The Entrepreneurial State and the Platform Economy

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Abstract We critique the view of the platform economy as implying a necessary regulation of big tech in the form outlined in "the entrepreneurial state." The basis for this view is a combination of fallacy, error, and political choice. The combinations of these factors drive toward a conclusion that the platform economy adds little or no value to the economy and subsequently should be heavily regulated, and moreover, regulated in an internationally coordinated manner. We instead argue that the rise of large platform firms is exactly what we expect to observe in the transition from an industrial to a digital economy.

Keywords Innovation policy · Platform economy · Digital economy

If you were successful, somebody along the line gave you some help. There was a great teacher somewhere in your life. Somebody helped to create this unbelievable American system that we have that allowed you to thrive. Somebody invested in roads and bridges. If you've got a business, you didn't build that. Somebody else made that happen.

U.S. President Barack Obama (2012).

1 Introduction

In a 2012 campaign speech, former U.S. President Barack Obama correctly pointed out that the market economy relies on cooperation and the division of labor. Anyone familiar with Adam Smith's discussion of the division of labor would view that comment, at face value, as uncontroversial. Adam Smith had written (1976, p. 30),

In civilised society he stands at all times in need of the co-operation and assistance of great multitudes, while his whole life is scarce sufficient to gain the friendship of a few persons.

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President Obama, however, was scoring a political point, not making an economic argument. He would have been entirely correct if he had stated, "Somebody else *helped* make that happen."

The fact remains that the notion of individuals cooperating under the division of labor is not controversial in economics. What Adam Smith had argued is that individuals cooperated even in the absence of conscious control and intentional planning: "he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention." This latter notion, however, is somewhat controversial. It is widely believed that in the absence of planning and some conscious control, market economies will underprovide some goods and services such as education and roads: the very things President Obama was referring to. There is a large, unresolved, empirical, and theoretical literature that addresses the issue of so-called public goods.

This chapter addresses a special case of the public goods literature that extends beyond the state having to provide basic education and roads, and generally accepted public goods such as courts of law and enabling regulation and standards. Even economists such as Friedrich Hayek had argued these goods and services were appropriately within the power of the state (Hayek, 1960, ch. 15). An argument promoted by Mariana Mazzucato (2013), however, suggests a far greater role for government in the market economy. We do not intend to provide a critique of her original contribution (see McCloskey & Mingardi, 2020) but rather to provide a critique of an extension to the notion of the entrepreneurial state theory. That is to address a question posed by Mazzucato (and others) in a 2021 essay: how should the entrepreneurial state regulate the platform economy?

Innovation policy has always operated at the intersection of both industrial and growth policy (i.e., in the Schumpeterian tradition, which emphasizes the value or necessity of monopoly to create incentives to private investment in innovation) and antitrust or competition policy, which by construction seeks to resolve the economic problems caused by monopoly or imperfect competition. Joseph Schumpeter (1942, p. 91) was himself particularly clear about the nature of this trade-off:

There is no general case for indiscriminate 'trust-busting' or for the prosecution of everything that qualifies as a restraint of trade. Rational as distinguished from vindictive regulation by public authority turns out to be an extremely delicate problem which not every government agency, particularly when in full cry against big business, can be trusted to solve.

But the platform economy—and platform economics—which is an innovation that we mostly owe to the digital economy, brings a new angle to this trade-off. Platforms (Rochet & Tirole, 2003) are in almost all cases firms, and when successful they are very large firms. For instance, in early 2021, of the ten largest firms in the world, seven are platforms (Apple, Microsoft, Amazon, Alibaba, Alphabet, Facebook, Tencent). This represents a relatively recent structural shift. Just two decades ago, most of the world's largest companies were industrials, with only a handful of platforms (e.g., Visa). The central reason for this transformation is that digitalization lowers transaction costs (Goldfarb & Tucker, 2019). Following Coasean's

reasoning, this lowers levels of vertical scope, resulting in vertical disintermediation as those wanting things, for instance, can be matched by the platform directly with those supplying things, where the platform is able to be sufficiently attractive to both sets of economic agents, often by engineering side payments or creating the institutional conditions to incentivize all the relevant parties to turn up. A platform, in this sense, is a business that does not so much produce things, like a factory, but rather produces coordination, getting everyone together and reducing barriers and costs to transactions. Digital technologies thus reduce transaction costs, which sets in motion a competitive innovative process leading to the disintegration of industries and the rise of platforms. Those platforms are now, in some instances, the size of the industries they vertically disintegrated and disintermediated. But at the same time, they are no less competitive, as platforms also compete with each other and continually seek to displace each other. For instance, MySpace, an early pioneer of social media, was disrupted by a startup called Facebook, which grew into one of the largest companies in the world but is now under threat from a range of new platforms that include photo-sharing websites and online gaming companies. In each instance, platforms seem like monopolies, but as Schumpeter (1939, p. 107) explained, "practically every enterprise [is] threatened and put on the defensive as soon as it comes into existence" and especially so when that business earns huge profits that can be competed away through further innovation.

But platforms are critical economic infrastructure for the digital economy, providing economic foundations such as markets and matching, search, money and payments, and identity and distributed communication (i.e., social media). These large digital platform firms provide services that were often provided by governments in the industrial economy or were heavily regulated when privately held. So while many digital economy platform firms are large, the relevant comparison is not just to the industrials of the past, but to the comparative size of economic infrastructure organizations, many of which were utilities, often government owned. All the new platforms are the result of a highly competitive Schumpeterian innovation process and operate in contestable markets, in the sense that none hold monopoly licenses or patents, or Royal charters, or are designated and protected national champions. This situation is not true everywhere, for example, in China.)

However, as platforms, they are undeniably big. And that *bigness* has made them targets of new variants of progressive innovation and competition policymaking. There are two overarching forms of this: the new mission-oriented and broadly Schumpeterian innovation policy, as led by Mariana Mazzucato, and the so-called *hipster antitrust* policy, as led by Lena Kahn. We shall consider these in turn.

1.1 The Entrepreneurial State as a Regulator

In a 2021 *Project Syndicate* essay, Mazzucato, Kattel, O'Reilly, and Entsminger set out arguments for regulating the "platform" economy. Readers are told,

There is a growing consensus that platforms have been abusing their power, driving profits by exploiting consumer privacy, crushing the competition, and buying up potential rivals.

Yet, there is no evidence that consumer welfare is being compromised. Therefore,

Regulators therefore need to look at the other side of the equation, particularly the supplier marketplace. Even if consumers are not being harmed directly, there is the question of how Google treats content creators, how Amazon treats sellers, how Uber treats drivers, and how Facebook treats merchants. . . .

Because digital platforms tend to fall outside of the existing antitrust framework, we need a new tool kit, with new metrics of market power, and a clear definition of platform power in particular.

But outdated theories are only one part of the story. When modified to account for new realities, market power arguments tend to conclude that the major platforms should be broken up, and key mergers rolled back. But if we push these new theories further, it also follows that some digital services should be considered social infrastructure.

At face value this is an unusual argument. Mazzucato et al. immediately concede that there is no argument that these platforms are outside the scope of existing antitrust laws and concede that these platforms do not appear to harm consumers (not too much, anyway). Yet they still argue that antitrust, of some description, should apply to these organizations. It seems these platforms may be harming other players in the economy: suppliers, contractors, and the like.

It is true that the platform organizational form is somewhat new. Historically, they have not obviously dominated the economy as they now do. Mind you, banks and media firms are identifiable as platform organizations, but economists have only taken notice of the unique features of this organization form since Rochet and Tirole (2003). It is intriguing that Mazzucato et al. make no effort to argue that this organizational form may disadvantage consumers.

But with Google, Amazon, Facebook, and others offering 'free' services to their users, the calculus has changed. Even if the leading platforms were to pay their users, they could still end up ahead, because one of the main sources of value in these markets lies in amassing user-generated data with which to sell or drive targeted advertising.

The benefits of their business model are so great that consumers cannot be at a disadvantage. At best, it can be argued that consumers get too little from the exchange, but not that they are worse off for the exchange. This leaves Mazzucato et al. having to introduce a different set of arguments to justify (increased) regulatory control over platform organizations. Having already determined that the large digital platforms should be either broken up or, in some instances, nationalized—that is how we interpret the notion that they are "social infrastructure"—Mazzucato et al. correctly point out that platform organizations are a different form of organization to those policymakers are used to dealing with. Quite rightly, policymakers should re-evaluate their assumptions and expectations relating to the regulation of these different organizational forms. Yet Mazzucato et al. never provide that analysis. They declare platforms organizations to be different, concede they do not harm consumers, and proceed to evaluate them as if they did cause harm and were in the need of additional regulation.

In the first instance, they argue that platforms have some market power over suppliers and merchants. This is an argument about unequal bargaining power. They also argue that many of the profits earned by these platforms are "rent" in an Adam Smith sense; that they are not earning returns from adding to the productive capacity of the economy (i.e., profit) but that they are extracting value from their consumers. Mazzucato et al. also appear hostile to the notion of advertising:

If personal data is used for micro-targeted advertising, we should ask whether the platform is in the business not only of identifying but of creating consumer desires through subtle forms of psychological manipulation.

Finally, it should not be overlooked that the European Union (and the United Kingdom) would like to increase the tax burden placed on (predominately) U.-S. organizations. While Mazzucato et al. do not explicitly discuss taxation, it is clear that increased taxation forms part of the general agenda. The European Union, for example, is attempting to use competition policy to increase Apple's tax burden in Ireland.

2 Rent Is a Classical Fallacy

Mazzucato et al. make the following argument:

We need to recognise, as Adam Smith—'The Father of Economics'—did, that there is a difference between profits and rents—between the wealth generated by creating value and wealth that is amassed through extraction.

That is a powerful argument. An appeal to authority, to the authority of Adam Smith, no less. Yet, it is an error. As much as we loathe to admit it, Adam Smith was wrong. At least, wrong in thinking that rent could explain important attributes of the economy.

Rent was a very important component of classical economics, being the return to *land*, one of the three factors of production; the other two being capital and labor. Land has a very specific meaning in this context. Land is the bounty of nature: David Ricardo (1996, p. 45) referred to "the original and indestructible powers of the soil." Fred Foldvary (2002, p. 185) writes that economic land "includes all natural resources and natural opportunities." Land is a bounty of nature, where nature is defined as "all resources prior to and apart from alteration by human action" (Foldvary, 2004, p. 166).

Rent essentially has its origin in the classical theory of value. If we employ a labor theory of value, or a cost theory of value, it is difficult to understand why the bounty of nature has any value at all. Rent becomes a device to explain why some resources have value when no labor power has been exerted to create that value. Joseph Schumpeter (1954, p. 675) sums up the argument very well:

If we do insist on a labor-quantity conception of value, or even on a theory of value that rests on real cost in the sense of disutility and abstinence, and accordingly wish to eliminate requisites of production that are costless in this sense, the device does its duty.

Rent serves a purpose in explaining phenomena that the classical theory of value cannot otherwise explain; land has the ability to produce goods of value despite the lack of human intervention. It is only after the marginal revolution in the 1870s and the introduction of subjective value that *rent* can be explained. Modern economists understand why land with different fertility and soil quality is valued differently. It turns out that land is not a homogenous asset and a device called rent does not need to be introduced to equalize returns from very different assets. As Ludwig von Mises (1949, p. 636) explained,

It does not astonish the farmer that buyers pay higher prices and tenants higher leases for more fertile land than for less fertile. The only reason why the old economists were puzzled by this fact was that they operated with a general term—land—that neglects differences in productivity.

The value of land is determined not by some notion of rent; rather it is determined by the ability of an entrepreneur to employ that land to generate a good or service that can be profitably sold on the market. Land that can be employed more productively is more valuable than land that is less productive. Similarly, since effort is a discretionary variable, employees who are more enthusiastic are more valuable than those who would seek leisure on the job; at a given wage, the former are a source of rent to their employers.

The notion of rent remains in modern economics either as a so-called quasi-rent (a temporary excess return associated with inelastic supply curves) or as a basis for taxation. The basis for taxation also relies on supply curves being inelastic. It may well be that Mazzucato et al. are basing their argument on the platforms having access to quasi-rents, but they make no argument that platforms have perfectly inelastic supply curves.

Many economists have argued that what Adam Smith called rent—and could not explain in the classical theory of value—is really a return to entrepreneurship. David Ricardo (1996, p. 58) comes very close to this insight:

The metals, like other things, are obtained by labour. Nature, indeed, produces them; but it is the labour of man which extracts them from the bowels of the earth, and prepares them for our service.

Ricardo is ultimately blinded by the classical theory of value, yet he does recognize that natural resources are not naturally valuable. Picking up on that theme, Frank Knight (1921, p. 160) argued,

It should be self-evident that when the discovery, appropriation, and development of new natural resources is an open, competitive game, there is unlikely to be any difference between the returns from resources put to this use and those put to any other.

Unless money grows on trees, nature does not simply provide economic assets—even if money did grow on trees, it would still require a labor input to pick the money from the trees. In a hunter-gatherer environment, nature may well provide some bounty, but at any level of economic activity above hunter-gathering, and critically only at low population densities relative to those resources (i.e., the Malthusian curse), natural produce must be combined with capital, labor, and entrepreneurial

insight before economic value can be established. Even hunting requires an investment in skills and human capital. Adam Smith, when establishing the notion of rents, used the example of collecting kelp to create alkaline salt (1976, p. 162). The land or the kelp itself did not generate a return; the knowledge that alkaline salts can be derived from kelp and subsequently turned into soap generated the returns. The rent is not inherent within the land itself; it is a return to entrepreneurial discovery. Land is an input into the wealth creation process just as any other factor of production.

What the classical economists called rent is, at the very least, a return to human capital, or entrepreneurial insight.

Mazzucato et al. attribute platform firms' high levels of profit to either risk-taking or rent extraction. In doing this, they paradoxically fail to consider that the platforms may add value to their users. That individuals may enjoy using their products. Furthermore, Mazzucato et al. are convinced that the platforms simply extract and exploit data from their users. The impressions readers have is that the platforms simply acquire private data from users and are able to profit from it at no cost.

Like any other natural resource—or gift of nature—data is not valuable in and of itself. It must be found, it must be curated, it must be presented to the market in a usable format. What is overlooked is that value on a platform is co-produced. The data generated by users interacting with other users and interacting with the platform itself is the valuable resource being created. The returns from that resource are not somehow *free* or zero-cost. They are a return to developing the platform and providing valuable interaction opportunities on the platform.

Mazzucato et al. are able to side-step those considerations by suggesting that platform users become "addicted" to the platform and are manipulated by advertising.

Recommendation algorithms mediate between advertising incentives and microtargeting demands (encouraging practices that lead users to give over more data for fewer benefits); and user interfaces are designed to maximise data collection by fostering addiction.

They are somewhat scathing of advertising and the profit motive.

The implication, as Google co-founders Larry Page and Sergey Brin foresaw in a 1998 paper, is that advertisers or any other third-party interest can embed mixed motives into the design of a digital service. In the case of internet search, the advertising imperative can distract from efforts to improve the core service, because the focus is on the value generated for advertisers rather than for users. . . . As this example shows, it is necessary to ask who benefits the most from the design of a given service. If a platform's core mission is to maximise profits from advertising, that fact will shape how it pursues innovation, engages with the public, and designs its products and services. . . . How data is used, and which data is collected in the first place, are therefore paramount questions. If personal data is used for micro-targeted advertising, we should ask whether the platform is in the business not only of identifying but of creating consumer desires through subtle forms of psychological manipulation.

It seems advertising simply exists to manipulate consumers against their own interests and in the interests of business. It also appears that Mazzucato et al. believe the gains from trade mostly accrue to sellers and not buyers. Finally, we are invited

to imagine that the profit motive misallocates resources and distorts decisionmaking.

Both of those views are simply wrong.

3 Modern Fallacies

Mazzucato et al.'s views on advertising echo those of John Kenneth Galbraith, articulated in his 1958 book *The Affluent Society*. There he argues (2001, pp. 33–34),

Production only fills a void that it has itself created. . . . Consumer wants can have bizarre, frivolous or even immoral origins, and an admirable case can still be made for a society that seeks to satisfy them. But the case cannot stand if it is the process of satisfying wants that creates the wants. . . . The even more direct link between production and wants is provided by the institutions of modern advertising and salesmanship. These cannot be reconciled with the notion of independently determined desires, for their central function is to create desires—to bring into being wants that previously did not exist.

At face value, that first sentence reads somewhat like Say's law: Supply creates its own demand. But that is not the point Galbraith is making. Nor Mazzucato et al. The argument is that rather than meeting consumer needs, generated by the consumer, the firm simultaneously generates and then meets the consumer need. The consumer is a passive player and is manipulated by the firm. Galbraith (2001, p. 37) labeled this phenomenon the "dependence effect." This is the very claim that Mazzucato et al. make in relation to platform organizations.

Neoclassical economics has been hostile to advertising in general. The strong perfect information and perfect knowledge assumptions inherent within neoclassical economics preclude any valuable role for advertising. Why would consumers need to be informed about goods and service available in the market, when—by definition—they already know everything to know about those goods and services?

Nonetheless, some neoclassical economists, such as George Stigler, have countered the Galbraithian view with scorn (1976, p. 57):

The contrasting view, to which I am led by this same professional training, is that consumers generally determine what will be produced, and producers make profits by discovering more precisely what consumers want and producing it more cheaply. Some may entertain a tinge of doubt about this proposition, thanks to the energy and skill of Professor Galbraith, but even his large talents hardly raise a faint thought that I live in a house rather than a tent because of the comparative advertising outlays of the two industries.

Stigler, however, also analyzed the economics of information and had an appreciation for the role advertising plays in the economy. Another neoclassical economist, Harold Demsetz, had a less scornful, yet still dismissive attitude to Galbraith's views on advertising (1968, p. 174):

The formation of wants is a complex process. No doubt wants are modified by Madison Avenue. They are also modified by Washington, by university faculties, and by churches. And it is not at all clear to this reviewer that Madison Avenue has the advantage when it comes to false claims and exaggeration.

While both Harold Demsetz and George Stigler are neoclassical economists, they are also firmly within the so-called Chicago tradition.

A better analysis of the importance and value of advertising has come from economists in the Austrian tradition. Ludwig von Mises (1949, pp. 321–322) makes the obvious counterargument:

It is a widespread fallacy that skillful advertising can talk the consumers into buying everything that the advertiser wants them to buy. The consumer is, according to this legend, simply defenseless against 'high-pressure' advertising. If this were true, success or failure in business would depend on the mode of advertising only. ... The idea that business propaganda can force the consumers to submit to the will of the advertisers is spurious. Advertising can never succeed in supplanting better or cheaper goods by poorer goods.

Unlike Galbraith, Mises is making an empirical claim. Far too many new products fail in the market for advertising to be the powerful force that Galbraith suggests it is. Furthermore, while it may be possible for advertising to induce a consumer to buy the product once, it cannot also convince the consumer that purchasing the product has actually satisfied their wants. The point being that although advertising may satisfy the need to acquire information about a good or service, advertising cannot also satisfy the actual consumption expectations the consumer has when consuming the good or service.

The notion that advertising itself can manipulate consumers, in the long run, contrary to their own best interest is discredited. But that still leaves the unexplored question—unexplored also by Mazzucato et al.—of whether platform firms are uniquely placed to manipulate their users through advertising.

What the platforms do, however, is offer their clients targeted advertising. This service is valuable. As U.S. retailer John Wanamaker is purported to have said, "Half the money I spend on advertising is wasted; the trouble is I don't know which half." Advertising is a cost to business. Simultaneously, undirected advertising is a distraction for consumers. Targeted advertising reduces costs for both business and consumers. It may even represent a Pareto improvement to the economy as information and search costs fall for all market participants.

Similarly to advertising, there is a lot of confusion as to the role of profit in the economy. Mazzucato et al. imply that the profit motive has distorted platform decisions away from what they otherwise might have been. This is almost certainly true. That is what profits are intended to do. As Schumpeter said (1939, p. 105), "Profit is the premium put upon successful innovation in capitalist society and is temporary by nature: it will vanish in the subsequent process of competition and adaptation." The decisions that would be made were the profit motive not in place would be quite different.

The approach to profit of Mazzucato et al. flows from their view that platforms exploit users. Not only do they provide no evidence that platforms exploit their users—they do make that assertion—but they also do not recommend policy action on consumer welfare grounds. Rather, their argument is that the entrepreneurial state can better manage the platforms, i.e., it could direct resources to capture value differently or have different priorities to those the platforms currently pursue. This

argument is trivially true. Being true, however, does not make the argument a viable or even desirable policy option.

What is clear is that the platform firms are particularly good at meeting consumer wants. These wants can be good or bad, even vulgar. As Mises (1949, pp. 299–300) has pointed out,

It is not the fault of the entrepreneurs that the consumers—the people, the common man—prefer liquor to Bibles and detective stories to serious books, and that governments prefer guns to butter. The entrepreneur does not make greater profits in selling 'bad' things than in selling 'good' things. His profits are the greater the better he succeeds in providing the consumers with those things they ask for most intensely. People do not drink intoxicating beverages in order to make the 'alcohol capital' happy, and they do not go to war in order to increase the profits of the 'merchants of death.'

The Mazzucato et al. argument invites the reader to imagine that bureaucrats could better meet the needs of consumers. Their argument, however, is that consumers have been misled into holding the preferences they hold and that other preferences should be substituted for consumer preferences. This argument is popular and widespread among academic and political elites. It forms the basis of the *nudge* movement within behavioral economics.

Berg and Davidson (2017) have provided a critique of the policy consequences of behavioral economics and nudge. Many of the challenges facing *libertarian paternalists* using behavioral economic insights are those that face central planners. As Ludwig von Mises and Friedrich Hayek argued in the 1920s and 1930s, the information costs and incentives that planners (or bureaucrats or libertarian paternalists) face make it impossible for them to actually plan an economy. The Hayekian information problem is fatal to many forms of planning—and nudging—beyond very trivial instances.

That, however, is not the Mazzucato et al. view. Indeed, Mazzucato herself has been at the forefront of arguing that the state can, and does, do much more than what even many neoclassical economists claim it can and should do. This is especially so in the case of R&D and innovation.

The first point to make is that Mazzucato (2013) has an industrial conception of R&D. In her 2013 book, for example, she makes the following argument (2013, p. 82):

... it is also true that if a country has lower than average R&D spending, this is not necessarily a problem if the sectors that the country specializes in are not sectors in which innovation occurs necessarily through R&D (Pierrakis 2010). For example, the UK specializes in financial services, construction and creative industries (such as music)—all with relatively low needs for basic R&D. And there are many industries, especially in the service sector, that do no R&D at all.

Yet creative industries do not do little R&D; they *are* R&D (Potts, 2011). Indeed, as Potts et al. (2008) argue, the creative industries are not really industries at all, but are better understood as being a type of social network market.

It is important to realize that R&D is an input—it is a cost to business—and innovation is an output. The difference between R&D and innovation is Knightian uncertainty. We cannot know which R&D will be valuable and which will not be

valuable. This is why there is value in private order institutions that pool knowledge in early-stage innovation in order to discover entrepreneurial opportunities (Potts, 2019). It may be true that the U.S. military built the internet as a communications system to survive a nuclear war, but until someone realized that it could be used to trade (or even share cat pictures), no innovation had occurred.

Mazzucato's critique of Apple, for example (and this is *her* example), misses the important point (2013, p. 143):

... Apple concentrates its ingenuity not on *developing* new technologies and components, but on *integrating* them into an innovative architecture: its great in-house innovative product designs are, like that of many 'smart phone' producers, based on technologies that are mostly invented somewhere else, often backed by tax dollars. ... Apple's capabilities are mainly related to their ability to (a) recognize emerging technologies with great potential, (b) apply complex engineering skills that successfully integrate recognized emerging technologies, and (c) maintain a clear corporate vision prioritizing design-oriented product development for ultimate user satisfaction. It is these capabilities that have enabled Apple to become a global powerhouse in the computer and electronics industry.

These are not trivial abilities. No doubt Apple has many competitors and would be imitators. Yet it has succeeded where many others have failed. Moreover, if it was such a trivial thing to develop these capabilities, which in turn have created manifestly enormous profits, then we may reasonably ask why those clearly observable profits did not induce the many other technology firms around the world to imitate these allegedly trivial capabilities and erode Apple's profits. The fact that Apple retained a sufficiently competitive lead, and one that enabled it to exploit premium pricing models for decades in one of the world's most competitive businesses, suggests that those capabilities were perhaps not as trivial as Mazzucato et al. suppose.

What is also important to note is that the state has *not* been entrepreneurial. The state has provided many of the *inputs* to the entrepreneurial process. Some of these inputs are more obvious and important than others. Military expenditure, however, is mostly waste. It reflects well on entrepreneurs that they are able to create value from what would otherwise be wasteful expenditure.

Building on that point, it is the entrepreneurs who add value in platform economies. Mazzucato et al. make an intriguing concession:

But the foregone compensation here is not really about remuneration (the value of one's individual data production is miniscule, amounting to perhaps a few dollars per year).

The value of the data that platforms collect is low. The value of the platforms themselves is extremely high. It is the entrepreneurs who have added value to the data being collected. This is not acknowledged in Mazzucato et al. It is difficult to reconcile their argument that platforms simply earn rents, but at the same time that the value of the data they collect is low, "perhaps a few dollars per year."

4 The Techlash and the Hipster Takeover

What is known as competition policy in most parts of the world, but as antitrust in the United States, has for the past half century been significantly shaped by the analytic perspective of the Chicago school of economics. This approach argues for a powerful and direct focus on revealed consumer welfare as being the standard whereby competition policy is evaluated. The Chicago approach thereby allows that highly competitive market structures that maximize consumer welfare can occur with large and even very large seemingly monopolistic firms. This recognizes that when firm size is the result of scale economies and markets are contestable, the benefits of scale and innovation flow to consumers through aggressively competitive pricing. In the Chicago approach, whether or not big is bad is to be evaluated by the effect on pricing and consumer welfare, not directly by the size of the firms.

However, the new progressive antitrust—also known as "hipster antitrust" (Shapiro, 2018)—has sought to block mergers and enforce breakups to reduce market power by taking a principled position against size per se, irrespective of any evidence—or even in the face of counter evidence that indicates clear benefits to consumers—of harm to consumers, even when these same firms, which are all platforms, are lowering prices, often to zero, in their markets. The hipster antitrust approach is foremost concerned with countering the perceived "power and influence" of these "big tech" firms (see especially Kahn, 2017, and Wu, 2019).

The hipster antitrust approach that works to threaten large (and almost entirely U.S.) platforms with forced de-mergers or breakups, as well as global taxation, has proven to be a popular policy agenda on the progressive side of politics, with U.S. President Biden appointing prominent *hipsters* (including Lena Kahn) to high-ranking positions in his administration. The European Union has also sought to drive competition policy in this direction, emphasizing data privacy concerns and seeking to enact significant taxes on tech platforms operating in the Union. Very large and profitable companies, irrespective of the competitive structure of their industries, represent a perennially popular (and populist) target for political bargaining and rent-seeking, irrespective of whether the economic logic of the attack makes any sense.

However, a number of prominent legal and economics scholars (Schrepel, 2019; Dorsey et al., 2020) have pushed back against these progressive developments, arguing that these populist proposals are not backed by any evidence that consumer welfare is being harmed, nor that antitrust policy enforcement is failing or currently misdirected. Indeed, they worry that—just as happened 50 years ago, prior to the Chicago revolution in antitrust strategy (as detailed in Dorsey et al., 2020)—the populist approach may end up causing economic harm due to its fundamental incoherence as a policy approach by blindly targeting anything big.

Mazzucato et al. are at least right about this point, arguing against a hipster antitrust approach and recognizing that breaking up one large platform will just result in a bunch of smaller, less efficient platforms.

Moreover, it is important to understand that even if antitrust authorities were empowered to break up companies such as Google and Facebook, that would not eliminate the data extraction and monetisation that lie at the heart of their business models.

Creating competition among a bunch of mini-Facebooks would not weed out such practices, and may even entrench them further as companies race to the bottom to extract the most value for their paying customers.

The very nature of platform competition is that it works best when the platforms are big—buyers want to go where there are lots of sellers, and sellers want to go where there are lots of buyers—so the most competitive and innovative marketplace will inevitably be a large platform, which under competition is going to be a private or public firm. If this is nationalized, then you lose the benefits of incentives to innovate in the platform and create contestability. So, the most competitive and consumer welfare maximizing market structure will tend toward a large monopolistic platform. Hipster antitrust policy applied to this context in an unsophisticated form will harm social welfare, even if it is politically popular due to the opportunities for populist big-tech—bashing and multinational corporation tax shakedowns.

Mazzucato is wrong about industrial R&D applied to digital platform innovation, but she is not wrong to recognize that antitrust is not the answer. However, Kahn is wrong about the social welfare implications of antitrust directed at big firms, due to the fact that these policy reform targets will inescapably target platforms. Breaking up platforms may well be good retail (i.e., populist) politics, but it will definitely harm innovation and consumer welfare because it does not ameliorate the need for platforms; it just leaves them less efficient and less effective.

We are currently in an era undergoing a deep historical transition from an industrial economy to a digital economy. This is likely to be as profound and disruptive as the transition from the feudal to the industrial economy that occurred several centuries ago (although more recently in some economies). The transition from an industrial to a digital economy has many manifestations, including the rise of digital and computer capital and of intangible value added; the growth of software ("software eats the world," wrote Marc Andreessen (2011)); servicization (X-as-aservice); integration (e.g., dev-ops) and full-stack design; shifts in the value of particular skills and types of jobs; the growth of data as a resource; and the emergence of new cross-cutting layers in the economy such as infosec, cybersecurity, and identity.

But the other major shift that the transition from an industrial to a digital economy brings is a shift from the comparative efficiency of administrative hierarchy (whether corporate or government) toward the comparative efficiency of platforms (or protocols), made possible by the ability of digital platforms (and protocols) to automate many administrative functions into software-embedded rules. The most advanced form of this evolution is currently the Web3 environments of blockchain (Berg et al., 2019), with protocol money (cryptocurrencies), protocol contracts (smart contracts), which then enable decentralized markets (DEXes), decentralized finance (so-called DeFi), digital assets (tokens, including so-called NFTs), and decentralized autonomous organizations (so-called DAOs) as a network of

distributed protocol infrastructure. Some of these networks, platforms, and protocols can be extremely large. The Bitcoin and Ethereum blockchains, for instance, are at the scale of small countries in terms of value, or number of users, which is also true of other large digital platform companies such as Facebook and Amazon, which are familiar corporate entities and are both companies. But they are also platforms, in effect marketplaces that provide infrastructure for a local and specific economy, matching buyers and sellers, providing rules and governance services, managing identity, providing security, and even experimenting with offering their own money (e.g., Facebook is currently experimenting with a private money called Diem, developed from an earlier experiment called Libra). While it is technically correct to call these large companies, they are also, to the extent that they provide much of their own economic infrastructure, a type of small economy. The layer 1 protocols of Bitcoin and Ethereum, as with the next generation of layer 1 blockchains such as Cosmos and Agoric, are arguably better understood as startup digital economies, rather than as firms per se. Indeed, they will often form a company or foundation to manage the launch (or bootstrap) phase.

In the transition from an industrial to a digital economy, some large firms are industrial and some are digital. Almost all the digital firms are platforms, and the new blockchain firms are exclusively platforms in the form of protocols. Large industrial firms are a legitimate target for concern with respect to anticompetitive behavior, but a standard should still be met with respect to manifest harm. However, the large digital firms, many of which are very young (Google was founded in 1997, Facebook in 2004, and the Bitcoin protocol was written in 2008), are better understood as innovative new economic infrastructure. The transition from an industrial to a digital economy requires this infrastructure, and in almost every case, governments have utterly failed to provide it, while the private sector has produced, and continues to competitively produce, high-quality functional and operational digital infrastructure (what Davidson et al., 2018 call "institutional technologies").

5 Conclusion

This chapter has offered a critique of Mazzucato et al.'s (2021) view of the platform economy. In particular, Mazzucato et al. argue that the entrepreneurial state should regulate big tech. The basis for this view is a combination of fallacy, error, and political choice. The combination of these factors drives toward a conclusion that the platform economy adds little or no value to the economy and subsequently should be heavily regulated in an internationally coordinated manner. For example, the European Union wishes to tax U.S. multinational corporations but is deploying competition policy in order to do so, and Australia has already gone down this path. To derive this perverse result, it is necessary to refocus competition or antitrust policy away from the concept of consumer protection and toward either targeting size per se, or introducing notions of unequal bargaining power among suppliers.

The notion that big tech platforms should be considered *social infrastructure* is code for very high levels of regulation, if not outright nationalization. These political outcomes are justified by the reintroduction of fallacy (i.e., classical rent) and error (i.e., that advertising does not benefit consumers). Modern economic theory employs the concept of rent as being a gift from government. Classical economics viewed rent as a gift of nature. As a theoretical concept, *rent* explained away anomalies in the classical theory of value. In particular, classical rent masks the role of entrepreneurship in the modern economy.

Platforms are an entrepreneurial innovation, not an exercise in harvesting classical rent that can then be taxed with no deadweight loss. Ignoring information costs in the economy leads to the error that advertising plays no efficiency role in the economy. Ultimately, Mazzucato et al. draw attention to the (digital) platform economy's difference from the industrial economy, but then analyze it using outdated economic frameworks. Unsurprisingly, they fail to appreciate the value of the platform economy and view it with traditional hostility. To paraphrase Ronald Coase (1974), they have seen something they do not understand, or do not like, and have reached for a monopoly explanation.

References

Andreessen, M. (2011, 20 August) Why software is eating the world'. Wall Street Journal.

Berg, C., & Davidson, S. (2017). Nudge, calculation, and utopia. *Journal of Behavioral Economics for Policy*, 1, 49–52.

Berg, C., Davidson, S., & Potts, J. (2019). *Understanding the Blockchain economy: An introduction to institutional Cryptoeconomics*. Edward Elgar.

Coase, R. (1974). The lighthouse in economics. *Journal of Law and Economics*, 17(2), 357–376.
Davidson, S., de Filippi, P., & Potts, J. (2018). Blockchains and the economics institutions of capitalism. *Journal of Institutional Economics*, 14(4), 639–658.

Demsetz, H. (1968). The technostructure, 46 years later. *Yale Law Journal (March)*. Reproduced in Harold Demsetz. (1989). Efficiency, competition, and policy. Basil Blackwell.

Dorsey, E., Manne, G., Rybnicek, J., Stout, K., & Wright, J. (2020). Consumer welfare & the rule of law: The case against the new populist antitrust movement. *Pepperdine Law Review*, 47, 861–916.

Foldvary, F. (2002). Site-value taxation and the rule of law. In D. Racheter & R. Wagner (Eds.), *Politics, taxation, and the rule of law: The power to tax in constitutional perspective.* Kluwer Academic Publishers.

Foldvary, F. (2004). Public revenue from land rent. In J. Backhaus & R. Wagner (Eds.), Handbook of public finance. Kluwer Academic Publishers.

Galbraith, J. (2001). The essential Galbraith. Edited and selected by Andrea Williams. Houghton Mifflin Company.

Goldfarb, A., & Tucker, C. (2019). Digital economics. *Journal of Economic Literature*, 57(1), 3–43.

Hayek, F. (1960). The constitution of liberty. Liberty Fund.

Kahn, L. (2017). Amazon's antitrust paradox. Yale Law Review, 126, 710-805.

Knight, F. (1921). Risk, uncertainty and profit. Augustus M. Kelley.

Mazzucato, M. (2013). The entrepreneurial state: Debunking public vs. private sector myths. Anthem Press.

Mazzucato, M., Kattel, R., O'Reilly, T., & Entsminger, J. (2021). Reimagining the platform economy. *Project Syndicate*. https://www.project-syndicate.org/onpoint/platform-economydata-generation-and-value-extraction-by-mariana-mazzucato-et-al-2021-02?

McCloskey, D., & Mingardi, A. (2020). The myth of the entrepreneurial state. American Institute for Economic Research.

Mises, L. (1949). Human action: A treatise on economics. Fox & Wilkes.

Potts, J. (2011). Evolutionary economics of creative industries. Edward Elgar.

Potts, J. (2019). Innovation commons: The origin of economic growth. Oxford University Press.

Potts, J., Cunningham, S., Hartley, J., & Ormerod, P. (2008). Social network markets: A new definition of the creative industries. *Journal of Cultural Economics*, 32(3), 167–185.

Ricardo, D. (1996) [1817]). Principles of political economy and taxation. Prometheus Books.

Rochet, J., & Tirole, J. (2003). Platform competition in two-sided markets. *Journal of the European Economic Association*, 1(4), 990–1029.

Schrepel, T. (2019). Antitrust without romance. SSRN working paper https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3395001

Schumpeter, J. (1939). Business cycles: A theoretical, historical, and statistical analysis of the capitalist process. McGraw-Hill.

Schumpeter, J. (1942). Capitalism, socialism, and democracy (3rd ed.). Harper and Brothers.

Schumpeter, J. (1954). History of economic analysis. Oxford University Press.

Shapiro, C. (2018). Antitrust in a time of populism. *International Journal of Industrial Organization*, 61, 714–748.

Smith, A. (1976) [1776]). An inquiry into the nature and causes of the wealth of nations. University of Chicago Press.

Stigler, G. (1976). Do economists matter? Southern Economic Journal, 42(3), 347–354.

Wu, T. (2019). The curse of bigness: Antitrust in the new gilded age. Columbia Global Reports.

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