A SYSTEMS APPROACH TO ANTITRUST REFORM[1]

By Michelle Meagher[2]

I. INTRODUCTION

Sometimes it takes stepping outside a system to understand how that system works. This was how I came to write my book, *Competition is Killing Us: How Big Business is Harming Our Society and Planet – and What to do About it*. I left the practice of competition law in 2013. Over the following five years, I walked a fair distance away from the competition tent and the community that inhabits it, mingling instead with those in the corporate governance space and beyond. Viewing the regulatory activity of the competition regime from an adjacent space, peeking back through the doorway of corporate governance as it were, allowed me to see the system from enough of a different vantage point as for it to seem entirely new. For the first time, I could see not only the inner workings but also the outer edges, and the systems and forces operating outside competition law.

Although many within the competition community appear to have sympathy for the critique that I lay out in my book and, to a certain extent, for some of the solutions, there has been strong resistance to the title and the core thesis, which seeks to problematise competition. Most progressive voices calling for reform of competition law tend to view competition as a good thing, something of which we need much more. How then can I claim that competition itself is the problem?

Competition is Killing Us sought to explore a particular paradox of competition: that it is possible, in the very same markets, to have too little competition – manifesting in the form of unaccountable monopolies – but also too much competition – manifesting in the form of corner-cutting, harmful competition, externalities and, what Stucke and Ezrachi refer to as "competition overdose".[3] This appears on first observation to be an irreconcilable tension.

A simple implication of this paradox is that if competition is at least sometimes problematic under conditions of imperfect competition then doubling down on competition as a solution to market problems may yield unintended harms. A more complex point is that if this paradox brings us to the conclusion that reform of competition policy is needed then it may prove

[1] This essay is adapted from a talk delivered by the author at the UK Competition and Markets Authority as part of its "Distinguished Speaker Series" on 19 November 2020, entitled *Competition is Killing Us: Leverage Points and Systemic Change in Competition Policy*. That talk, in turn, was based on an essay: Donella Meadows (1999), "Leverage Points: Places to Intervene in a System", *The Sustainability Institute* (hereinafter "Leverage Points"). This essay will similarly draw from Leverage Points, and also from the discussion of systems thinking and the work of Donella Meadows in Kate Raworth (2017), *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist* (hereinafter "Doughnut Economics"). This essay will restrict itself only to these sources and will not refer to the wide-ranging literature on systems thinking and regulatory reform in an attempt to explore some initial insights and not to overwhelm the discussion with the full weight of systems analysis. It is hoped that this approach will bear further fruit and that other scholars will be intrigued enough to delve further.

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[3] Stucke and Ezrachi (2020), Competition Overdose.

difficult, if not impossible, to transform the system using the existing tools of the prevailing paradigm; new tools may be required.[4] In other words, if an obsession with competition is in part responsible for getting us into this situation then competition may not be able to get us out.

One point around which there appears to be broad consensus is that competition policy is not currently working well. We are seeing growing evidence of increasing market concentration, globally, including rising levels of market power in the US and EU[5] – long held to be, by their own estimation anyway, the leading antitrust jurisdictions. Key industries, from digital markets to agriculture, are highly concentrated. Fatally for a paradigm centered on "consumer welfare" and low prices for consumers, there is evidence of rising price markups.[6] Retrospective reviews indicate that prices do actually rise after mergers in even moderately concentrated industries, whatever the efficiency stories told by the merging parties.[7] Even on its own, consumer-centric metrics, competition law appears to be failing to meet its mandate.

Beyond price, the picture is even more troubling. We see a falling labour share of GDP, falling investment by private firms and rising inequality.[8] We see political disenfranchisement, economic disempowerment, and populist upheaval. There is an ever-clearer connection between concentrated industry and threats to democracy, not just through political influence over legislators but through political manipulation of voters on social media. The digital sphere is plagued by issues of privacy violation, addiction, hate speech, exploitation of the vulnerable and cyber threats. There are pressing questions over the future of dignified work. And above all this sits the existential threat of climate collapse and the remarkably unexplored connections between competition policy and environmental stability.[9]

The competition conference circuit buzzes with the question of "what can competition policy do about this?" and the prior question: "should it?". Myself and others, including those of the very highest standing within competition circles, have proposed a whole host of potential policy reforms.[10] Digital markets have emerged as the primary focus for regulators the world over, with a secondary theme, in Europe anyway, of the interaction between competition law and sustainability. Worker, supplier and other buyer power issues are considered sporadically. Often attempts are made to shoehorn these complex issues within the paradigm of consumer welfare and to reason from legal or economic first assumptions.[11]

This essay will depart from those previous discussions, borrowing instead from the world of systems thinking, in the hopes that, again, a fresh perspective grounded in a different world view may help to shed light on how we might prioritise various reform efforts and how much

[4] Audre Lorde, "For the master's tools will never dismantle the master's house. They may allow us to temporarily beat him at his own game, but they will never enable us to bring about genuine change."
[5] Cite.
[6] Cite.
[7] Kwoka, etc.
[8] Cite.
[9] Recent exceptions include: Simon Holmes, etc.
[10] Cite.
[11] Rebecca Haw Allensworth, Commensurability Myth.

change we should reasonably expect in the system as a result, and in which direction.[12] This exercise will be extremely selective,[13] merely scratching the surface of the domain of systems thinking. Nevertheless, I believe there is much we can learn; not least the simple insight that there are whole spheres of robust, grounded and systematic research which can put the debates within competition law into broader context.

I will confine my analysis of antitrust reforms to the framework developed by environmental scientist and systems thinker Donella Meadows in her 1999 essay "*Leverage Points: Places to Intervene in a System*".[14] Meadows explains that she first expounded this framework at a meeting on the topic of the then-emergent new global trading system.[15] Frustrated by a lack of clarity as to how the new system would help the claimed beneficiaries, she grabbed a marker and listed out the leverage points for change on the flipchart. I will attempt to apply this framework to the equally complex system of antitrust regulation.

One of the reasons that Meadows' work seems to be particularly apt in relation to competition law is that she makes the observation that, although it can be very difficult to identify the leverage points within a system that are amenable to change, once they are identified it often turns out that significant pressure is already being applied to that leverage point, but almost inevitably, and perversely, pushing in the wrong direction. Meadows was known for her work on the "limits to growth", including through her 1972 with that title, and she uses growth as an example to illustrate the point. Clearly growth has benefits, but it also has costs (that are often not counted), such as poverty, hunger and environmental destruction. But looking at this list we see that these are the very problems that we are trying to solve with growth! She insists, elsewhere, that we cannot take growth at face value, that we cannot assume that all growth is good.[16] We must instead always ask "growth of what, and why, and for whom, and who pays the cost, and how long can it last, and what's the cost to the planet, and how much is enough?".

There are parallels here with the recent history of antitrust in which it seems that, in orienting the system towards "efficiencies", "consumer welfare" and "competition", we have ended up with markets that are concentrated, inefficient, and harmful to consumers (and others). Have we been, perversely, pushing in the wrong direction? This was the thrust of the critique put forward by Lina Khan in her catalytic 2017 article, *Amazon's Antitrust Paradox*, in which she argued that "*With its missionary zeal for consumers, Amazon has marched toward monopoly by singing the tune of contemporary antitrust.*"[17] As Meadows insists in relation to growth, we would do well to acknowledge that "efficiencies", "consumer welfare" and "competition" are not good in and of themselves. There are costs (that are often not counted). We assume efficiencies stem from scale, but scale also breeds power and power can be leveraged to generate cost savings, sometimes in ways that harm society. Many efficiencies would be most honestly labelled exploitation of workers or suppliers. When merging parties extoll the

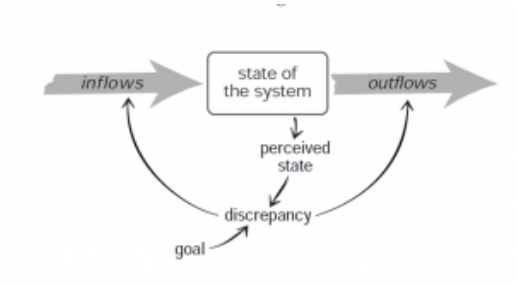
[12] Cite Denise Hearn and Sally Hubbard, Overshoot and Collapse – What Deer, Coronavirus, and the Economy have in common.
[13] See footnote [1].
[14] Sustainaiblity Institute, 1999.
[15] NAFTA, GATT and the WTO.
[16] Mazzucato: "Growth doesn't have a rate, it has directionality."
[17] Lina Khan.

virtues of their deals, we must always ask, efficiencies for whom? And, at whose expense? And how in pushing for efficiencies have we ended up with the opposite? And will more efficiency solve it?

The remainder of this essay will be structured as follows. Section II will cover a brief introduction to how we can start thinking about competition regulation as a "system". Section III will apply Meadows' 12 points of intervention to the system of competition regulation, in increasing order of effectiveness, ending with the most powerful leverage points in the system. Section IV will conclude.

II. THE SYSTEM OF ANTITRUST

In *Leverage Points*, Meadows illustrates the mechanics of any system with the following basic diagram.



If, as Meadows suggests, we think of a system as a bathtub, there will be inflows and outflows which will affect the state of the system. The "state of the system" is whatever is of importance: the balance of ecosystems, the integrity of the rule of law, the excellence of a public education system, the level of water in the bathtub. For any system, there are inflows (turning on the taps) and outflows (water draining out the plug). Meadows gives several examples, including for a physical system like population ("Births and immigrations increase the population, deaths and emigrations reduce it") and for a nonmaterial system like public trust ("Political corruption decreases trust in public officials; experience of a well-functioning government increases it"). The distance between the perceived state of the system and the goal of the system will trigger action to push the system towards the goal. We test the level of the water in the tub and adjust accordingly.

How does this relate to antitrust? We can think of the state of the antitrust system as being "markets working well". When markets work well the bathtub is neither overflowing nor running dry. The inflow to the system – what we think contributes to markets working well – is "competition". The outflow from the system – what we think makes markets work less well – would be market distortions and imperfections, externalities, unfair competition, "monopolies" and "cartels".

A few things to note upfront. On this model, it is possible for the bath to overflow – for there to be too much competition.[18] Also note, the level of water could be maintained by turning

[18] Competition Overdose, Stucke and Ezrachi.

on the taps *or* plugging the drain, although these do not necessarily work equally well. Either way, if the perception is that markets are in fact working well then there will be few attempts to correct the state of the system. If we do not pay attention to how well markets are actually working then we may not notice that they are actually working poorly and we may not make timely interventions. And, critically, if we confuse outflows and inflows then we will apply the wrong remedies.

This brings us, already, to an insight concerning the central contribution of the Chicago School of antitrust. The passage of the Sherman Act in 1890 was motivated by a foundational concern with the threat posed by concentrated economic power,[19] deeming this to be a dangerous corruption (or outflow) of the economic and political system. But the Chicago School recategorized monopolies from "outflow" to "inflow", arguing that monopolies are not harmful and in fact can be good, efficient and so on. This was part of a deeper paradigm shift that sought to free markets of any controls altogether. The outflows were plumbed back into the inflow taps and the system was meant to "self-regulate". Cartels were left as the singular "supreme evil"[20] of antitrust and the only relevant outflow for competition policy.

We must not take the bathtub metaphor too far. Systems are chaotic. In reality, the market bathtub can be dry and overflowing at the same time. There are many, many bathtubs. Markets and human economies will never reach equilibrium. There are many external forces that we cannot control. There are others that we can but for whatever reason, don't. But what the metaphor reminds us is that the water is always flowing and/or draining *anyway*, and markets will impact people's lives *anyway*, even if we do not intentionally make policy choices and goals to set the water level. And we do have some limited opportunity to influence the outcomes. Indeed, Meadows identifies at least 12 such "points of leverage", to which we shall now turn.

III. LEVERAGE POINTS

Meadows develops a framework of 12 leverage points which serve as places to intervene within any system if one seeks to change that system. As many within the competition community explore how to change the system of antitrust, there is a lot we can learn from these 12 leverage points and what Meadows tells us about how applying pressure at these leverage points may or may not allow us to make markets work better.

12 may seem like a lot, an intimidating number to get through in a single paper. I am emboldened by the ease and lightness with which Meadows herself introduces the 12 in her essay and I will give a preview here of the full list to give the reader a sense of the direction of travel.[21] I will then proceed through the list in the same order that Meadows treats them: in increasing order of power and effectiveness in transforming the system, although there could be reasonable debate about the relative ordering, as applied to antitrust specifically.

[19] Sanjukta Paul, Sandeep Vaheesan, Lina Khan.
[20] Trinko.
[21] I have shortened the titles of the various leverage points to focus on the most salient aspects with respect to antitrust. I give the full description as a footnote to each of the 12 headings that follow.

Places to intervene in a System

12. Parameters
11. Buffers
10. Structures
9. Delays
8. Negative feedback loops
7. Positive feedback loops
6. Information flows
5. Rules
4. Change and Evolution
3. Goals
2. Paradigm
1. Transcending paradigms.

12. Parameters[22]

In this context, "parameters" means the numbers and scales that are involved when we turn the taps of the system. These are minor adjustments within the system, changes by degree. Meadows identifies parameters as the least influential leverage point because they do not entail changing the system, rather just running more water through the plumbing. In antitrust we see this in the generic call for authorities to bring more cases[23] or to requisition more government funding.[24] Another parameter would be to put different people in charge of turning the taps, different heads of agencies.[25] But more cases and more resources, and even different leaders, operating within the same existing system will likely make little difference. As Meadows puts it, "Putting different hands on the faucets may change the rate at which the faucets turn, but if they're the same old faucets, plumbed into the same old system, turned according to the same old information and goals and rules, the system isn't going to change much." She gives examples. 17 years before Trump she says: "Whatever cap we put on campaign contributions, it doesn't clean up politics", and indeed contribution caps have expanded. 21 years before the killing of George Floyd she says: "Spending more on police doesn't make crime go away."

The vast majority of our attention goes to parameters but, Meadows concludes, "there's not a lot of leverage in them." Parameters can turn into transformative leverage points when they are taken to scale, when the taps are turned to full blast, when pressure is applied in earnest. A vast upgrading in resources, a quantum shift in the number of cases, perhaps. A

[22] Full title "Constants, parameters, numbers".
[23] Cite.
[24] Cite.
[25] Cite.

visionary new leader. Barring that, we will have to turn to other, more powerful leverage points to bring about systems change.

11. Buffers[26]

The reservoir of water that has built up over time and is sitting in the bathtub is a buffer. If the buffer is large and stable then there can be many years of regulatory neglect before the tub runs dry (or overflows). We know what happens when buffers are allowed to deteriorate. The "stabilizing power of buffers", Meadows explains, "is why you keep money in the bank rather than living from the flow of change through your pocket." And yet precarity is now such a feature of many people's lives, even in the developed world: 40% of Americans would not be able to find $400 to cover an emergency[27] and in the UK it is reported that half of people worry about money once a week.[28] Another example: buffers are "why stores hold inventory instead of calling for new stock just as customers carry the old stock out the door." We have seen how fragile these systems are in times of pandemic and panic when stores don't hold inventory and instead operate "just-in-time". This is a tradeoff between efficiency and resiliency.

The meta-trends of monopolisation, corporatisation, financialisation and exploitation have been draining the bathtub and causing it to overflow since the 1970s and 1980s. There are low levels of buffer in this system, markets are not working well as discussed in the introduction. The problem with buffers as a leverage point is that buffer levels tend to already be determined – there is a path dependency, they are dependent on historic happenings. There is not much we can do to increase the buffer in the system now other than to solemnly promise not to allow things to get this bad again. And so we move on to the next most powerful leverage point.

10. Structures[29]

If the system we are trying to change is air pollution in Hungary (Meadows' example) then there might be a lot we can do with traffic measures but the road layout and public transport infrastructure itself would be important too. Structures can be difficult (and expensive) to change – imagine the disruption of an entirely new road layout -- which makes them difficult (and expensive) leverage points, despite the transformational effect they can have.

In antitrust, the equivalent to the road layout and transportation infrastructure is the law and the regulatory process itself. The wording of the Treaties has not changed since enactment but competition law enforcement in the EU has undergone significant change in the last 20 years in the form of the Modernisation Regulation (Regulation 1/2003).

Two important changes to the "traffic management" of cases were the devolution of powers to national competition authorities and, most significantly, the end to the pre-notification

[26] Full title "The sizes of buffers and other stabilizing stocks, relative to their flows".
[27] https://www.federalreserve.gov/publications/2019-economic-well-being-of-us-households-in-2018-dealing-with-unexpected-expenses.htm.
[28] Nudge research.
[29] Full title "The structures of material stocks and flows and nodes of intersection".

regime. Prior to Modernisation, companies had to notify potentially restrictive agreements to the Commission and await approval. After Modernisation, it would be incumbent on companies themselves to self-assess their compliance. In-house counsel and external law firms became the first line of defence in enforcing EU competition law.

2003 also saw the creation of a new structure in competition law enforcement – the Office of the Chief Economist. After a series of defeats in the EU Courts, the Commission was determined to meet charges of arbitrary regulator discretion and bring the latest in economic thinking to undergird its cases. Ultimately the introduction of the "more economic approach" has backfired for the Commission because defendants have brought in their economists too with opposite but seemingly equally valid arguments in the eyes of the law. A further structural change came in 2014 with the encouragement of private damages actions in the EU.

We may see in these developments the perverse outcomes Meadows warned of at the outset: changing the structure of competition was indeed an important leverage point, but it may have been pushed in the wrong direction. These are lessons to be heeded as we seek to change the structure of competition law again with new digital markets regulators, like the proposed Digital Markets Unit in the UK and the Digital Markets Act in the EU.

9. Delays[30]

Delays refer to the time lag between the system moving out of balance and the regulatory response to correct it. We are now getting into one of the popular topics of recent years: the critique that antitrust cases take too long, that in fast-moving industries the remedies come too late, the market has moved on and the damage has already been done.

The antecedent to the current situation of regulatory hesitation is the Chicago School's error cost framework. This pushed in the opposite direction, arguing that regulators were too jumpy and were likely to over-react (which, they said, is worse than under-reacting). Regulators, and courts, have taken this to heart.

If we now want to remedy the length of delays in the antitrust system, there are a few potential reforms, each of which have been explored or proposed in recent years: cases can be streamlined;[31] we could remove judicial review;[32] regulators could make more use of interim remedies so that the market cannot move so far ahead pending developments in the case;[33] we could not wait for an infringement or merger, and instead use or create a market investigation tool.[34] Clearly there must be limits, faster cases will not always be better. It opens up greater possibility for regulatory abuse. The rule of law requires due process. But the regulator needs some mechanism for shortening delays.

[30] Full title "The lengths of delays, relative to the rate of system changes".
[31] Cite.
[32] Cite.
[33] Cite.
[34] As in the UK and as was originally mooted at EU level in 2020.

An alternative path is to slow down the rate of change to make up for the inevitable delays in bringing cases. In Meadows' initial growth example, growth was being paradoxically pursued to cover for the inherent costs of growth. But instead of speeding up growth to outpace the costs it would be better to slow it down to give the system a chance to catch up. Similarly, within antitrust, if the problem is that markets move on too quickly then instead of speeding up the regulator we could slow down the market. This may border on heretical. Surely I am not suggesting that antitrust regulators use their powers to slow down innovation?

But "innovation" is like "growth" and "efficiencies" – we do not want innovation at any cost (because the costs are often not counted). Instead we might take the stance that the *direction of innovation* matters. We could apply the "precautionary principle", allowing for manifestly beneficial innovations but slowing down or temporarily blocking (or not allowing them to be counted as "efficiencies") any unproven innovations. Note that this is precisely opposite to the position taken by business in lobbying at the European level for the "innovation principle" to replace the "precautionary principle".[35] The innovation principle speeds up the harms of industry and damage caused by inevitable delays, with both serving the ends of increased profitability for business.

8. Negative feedback loops[36]

By now we have some sense of how systems thinking applies to regulation and that will stand us in good stead to consider negative feedback loops. Competition law is at its heart a negative feedback loop: it kicks in when a problem with the state of the market system is detected and attempts to correct for that imbalance.[37] We can also see immediately why the Chicago perspective has been so damaging and led to such weak antitrust enforcement: a core Chicago thesis was that there is no need for a negative feedback loop at all since markets self-correct. The thesis was that monopoly (and other market distortions) could not persist because the elevated rents of the monopolist would attract entry or, at least, potential entry. Either way, the monopolist would be kept honest, unable to charge monopoly prices or proceed with any monopolistic exploitation.

As important as the choice of feedback loop is how and when it is triggered. In competition law, price has been adopted as the appropriate signal triggering enforcement (or, more usually, not triggering enforcement). Meadows warns that "*Companies and governments are fatally attracted to the price leverage point, of course, all of them determinedly pushing in the wrong direction…".* And so we have seen with the "consumer welfare standard" that a single-minded pursuit of price has ignored how those low prices may be achieved. Low prices may be achieved through economies of scale, but with scale can come problematic power. Low prices may be achieved through pushing costs onto society (i.e. negative externalities) or by lowering costs by exploiting input suppliers (with monopsony power, the flipside to

[35] Cite.
[36] Full title "The strength of negative feedback loops, relative to the impacts they are trying to correct against".
[37] Note: "negative" in this case does not mean "bad", just as we will see that "positive" feedback loops are not necessarily "good". Competition itself is meant to be a "good" negative feedback loop, spurring economic actors to lower prices and produce more efficiently.

"efficiency" can be exploitation)[38]. Low prices may be an indication of a predatory price strategy.[39] It is possible for prices to be too low.

There is also a deeper point here. In trying to maintain any complex system, there is danger in narrowing the focus to any one information signal. Imagine a plane with only a gauge telling you how high you were and not the direction you are flying, the air pressure, or whether there are any major obstacles up ahead. Not only are we ignoring other warning signs but we have elevated ourselves in our capacity as consumers whilst squashing the importance of our other capacities. In theory we may have other political outlets, but other feedback loops have also weakened and antitrust is not the only context in which consumer identities have become paramount.

Aside from the overall stance of the Chicago School in relation to antitrust and the adoption of price as a trigger, the antitrust negative feedback loop has been weakened in other key ways. Not only is price misleading but by focusing on price many other harms of concentrated power are being ignored (we can think of this as catching fewer harms or widening the plug hole). There has also been a remarkable naivete about the realities of shareholder-centric business and the lengths to which companies will go to get their deals and conduct approved (the bath is not draining by gravity alone, there is a pump sucking water out of the reservoir). In general there has been a willingness to accept companies' efficiency stories, even though we do not systematically go back to check whether those efficiencies do in fact emerge and are in fact passed on to consumers, as promised, nor do we apply such evidence to subsequent mergers. Meanwhile, the various enforcement mechanisms for shareholder value (compensating executives with share ownership, the market for corporate control, the pressure exerted by institutional investors, the pressures of common ownership across industry) mean that any efficiencies that do materialize are in fact earmarked for shareholders.

Of course there is another important negative feedback loop that should be in operation to control concentrated power – democracy. That has been weakened too. As one weakens, the other weakens more: economic rents can be leveraged into political power and power over the regulatory environment, which drives further monopolising.[40] This was the core concern sought to be addressed by the Sherman Act. Meadows also articulated this point: *"Market and democracy help each other erode."*

Given the unprecedented power of monopolies today, these feedback loops should be running stronger than ever. There is therefore a clear role for competition policy to control corporate power in order to maintain the balance of power within the economy and within society, and to safeguard democracy.

Through the lens of negative feedback loops and thinking in systems we can also start to make sense of the paradox discussed in the introduction, the paradox of competition. How can the same market have both too little competition and too much competition? How can the bath be both dry and overflowing? Might it be instead that what makes markets work poorly, and

[38] Paul, Steinbaum and Vaheesan.
[39] Lina Khan, Amazon's Antitrust Paradox.
[40] Zingales, Teachout.

what should be triggering the negative feedback loop, is not a generic "lack of competition" but rather the presence or absence of power. Too little competition is actually too much power. Too much competition is actually the specific power to exclude rivals and exploit the economically dependent.

How might we strengthen the negative feedback loop of antitrust enforcement? There have been lots of proposals in this category. One route is to empower regulators by reversing the burden of proof[41] and by creating stronger legal presumptions,[42] (this is more than changing the parameters by bringing more cases (leverage point 12), this is a qualitatively different enforcement stance), and by allowing them to use a wider range of remedies (e.g. breakups). Another route is to co-opt civil society and stakeholders into the negative feedback loop, giving them a quasi-regulatory role. This can be done through the democratization of competition enforcement processes [43] and by democratising the shareholder value corporation.[44] Limiting the influence of business over regulators and over the norms in competition law would give new life to this beleaguered negative feedback loop. The ultimate negative feedback loop would be for companies that repeatedly breach the public interest – i.e. those that through their power and influence and problematic business models appear to be incompatible with markets working well – to be dissolved under existing laws for public interest winding up[45] and charter revocation.[46]

7. Positive feedback loops[47]

Negative feedback loops are self-correcting; positive feedback loops are self-reinforcing. Positive feedback loops create virtuous, or vicious, cycles – leading either to explosive growth or collapse.[48] Of course we are very familiar with self-reinforcing feedback loops within competition law because this describes the phenomenon of network effects. Monopoly also drives another positive feedback loop which has gained prominence recently due to the research of Thomas Piketty and which can be summarized as "successful to the successful" or "the rich get richer". Even more so in economic downturns as we are facing now, during the pandemic: firms with excess profits may be more able to withstand economic crises and may be more able to access credit and bailouts. Regional disparities are magnified as wealth that used to circulate amongst local communities is instead shipped out to financial centres.[49] Once a town has been hollowed out it can be very difficult to fill it back up again.

These positive feedback loops reinforce themselves and also reinforce other positive feedback loops. There are many varieties of unfair competition that are not currently considered within the ambit of competition law: unfair exercise of IP, tax avoidance, the creation of negative externalities, venture capital funding predatory pricing strategies and absorbing year on year losses. Each of these is a mechanism of monopolization that feeds

[41] Cite.
[42] Cite.
[43] Cite.
[44] Meagher, Competition is Killing Us.
[45] S.124A Insolvency Act.
[46] US State Attorney's General have this power.
[47] Full title "The gain around driving positive feedback loops"
[48] Doughnut Economics, p138.
[49] Shaxson.

into the generation of monopoly rents, the ability to generate more monopoly rents and the ability to exert political influence over how monopoly rents can be legally earned. The rules shape corporate behaviour but are also shaped by corporate behaviour, and the reality of corporate imperatives – driven by shareholder value maximization and the resulting search for rents and monopoly – cannot be ignored.

Of course the resources earned through this positive feedback loop can be turned upon weakening the negative feedback loop that is meant to kick in. The Chicago School agenda was spread through the training of [federal] judges in neoliberal antitrust analysis, paid for [by the beneficiaries of a lax antitrust regime].[50] Monopolists pay for favourable academic research.[51] They pay consultant economists thousands of dollars an hour to give expert evidence.[52]

Meanwhile, the negative feedback loop that the neoliberals claimed would hold the monopolist in check – the entry of rivals – weakens. As monopolized industry ossifies and becomes less dynamic rivals are less and less able to challenge incumbents. Venture capitalists openly say that they will not fund startups entering into spaces adjacent to the tech giants since they are filled with surety that these businesses will be copied or squashed. Testimony by Mark Zuckerberg before Congress confirmed this dynamic.[53]

A market may have network effects by virtue of the nature of the product – like a telephone exchange – but the network effects may also be constructed and legally supported through branding, IP protections, subsidies and exclusive licenses. And soon the company exploiting network effects can become essential, to customers, to the economy.

This is the snowballing power that the negative feedback loop of competition law is supposed to contend with.

According to Meadows *"A system with an unchecked positive loop ultimately will destroy itself."* We have already seen the vulnerability of systems built on centralized private power: from the geopolitical ramifications of the Cambridge Analytica data breach of the Facebook platform to the too big to fail banks that brought the global financial system to its knees in 2008. As we have learnt the hard way in 2020, some positive feedback loops, like the spread of infection, can have exponential effects. It is critical to spot these before they go into overdrive.

Meadows tells us that reducing the gain around the positive loop is usually more powerful than strengthening the negative feedback loops (hence why positive feedback loops are positioned at a higher level in the list of leverage points). We should therefore pay special attention to reforms that aim to disable positive feedback loops because they have the double benefit of reducing the harm that regulators must correct for and buying regulators more time to do so. When we address positive feedback loops we target "root causes" of self-reinforcing power. In this category of reforms we could include interoperability and data

[50] Cite.
[51] Valletti.
[52] Cite.
[53] Cite.

pools (to disable the network effects of big data) and anything that reduces switching costs or increases staying costs (e.g. the recommendations around conflicts of interest in statutory audit).[54] We would also include in this category the provision of public options or alternatives that give consumers, users, citizens and suppliers somewhere else to go. We might also look at positive feedback loops that would embolden regulators to take more risks such as stronger presumptions that make it easier to win or defend cases in court, the introduction of market investigation regimes that do not require proof of infringement, and finding channels of public support for competition regulators so enforcers are buoyed to continue bringing envelope-pushing cases. Like everybody, regulators like to win or, at least, do not like always to lose.

6. Information flows[55]

Even more important than the operation of negative feedback loops (and the positive feedback loops they must catch up to) are the information flows that trigger how and when the negative feedback loop kicks in.

We have already looked at the price signal as the trigger for competition law enforcement. The information that is allowed to flow is information about efficiencies and prices. Other information about how business conduct affects human rights, sustainability, labour protections, bargaining positions and other aspects of competition are simply not currently cognizable under European and US competition law.

Indeed the suggestion that we might want to admit these other considerations into competition analysis is met with the rebuttal that such a system would be "unadministrable" and "politicised".[56] This is a disingenuous line of argument since competition law as it is currently enforced is plenty political. Not only does the system include a strong bias towards big business, but it is big business that is almost exclusively given a seat at the table by the regulators (even those that are not captured), not least because many affected stakeholders do not have formal *locus standi* to participate. Whereas the concerns of business are seen to be reasonable and efficiency-promoting, if perhaps self-serving, the concerns of civil society are pushed well outside the ambit of competition law. The seeming "administrability" of the system comes from the fact that we can plug a merger into an economic model and get the predictable answer that, subject to minor adjustments of the deal parameters, it is compatible with competition. In the advancement of administrability we have gained predictability and lost effectiveness. If the system is to be political let it be explicitly so.

For many, going beyond a consideration of efficiencies would push competition agencies across a magical line from "antitrust" into "regulator", a line which many would rather not cross. But the line is necessarily blurry, soon to be even more so with the incoming regulatory regimes combatting harms in digital markets. Moreover, we know from the discussion of the power of positive feedback loops that strong antitrust is a precondition for good regulation: to give the regulator a chance of regulating they must be presented with a regulatable company, not one that outsizes the state. Antitrust and regulation are complementary.

[54] CMA market study.
[55] Full title "The structure of information flows"
[56] Luc Peeperkorn.

How can we increase and change information flows that trigger the negative feedback loop? Again, there is a whole host of suggested reforms which should be given proper consideration given that they sit relatively high up amongst the potential leverage points.

First and foremost we need to be able to "see" power. The current, narrow definition of market power is the ability to increase price above the competitive level[57] or to act to an appreciable extent independently of competitors, customers and end consumers.[58] This hampers the ability of competition law to control the positive feedback loop. If we can't identify the many facets and manifestations of power then we can't do anything about it. In this, words matter. We need to reclaim the words "monopoly" and "dominance", even in common parlance. Market shares are one form of evidence, they are should not be determinative.

We should also question the word "competition". So often competition is in the eye of the beholder. Like "consumer welfare", it is there if you want to see it. This does not allow for clear debate around competition policy.[59]

Researchers, especially in Europe, have complained of the poor existing data sets on which to make assessments of national and regional market concentration. It turns out that we designed a system to maintain competitive markets without investing in the production of data that would allow us to check whether we had met our goal or, if not, how widely we had missed it. We should not be surprised. Meadows tells us that *"We humans have a systematic tendency to avoid accountability for our own decisions. That is why so many feedback loops are missing – and why [the information flows leverage point] is so often popular with the masses, unpopular with the powers that be, and effective, if you can get the powers that be to permit it to happen (or go around them and make it happen anyway)."* I am told that improving this situation would be a matter of a few million euros.[60] Hardly expensive relative to the potential efficiency gains! And it would pay dividends well into the future.

In general, we need more information on what works well and what does not in competition enforcement. Regulators should conduct more retrospectives. Companies should have to prove, after a merger, that the promised consumer benefits have actually materialized, or risk unwinding of the deal. If deals are pushed through under a banner of "national champions" then the boosted firm should be subject to a monopoly levy or some form of public ownership and/or accountability to ensure that the gains to the nation are actually realized.

Other reforms seek to boost the information-gathering powers of agencies in light of the stark information asymmetries between the regulator and the regulated. In the digital context there are proposals for algorithmic audits. In the UK, the suggestion has been made that dawn raids should be used in merger cases. Lowering or changing jurisdictional thresholds to

[57] Cite.
[58] Hoffmann-La Roche.
[59] Despite the title of my book being "Competition is Killing Us", the word "competition" has so many confused and confusing meanings that my editor at one point asked if I could write the whole book without using the word. In general, I have come to prefer the words antitrust or antimonopoly or, for clarity, excessive power.
[60] Cite contact.

make more conduct or mergers reviewable (e.g. in relation to killer acquisitions) or subjecting particular entities to greater scrutiny (e.g. companies with gatekeeper status or strategic market status) increases the flow of information to regulators. Strengthening presumptions, shifting the burden of proof, or creating market investigation powers each shift the informational requirements in favour of agencies.

5. Rules[61]

One of the most powerful of the neoliberal myths is that "free markets" are naturally occurring, and that it is intervention by the state that is unnatural or artificial. In fact all markets are embedded in society and created by the law and the rules that govern economic activities.[62]

The rules within competition law are not merely "market-fixing", they have market-shaping power.[63] Competition law determines who gets to rely on the privilege of economic coordination and who is forced to compete.[64] We can see this most starkly in the differential treatment of cartels, mergers and monopoly – all forms of coordination separated only by degree. And yet we have in operation strong presumptions of illegality (price fixing cartels) versus strong presumptions of legality (merger and monopoly).[65] This has pushed firms towards monopoly, via merger.

Rules shape the real world. To understand how influential the setup of the rules can be, imagine instead that abuse of dominance was per se illegal (and easier to prove)?[66] What if merely having a dominant position, without any abuse, came with additional responsibilities or consequences? Perhaps companies faced with this regime would err towards cartelization as opposed to monopoly, with the advantage to the public that cartels are far less stable than monopolies (although cartels are often more stable than is typically thought).[67]

The critical question is, who has power over shaping the rules and how they are interpreted. This is where the criticism that has been leveled at the competition establishment that it has ruthlessly protected competition as a domain for the technocratic elite comes into play. We see a marked lack of stakeholder involvement in setting and interpreting the rules. Even where decisions are made by "independent" panels, as is the case for Phase II merger decisions in the UK, there is little public inquiry into who gets appointed to these panels and what biases they may bring with them.[68] Conservative courts are presented with "balanced evidence" from competition agencies and private parties without considering that one side is acting solely in its own interest whereas the other represents the public interest.[69] Internationally, the US, EU and multi-national corporations and their advisors have

[61] Full title "The rules of the system"
[62] Meagher, Balance of power; Vaheesan.
[63] Ioannis Lianos.
[64] Sanjukta Paul (2020), *Antitrust As Allocator of Coordination Rights*.
[65] Cite.
[66] [Mongolia?]
[67] Cite.
[68] Meagher, The Guardian.
[69] Cite.

disproportionate influence within organisations such as the International Competition Network, through which international standards of competition law are disseminated.[70]

When we contemplate changing the rules we must however bear in mind Meadows' warning not to push in the wrong direction. We can see one example of this emerging. One is in relation to corporate sustainability. Here it is argued that companies, even big companies, should be allowed to enter into otherwise restrictive agreements to serve sustainability goals, such as protecting the environment or preserving living wages for farmers in the Global South – authorities should either give blanket or case by case exemptions for this conduct, it is thought.[71] This could be highly counterproductive, serving to entrench and enlarge the power of certain firms over supply chains, which is the mechanism by which they had exploited labour and nature and compromised sustainability in the first place. Much better to increase the power of labour, farmers, small suppliers and nature.

4. Change and Evolution[72]

The ability of a system to change and evolve comes from loosening the grip of those who have control over the system. It also comes from letting new ideas in. Meadows reminds us that this is how biological evolution works: biodiversity and a varied gene pool are critical to evolution. Regulatory evolution relies on allowing in what Lianos et al call "different sources of wisdom".[73]

Several reforms come under this category. One that has been touched on already is the importance of bringing stakeholders into the process and democratizing competition law enforcement. This brings different perspectives, different information, different knowledge and different vested interests. Competition authorities should also recruit from a wider pool of expertise[74] and maintain continuing education programmes for staff on a wide curriculum of law and political economy. Where there is a perceived gap in knowledge within competition authorities there should be statutory triggers that allow for the referral of specific questions to the relevant government department (for example, on employment issues or environmental issues or data issues).[75] In general, efforts should be made to cultivate a diversity of views within the competition community, a responsibility that falls as much with practitioners as with academic departments. We may need better, more intellectually diverse, outlets for debate and discussion.

3. Goals[76]

The goal of the system is a powerful leverage point. Change the goal and a lot will follow. It is no wonder then that identifying the goals of competition law has occupied much of the debate around reforming the system.

[70] Townley.
[71] Cite, Concurrences book.
[72] Full title "The power to add, change, evolve, or self-organize system structure"
[73] Lianos et al.
[74] The CMA is reportedly employing psychologists and others to help regulate technology companies. Cite.
[75] Holmes.
[76] Full title "The goals of the system"

Until recently the goal of competition law was relatively uncontroversial: the goal is to promote competition and consumer welfare.[77] But is this really the goal? Meadows tell us that goals of a system are "not so much deducible from what anyone *says*" but rather "from what the system *does.*" An objective observer would be forgiven for thinking that the goal of competition law is not to protect competition but instead to concentrate markets and to leave corporate power and the deal-making of lawyers and bankers relatively untouched. Because this is what the system *does*.

Meadows observes that *"Even people within systems don't often recognize what whole-system goal they are serving."* This would certainly seem to be true of competition law. Meadows considers the goal of the shareholder-centric company, which she describes as having a goal to *"grow, to increase market share, to bring the world (customers, suppliers, regulators) more and more under the control of the corporation, so that its operations become ever more shielded from uncertainty."* As the positive feedback loop of shareholder value monopolisation has taken hold, and as its goals have come to subsume the goals of the system as a whole, it is to this purpose to which all the leverage points lower down the list have been twisted.

What should the goals of competition law be? Above I have explained how the rules of competition law already control the coordination of economic resources and exercise of coordinated power. To what goal should this rule be aligned? I argue here and elsewhere that the competition authorities must regulate power in markets in the public interest. The pushback is that this is less measurable than efficiencies. May be, but efficiencies aren't getting us to a system state that we want to be in. We must also distinguish between tests and goals. Efficiency and consumer welfare are tests, they are relevant evidence as to whether particular conduct serves the public interest. They do not comprise the public interest entire.

Another question is: who gets to determine the public interest? This is a question for public debate and democratic legislative process. But we must be clear: if we do not come to a consensus on the public interest and how it will be determined, the system will nevertheless serve some interests *anyway*, but without public scrutiny.

If the goal of competition law is to serve the public interest then we must recalibrate all the previous leverage points (negative feedback loops, positive feedback loops, information flows, rules and so on) to serve this purpose. We must keep laser focused on power and develop further analytical tools to identify and assess power.

2. Paradigm[78]

Changing the paradigm sits above changing the goal of the system. The paradigm is our shared understanding of how the world works. It does not matter what the law says, the paradigm dictates how the system actually operates. The EU Treaties may embed a whole

[77] Fox.
[78] Full title "The mindset or paradigm out of which the system arises".

range of other concerns beyond consumer welfare, including fairness and sustainability and health and well-being. In fact, the Treaties say nothing about consumer welfare, and yet. Equally, s172 of the UK Companies Act 2006 does not mandate shareholder value. Instead it requires the consideration of a list of stakeholder interests. And yet.

There are various paradigms in operation within competition law and they all serve the goals of shareholder value monopolization. These paradigms include: "monopoly is (or can be) good" and "free markets are efficient" and "free markets are possible". There are many others. Outside competition law, we have seen a series of simultaneous and synchronized paradigm shifts since the 1980s: trade liberalization, privatization, deregulation. This is the context in which the paradigm of "competition" operates.

I have argued elsewhere that we need a fundamental paradigm shift within competition law away from the concept of "competition" and towards the concept of "power". This resolves the paradox with which this essay began: it may be hard to see how a the same market can have both too little competition and too much, but the problem is actually power – too much power to exploit and too little power to protect ourselves as consumers, but also as workers, small businesses, citizens, inhabitants of the earth. There is the power of individual economic actors and also the domination of the system of markets itself.[79]

Competition is just one solution to the problem of monopoly, there are many others. These include democratisation of power through governance and ownership and the cultivation of countervailing power (e.g. unionization of employees and of gig economy workers, promotion of cooperatives and other forms of coordination amongst disempowered producers), as well as all the leverage points mentioned above.

Happily, at least in relation to digital markets, the direction of travel appears to be to identify actors with excessive power as gatekeepers or companies with strategic market status or undertakings with paramount significant for competition across markets.[80] Does this mean shifting to a "big is bad" paradigm?[81] At the very least it means acknowledging that "big is power" – with size comes power, which must be controlled. We cannot assume that competition will bring efficiency when it so often brings the opposite.

The key question though is, how do you change paradigms? Meadows summarises the work of Thomas Kuhn: "*In a nutshell, you keep pointing to the anomalies and failures in the old paradigm, you keep speaking louder and with assurance from the new one, you insert people with the new paradigm in places of public visibility and power.*" For decades serious people agreed that something had to be done about fossil fuels but it was such an intractable problem, where to begin? Greta Thunberg flipped the paradigm by sitting on the floor. She challenged the idea that it would be hard to change the system, that we rely on fossil fuels. She showed us whose futures were at stake.

1. Transcending paradigms

[79] K. Sabeel Rahman, Democracy against Domination.
[80] German law.
[81] Tim Wu.

For reasons that will become clear, for the persuasive strength of my argument and to push my readers in a particular, progressive direction, I should stop here. But that would be intellectually dishonest. Because we come finally to the most powerful leverage point of all: not changing the paradigm but transcending paradigms. Transcending paradigms means accepting that there is no "right" answer. No one paradigm is true, every paradigm is flawed. The Chicago School was a paradigm and it lasted for decades. It is a political choice whether we have a system that serves big business or whether we have a system that serves the public interest. I prefer to work in the name of the latter, but there is no objective observer who can say that it is better. That doesn't matter: it matters to me and many others that the system, all systems, should serve humanity, and subscribe to democratic ideals. The public interest should conform to the will of The People, not just Some People. This is a choice. The system may now change, I hope it will. But accepting the reality of paradigms means knowing that it will probably change again in the future, and not always for the better (according to my values).

It is incredibly hard to transcend paradigms, especially when you have tied your career and identity to one particular paradigm. I imagine it is uncomfortable for lawyers, economists, advisors in the competition community who can see the paradigm shifting and must insulate themselves from their past work: the problematic mergers they gave years of their lives to approve, the monopolists they helped build large. Actually, I don't have to imagine, I also face those demons.

As I reflected in the opening of this essay, sometimes you have to get outside a system to see these paradigms at work. This was how it was for me. But it is another reason why it is so critically important to bring in outside perspectives from all the groups that the system is meant to serve: they can see things that we cannot.

Where does this understanding of paradigms take us? It can allow us to see that there are things that are more important than competition. The power of transcending paradigms comes from the transformative power of letting go.

IV. CONCLUSION

With the 12 leverage points within the system of competition law in hand you may be eager, as I am, to change the system. Meadows, ever reasonable, urges caution. *"Before you charge in to make things better, pay attention to the value of what's already there."*

What is already working well, in Europe? We have a good, flexible structure in the form of the EU Treaties, embracing many concepts aside from consumer welfare and in fact not embracing consumer welfare at all. In the UK, we need to think about how to replicate this post-Brexit. We have relatively uncorrupted civil servants. Although big business has enormous sway we do not, ostensibly, have the same levels of regulatory capture as in the US. The revolving door turns more slowly. Fewer academics appear to be in the pay of corporations.

And, in general, every system pushed out of balance will have its own mechanisms for self-correction. This is not the free market self-correction of neoliberal fantasy, rather it is the

emergence of countervailing power and unionization. Competition law should get out of the way of this coordination.

There is a final paradigm to discuss. This is the paradigm that "competition law cannot solve everything". Of course, this is true. But there is one thing that it can solve and, I believe, must solve better, and that is controlling concentrated power.

We need a new agenda for reform focusing on the most powerful leverage points and including an honest appraisal of the low buffers in the system and the powerful positive feedback loops already at work. If, that is, we are in fact serious about changing the system. If we are not, then we will focus on the low leverage points only and push any higher leverage points in the wrong direction. And very little will change.