Then we focus on the corporate power of big techs and argue that it is much more than mere market power felt in the economic domain. We show that the power of big techs is a combination of instrumental power, structural power, and discursive power, and manifests also in the political, social, and personal domain (Section 2). This leads to a position of Modern Bigness, which is a complex form of corporate power based in the digitalised and datafied society (Section 3). Finally, we show how the Modern Bigness theory of power of big techs leads to a recalibration of competition law (Section 4).

1 The Debate over the Aims of Competition Law

Precisely because of the rise of big tech companies, both the concept of power and what competition law ought to do about it is hotly debated (Lancieri and Sakowski 2021). Competition law has not been able to prevent a high degree of concentration (and even monopolisation) on the tech market. Moreover, lengthy procedures in the EU make for slow responses to abusive behaviours, and the fines and remedies imposed seem to make little difference, since new abuses keep occurring (Cafarra 2021). In the United States, antitrust authorities' response to big tech was, until recently, largely non-existent. Consequently, a fundamental

discussion is taking place on whether competition law is indeed merely an instrument to support the economic logic of the market mechanism (Andriychuk 2017; Ezrachi 2018). This is a complex discussion, with in some instances century-old roots. It takes place in academia, enforcement practice, legislative institutions and political arenas across the globe. It is both theoretical and practical, both global and bound to local jurisdictions. We provide here only a condensed version of the current debate in the EU and the United States, the leading competition law jurisdictions globally. This focus is also justified given that the big techs under scrutiny are based in the United States, and the (albeit not always successful) competition law effort to curb that power has until recently mostly been coming from the EU.

In the current debate in the United States about the function of antitrust law, the main voices are those of the 'Chicago School-rationalists' and those of the 'neo-Brandeisians' (sometimes also pejoratively called the 'populists'). These two positions are quite polarised, with a third position in between, that of the 'modernists,' who are proposing a slight update to the rationalists' position but not changing their fundamentals (see also Shapiro 2021). The debate is not merely technical-legal in nature, but takes place in the political arena too, as we saw both during the election campaigns of 2020 and around appointments in leading antitrust positions in Biden's government (Waller and Morse 2020).

The rationalists base themselves on Chicago-school economics, which came to bloom in post-war academic and regulatory settings and deeply influenced economics, politics, and society. Its central thought is that it is best to let the market mechanism function with minimal interference by the government. The premise of a free-market economy is not just that it delivers the greatest (public) benefits in terms of economic welfare, but also that it is an expression of individual freedom and autonomy. A free-market economy is presumed to lead to a fair (if not equal) distribution of welfare, since everyone has equal access to the market, participating on a level playing field (on egalitarianism, see also Arneson 2022, in this volume). Chicago-school economics shaped the United States' competition policies. As the market leads to economic benefits and government interference often gets it wrong, competition law should be used only in (very) limited circumstances: only if a negative effect on consumer welfare, in the sense of a lowering of quality of service or charging of above-competitive prices, can be proven (Medvedovsky 2018; Crane 2019; Sokol 2019). Hence, the rationalists applaud the hands-off position towards the rise of big techs by American antitrust enforcement in the past decades.²

The rationalists distrust the 'neo-Brandeisians,' who are inspired by the work of Judge Brandeis in the early twentieth century (Crane 2019). They argue that the power of big corporations is not merely bad news for markets, but also for democracy: the *political power* of big companies is

a threat (Stucke 2012; Khan 2017). Neo-Brandeisians thus consider the consumer welfare standard of the Chicagoans inappropriate to deal with the intricate platform power of the big techs. Long predating Chicagoschool economics, Judge Brandeis indeed focused on the broad impact of corporate power and its relationship with politics (Brandeis 1933). Neo-Brandeisians criticise the rationalists' analysis of market-based problems in isolation from their political aspects and effects. This weakens the ability to assess either area correctly. In their view, while some corporate activities may pass the consumer welfare standard, they might be questionable when viewed through the neo-Brandeisian lens. For example, in the digital healthcare sector, it led to a disregard for the public interest when judging Amazon's leveraging of its logistics power to gain carve out a position in the medical supplies distribution market (Business Insider 2022). Thus, the neo-Brandeisians argue against the Chicagoans for a broadening of the aims of antitrust, to include a wider range of societal harms that follow from powerful market positions.³

In light of these opposing camps in the competition law community, it is no surprise that the Biden administration's appointments of academic proponents of political antitrust to key positions in government has led to controversies, but also to new investigations against some big techs (Federal Trade Commission 2021).

The European Union's competition law debate might seem somewhat less entrenched or polarised than its counterpart in the United States, but it is no less complex – also because the debate is held in many languages at the same time. Here too, historic roots and subsequent economiclegal developments provide a backdrop for current positions. Competition law was included in the original EEC-treaty, for example, on the basis of both the ordo-liberal notions of protecting the functioning of markets and individual economic freedom (Gerber 1998), and on the integrationist notion of shaping an internal market without national boundaries. It also encompassed notions of workable competition and the protection of economic freedom (Monti 2002). However, following the US-led Chicago school turn to economics, its market theory also became the basis of much of the EU's competition law enforcement actions from the 1990s onwards. Competition law became based on market theory, with a focus on protecting consumer welfare by protecting efficiently working markets within the integrated internal market (Monti 2007). This worked well enough for several decades, but also in the EU, renewed discussions on fundamentals have emerged, mostly in light of the twin challenges of sustainability and digitalisation (Gerbrandy and Claassen 2016).

As to the digital economy, the EU has levied the highest competition law fines ever against big techs – not once but several times. However, many feel this was still too little too late, and not terribly effective as deterrent for the big techs to change their behaviour (Gal and Petit 2021). Like in the United States, there are arguments in the EU not to

stray from economics-based logic, set within the debate on reconsidering the effectiveness and scope of competition rules in the digital economy (Crémer, de Montoyem, and Schweitzer 2019; Lancieri and Sakowski 2021). Meanwhile, several Member States (and the UK) are in the process of recalibrating their national competition rules. The European Commission is proposing legislative (regulatory) action – separate from competition law enforcement – focusing on platforms (European Parliament and Council 2020).

Many of the voices in the European debate seem to chime in with the *modernists*' perspective. The proposals for tweaks to competition law (and other regulatory tools) are mostly market-based, though with specific twists. The context of creating a European 'internal market' is always in the background, and issues relating to fundamental rights protected by the EU Charter, such as privacy, are never far away. More recently, the debate has also shifted to discussing more fundamental corrections or overhauls of the market-based focus of competition law.

The premise underlying the dominant economic interpretation of both the EU's competition rules and those in the United States is that the free-market mechanism is both an expression of individual freedom and autonomy and an instrument to deliver the greatest public welfare benefits. However, outside competition law circles the notion that the capacity of a market system to achieve fair and equitable distribution has been contested in the last decade, both in public debates and in academic work (Piketty 2014; Pistor 2019). In this new setting, it is relevant to better understand the (nature of the) corporate power of big tech companies and to develop the (linguistic) tools for a discussion on the fundamentals of the use of competition law in the digital age.

2 Corporate Power across Economic and Other Domains

In this section, we set out the foundations for our theory of the corporate power of big techs. When considering how competition law should be shaped in response to the wealth and power of big techs, let us first repeat that its focus (in the past decades) has been almost exclusively on how power plays out in the *economic domain* where the market mechanism, competitive pressures, and producer and consumer interactions reign. Our analysis starts there too.

To grasp the power of any company, competition law focuses first on its market power. As corporations are market-based entities, market power is the *foundation* of a company's power. In competition law market power is usually expressed in terms of *market shares*. Simply put, the higher the captured market shares, the greater the company's market power. High market shares make it possible for a company to behave independently from competitors, which, in a monopoly-situation, are non-existent. In EU competition law, market shares over 40% can give

rise to a 'dominant' position, while over 70% will almost always mean dominance. This triggers the application of the rule not to *abuse* this dominance. The economic logic is clear, as a dominant company can easily extract monopolistic prices or hinder competition.

The platform economy makes this analysis slightly more complex. The market power of platform companies such as Amazon, Google, Facebook, Microsoft, and Apple, is grounded in the economics of multisided platforms. Here the logic of network effects (where users flock to users) creates tipping points, which create one or two winners capturing close to the whole market. This changes the market from having many competing companies into a market with one or two that 'win' (Poniatowski et al. 2022). Moreover, multi-sided platforms are prone to lock-in strategies, which entice and/or force users to stay within the boundaries of the bundled services offered by the platform company. The outcome of these economic logics is the emergence of the 'super-platforms' of the five largest tech companies (Ezrachi and Stucke 2017), governing a large part of the platform economy. Each of them offers one or more core services around which other services are built. A layered and intricately interdependent conglomerate structure – an ecosystem – has taken shape (van Dijck 2020). The current platform economy can thus be characterised as an ecosystem of ecosystems.

Market power, however, provides only the first foundational tile. The corporate power of big techs moves beyond just the power to behave independently on a market. Even competition lawyers and economists will also consider that a platform ecosystem rests upon the gathering of data and that data streams tie the interwoven services together (Bedre-Defolie and Nitsche 2020). However, though *having* data and being able to gather data strengthens the market power foundation of big techs, it is the *capability* to do something useful with these data that moves their power beyond only market-power. The capability to obtain information from data and feed that information back into the ecosystems businesses strengthens the corporate power of big techs in a continuous loop. This informational loop is important for all big tech ecosystems, but is indispensable for systems that rely (mostly) on advertising as a business model (Teece 2010). The combination of amassing data and having data capabilities not only strengthens market power but is foundational for the complex form of corporate power that big techs possess.

A further foundation of big techs' power lies in their ability to acquire (competing) businesses and start-ups. Here is where the monetary *wealth* of big tech-corporations funnels into acquiring innovation, which then translates into consolidation of their conglomerate positions. Apart from investing in their own innovations and continuous technical updates of existing services, these corporate giants can acquire developing competitors or promising new ventures. Many start-ups also want to be noted by big techs: it gives the 'start-up guys in a garage' (though almost never:

start-up gals) a chance to share in the riches (Daniel 2021). Thus, the big techs *envelop* adjacent markets into their system, further strengthening the position of the *conglomerate* (Eisenmann, Parker, and Van Alstyne 2011).

These platform-economic logics are the foundations on which the corporate power of big techs rests. To disentangle how the resulting power manifests, we build upon the work of Fuchs, who distinguishes three dimensions to corporate power: instrumental, structural, and discursive (Fuchs 2007). The *instrumental* dimension of power is about the direct influence of one actor over another - such as a corporation lobbying to influence the outcome of a parliamentary decision (see Parvin 2022, in this volume). The *structural* dimension of power relates to influencing the input side of the political process, such as agenda-setting, making options available and acceptable, but also has a dynamic aspect in which corporate actors govern themselves, for example through self-regulation. The discursive dimension of power catches an even deeper layer to power, in which norms, ideas and discourse, communicative practices, and cultural values are shaped by corporate power. As Fuchs points out here: 'power not only pursues interests, but also creates them' (Fuchs 2007, 10) (for an historical view on corporate power, see Bennett and Claassen 2022, in this volume).

These dimensions of power are at play in relation to the power of big techs as well. But where Fuchs is mostly concerned with how corporate power engages the *political* domain, we propose to add three other domains, to map how big techs' power manifests: the *economic*, *social*, and *personal* domain. Though not separated neatly – companies act across all domains, sometimes at the same time – it is useful to distinguish between these four domains to grasp how the power of big techs may manifest.

Simplifying, let us assume that the *economic* domain covers activities that in many jurisdictions are (mostly) governed by the market mechanism: decisions about production, distribution, consumption of goods or services and all the concomitant wealth transfers that occur are up to the market. While the market is constituted by institutions, the market mechanism itself is the primary disciplining mechanism for the behaviour of market actors. This is a familiar domain to competition lawyers and economists, as this is where competition rules apply and are enforced: against the negative welfare effects of market power. As to the political domain, we use the term to indicate the realm of power structures and decision-making by governments. It is the public domain of citizens and governments. Public power is disciplined, in democracies, by political processes of election, representation, and legislation, and in many jurisdictions, by the specific safeguards of the rule of law. By the social domain we mean the sphere of interactions between people(s), groups, and networks of relationships. Many foundational works on 'power' relate to power in the social domain: within and between groups and networks (in a sense this also encompasses both the economic and political domain) (Foucault 2003; Lukes 2005). In a society with great social capital, the shared values, norms, and understandings and the networks of relationships allow individuals to work together to achieve a common purpose to function effectively (Putnam 1993). The *personal* domain is that of individuals; the domain which relates to or affects a particular person. For our purposes we include in the personal domain also the *private* element of the personal domain, meaning that which belongs or pertains to (only) that individual person, including that which is (intended to be) secret.

Combining Fuchs' three dimensions of power with the four domains in which we expect corporate power of big techs to manifest, generates a fine-grained image of the width and depth of their power.

For example, the instrumental dimension of big techs' power is manifested in the political domain by their direct lobbying and campaign financing (Cao and Zakarin 2020; Yanchur, Schyns, Rosén Fondah, and Pilz 2021). In the social domain big techs exercise their power instrumentally by shaping online interactions into groupings, factions, and like-minded spheres (Pariser 2011; Sunstein 2018). In the economic domain they exclude competitors from a market and acquire innovators (Competition and Markets Authority UK 2021). In the personal domain, the instrumental dimension of power is felt in specifically tailored and timed content, taking the form of 'hypernudges': an individually tailored series of targeted content, adjusted in real-time, and aimed at steering the user towards a certain behaviour. This might be a steering towards buying into a certain service, towards creating distrust, or towards voting in favour of a political outcome. This means that even when a person is in her home or on an inconsequential errand, she may be steered in her behaviour simply by using platform services, such as maps, smart gear or home assistants (Morozovaite 2021).

The *structural dimension* also manifests across the four domains. For example in shaping legislation by providing boundary-setting briefs and pre-emptively engaging in legislative processes, or in directing forms of self-regulation (The Economist 2021); in creating the social norms of online interactions; the way platform-work is shaped (Aloisi and Gramano 2019); in setting the structures for interaction between the companies, developers, and consumers on the different sides of a multisided market; in reshaping institutions as old as 'property' in relation to data (Purtova 2015); and by entering our homes with digital assistants, introducing tracking devices for our things, our pets, and perhaps our children or elderly parents, and by bringing smart glasses to the market and defining what is private (West 2019).

The discursive dimension of the power of big tech platforms also ranges across all domains. In the political domain we find it in online

political campaigning and newsfeeds, and in defining what is on the political agenda. In the social domain an example is the first introduction of smart glasses; unsuccessful, but nonetheless setting the stage for what will become acceptable in the future (Kernaghan 2016). In the economic domain it manifests in how data is perceived, which services are marketable, etc. In the personal domain, in how we inform ourselves and shape our opinions. Intuitively, discursive power may seem easy to grasp, because most information is now brought to us digitally, often by way of the platforms within the ecosystem of big techs: from breaking news and background stories to conspiracy theories, from literature and movies to immediate clips of what is happening elsewhere, from academic articles to tweets, from encyclopaedias to cat-memes, from recipes to instructions on how to change a flat tire, and from coverage of global disasters to family pictures of beach-outings. Importantly, when online, we are both user-citizen, user-consumer, user-daughter (or mother, or sister, or aunt), and user-interactor with self-chosen or random others in a delineated or random group. This information and how we process or consume it, shapes how and what we think.

However, the discursive power of big techs is more difficult to grasp than this suggests. For much of that information is not generated by the big tech companies themselves, but to a large degree by others, both individuals and (semi-organised) organisations (Thorson and Wells 2016). Indeed, the notion of discursive (political) power in contemporary hybrid media systems seems focused on individuals (Chadwick 2017; Jungherr, Posegga, and An 2019). Users provide, post, and generate information. Some of these users – political parties, governments, businesses, interest groups, and other intermediaries – also use the available (sometimes very granular) data to tailor information specifically to other users, mostly private individuals. This makes it more difficult to uphold the thesis that the big techs themselves shape discourses across domains. But we need to remind ourselves that without the platform services, the reach of discursive power would be much more insulated. The way the platforms' algorithms influence which content is shown, means that, indeed, 'social media platforms [are] active political actors in their own right' (Helberger 2020). In this sense, it is the big techs who wield discursive power.

The resulting picture of this exposé of power dimensions across domains, is that of powerful corporations shaping markets, democracies, social interactions, and our personal lives.

3 Big Techs' Corporate Power as 'Modern Bigness'

At this point, one may object that all large corporations exert a certain power in the political, economic, social, and personal domain (think of oil corporations, banks, pharmaceuticals, agri-food conglomerates). So, what is new? We posit that there is a difference of pervasiveness, scope, precision, and invasiveness between 'normal' corporate power and the corporate power of big techs. The difference stems from a combination of these factors and the way they interact.

First, consider the *pervasiveness* of digitalisation and datafication of society. The impact of digitalisation and connectedness are so allencompassing that an overview is impossible. Digital technologies, including algorithms, now mediate much of our daily activities. They affect how we live and how we work; they are now 'entangled in the structures of society' (Dufva and Dufva 2019). There is as yet no end to this technological development in sight. For example, at the moment the notion of creating the metaverse – science fiction when first masterfully introduced (Stephenson 1992) – promises a next step in which the digital and physical in our social reality will seamlessly entwine. The pervasiveness of the digitalisation of society is staggering and leading these developments are, for a large part, now the innovations of the big techs.

Also, second, consider the *scope* of platform ecosystems' services. The ever-changing balance between public services provided by government and those provided by the market has shifted, in the past decades, towards much more market services (Crouch 2011). Now the leading role of market parties in providing digital services and concomitant devices brings further shifts. Market-based digital(ised) services enter previously publicly domains such as (in the Netherlands, for instance) intramural healthcare, extramural patient care, and education. Also, fundamental infrastructural services such as internet access, digital identification services, and the 'green passes' used during the current COVID-19 pandemic are provided through market logic and profit-making, using proprietary technology, resulting in further datasets that are market actors' property. Part of this shift is, furthermore, that governments are becoming dependent for both day-to-day governing activities – including the provision of public services they do offer - on platform companies, for example for cloud computing services. Governments or NGO's have so far not been able, or have not tried, to provide alternatives that would make them less dependent on big techs for pivotal governmental services and systems. The result is a heavy dependence of government on the platforms of mostly the big techs, while, at the same time, these companies provide services such as internet access and access to information that are very much like public utilities (Lalíková forthcoming), however, without the guarantees that accompany traditional public utilities.

Third, consider the *precision* with which big tech companies can reach individuals. The use of data generally, and personal (and private) data specifically, for the personalisation of targeting audiences has never been as all-encompassing as in today's platform economy. The concept of a 'surveillance economy' has been raised in this regard (Zuboff 2019), but even if one rejects that notion, the manifestation of corporate power

is clearly more invasive, pervasive, and persuasive now that digital services are ubiquitous and for a large part built on datafication and personalisation.

These are not separate factors. They interact in a flywheel effect across the four domains. Though the economic, political, social, and personal domains were never completely separated from each other, the platform economy has provided a further waning of clearly defined roles. For example, a user of platform services can be a consumer of services, a friend engaged in forging new friendships, a reader of news to shape her political views, a target of political and commercial advertisements, and a co-producer of online content. In doing all this, she produces and thus immediately shares data with both the platform and other parties tracking her online activities. She has 'hyphenated' roles that may change shape while she moves seamlessly from one activity to another, while spanning multiple domains. Again, there is a flywheel effect as the instrumental dimension of power is amplified in the discursive power dimension, in which the roles of actor and object become confused. And, of course, the possible future uses of digital, data-driven, and personalised technology are endless, which - in theory - stretches and deepens the manifestation of corporate power of big techs further. In sum, although other big transnational corporations have power across the instrumental, structural, and discursive dimensions, the power of the big tech platform companies is significantly amplified by the inherent characteristics of the platform economy and its structuring of our datafied social interactions.

This amplification is so significant that we posit that it goes beyond the kind of power wielded by traditional corporations, leading to a new kind of power we have labelled 'Modern Bigness': a four-dimensional corporate power of big techs that is all-encompassing, shaping current and future markets and democracies.

So far, we have shown the foundations of the power of big techs and how its dimensions manifest across different domains. However there are some caveats to the conclusion that this is a power to shape current and future markets and democracies. For example, it is more difficult to uphold if the big tech corporations do not *each* and *separately* manifest their power in all dimensions across all four domains. For instance, the kind of power in the structural and discursive domains that the network ecosystems of Google and Facebook create, seems different from the kind of power that Amazon holds. Amazon is less directly involved in the advertisement-driven social network structures that impact the discursive shaping of political opinion (even though it wields power through its algorithmically curated recommendations in its 'everything store' and through the recommendations made by its voice assistant Alexa). The power of Microsoft and Apple seems to manifest in a different manner than Google, Facebook, and Amazon, as being predominantly based in

software licensing and cloud services (Microsoft) and a vertically integrated chain of hardware, operating system and app store (Apple).

We acknowledge that the above model of Modern Bigness is a theoretical construct, and we have not (yet) mapped all manifestations of power of the platform corporations onto all domains. We would, however, argue that the power of big techs is a combined construct – a collective power – governing much of the economy and society precisely because the economy and society have digitised. This is not a collective power in the sense of a 'cartel,' which is based on express understandings between companies, agreeing to anti-competitive practices such as price-agreements. It is a collective power in the sense that almost no human activity escapes the reach of the big techs. In this ecosystem of ecosystems the branches sometimes overlap, build upon each other, and lead to contradictions and synergies. Such a collective power is a difficult construct to be handled in competition law practice. There is often competition from (smaller) companies for specific services. Furthermore, the platform companies themselves are also competitors to (some of) each other, which means that – in theory – the way their power plays out might counterbalance each other. Yet, cooperation between them, specifically where services are complementary or interests align, also exists. The question (for us) is whether (and how much) it matters for shaping a regulatory response in relation to their impact on democracies and citizens, if big tech's corporate power is (conceptualised as) the sum of their positions or (also) separately as individually powerful corporations.

There is another important caveat. The conclusion that big techs can shape current and future markets and democracies is true only if there is no (imminent) threat to their positions stemming from the market mechanism itself. This is what the big techs themselves point out: that disruptive innovation is around the corner, that competition is one click away, that their positions are never secure. Indeed, TikTok, for example, is a competitor for (part of) Facebook (Newton 2021). However, disruptive innovation theory seems not to be able to explain what has been happening in the past decades (and Facebook has, of course, launched a TikTok competitor, though it has yet to become successful) (Hutchington 2021). What is called 'dominant design theory' seems a more relevant perspective (Hummel forthcoming). Applied to markets in which aggressive strategies of mergers and acquisitions are prevalent, this theory implies that at least in more mature markets, an imminent threat to the core platform services of the big techs seems unlikely.

Finally, our conclusion would be less encompassing if the corporate power of big techs could be countered by other institutions. These can be the institutions of democracy itself, including the rules and laws governing how voting and law-making happens. They can also be the regulatory frameworks of economic law, including competition law. The latter was traditionally shaped as a hammer to be used against the negative

welfare effects of economic power, as we saw above. The question is whether it can also be (effectively) used against the negative manifestations of Modern Bigness. This is what we turn to now.

4 A More Precise Legal Vocabulary to Shape Competition Law as Counter-Power

The question then, for us as competition lawyers, is this: if Modern Bigness transcends the economic domain, should competition law's focus equally transcend the market, by including the political, the social, and the personal? This is undeniably a normative and political question. It also underlies the discussions in the United States' and European competition law fields (Section 1). Our findings as to pervasiveness, scope, precision, and invasiveness of power of big techs have implications for this normative question of how to shape a possible regulatory-legal reaction. Competition law is equipped to counter negative effects of corporate power, though it is mostly used today to counter the negative effects of market power only. This is not necessarily problematic if the effects of market power stay within the economic domain. It is also less problematic if the premise of personal autonomy underlying much of economic law, holds true in all domains. And it would not be as problematic if possible spill-over effects in, e.g., the political domain can be kept in check by democratic processes and the traditional institutions of democratic, open societies. If all these assumptions hold true, then economic law can be focused on well-functioning markets, and ignore the political, social, and personal domains.

However, the theory of big techs' power as Modern Bigness questions these premises, and hence also question competition law's exclusive focus on consumer welfare. Above we have shown, first, that big techs' power further disrupts a neat division between the four domains (economic, political, social, and personal). The notion of Modern Bigness connotes not merely a vast market-based instrumental power, but also, perhaps more importantly, a structural and discursive power, which - even though big tech corporations are built upon a market-based, profit-making business logic - also has significant impact on political and social relations and on our personal lives. Second, as discussed above, though implicit in most competition law regimes is a trust in the market mechanism to deliver public benefit, this presumption is contested. Moreover, third, also as explained above, the specifics of data-driven digital technologies, and our increasing dependency on them, fundamentally challenge the concept of personal autonomy. For example, the way in which the big techs wield instrumental power vis-à-vis platform-users raises the question whether the users of digital services are still autonomous individuals, or whether they have lost (part of) their agency (Gal 2018; Vold and Whittlestone 2019). The multiple ways in which corporate power manifests itself also raises the question whether consumers are turned into a commodity (Lynskey 2015; Phoa 2021). The already contested capacity of the market to deliver on important public benefits is thereby hampered even more seriously. Another important factor that makes competition law regimes fall short is, fourth, the encroachment of private actor's platform ecosystems upon the public sphere and government systems. The public sphere then becomes governed by commercial priorities rather than public interest and values. Ironically, as the role of big tech in these domains grows, states increasingly encourage self-regulation. This, however, also leads to unclear norms, expectations, and liabilities, and a veritable shift in institutional roles (Jorgensen and Zuleta 2020). Big techs' Modern Bigness therefore increasingly compromises and confuses the conditions for the functioning of the market itself. This confusion also includes the roles of the actors and objects that are assumed by the legal system.

The discussion on how to shape a competition law regime in light of the power of big techs, however, rarely analyses the precise character of power that big techs possess, and what that characterisation means for the foundational assumptions of competition law. A more refined *vocabulary* is needed to discuss this power, how that power manifests itself, and how it impacts on the foundations of competition law. While the economics-focused rationalists have the language of economics to fall back on for a more precise analysis of what ought (not) to be prohibited by competition law, the political, social, and personal domains remain mostly 'unspeakable' for them. Though the neo-Brandeisians in the antitrust debate are concerned about broader effects of corporate power, their analysis often lacks precision, including in vocabulary.

A possible way forward lies in what seems, to its critics, the weaker point of the neo-Brandeisian position: in its basis in social values, which can be made much more explicit. Note that the economic approach of the rationalists is also based on a value, i.e., efficiency, which is given great precision through economic analysis. The neo-Brandeisian approach, being 'not-just-economics,' is mostly implicitly value-based (Polański forthcoming), and lacks precision. However, an explicit value-based analysis, we propose, could deliver a stronger and more fully developed alternative interpretation of competition law. We see at least three ways in which these values might be designed to play a role. First, one might add to the economic values other counterbalancing values, and then weigh economic welfare against other social values. Second, one might *incorporate* economic values within a wider value-based concept. Third, one might use other social values, in specific circumstances, as an additional lens to view practices as anti-competitive. Whichever way one chooses, support for such a wider conceptualisation of competition law's values can be found in the roots of both American and European competition law systems, for both visibly include notions of economic freedom. However, an updated version, fit for the twenty-first-century version is needed. The relevant values can be construed as components of 'citizen welfare' or the 'well-being of citizens.' We believe that such a values-based approach gains substance, by using existing metrics included in, e.g., broad welfare concepts (e.g., van Dijck, Nieborg, and Poell 2019). These are still very broad concepts, and their application in competition law – unlike the current practice based on the notion of economic efficiency – might at first lead to less clarity, since it may be unclear when a lessening of, or harm to, citizen welfare or well-being occurs. However, we are confident that over time, courts will establish authoritative interpretations of these concepts, and legal certainty will increase.

There are a number of further points for debate to come to a recalibrated theory of competition law, with tools to deal with the manifestations of power of Modern Bigness. For example, in a value-based approach that is built around a concept of citizen welfare, infringements upon fundamental citizens' rights and values, such as autonomy of decision-making, privacy or equality, that occur through the power of Modern Bigness, can be countered by competition law. This would hold even if there is no negative effect on consumer welfare. The point of debate is whether the link with the big tech business' model, in which there is no difference between negatively impacting consumer welfare or negatively impacting citizen autonomy, continues to be relevant.

In our view, a broadening of competition law would not dilute or weaken it. Its central focus would still be on corporate power, countering its negative effects. Competition law is an addition to other regulatory instruments, as well as the actions of civil society institutions, which together need to shape a regulatory landscape covering the negative effects of Modern Bigness across domains. But the role of competition law could be even broader. Is it relevant above a certain threshold of power, as is currently the case with the notion of market power leading to a position to behave independently of other market actors? Could we construe such thresholds for power in the other domains, for example by focusing on the number of users, or the scope of offered services? Or does labelling a specific firm's corporate power as 'Modern Bigness' in itself contain the threshold above which competition law applies? There is also the debate on whether competition law should be used to only counter the negative effects, both within and beyond the economic domain, or can be used to dismantle the Modern Bigness position of power directly.

Without a (legal) vocabulary, it is difficult to account in law for the effects of Modern Bigness outside the economic domain (and it is even more difficult to account for structural or discursive power effects within the economic domain). A more refined vocabulary leads to a more precise discussion. It could lead to a more refined toolkit, and invite a change in

current practices. It might not radically replace competition law's focus on the economic domain, but it could at the very least lead to a keener eye for aspects of big techs' power and behaviour beyond the market domain. Alternatively, and more ambitiously, a refined vocabulary could lead to a more fundamental change in the system of competition law, flanked by other forms of economic regulation, to counter the (negative effects of) instrumental, structural, and discursive cross-domain power.

5 Conclusion

As mentioned in the introduction, these have been our aims: to make explicit the shape of the power of big techs and to show how competition law's current vocabulary fails to grasp it. In doing so, we have offered a more detailed taxonomy for the foundations and manifestations of the power of big techs in the digital society. This has provided conceptual room to acknowledge and analyse the changing distributions of actorship and hyphenated roles in society as a consequence of the rise of big tech. Finally, we have argued that much of what is held to be competition law's foundational assumptions, is shifting, and needs to shift further, to take account of these transformation in power in the digital economy.

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Notes

- 1 Most jurisdictions have competition laws, often also including a review of mergers. The EU includes rules limiting state aids. As academics based in the EU, our starting point is the EU's competition rules included in the Treaty on the Functioning of the European Union. Many countries have used the EU or the United States' rules as models. Though there are differences, the EU and US competition rules are similar on a general level.
- 2 There *modernists* agree with this (Chicago-school based) economic theory of markets. Enforcement action needs to stay focused on assessing (negative) economic effects of *market* power. However, they concede that enforcement of competition law could have been more vigorous and needs to be more market specific. Thus, they acknowledge that a more active interference by competition enforcement-actors is useful (Shapiro 2021).

3 The rationalists and modernists argue that this political interpretation of the aim of antitrust will lead to losing the rationality of an economicsbased application of the rules, and hence to a harm to economic welfare. Political antitrust, it is brought forward, would mirror the irrational way competition provisions were used before the introduction of Chicagoschool economics.

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