JEPP 13,1

94

Received 4 October 2022 Revised 12 May 2023 Accepted 25 June 2023

Mr. Smith goes to flatland: institutions, public policy and the bossless company

Matthew McCaffrey

Masood Entrepreneurship Centre, Alliance Manchester Business School, The University of Manchester, Manchester, UK

Abstract

Purpose – This study aims to explore a range of institutional, environmental and policy conditions that influence the creation of "bossless" or "flat" companies, i.e. firms with little or no formal hierarchy.

Design/methodology/approach – The author builds on the theory and evidence presented by Foss and Klein (2022) in their study of the costs and benefits of organizing without hierarchy. The author also draws on a variety of related theoretical insights and empirical evidence. The paper is exploratory and anecdotal though and is intended to motivate further research rather than provide a definitive account of bossless organizing. Findings – The paper develops nine propositions. It suggests that high levels of economic freedom create maximum scope for entrepreneurs to experiment with different organizational forms (1). Likewise, a lack of economic freedom increases the scope for the government to experiment (2). Markets characterized by technological innovation and uncertainty are likely to discourage bossless organizing (3 and 4), while stagnating industries with major capital requirements are likely to encourage it (5). Labor market interventions that increase the cost of employment contracts sometimes encourage firms to flatten (6), but more generally, these interventions encourage expanding management layers (7). In environments with strong intellectual property (IP) laws, companies with more modular and knowledge-based work are more likely to flatten (8). The creation of low-hierarchy firms such as cooperatives is encouraged by public subsidies, access to cheap credit and preferential tax treatment (9).

Originality/value – Studies of bossless or flat firms focus almost exclusively on describing their internal organization and evaluating their performance; little attention is paid to the conditions that encourage or discourage the emergence of these firms. This paper focuses on the latter, with a view to encouraging more scholarly interest in this field.

Keywords Entrepreneurship, Organization, Hierarchy, Management, Bossless firms, Flat firms **Paper type** Viewpoint

1. Introduction

In their book *Why Managers Still Matter: The Perils of the Bossless Company* (2022), Nicolai Foss and Peter Klein critically evaluate the theory and practice of abolishing management hierarchy in business firms. They focus especially on the "bossless narrative," the idea that essentially all businesses should flatten their organizations, remove management roles and, ideally, eliminate authority relations and hierarchy altogether. Although a seemingly radical proposal, Foss and Klein explain that the bossless narrative has existed in various forms for decades, if not centuries. Some of its key themes were present in the cooperative movement in the 19th century, for instance, while others have appeared more recently in the "business process reengineering" and "downsizing" trends of the 1990s (Thompson, 1994; O'Neill and Sohal, 1999; Morris *et al.*, 1999). The bossless narrative has grown especially popular over the last thirty years, to the point that it is now a pet philosophy of many management gurus and academic researchers.

Among the latter group especially there is a growing literature seeking to understand the unique strengths and weaknesses of bossless organization (e.g., Foss, 2003; Wulf, 2012; Puranam and Håkonsson, 2015; Lee and Edmondson, 2017; Möller and McCaffrey, 2021;



Journal of Entrepreneurship and Public Policy Vol. 13 No. 1, 2024 pp. 94-110 © Emerald Publishing Limited 2045-2101 DOI 10.1108/IEPP-10-2022-0102

and the

bossless

Institutions

Baumann and Wu, 2022) [1]. Despite the vogue of bossless firms, however, there is relatively little research or high-quality data on their comparative performance (Wulf, 2012; Foss and Klein, 2022, pp. 117–118). As a result, scholars are calling for further empirical work, but also for more theorizing about flat companies, especially about the kind of institutional settings in which they thrive and their relation to public policy (McCaffrey, 2022). This essay takes a step toward answering these calls by raising some key questions regarding the entrepreneurial aspects of bossless or flat organizations. Specifically, we inquire whether certain institutions, environmental conditions and policies are likely to encourage entrepreneurs to experiment with bossless firms or with eliminating managerial hierarchy.

Some caveats are necessary at the outset. To begin, our discussion is not comprehensive; it is exploratory, drawing together economics and entrepreneurship literature to help motivate future research. We also stress that our arguments are not criticisms of bossless organizations, or of cooperatives, or any of the specific firms we mention, nor do we argue that bossless or flat companies are doomed to failure: they obviously can and do succeed in the right circumstances. Rather, the argument builds upon the theory and evidence presented by Foss and Klein (2022) by examining several conditions that influence entrepreneurs' choice to eliminate managerial hierarchy in favor of flatter, more bossless companies. These conditions alter the costs and benefits of organizing, thereby creating incentives to grow or shrink a hierarchy. The factors studied are economic freedom, technological innovation, uncertainty, industry stagnation with large capital requirements, labor market interventions and specific public policies (subsidies, access to cheap finance and preferential tax treatment). This brief survey finds that incentives to abandon hierarchy and traditional boss roles emerge under a variety of external conditions.

In exploring these conditions, our discussion draws on both "static" and "dynamic" cases. In statics, the optimum form of organization is determined by external factors. For example, in an unhampered market it may be more efficient for a given firm to employ few managers in a flat hierarchy. However, in a hampered market in which the government subsidizes carbon net-zero businesses, it may be optimal for the same firm to restructure its organization to ensure compliance by expanding its management hierarchy. Static cases thus tell us about which specific types of organization suit particular circumstances. In dynamic cases, however, conditions are more open-ended and uncertain, because external conditions influence factors like the selection environment of firms rather than their direct incentives. For example, in a hampered market in which government commits to bailing out failing auto manufacturers, poorly performing firms survive that otherwise would have gone bankrupt and exited the industry. This results in a different mix of firms in the industry than would have prevailed without the bailouts, but ex ante, we cannot say what kinds of organizational forms these companies might take [2]. Dynamic cases mainly tell us about factors that enable entrepreneurs to experiment with different types of organization, without telling us exactly which types they will choose. They are thus most valuable when complex effects can be disaggregated and linked specifically to definite forms of organization.

2. Defining terms

Business hierarchy is a form of authority, "the right to choose an action for another person, out of the set of that person's possible actions" (Foss and Klein, 2022, p. 166). A crucial purpose of managerial authority is to define a decision-making framework for employees: managers facilitate employee work by outlining "the rules of the game" within the company rather than specifying the actions of the players. Hierarchy is not therefore "command and control," but a means of facilitating choices, especially under uncertain and time-sensitive conditions (Foss and Klein, 2022, p. 149; Foss and Dobrajska, 2015).

In contrast, bossless firms attempt to do away with hierarchy and authority, replacing them with greater employee autonomy. There are a variety of ways this can be done, but the general theme of the bossless narrative is to empower workers by freeing them from managerial oversight and rigid chains of command. Proponents of bossless companies advance many reasons why such firms are likely to be more successful than their more traditional counterparts (e.g., Semler, 1989; Kastelle, 2013). The most commonly cited are that they eliminate unproductive management positions and layers within the company, remove unnecessary bureaucracy and micromanaging, reduce waste and encourage employee initiative and creativity (Wulf, 2012; Lee and Edmondson, 2017).

When taken to an extreme, the process of eliminating hierarchy leads to "flatlands," firms in which employees work almost entirely without direction or authority. In practice, there are few firms that fully achieve this goal and bosslessness exists on a spectrum of varying degrees of authority. Yet, many firms have embraced the bossless narrative, and there are likewise many methods a firm can use to reduce its hierarchy, such as by delayering the organization (cutting out middle management roles) or decentralizing decision-making within it (e.g. by encouraging top management to delegate more). Thus, firms become flatter by removing traditional managerial authority relations, which are replaced by, for example, self-organizing teams who choose their own projects and decide "democratically" which tasks will be pursued by the firm. The most commonly cited examples of successful bossless firms are companies like W.L. Gore, Morning Star, Oticon, Zappos and Valve. Valve in particular is a poster child for flat companies (e.g., Crossley, 2011; Kastelle, 2013) and has enjoyed tremendous financial success, being rumored to be worth around \$4 billion. We return to the Valve case several times in the following discussions.

Foss and Klein's (2022) thesis is that although the bossless companies are exciting and are advertised as revolutionary, in practice, they tend to work only under special conditions. The reason is simple: there are costs as well as benefits to abandoning hierarchy, and they are not the same for all companies at all times: "the design of a company is *contingent* on the key elements of the business environment—products, markets, technologies, and worker preferences" (Foss and Klein, 2022, p. 89; emphasis in original). Ultimately then, "there are no universally "best" solutions to organizational problems, only trade-offs that depend on the contingencies facing the company" (Foss and Klein, 2022, p. 237; emphasis in original). The remainder of this paper explores some of the above-mentioned contingencies and how they affect the costs and benefits of bossless organizing.

Because this is an exploratory rather than a systematic study, we have been highly selective in choosing topics. To make the overall narrative more organized and less chaotic then, we have grouped these topics under two main headings: institutional and environmental issues (discussed in section 3) and policy issues (discussed in section 4). Of course, these are not clear-cut categories, as they tend to blur into each other and often involve degrees of embeddedness and mutual influence. But they serve to organize what follows.

3. The role of institutions and the business environment in bossless organization As William Baumol argued, the relative rewards to different kinds of activities have a profound impact on the way entrepreneurs choose to channel their talents (Baumol, 1990). If the rewards to rent-seeking are high relative to those for serving consumers, we should expect to see more unproductive rent-seeking and less productive market entrepreneurship. However, this principle is not limited only to entrepreneurs' choices about which professions or industries to enter. It also applies to their decisions about how to structure firms. In other words, the relative payoffs to entrepreneurship have an organizational dimension: if the "rules of the game" (institutions) or other factors (e.g., environment or policy) increase the perceived rewards to organizing differently, we should expect to see more variation.

This point is also closely related to Ronald Coase's famous contrast between the firm and the market as alternative methods of organizing (Coase, 1937; Klein, 1996). Entrepreneurs

and the

bossless

Institutions

in the market economy use economic calculation to appraise the costs and benefits of modifying the structure and boundaries of their organizations (Mises, 1949; Klein, 1996; McCaffrey, 2018). In this context, it is a truism to say that any decrease in the relative cost of experimenting with organization makes experimentation more attractive. Nevertheless, this basic truth plays out in many different ways under different institutional, environmental and policy arrangements. Some of these are explored below.

Historically, most entrepreneurs have chosen to create firms with traditional management hierarchies because they believed that such organizations would lead to the greatest relative rewards, whether those rewards were financial or otherwise. This broad empirical fact by itself hints that there are large perceived costs associated with abandoning hierarchy: if not, we would expect to see more bossless organizational experiments. This is especially worth noting because there are, to our knowledge, no explicit regulations outlawing the creation of bossless companies, whether as corporations or other legal entities. Yet flat or nearly-flat firms remain a small minority of companies, despite their seeming popularity, indicating that entrepreneurs are unconvinced of the economic benefits of abandoning hierarchy. Nevertheless, relative rewards do raise important questions about which institutional settings encourage experimentation with bossless models.

3.1 Economic freedom

There is a well-known association between entrepreneurship and economic freedom (Kreft and Sobel, 2005; Nyström, 2008; Bjørnskov and Foss, 2012). In fact, in a sense, they are two sides of the same coin, because a crucial part of economic freedom is the freedom for entrepreneurs to plan and create business ventures as they think best. As a result, almost by definition we observe far more innovative entrepreneurial activity in regions with high levels of economic freedom than those with low levels (e.g., Zhu and Zhu, 2017). It follows naturally that just as entrepreneurs in free markets have greater scope to experiment with new products and processes, so too do they have more room to experiment with innovative organizational models, when permitted.

P1. Greater levels of economic freedom provide entrepreneurs with greater scope and potential for experiments with organizational design.

It might seem then that higher levels of economic freedom are conducive to the emergence of a larger number of bossless firms. However, this conclusion would be premature: more experimentation does not mean that entrepreneurs will choose any particular type of organization, only that they will have the most choice and greatest opportunities to find the types that work best for them. And what "works" is ultimately a matter of the perceived costs and benefits of organizing. In fact, the historical record does not suggest that greater economic freedom alone is likely to lead to fewer hierarchical firms; if anything, the reverse appears to be the case. To take two opposing examples, in the United States, the modern corporate hierarchy emerged and flourished at the end of the 19th century, a period of relative and growing economic freedom (Prados De La Escosura, 2016; Foss and Klein, 2022, pp. 140-145). At the same time, the disappearance of economic freedom, as for instance under socialist or communist regimes, is often associated with a greater emphasis on cooperatives or similar organizations with little or no formal, traditional hierarchy (e.g., Ong, 2006; Gijselinckx and Bussels, 2014) [3]. Cooperatives in particular continue to be presented as alternatives to the evils of the corporation and modern capitalism (Ellerman, 1997). Although researchers often argue that the principles of cooperation were simply distorted by authoritarian regimes (Chloupkova et al., 2003; Ong, 2006; Gijselinckx and Bussels, 2014), cooperatives were nevertheless far more common under such regimes in the 20th century than in relatively freemarket Western countries [4].

At present, the majority of firms that pride themselves on being bossless or nearly bossless are based in the United States, specifically, in California, in and around Silicon Valley, California regularly scores at the bottom of rankings of economic and personal freedoms among the 50 states (e.g., Stansel et al., 2021). Furthermore, in the later 20th and early 21st centuries, countries in which flatter companies thrived were often those with heavily interventionist economies. In India, cooperatives featured prominently in the first five-year plans and were intended to play a crucial role in economic planning (Dubhashi, 2005). Similarly, the Mondragon cooperatives were founded in Spain under a repressive political regime that dictated wages and controlled substantial parts of the post-war economy. This economy was so weak that "businesses did not have to be very good to succeed" (Clamp, 1999, p. 9). Today, the same cooperatives continue to enjoy success even as Spain continues to score relatively poorly in measures of economic freedom, especially in areas like credit market and labor market regulation (Gwartney et al., 2022, p. 160; see below for more on these issues). Many more examples could be listed. A common thread in these historical cases is that they are driven by a combination of anti-capitalistic (basically, antihierarchy) ideology and top-down economic planning. Insofar as this is the case, they provide a foil for the market-based experimentation discussed above. Almost by definition, a lack of economic freedom increases state control over economic affairs, including the power to encourage or enforce organizational change.

P2. Lower levels of economic freedom provide greater scope for policymakers to encourage or impose experiments with organizational design.

Anecdotally then, there is not an obvious connection between high levels of economic freedom and the emergence of bossless firms. This does not prove, however, that economic freedom encourages traditional hierarchy, nor does it prove that a lack of economic freedom encourages flatter organizations. Growth and development are complex and many factors besides economic freedom influenced their course in the 19th and 20th centuries. Rather, our point is that economic freedom alone does not seem to explain where and why entrepreneurs experiment with removing hierarchy, which seems to happen for many different reasons and under various institutional settings. As we explain below, in some contexts, a lack of economic freedom appears to expand managerial authority, whereas in some specific cases, it incentivizes flatter organizing. Furthermore, the absolute number of bossless firms is still small around the world and represents a tiny portion of existing companies. The exact numbers are unknown because there is currently no effective way to measure; nevertheless, if a relatively high level of economic freedom were all that was required for them to emerge, we would expect regions like Singapore, Switzerland and Estonia to boast many bossless firms. Yet, no such trend exists at the moment.

3.2 Technological innovation

The pace of technological innovation is another crucial aspect of the business environment that influences organizational decisions. Two questions are worth mentioning: first, whether an innovative business environment encourages bossless organizing and second, whether bossless firms themselves are more innovative than their competitors. In this subsection we address these questions together. As with economic freedom, though, the results may at first seem counter-intuitive. Supporters of the bossless narrative typically argue that abolishing hierarchy in firms will eliminate bureaucratic micromanaging and pave the way for more innovative, worker-led projects that are more agile and adaptable. If this is the case, it is reasonable to think that bossless companies are in a good position to respond to the needs of rapidly changing industries driven by technological progress.

Institutions

Importantly though, an innovative technological setting may not be conducive to organizational innovation; in fact, evidence suggests the opposite is true. Rapidly changing technology requires firms in competitive environments to make quick decisions to keep up, and this is something that many flat companies struggle to do. To take only one example, Valve Corporation was faced with a choice between keeping its flat organization and maintaining its commitment (and even its very ability) to create innovative software (video games). It chose to largely abandon software development rather than sacrifice its bossless model (Möller and McCaffrey, 2021). In other words, firms cannot have their cake and eat it too, and there are often tradeoffs between different forms of innovation, e.g., between product and organizational innovation. Further, organizational change is more long-term and potentially carries wider and deeper implications for company life and performance than conventional product innovation, making it less attractive to risk-averse firms.

More generally, while it is true that change requires flexibility, bossless firms are not necessarily more innovative than hierarchical firms. Speaking of the historical cooperative movement, the economist Ludwig von Mises wrote that,

there is no record of any important innovation which owes its introduction to the cooperatives. While private business, overburdened by taxes from which the cooperatives are exempt, improves, year by year, the quality and increases the quantity of products and fills the markets with new articles unheard of before, the cooperatives are sterile. (Mises, 1990 [1947], p. 240)

Along these lines, lack of guidance from management can lead to creative inertia and decision paralysis—as again illustrated by Valve, which has struggled with these exact problems for years (Möller and McCaffrey, 2021). In more traditional companies, managers play a facilitating role, crafting rules and guidelines for decision-making that are put into practice by employees. By striking the right balance of generality and specificity, effective managers allow employees to use their own best judgment to respond quickly to changing conditions, for instance, by creating simple rules (Eisenhardt and Sull, 2001; Foss *et al.*, 2022). Of course, this does not imply that formal hierarchy is always more flexible, or that it is never a good idea to flatten an organization. It simply means that, for many firms, some degree of hierarchy is necessary and desirable.

Globalized trade has taken advantage of technological change to open vast new labor markets and enable companies in the developed world to offshore significant numbers of jobs. At the same time, technological advances have made many businesses more modular and specialized. This, in turn, means less vertical integration and more outsourcing of different parts of the production process. Yet there are still plenty of managerial responsibilities to go around even in less vertically integrated firms: "Even a broken-up value chain requires a managerial hierarchy to organize, supervise, adjust, and sometimes renegotiate the operations at each stage of production" (Foss and Klein, 2022, p. 108). The scope of the activities that are feasible within management hierarchy may be shrinking for some companies, but it is not disappearing altogether (Foss and Klein, 2022, pp. 104–109).

Given these issues, it should come as no surprise that, as indicated above, traditional firm hierarchy became the dominant business form in the late 19th century, an era of rapid technological innovation and global economic expansion (Foss and Klein, 2022, p. 144). We do not suggest a simple causal relationship between these facts. Nevertheless, traditional management has stood the test of time and endured countless waves of technological change—even innovations that enabled flatter organizations. These last include computing and Internet technologies that make work more modular and outsourcing and spinoffs more feasible, seemingly reducing the need for managerial oversight and coordination (Foss and Klein, 2022, pp. 103–111, 238–240). Yet throughout these sea changes, bossless companies have remained the exception rather the rule. Further, even successful firms like Morning Star and Valve are not obviously more innovative than their more traditional competitors. Once

again, these general examples do not definitively answer the question either way, but they do imply that the relationship between bossless organizing and innovation is complex and requires tradeoffs, especially tradeoffs between different types of innovation.

P3. Other things equal, firms facing rapid technological change will exhibit less experimentation with flatter organizational design than firms for which technological change is slow or stagnant.

3.3 Uncertainty

Economists have argued for centuries that uncertainty is a crucial aspect of the entrepreneurial market process. The fact that production takes place in time means it is necessary to speculate about the future when planning any action. In the marketplace, this implies uncertainty-bearing by entrepreneurs, who use judgment to appraise future prices. There are many potential causes of uncertainty in this process, including changing consumer preferences, the introduction of new technologies and weak institutions (e.g., Bylund and McCaffrey, 2017; Packard *et al.*, 2017; Bylund and Packard, 2022), each of which carries implications for entrepreneurs deciding how to structure their firms.

Similar to technological innovation as discussed above, uncertainty requires prescient decision-making, often in time-sensitive conditions and using scarce resources that have different potential uses within the firm. In this context, "A well-structured hierarchy helps firms buffer unanticipated shocks" (Foss and Klein, 2022, p. 242). Managers establish strategic priorities and rules for how to use resources (Eisenhardt and Sull, 2001) and can also negotiate any resulting conflicts between the parts of the firm that get the resources they want and those that do not. This is all difficult if not impossible to do, however, if there is no authority to which to appeal. In a bossless firm, actors may be unwilling or unable to cope with uncertainty without some form of hierarchy to aid in decision-making. Oliver Williamson describes disturbances or uncertainties that arise within organizations that

require coordinated responses, lest the individual parts [of the organization] operate at cross-purposes or otherwise suboptimize. Failures of coordination may arise because autonomous parties read and react to signals differently, even though their purpose is to achieve a timely and compatible combined response . . . Although, in principle, convergent expectations could be realized by asking one party to read and interpret the signals for all, the lead party may behave strategically—by distorting information or disclosing it in an incomplete and selective fashion. (Williamson, 1991, p. 278) [5]

As Williamson points out, individuals can and often do interpret signals and other stimuli differently, which can lead to conflict. In addition, different interpretations enable strategic behavior. Of course, even if it is feasible to resort to authority to interpret signals in a consistent way, as Williamson suggests, this would appear to embrace hierarchy and abandon the bossless narrative. Conventional hierarchies are usually designed to avoid hidden information problems like moral hazard by ensuring effective monitoring and incentives. But in a flat firm in which all employees are on an equal footing, it is unclear how this could be done. One approach, used by companies like Valve, is to use a peer-review system to track performance and compensation, but these kinds of methods are prone to abuse, especially through informal authority relations or powerful personalities (Foss and Dobrajska, 2015).

We cannot know without investigating whether situations requiring a coordinated response are more common than alternative scenarios when management is unnecessary. Yet the evidence clearly shows that coordination is necessary in at least some cases. And if hierarchy can help mitigate uncertainty in certain conditions, it is reasonable to infer that firms without hierarchy will be at a disadvantage when faced with those same conditions.

Abolishing hierarchy is not a viable solution for all organizations. A lack of hierarchy creates uncertain by removing the possibility that conflicts can be easily resolved through appeal to a higher authority. This uncertainty in turn makes action more costly and discourages behavior that could potentially lead to conflict.

P4. Other things equal, entrepreneurs who perceive significant uncertainty in the environment will experiment less with flatter organizational design than entrepreneurs who do not perceive significant uncertainty.

This also hints that bossless firms will find it easier to thrive in more stable and certain environments. Yet uncertainty is the rule in the market economy, while stability and certainty are exceptions. So which kinds of institutional environments or environmental conditions are most likely to create stability and incentivize more firms to de-boss? Two possible examples are stagnant industries and industries hampered by significant government intervention.

3.4 Industry stagnation and capital requirements

Industries can stagnate when, e.g., competition is fierce, technological development peaks, product development slows, consumers are brand-loyal and profits are correspondingly low. In these more secure and less uncertain scenarios, established firms with secure market share have greater opportunities to flatten; in fact, reducing management hierarchy may be the only viable strategy for a firm with increasingly slim margins, if it cannot cut costs or increase revenues in more conventional ways. This is an internal incentive that encourages less hierarchical organizing.

Importantly, stagnant industries also face external threats of innovation that challenge industry leaders and require radically reshaping organizations. A now-familiar example is Netflix revolutionizing the video rental industry, and many other disruptive companies fall into a similar pattern. Traditional rental businesses required significant land and capital assets for brick-and-mortar locations. Netflix completely changed these asset requirements by eliminating the need for multiple physical business locations, replacing them with distribution warehouses. Netflix's success thus produced a company that was flatter than its established competitors, because requiring fewer assets, franchise locations, etc., also meant a reduced need for coordination through hierarchy (Uber, discussed below, offers a similar case). Moreover, by changing asset and ownership requirements, Netflix also changed the way firms in the industry could be feasibly organized, and the traditional rental industry disappeared as a result. A stagnant industry with large capital requirements created an ideal opportunity for a low-asset, low-hierarchy competitor. It should be clear then that innovation can work in favor of bossless firms—when the conditions are right.

P5. Other things equal, stagnant industries with large capital requirements will exhibit more experimentation with flatter organizational design than dynamic industries with lower asset requirements.

4. The role of public policy in bossless organizing

The previous section examined some general institutional and environmental conditions that affect the formation of bossless firms. The present section looks at more specific policies and how they affect the costs and benefits of organizing without hierarchy. There is no specific mention of abolishing managerial authority in the legislation or regulatory codes of any counties of which we are aware, and no particular policies relating explicitly to hierarchy as such. However, as explained above, there are countless ways in which the internal structure of businesses can be subtly shaped by legislation and regulation.

For instance, more general government intervention at the industry level significantly affects the costs and benefits of organizing and can make bossless firms more feasible than they would be under conditions of no intervention. A useful example is the Dutch company Buurtzorg Nederland. Buurtzorg is a flat organization that uses teams of self-organizing nurses to provide home health care across the country. It was founded in 2006 to address problems in care delivery that arose due to the bureaucratization and inefficiency of many Dutch health care companies (Nandram, 2015). The industry in the Netherlands up to that time had experienced a long history of growing state involvement with, and regulation of, healthcare provision that made it difficult to provide wide-ranging and cost-effective care (Jeurissen and Maarse, 2021). These issues necessitated some market-based reforms in 2006, the same year Buurtzorg was founded. The environment was ideally suited to a flatter organization, as there was a need to reduce overhead costs by removing management layers (Nandram, 2015, pp. 18–20, 136, 158–159), Moreover, the firm was founded in response to perceived problems in a health care industry that was certainly not free and competitive and even the post-reform Dutch health care system, although more based on competition between providers, continues to combine state regulation and private provision. In other words, Buurtzorg was neither created as a response to conditions in a competitive market, nor has its success occurred under such conditions. It is rather a second-best solution in response to an industry needing fundamental reforms. If anything, the appeal of flatter models to governments is illustrated by the fact that Buurtzorg's organizational model has been trialed in Wales by the National Health Service (Wallace et al., 2020) and in other countries with mainly publicly funded healthcare, such as Sweden (which uses a public but decentralized local administration of care that fits well with Buurtzorg's approach).

4.1 Labor markets

All management hierarchies involve different roles or functions that are determined by authority relations. Entrepreneurs, as the ultimate decision-makers within the firm, must estimate the costs and benefits of each role and relationship to determine the best organizational structure. A direct implication is that the relative costs of different kinds of employment contracts matter greatly when designing business organizations. Factors that drive up the cost of traditional labor relations likewise encourage experimenting with alternative models that economize on the costs of hierarchy. Exactly which alternatives will be most attractive though depends on the particular circumstances of the firm. What is more, government interventions can provide conflicting incentives to the same company.

For instance, laws mandating employer-provided health insurance coverage, maternity leave, or other benefits that make employment contacts more costly, encourage firms to reduce the number of people who are classified as employees. Uber drivers are a commonly cited example: the company treats them as independent contractors, so they are often exempted from benefits schemes on the grounds that they are not legally employees (Bales and Woo, 2017). Uber inevitably has many more drivers than it does management positions and, therefore, flattening or delayering at the lowest level of the company is much more costeffective than at higher levels. This is in the nature of the work Uber does; under different cost conditions, managers could be the more expensive layer. Like Netflix, Uber is not completely flat, but it is a significant example of a company that flattened relative to competitors, e.g., traditional taxis. The app-based contractor model eliminated the need for the company to own or maintain fleets of vehicles while economizing on regulatory compliance. Uber is not a perfect example though, because while was able to remain relatively flat, it was not necessarily more bossless; for several years after its founding it maintained a traditional management structure and simply delayered at the bottom. But the overall point we wish to make is that the choice to avoid traditional employment contracts was driven by Uber's

Institutions

specific cost structure: different firms face different relative costs, and it is perfectly plausible that, for other companies, middle management is the costliest layer. Incidentally, the Uber case does have some relevance for bossless organizing, as it appears that the contracting model enabled Uber to eventually flatten its organization at the top as well. Roles like Chief Operating Officer and Chief Marketing Officer have more recently been eliminated as the top management team has been delayered and more direct communication established between the chief executive officer (CEO) and the remaining roles (O'Brien, 2019).

Similar effects can be expected from other interventions into labor markets: high minimum wages discourage employers from hiring traditional employees, because self-employed persons are exempted from minimum wage rules. Unionization incentivizes changing workers' legal status to sidestep collective bargaining laws. Each of these interventions rewards flatter companies that remove either layers of employees (receiving benefits) or managers (overseeing compliance, etc.), depending on their relative costs. In both cases though, rank-and-file employees are more likely to be affected, as management is far less likely to have wages near the legal minimum, or to want to encourage union activity. And crucially, absent these labor market interventions, there would be less economic reason to reorganize companies by delayering or otherwise downsizing to begin with. In this light, the actions of companies like Uber appear less like market innovations and more like reactions to increasing labor market regulation.

P6. Other things equal, labor market interventions make traditional labor contracts relatively high-cost and make alternative contracts relatively low-cost.

However, outside the specific labor market conditions discussed above, there is a more general incentive in the opposite direction. That is, government intervention can also have the effect of incentivizing the expansion of the management hierarchy. In fact, practically all forms of intervention can influence the composition and/or the size of the management team in some way (Mises, 1944, pp. 69–71). The greater the risk and the impact of government regulation, the more costly it becomes, and the more necessary it is to devote resources to maintaining positive relations with government, by keeping up with regulatory compliance, lobbying for protections and privileges and so on. This eventually requires specialized management roles, often in middle management but reaching potentially to the highest levels of the firm. It is reasonable to argue that without interventions in labor markets, etc., these positions would become pointless and would be eliminated, thus flattening firms' hierarchies.

P7. Other things equal, increasing the cost of compliance with government intervention will result in larger management hierarchies.

4.2 Intellectual property rights

In general, barriers to entry limit competition and provide a kind of artificial stability for companies struggling to deal with uncertainty. In this subsection we discuss a specific example: legal protection through intellectual property (IP) laws. IP laws are particularly important given the business environment of the 21st century, which is increasingly technology-focused, online and service-based. In this context, property rights to intangibles take on greater importance than they did in traditional sectors like manufacturing and retail.

Flat or bossless firms appear more likely to succeed in legal environments in which IP rights are strongly enforced. Physical manufacturing requires a certain amount of centralization and/or coordination of production and, therefore, benefits from traditional management, whereas the production of intangibles is more likely to be modular and require less geographical proximity between employees and less direction of physical work, thus favoring a more bossless setting. As explained above, in general, the fewer interdependencies in work and the less significant uncertainty is perceived to be, the more likely it is that

removing hierarchy will be feasible. IP rights, which are a form of legal monopoly, allow firms to work within the relatively stable and predictable confines of the legal system, as opposed to the uncertain market. They "artificially" remove uncertainty and enable experiments with flatter organizations. Of course, knowledge-based firms can still face interdependency problems, so this barrier to entry is not a guarantee that companies will go bossless. Our point is that IP laws help create conditions in which this is more feasible.

Valve is again a prime example. It began as a software company (creating original video game IP), but it has since shifted to managing other developers' IP through Steam, its distribution platform and community hub. Although it has mainly given up software development, it is still active in designing and producing several other middleware and hardware products, including virtual reality (VR) headsets and portable gaming devices. However, these projects have met with mixed results in terms of financial success and, in any case, provide only a small part of the company's financial value. Yet in its role as publisher of thousands of games from third-party developers, Valve has taken on the task of Digital Rights Management (DRM) for much of the copyrighted content sold on Steam. For Valve, DRM is primarily a way to require players to use Steam in order to have access to their games. In fact, DRM transforms the nature of game sales; rather than buying a game outright, players now essentially buy a license to play the game through Steam. In other words, Valve's main platform business consists of managing a complex network of IP rights, whether its own or the companies' who publish through it. Without enforceable IP rights, the costs and benefits of running Steam would change substantially: mainly they would increase, because Valve would not be able to externalize the costs of enforcing its agreements to society at large via the legal system.

P8. Other things equal, in firms in which work is modular and knowledge-based, strong IP rights encourage relatively low-cost flatter organization and discourage relatively high-cost traditional hierarchy.

4.3 Subsidies, credit and preferential tax treatment

The legal and economic characteristics of bossless companies can also give them a distinct advantage over traditional firms when it comes to fiscal policy. It is difficult to find cases where public policy directly and explicitly incentivizes experimenting with alternative forms of organizing, but here again cooperatives provide an instructive example, because their form is explicitly recognized in the business law of many countries. (The early advocates of cooperatives even had their own "bossless narrative" in which democratic, worker-owned enterprises were supposed to replace industrial firms.) In addition, while most economists who study organization and the theory of the firm do not discuss bossless companies specifically, many write about the economic problems of cooperatives.

As with many companies seeking to reduce or eliminate hierarchy and install flatter, more "democratic" models, cooperatives have so far failed to entirely supplant traditional corporations. Already in the mid-20th century, Mises observed that cooperatives were "merely dim shadows of what they were designed to be in the ambitious schemes of their first promoters" (Mises, 1990 [1947], p. 238). Today they remain a small portion of businesses in most developed nations (Groot and van der Linde, 2017). Furthermore, to the extent that they have grown or internationalized, many cooperatives have often had to give up some of their original organizational structure or identity (e.g., Heras-Saizarbitoria, 2014). A full discussion of the costs and benefits of different cooperative models is beyond the scope of this paper. We also do not comment on any underlying arguments about the economics of cooperative organization (e.g., Hansmann, 1991). Instead, we use cooperatives as case studies of some ways in which fiscal policies support the creation of less hierarchical firms.

Contemporary researchers, particularly those who are supportive of cooperatives, frequently argue for the need for public subsidies or similarly favorable policies to support the formation of cooperatives and protect them from competition (e.g., Gunn, 2006, pp. 351–353; Molk, 2014; Groot and van der Linde, 2017). This should be unsurprising, as historically many successful cooperatives benefitted from policies such as subsidies, easy loan terms and tax exemptions (Porter and Scully, 1987). We discuss each in turn.

Rural electric cooperatives in the USA and other countries provide examples of direct government subsidies (Orzechowski, 2001; UNDP, 2009). More recently, the Affordable Care Act gave a \$2 billion subsidy to health care cooperatives in the USA (Molk, 2014, p. 901). Such subsidies are relevant because they target organizations with specific legal and ownership structures that are highly relevant to bossless companies, especially insofar as widely diffused ownership, such as exists in cooperatives, tends to mean flatter firms with fewer management layers—that is, more bossless firms. Naturally, subsidies make it more attractive to engage in certain kinds of business, or to use certain kinds of organization.

Cooperatives have also benefitted greatly from relatively low-cost forms of finance that are not always available to traditional corporations. They often have access to low-interest loans and loan guarantees backed up by local or national public organizations (e.g., Porter and Scully, 1987; Orzechowski, 2001; UNDP, 2009). The first Mondragon cooperative was founded by using a loan to buy an existing enterprise (Clamp, 1999, p. 10). And in addition to receiving favorable loan terms, organizations like credit cooperatives can also be in a position to grant better terms to their own customers. The Mondragon group again provides a useful example. Its early growth was driven by its creation of a credit union that financed further new cooperatives. The success of that financial institution was supported by Spanish law, which, at the time, "allowed payment of slightly higher interest by credit unions than by banks, adding incentive for savers to use [it]" (Gunn, 2006, p. 352).

Preferential tax treatment also plays an important role in creating favorable conditions for the emergence of flatter companies (Porter and Scully, 1987). It is well known that firms frequently respond to increased tax and regulatory burdens by restructuring and "slimming down" management by delayering. Crucially, higher tax levels create incentives to reduce the range of things that can be taxed. This can mean redefining the boundaries of the company, as in the above example of independent contractors. That approach eliminates the need for employers to make national insurance and other contributions for employees, especially highly-visible big-ticket employees like top managers. Lower tax levels make these burdens less onerous and encourage the formation of more traditional, hierarchical firms.

In countries like Estonia, Ireland, Mexico, Romania and the USA, financial cooperatives can qualify for income tax exemptions in certain circumstances (McKillop *et al.*, 2020). USA housing cooperatives have likewise received favorable tax treatment (Hansmann, 1991). More generally, Employee Stock Ownership Plans that diffuse ownership, making it more equitable and democratic, have proved valuable to companies because they come with large corporate tax deductions (Ellerman, 1997, pp. 75–81). In all these cases, there are rewards to flattening and eliminating hierarchy in firms. A practical case involves a recent change to USA tax law that provided greater tax savings to farmers who sold their products to agricultural cooperatives. This law motivated many smaller and family-owned producers to set up their own cooperatives (which were inevitably smaller and featured minimal hierarchy) and some larger firms to restructure in order to legally qualify as cooperatives and thereby receive the befits of the new tax breaks (Bunge and Rubin, 2018).

P9. Other things equal, subsidies, low-cost finance and preferential tax treatment for flatter firms encourage flatter organizational models and discourage traditional hierarchy.

5. Directions for future research

As should be clear from the preceding discussions, this paper is exploratory, suggestive and anecdotal. The reason is simple: despite much discussion and controversy, there is still very little systematic, reliable data on bossless companies and how they originate, perform and evolve. As a result, researchers are mainly limited to developing conceptual frameworks and core propositions until more and better empirical evidence can be assembled to rigorously test our hypotheses. There is still much to be done in both theoretical and empirical directions though, and the propositions developed throughout this paper can provide a basis for both. Propositions 1 and 2 are more conceptual and are intended mainly to provide theoretical grounding. Propositions 3 through 9 are closer to traditional empirically testable hypotheses. The latter can be studied in a variety of ways, but we focus mainly on firm-level studies.

A first challenge lies in properly identifying and measuring the number of bossless companies. This requires distinguishing between different types of low- or no-hierarchy organizations. There has been some progress in this direction, for instance, in classifying types of "self-managing organizations" (Lee and Edmondson, 2017). Nevertheless, researchers mostly still rely on ad hoc distinctions between cooperatives, "spaghetti" organizations like Oticon, "holocracies" like Zappos, "flatlands" like Valve and others. A more systematic classification would allow researchers to establish more clearly if and how companies are bossless, or where they lie on a spectrum of management hierarchy/authority. Ideally a single metric could be developed that could capture the idiosyncrasies of many different types of bossless models. Yet assuming there is no such universal measure, we can instead work toward identifying and quantifying the key aspects of flatter, non-hierarchical firms, to evaluate real companies across different margins. To take only one example, there is a need to better quantify autonomy and authority relations, both horizontally (e.g., individual vs. team-based work) and vertically (e.g., amount and strength of managerial authority). There is also the more difficult problem of measuring informal hierarchy and comparing it meaningfully to formal authority.

In any case, a dynamic database of bossless firms would give us a clearer idea of their population and would clear the way for a wide range of research studies on many types of low- or no-hierarchy firms. For instance, a more comprehensive listing will enable comparative work by allowing researchers to place different bossless firms, low-boss firms and traditional hierarchies operating in similar industries side by side. This is of course necessary for a fuller view of the costs and benefits of each type of organization in different circumstances. A crucial empirical question in this context is which firms benefit most from the institutional setting and public policy and what their relative effects are on hierarchy.

Along these lines, historical work is also necessary to track the emergence of bossless firms over time and investigate questions about whether they are becoming more or less prevalent relative to traditional firms. There is also the complex institutional question of which types of political regimes and other conditions encourage bossless organizing the most and how. Furthermore, there is a need for historical and institutional studies that can disaggregate the complex set of factors influencing the emergence of different types of hierarchy. For instance, studies of economic freedom can go beyond aggregate rankings of freedom and examine its individual components to see if, e.g., lower regulatory burdens have a greater effect on bossless firms than the size of government. At the same time, does economic liberalization encourage or discourage the creation of bossless firms?

And of course, reliable samples allow us to better analyze the specific relationships suggested above in propositions 3–9. This can be done using cross-sectional data, of course, but longitudinal studies are ideal, especially because bossless firms often struggle with growth and change, making it especially important to evaluate their behavior over time. The more specific and disaggregated the data, the easier it is to study the effects of specific policies, such as those discussed above in propositions 6–9. Once appropriate firms are

identified, empirical studies can use standard tools to measure factors like innovation (P3), IP enforcement (P8), or public policy benefits (P9), while firm performance can often be assessed using publicly available data. Other factors, like entrepreneurs' estimates of uncertainty (P4), require further primary investigation beyond the firm level. Interviews with founders or other major figures within bossless firms can provide alternate sources of insight into their functioning (e.g., Felin and Powell, 2016). One major question in this area is whether there are differences between the branding and publicity aspects of bossless organizing (i.e. the claims made by its cheerleaders) and its economic realities (e.g., whether it is financially viable, whether it scales, to what extent hierarchy really can be abolished).

6. Conclusion

"Bossless" firms are a continuing source of controversy amongst researchers and practitioners in disciplines like organization studies and entrepreneurship. Yet, there has been surprisingly little discussion of the kinds of conditions in which these companies are likely to emerge, or in which existing companies are likely to restructure to eliminate management hierarchy. This paper begins to fill this gap by discussing a series of institutions, environmental conditions and public policies that affect the costs and benefits of bossless organizing. Of course, this list is selective; nevertheless, it is a step toward addressing larger questions about the changing roles of bosses, management and hierarchy in business firms.

Our purpose in the above is not to argue that flat, bossless organizations are necessarily the product of government intervention, or that unhampered markets could never produce such firms. Our aim is humbler: we suggest that there are no simple relationships between these macro- and micro-economic factors and the shape of firms. Bossless firms and traditional hierarchical firms have each emerged under widely varying environmental conditions, institutional settings and policy regimes. Furthermore, we can imagine a wide range of plausible scenarios in which each type of firm is encouraged. Above, we have attempted to explicate some specific examples of these scenarios using available evidence.

In fact, debate about the bossless company is about much more than the relatively small number of truly non-hierarchical firms. It reflects an ongoing shift in ideology among academics and the general public. That is, it is part of a growing skepticism about the value of managers and hierarchies as such. This skepticism sometimes leads to designing new forms of organization such as are found in bossless firms like Valve. Yet more deeply than this, it involves questioning essential principles of economics and management that can justly be said to underpin much of what goes on in the global economy. Given the ubiquity of these hierarchies and also the highly fragile nature of human prosperity and flourishing, calls for abolishing managerial authority altogether should be treated with the utmost care.

Notes

- See also several special issues of the *Journal of Organization Design*, especially Vol. 4, No. 2 (2015); Vol. 11, No.1 (2022); and Vol. 12, No. X (2023). The last of these contains papers discussing Foss and Klein (2022).
- These are hypothetical examples, but as explained below, they are realistic and fit with the "stylized facts."
- 3. Crucially though, cooperatives under socialist and communist regimes were still subject to the ultimate authority of central planning boards, even if they nominally lacked internal hierarchy. The present paper is not a study of cooperatives, but the authors nevertheless refer to them throughout as instructive examples of organizations that incorporate key elements of the contemporary bossless narrative.

- In addition, even in 19th-century liberal England, where the modern cooperative movement began, the principles of cooperation were shaped by the ideas of utopian socialists such as Robert Owen (Thompson, 1994, pp. 11–18).
- 5. There are, however, cases where adaptation is "autonomous" and can be coordinated without management (e.g., Williamson, 1991, pp. 277–279). This is a good example of a condition under which bossless firms are likely to have an advantage. Yap et al. (2022) propose a theoretical model in which formal hierarchy can create conflict, in particular, when hierarchy is branching and nested, and various units and subunits within the organization differ in how they interpret authority rankings and status cues.

References

- Bales, R.A. and Woo, C.P. (2017), "The uber million dollar question: are uber drivers employees or independent contractors?", Mercer Law Review, Vol. 68 No. 2, pp. 461-487.
- Baumann, O. and Wu, B. (2022), "The many dimensions of research on designing flat firms", *Journal of Organization Design*, Vol. 11 No. 1, pp. 1-3.
- Baumol, W.J. (1990), "Entrepreneurship: productive, unproductive, and destructive", *Journal of Political Economy*, Vol. 98 No. 5, pp. 893-921.
- Bjørnskov, C. and Foss, N.J. (2012), "How institutions of liberty promote entrepreneurship and growth", in Economic Freedom of the World: 2012 Annual Report, Fraser Institute, Vancouver, pp. 247-270.
- Bunge, J. and Rubin, R. (2018), "Tax law forces revamps for agriculture firms", Wall Street Journal, Feb. 15th, available at: https://www.wsj.com/articles/tax-law-forces-revamps-for-agriculture-firms-1518699600
- Bylund, P. and McCaffrey, M. (2017), "A theory of entrepreneurship and institutional uncertainty", Journal of Business Venturing, Vol. 32 No. 5, pp. 461-475, doi: 10.1016/j.jbusvent.2017.05.006.
- Bylund, P. and Packard, M.D. (2022), "Subjective value in entrepreneurship", *Small Business Economics*, Vol. 58, pp. 1243-1260, doi: 10.1007/s11187-021-00451-2.
- Chloupkova, J., Svendsen, G.L.H. and Svendsen, G.T. (2003), "Building and destroying social capital: the case of cooperative movements in Denmark and Poland", Agriculture and Human Values, Vol. 20 No. 3, pp. 241-252.
- Clamp, C.A. (1999), "The evolution of management in the mondragon cooperatives", Working Paper, available at: https://cleo.rutgers.edu/articles/the-evolution-of-management-in-the-mondragon-cooperatives/
- Coase, R.H. (1937), "The nature of the firm", *Economica*, Vol. 4 No. 16, pp. 386-405.
- Crossley, B. (2011), "The Valve manifesto", *Develop*, May 9, 2011, available at: https://www.mcvuk.com/business-news/publishing/the-valve-manifesto/ (accessed 26 April 2023).
- Dubhashi, M. (2005), "Cooperatives in India—a wasted opportunity?", Indian Journal of Public Administration, Vol. 51 No. 2, pp. 165-177.
- Eisenhardt, K.M. and Sull, D.N. (2001), "Strategy as simple rules", *Harvard Business Review*, Vol. 79 No. 1, pp. 106-119, available at: https://hbr.org/2001/01/strategy-as-simple-rules
- Ellerman, D.P. (1997), The Democratic Corporation, Xinhua Publishing House, Beijing.
- Felin, T. and Powell, T.C. (2016), "Designing organizations for dynamic capabilities", California Management Review, Vol. 58 No. 4, pp. 78-96.
- Foss, N.J. (2003), "Selective intervention and internal hybrids: interpreting and learning from the rise and decline of the Oticon spaghetti organization", *Organization Science*, Vol. 14 No. 3, pp. 331-349.
- Foss, N.J. and Dobrajska, M. (2015), "Valve's way: vayward, visionary, or vouguish?", Journal of Organization Design, Vol. 4 No. 2, pp. 12-15.

and the

bossless

Institutions

- Foss, N.J. and Klein, P.G. (2022), Why Managers Matter: the Perils Of the Bossless Company, Public Affairs, New York.
- Foss, N.J., McCaffrey, M.C. and Dorobat, C.E. (2022), "When henry met fritz': rules as organizational frameworks for emergent strategy process", *Journal of Management Inquiry*, Vol. 31 No. 2, pp. 135-149.
- Gijselinckx, C. and Bussels, M. (2014), "Farmers' cooperatives in europe: social and historical determinants of cooperative membership in agriculture", Annals of Public and Cooperative Economics, Vol. 85 No. 4, pp. 509-530.
- Groot, L. and van der Linde, D. (2017), "The labor-managed firm: permanent or start-up subsidies?", Iournal of Economic Issues, Vol. 51 No. 4, pp. 1074-1093.
- Gunn, C. (2006), "Cooperatives and market failure: workers' cooperatives and system mismatch", Review of Radical Political Economics, Vol. 38 No. 3, pp. 345-354.
- Gwartney, J., Lawson, R.A., Hall, J., Murphy, R., Djankov, S. and McMahon, F. (2022), *Economic Freedom of the World: 2022 Annual Report*, Fraser Institute, Vancouver.
- Hansmann, H. (1991), "Condominium and cooperative housing: transactional efficiency, tax subsidies, and tenure choice", *Journal of Legal Studies*, Vol. 20 No. 1, pp. 25-71.
- Heras-Saizarbitoria, I. (2014), "The Ties that bind? Exploring the basic principles of worker- owned organizations in practice", Organization, Vol. 21 No. 5, pp. 645-665.
- Jeurissen, P. and Maarse, H. (2021), "The market reform in Dutch health care: results, lessons, and prospects", European Observatory on Health Systems and Policies, available at: https://eurohealthobservatory.who.int/publications/i/the-market-reform-in-dutch-health-care-results-lessons-and-prospects
- Kastelle, T. (2013), "Hierarchy is overrated", Harvard Business Review Blog, available at: https://hbr. org/2013/11/hierarchy-is-overrated
- Klein, P.G. (1996), "Economic calculation and the limits of organization", Review of Austrian Economics, Vol. 9 No. 2, pp. 3-28.
- Kreft, S.F. and Sobel, R.S. (2005), "Public policy, entrepreneurship, and economic freedom", Cato Journal, Vol. 25 No. 3, pp. 595-616.
- Lee, M.Y. and Edmondson, A.C. (2017), "Self-managing organizations: exploring the limits of less-hierarchical organizing", Research in Organizational Behavior, Vol. 37, pp. 35-58.
- McCaffrey, M. (2018), "Economic calculation and the limits of social entrepreneurship", in McCaffrey, M. (Ed.), The Economic Theory Of Costs: Foundations And New Directions, Routledge, Abingdon, UK, pp. 243-263.
- McKillop, D., French, D., Quinn, B., Sobiech, A.L. and Wilson, J.O. (2020), "Cooperative financial institutions: a review of the literature". *International Review of Financial Analysis*, Vol. 71 No. 101520, pp. 1-11.
- Mises, L.v. (1944), Bureaucracy, Yale University Press, New Haven, CT.
- Mises, L.v. (1990), "Observations on the cooperative movement", in *Money, Method, and the Market Process: Essays by Ludwig von Mises*, Kluwer, Norwell, MA, pp. 238-279.
- Mises, L.v. (1998/1949), Human Action, Scholar's Edition, Ludwig von Mises Institute, Auburn, AL.
- Molk, P. (2014), "The puzzling lack of cooperatives", Tulane Law Review, Vol. 88 No. 5, pp. 899-958.
- Möller, U. and McCaffrey, M. (2021), "Levels without bosses? Entrepreneurship and Valve's organizational design", in McCaffrey, M. (Ed.), *The Invisible Hand In Virtual Worlds: the Economic Order Of Video Games*, Cambridge University Press, Cambridge, pp. 211-240.
- Morris, J.R., Cascio, W.E. and Young, C.E. (1999), "Downsizing after all these years: questions and answers about who did it, how many did it, and who benefited from it", *Organizational Dynamics*, Vol. 27 No. 3, pp. 78-87.
- Nandram, S.S. (2015), Organizational Innovation By Integrating Simplification: Learning From Buurtzorg Nederland, Springer, London.

- Nyström, K. (2008), "The institutions of economic freedom and entrepreneurship: evidence from panel data", *Public Choice*, Vol. 136 No. 3, pp. 269-282.
- Ong, L. (2006), "Multiple principals and collective action: china's rural credit cooperatives and poor households' access to credit", *Journal of East Asian Studies*, Vol. 6 No. 2, pp. 177-204.
- Orzechowski, W.P. (2001), "The economics of government subsidies: the case of rural electric cooperatives and the propane gas industry", *Tax Foundation Background Paper No 37*, available at: https://files.taxfoundation.org/legacy/docs/b7f502808f11739f9371b9f2a1c6f0c5.pdf
- O'Brien, S.A. (2019), Uber's COO and CMO Are Leaving One Month after Disappointing IPO, *CNN.com*, available at: https://edition.cnn.com/2019/06/07/tech/uber-coo-cmo-out/index.html (accessed 3 May 2023).
- O'Neill, P. and Sohal, A.S. (1999), "Business process reengineering: a review of recent literature", Technovation, Vol. 19 No. 9, pp. 571-581.
- Packard, M.D., Clark, B.B. and Klein, P.G. (2017), "Uncertainty types and transitions in the entrepreneurial process", Organization Science, Vol. 28 No. 5, pp. 840-856.
- Porter, P.K. and Scully, G.W. (1987), "Economic efficiency in cooperatives", Journal of Law and Economics, Vol. 30 No. 2, pp. 489-512.
- Prados De La Escosura, L. (2016), "Economic freedom in the long run: evidence from OECD countries (1850-2007)", *Economic History Review*, Vol. 69 No. 2, pp. 435-468.
- Puranam, P. and Håkonsson, D.D. (2015), "Valve's way", Journal of Organization Design, Vol. 4 No. 2, pp. 2-4.
- Semler, R. (1989), "Managing without managers", Harvard Business Review, Vol. 67 No. 5, pp. 76-84.
- Stansel, D., Torra, J. and McMahon, F. (2021), Economic Freedom of North America: 2021 Annual Report, Fraser Institute, Vancouver.
- Thompson, D.J. (1994), Weavers of Dreams: Founders of the Modern Co-operative Movement, Center for Cooperatives, University of California, Davis, CA.
- United Nations Development Programme (2009), Energy In National Decentralization Policies, UNDP, New York.
- Wallace, C., Llewellyn, M., Wallace, S., Griffiths, L., Ganesh, S., Kenkre, J. and Pontin, D. (2020), Evaluation of the Neighborhood District Nursing Pilots in Wales, Welsh Institute for Health and Social Care, available at: https://wihsc.southwales.ac.uk/prime-usw/prime-usw-research-portfolio/evaluation-neighbourhood-district-nursing-pilots-wales/
- Williamson, O.E. (1991), "Comparative economic organization: the analysis of discrete structural alternatives", *Administrative Science Quarterly*, Vol. 36 No. 2, pp. 269-296.
- Wulf, J. (2012), "The flattened firm: not as advertised", California Management Review, Vol. 55 No. 1, pp. 5-23.
- Yap, A.J., Madan, N. and Puranam, P. (2022), "Formal hierarchy as a source of upward status disagreement? A theoretical perspective", Organization Science, Vol. 33 No. 1, pp. 464-482.
- Zhu, H. and Zhu, S.X. (2017), "Corporate innovation and economic freedom: cross-country comparisons", Quarterly Review of Economics and Finance, Vol. 63, pp. 50-65.

Corresponding author

Matthew McCaffrey can be contacted at: matthew.mccaffrey@manchester.ac.uk