

# Private action in public interest: The comparative governance of social issues

Jiao Luo\*  | Aseem Kaul 

Strategic Management & Entrepreneurship  
Department, Carlson School of Management,  
University of Minnesota, Minneapolis, Minnesota

## Correspondence

Jiao Luo, Carlson School of Management,  
University of Minnesota, 321 19th Avenue South,  
Minneapolis, MN 55455.  
Email: luoj@umn.edu

**Research Summary:** We develop a theoretical framework to define the comparatively efficient organizational form for dealing with a social issue, based on the market frictions associated with it. Specifically, we argue that for-profits have an advantage in undertaking innovation and coordinating production economies, nonprofits in playing a fiduciary role given ex post information asymmetry, self-governing collectives in dealing with bounded externalities through private ordering, and state bureaucracies in governing general externalities. We build on these arguments to develop a mapping between combinations of these market frictions and the comparatively efficient arrangements to govern them, including a variety of hybrid arrangements such as private-public partnerships, social enterprises, corporate social responsibility, and so on. Our framework thus contributes to research in strategy, organizations, and public policy.

**Managerial Summary:** What is the best way to deal with a social problem? While some believe such problems are best left to the state, others argue that business should take the lead in solving them, or favor nonprofit solutions. In this article, we move beyond such one-size-fits-all approaches, highlighting the different strengths of different organizational forms. We argue that for-profits' strong incentives make them more innovative; nonprofits are more trustworthy in representing the best interests of others; collectives enable actors to self-organize around a common interest; and the state is best for issues that impact the entire population. We thus develop a mapping between the nature of the social problem and the organizational form—or combination of organizational forms—that may deal with it most efficiently.

\*Authors contributed equally and are listed in reverse alphabetical order.

**KEYWORDS**

collective action, hybrid organizations, institutional economics, market frictions, social impact

**1 | INTRODUCTION**

The role of for-profit businesses in addressing social problems—climate change, disease, hunger, poverty, exploitation, and so on—is a topic of growing interest in the field of strategic management (Barney, 2005; George, Howard-Grenville, Joshi, & Tihanyi, 2016; Mahoney, McGahan, & Pitelis, 2009). Building on an early emphasis on the ethical imperative for firms to recognize and take responsibility for the broader consequences of their actions (Freeman, 1984; Hinings & Greenwood, 2002; Stern & Barley, 1996), the literature has increasingly come to emphasize the strategic value of socially responsible actions (Dorobantu, Kaul, & Zelner, 2017; Flammer & Luo, 2017; McWilliams & Siegel, 2001). While this work provides strong evidence for a positive link between corporate social responsibility (CSR) and firm financial performance (Barnett & Salomon, 2012; Flammer, 2015; Henisz, Dorobantu, & Narthey, 2014; King & Lenox, 2001; Waddock & Graves, 1997), it is far from clear that such activities truly contribute to social welfare (Barnett, 2016; Jones et al., 2016; Kaul & Luo, 2018). After all, there are many other organizations—government agencies (Arrow, 1969; Olson, 1965; Pigou, 1920; Shleifer, 1998), nonprofits (Besley & Ghatak, 2001; Marquis, Davis, & Glynn, 2011; Rose-Ackerman, 1996), self-regulating collectives (Ostrom, 1990; Prakash & Potoski, 2007, 2012), and various hybrid forms (Battilana & Lee, 2014; Pache & Santos, 2010)—that could and do address social problems. In order to determine whether and when for-profit actions to address social problems are welfare enhancing, we therefore need a more holistic theory of the comparative advantage of various organizational arrangements in addressing social issues.

In this article,<sup>1</sup> we offer an initial attempt at such a theory. Specifically, we focus on social issues of allocation—that is, social problems that arise on account of market frictions that result in Pareto suboptimal resource allocations (Arrow, 1969; Arrow & Hahn, 1970; Coase, 1960; Debreu, 1959)<sup>2</sup>—and determine the comparatively efficient governance arrangement for dealing with such issues. Our analysis builds on the new institutional economics (NIE) tradition (Coase, 1984; Dorobantu, Kaul et al., 2017; Williamson, 2000), in that we focus on the transaction costs<sup>3</sup> that drive suboptimal welfare outcomes, identify the organizational forms best suited to dealing with those transaction costs, and derive the governance arrangement that would be comparatively efficient in addressing them. Our approach thus follows the principle of first-order economizing through discriminating alignment (Williamson, 1996), whereby transaction characteristics are matched to governance structures in order to “get the governance structures right” (Williamson, 2000, p. 59).

<sup>1</sup>This version of the article has been abridged to meet the journal's length requirements. While the current version captures the main ideas of our argument, interested readers can find a more detailed exposition in Appendix S1, including additional illustrative examples and expanded citations to relevant literature.

<sup>2</sup>We discuss the distinction between issues of allocation and issues of distribution, as well as the link between issues of allocation and market frictions, in more detail in the next section.

<sup>3</sup>By transaction costs we mean the broad set of costs of running the economic system (Arrow, 1969; Coase, 1937), including costs of bargaining, maladaptation, and measurement (Williamson, 1996). Market frictions are the characteristics of market exchanges that give rise to these transaction costs (Mahoney & Qian, 2013).

Adopting this general approach, we contend that social issues of allocation arise primarily on account of two types of market friction—externalities and (ex post) information asymmetries—though they may be exacerbated by uncertainty and production economies. We then argue that private organizations have distinct advantages in dealing with these market frictions: nonprofit organizations are uniquely well-suited to playing a fiduciary role in situations with high (ex post) information asymmetry, self-governing collectives provide a superior means of private ordering in situations with bounded externalities, and for-profit firms are well-positioned to innovate and devise new solutions in the face of creative or absolute uncertainty, as well as to realize economies of scope between commercial and noncommercial activities (Besley & Ghatak, 2007; Kaul & Luo, 2018). These private forms may prove inadequate, however, in dealing with general externalities, where the state's coercive authority to tax, proscribe, and punish gives it a unique advantage (Arrow, 1969; Klein, Mahoney, McGahan, & Pitelis, 2013; Stiglitz, 1989). Building on these arguments we develop a conceptual mapping between the underlying features of social problems and the governance arrangement that may be most efficient in dealing with them. Our mapping not only considers the choice between pure forms, but also includes a range of hybrid arrangements that combine features of these pure forms in response to different combinations of market frictions (see Table 2, discussed later). We thus offer a holistic theory explaining the existence of these hybrid arrangements, based on their comparative efficiency in dealing with social issues.

In putting forward our theory, we do not claim to provide a panacea for all social ills. Our analysis is focused on efficiency considerations and does not consider ethical issues related to the distribution of endowments and power in society. We also rely throughout on the principle of remediableness (Williamson, 1996), so that the governance arrangements we highlight are not optimal or flawless, just more likely to be effective than other feasible arrangements on average. Moreover, our framework is not meant to predict which governance arrangements will arise in practice. We recognize that the choice of governance arrangements may be driven by a wide range of cultural, normative, or relational pressures (DiMaggio & Anheier, 1990; DiMaggio & Powell, 1983; Galaskiewicz & Wasserman, 1989; Marquis, Glynn, & Davis, 2007) that have little to do with efficiency (North, 1990). Our purpose is simply to describe the feasible governance arrangements that would be chosen were efficiency the sole criterion, so as to provide a baseline against which deviations from the goal of comparative efficiency may be assessed.

By providing a coherent and holistic theory that maps distinct types of social issues to the governance arrangements that may be comparatively efficient in addressing them, we advance research in strategy, organizations, and policy. Our study highlights the potential advantage of for-profit firms in advancing social welfare (Besley & Ghatak, 2007; Kaul & Luo, 2018), thus answering recent calls for a broader, more inclusive view of value creation in the strategy literature (George, McGahan, & Prabhu, 2012; Mahoney et al., 2009), while also pointing to reasons why an exclusive reliance on for-profit firms in solving social issues may be inadvisable. We also emphasize the role of hybrid organizational forms and cross-sector partnerships (Battilana & Lee, 2014; Lenox & Chatterji, 2018; Mahoney & McGahan, 2007)—including various forms of public–private collaboration (Cabral, Lazarini, & de Azevedo, 2013; Klein et al., 2013)—in addressing social issues, and offer a theoretical rationale for the comparative efficiency of such forms relative to pure types. In addition, we contribute to research in new institutional economics (Coase, 1984; North, 1986; Williamson, 2000), applying the insights of this work on the organization of business transactions (Coase, 1937; Hansmann, 1996; Williamson, 1975, 1985, 1991a, 1996) to the organization of transactions involving social issues (Coase, 1960; Olson, 1965). Our study thus sets the stage for further research into how

activities at the intersection of public and private interests are best organized (Besley & Ghatak, 2001, 2007; Kaul & Luo, 2018; Olson, 1986).

## 2 | SOCIAL ISSUES AND MARKET FRICTIONS

We begin our analysis by delving deeper into the nature of social issues and their relation to market frictions. To do so, we adopt a long-standing distinction between issues of distribution and issues of allocation (Arrow, 1969, 1985; Buchanan, 1968; Cooter, 1982; Musgrave, 1959).<sup>4</sup> Issues of distribution reflect questions of justice and fairness (Marti & Scherer, 2016; Rawls, 1971; Sen, 2009) and are fundamentally concerned with how property rights (and the corresponding endowments of income and wealth) are defined and distributed in a way that is consistent with social choice (Arrow, 1951; Sen, 1999), while issues of allocation reflect questions of efficiency and are fundamentally concerned with whether, given a well-defined set of property rights, resources are allocated in a Pareto optimal way (Arrow & Hahn, 1970; Coase, 1960). Thus, while social issues of distribution deal with choices between Pareto optimal outcomes, social issues of allocation deal with deviations from the Pareto optimal outcome (Hochman & Rodgers, 1969, 1974).

In this article, we focus on social issues of allocation, recognizing that while distribution issues are undeniably important, resolving allocation issues is a necessary condition for achieving social welfare (Arrow, 1985). Moreover, since allocation issues arise due to a variety of market frictions that hinder the efficient allocation of resources (Arrow & Hahn, 1970; Coase, 1960), they lie well within the purview of strategy scholars, who have long studied how private organizational forms resolve these frictions (Mahoney & Qian, 2013; Yao, 1988). In particular, as mentioned above, we can apply the familiar principles of first-order economizing to allocation issues, defining the nature of the transaction involved in solving the issue and aligning it with the governance structure that is comparatively efficient in undertaking that transaction (Williamson, 1996, 2000).

To be clear, economizing in this sense does not mean simply choosing the option with the lowest production cost, but includes effective adaptation and the elimination of waste (Dorobantu, Kaul et al., 2017; Williamson, 1991b, 1996). Consistent with the notion of incomplete contracting in its entirety, the comparatively efficient governance structure in our conception is the one that minimizes all relevant costs, including the transaction costs of bargaining, maladaptation, and measurement (Williamson, 1991b, 1996). So, for instance, if for-profit provision were associated with quality shading (Hart, 2003; Hart, Shleifer, & Vishny, 1997) or excessive provision of “public bads” (Benson, 2008), then these maladaptation costs would need to be taken into account when considering whether for-profit provision were truly comparatively efficient. Since all deviations from the Pareto optimal allocation are thus included in costs, our transaction cost minimizing approach to allocation is equivalent to the choice, by farsighted actors, of the (feasible) governance structure that maximizes social value within the bounds of prevailing institutions (Williamson, 1991b, 1995).

Further, while social issues of allocation result from market frictions, not all market frictions result in social allocation issues. For the purposes of our study, when we speak of social issues we refer to issues that cannot be resolved through the operation of normal commercial or business transactions. So, for instance, while the presence of production economies may make market transactions comparatively inefficient, we would not consider this a social issue because such economies may be realized and captured within a (for-profit) hierarchy in the course of normal business transactions (Mahoney & Qian, 2013; Teece, 1980; Yao, 1988). In contrast, we think of pollution as a social issue because normal business transactions are unlikely to result in optimal levels of pollution

<sup>4</sup>For a more detailed discussion of the distinction between allocation and distribution, see Appendix S1.

(Coase, 1960). For our purposes then, we refer to social allocation issues as those that are not resolved in the course of normal business transactions, that is, where self-interested actions by empowered agents are insufficient to achieve welfare maximizing outcomes.<sup>5</sup>

As we discuss in more detail below, we assert that such social issues arise primarily as the result of two market frictions: ex post information asymmetries and externalities (Coase, 1960; Cooter, 1982). In both these cases, the welfare outcomes of agents are beyond their immediate, private control—hence the “social” issue. This is not to suggest, however, that other forms of market friction have no role to play in social issues. On the contrary, a key part of our analysis is to consider how other types of market frictions—specifically uncertainty and production economies (Mahoney & Qian, 2013)—combine with information asymmetries and externalities to complicate and exacerbate issues of social allocation. In addition, we assume throughout that bounded rationality and opportunism feature in all transactions, contributing to incomplete contracting over social issues (Williamson, 1975, 1985, 1991b, 2000).

### 3 | MARKET FRICTIONS AND PURE FORMS

Having distinguished between social issues of distribution and allocation, and linked the latter to market frictions (Mahoney & Qian, 2013; Yao, 1988), we next turn to consider the comparatively efficient governance arrangements to deal with these frictions, in line with a discriminating alignment approach (Williamson, 1996, 1998). In particular, we begin by considering four pure forms: for-profit firms (Coase, 1937; Williamson, 1975, 1985), nonprofit organizations (Besley & Ghatak, 2001, 2003; Hansmann, 1980, 1996; Marquis et al., 2011), self-governing collectives<sup>6</sup> (King & Lenox, 2000; Ostrom, 1990, 2010; Prakash & Potoski, 2012; Yue, Luo, & Ingram, 2013), and state bureaucracy (Pigou, 1920; Stiglitz, 1989; Williamson, 1999; Wilson, 1989). We take each market friction, describe the ways in which it may contribute to socially suboptimal outcomes, and discuss the pure organizational form that we contend is most advantageous in dealing with that market friction.<sup>7</sup> Note that when comparing organizational forms we hold the transaction itself constant, so that the ability of the different organizational forms to economize on the transaction costs resulting from the market friction is the only driver of their comparative efficiency (Williamson, 1975, 1985).<sup>8</sup>

Our main arguments are summarized in Table 1, which offers a mapping between the four types of market frictions—ex post information asymmetry, externalities (bounded and general), (creative or absolute) uncertainty, and production economies<sup>9</sup>—and the four pure organizational forms—for-profits, nonprofits, collectives, and state bureaucracy—based on the comparative efficiency of each form in dealing with each type of market friction. As such, Table 1 offers a composite profile of the comparative logic of the different forms. Thus, we contend that the very combination of ideological

<sup>5</sup>Pitelis (1994) refers to such situations as “private sector failure”.

<sup>6</sup>While self-governing collectives are also not-for-profit entities, they are distinguished from nonprofit organizations by an emphasis on consensus-based decision making rather than administrative fiat. Thus, while nonprofits are run by professional managers, self-governing collectives are run by representatives drawn from among their members (Skocpol, 2003). In practice, of course, the line between the two may blur; a point we return to in the next section where we discuss membership-based nonprofits (Clark & Wilson, 1961; Knoke, 1988).

<sup>7</sup>A more detailed version of this section, with additional examples and a comparative assessment of alternate forms in dealing with each market friction, may be found in Appendix S1.

<sup>8</sup>While it may be observationally true that some transactions may “only” be undertaken through a particular form, this is a reflection of the comparative efficiency of the form in lowering the relevant transaction costs. Absent transaction costs, there is no reason why the same transaction could not be organized in other forms (Williamson, 1991b).

<sup>9</sup>Our mapping of market frictions draws on that of Mahoney and Qian (2013), except that we group asset specificity and economies of scale and scope under the larger category of production economies (Yao, 1988)—a choice we justify further below—and, as already mentioned, we assume bounded rationality and opportunism feature in all transactions.

**TABLE 1** Comparative advantage of pure governance forms

	<b>For-profit</b>	<b>Nonprofit</b>	<b>Collective</b>	<b>State</b>
Ex post information asymmetry	Very weak	Strong	Moderate	Weak
Bounded externalities	Weak	Moderate	Strong	Weak
General externalities	Weak	Weak	Very weak	Strong
Creative or absolute uncertainty	Strong	Moderate	Weak	Very weak
Production economies ( <i>commercial co-specialization</i> )	Strong (very strong)	Moderate (weak)	Moderate (weak)	Moderate (weak)

motivation and nondistribution constraint that causes nonprofits to excel at playing a fiduciary role in the presence of ex post information asymmetries also makes them less innovative and less efficient at realizing production economies. Similarly, the strong incentives that make for-profits exceptionally good at finding innovative solutions and advantage them in realizing production economies, also make them untrustworthy in the face of ex post information asymmetries or externalities. State bureaucracies have a strong advantage when dealing with general externalities because of their coercive power over all citizens, but the need for probity in exercising that power makes them slow to change and subject to high levels of contestation and capture, as well as high centralization, leaving them poorly equipped to innovate, or to play a strong fiduciary role. And self-governing collectives can use direct communication and consensus to efficiently achieve private ordering over bounded externalities, but these very characteristics hamper their ability to innovate, realize production economies, or deal with externalities that extend beyond their domain. The rest of this section explains and elaborates these conclusions.

### 3.1 | Information asymmetry and nonprofit organizations

We begin by considering market frictions caused by information asymmetry. Specifically, we focus on problems of ex post information asymmetry, that is, on situations where the information asymmetry may persist even after the transaction is complete, since these are the situations where rational and farsighted self-interest on the part of uninformed actors may be insufficient to enable Pareto optimal transactions. Ex post information asymmetry can arise in many ways. First, it may arise in the case of credence goods, that is, goods where the value of what the consumer receives is unverifiable or extremely costly to verify even after consumption (Darby & Karni, 1973). Such credence goods may include altruistic or social goods, where actors who pay for the goods do not consume them directly, but contribute toward goods and services that are provided to others, so that the true benefits of provision may be costly to verify (Becker, 1974; Kaul & Luo, 2018; Milgrom & Roberts, 1986). Second, problems of nonverifiability may also arise in the case of “merit goods” (Besley, 1988; Musgrave, 1959), where individuals may lack the knowledge or expertise to properly assess the value of what they are receiving, and must rely on the opinion of experts to judge its utility (Arrow, 1963). Third, ex post information asymmetry may arise where transactions are complex and their outcomes are causally ambiguous (Chi, 1994; Lippman & Rumelt, 1982), so that it may be hard to tell, even ex post, whether the observed outcome was the result of deliberate action (or inaction) on the part of the transaction partner. Finally, ex post information asymmetry may also result from challenges in measuring transaction outcomes (Besley & Ghatak, 2005; Chi, 1994; Hwang & Powell, 2009), for instance, where the outcomes of a transaction are imperfectly measured so that there is a gap between perfunctory performance and consummate performance, leaving room for quality-shading (Hart, 2003, 2008; Hart & Moore, 2008) and moral hazard (Chi, 1994; Hölmstrom, 1979; Luo, Kaul, & Seo, 2018); where the benefits to the recipient are complex (Hölmstrom & Milgrom, 1991) or

subjective (Waguespack & Salomon, 2015); or where measurement is costly, making comprehensive assessment infeasible (Kaul & Luo, 2018).

In all these cases, ex post information asymmetry impairs the functioning of markets, making it challenging for transacting parties to correctly assess the value of transactions (Anheier & Ben-Ner, 1997; Hansmann, 1980), and causing skeptical actors to choose not to transact, while naïve actors receive less than they pay for. Clearly, the resulting transaction costs would be lower if the less-informed party could rely on its transaction partner to act with probity, that is, to discharge the transaction with loyalty and rectitude (Williamson, 1999). Our contention is that nonprofit organizations have a comparative advantage in playing this fiduciary role, that is, in serving as reliable representatives of the interests of vulnerable parties. First, nonprofits operate under a distribution constraint, which serves as a form of credible commitment to ensure that the value they create is in the service of their cause and is less likely to be appropriated by other interests than under alternate governance forms (Glaeser & Shleifer, 2001; Hansmann, 1980, 1987; Nelson & Krashinsky, 1973). The relatively weak incentives of nonprofits thus make them less liable to problems of quality-shading or merely symbolic provision (Hansmann, 1980, 1987; Hart, 2003; Hölmstrom & Milgrom, 1991; Kaul & Luo, 2018) and, in the case of merit goods, may incline them to give people what they need rather than what they want. Second, nonprofits tend to be ideologically driven, designed to serve a specific cause or reify a specific ideology (Besley & Ghatak, 2001; Rose-Ackerman, 1996; Weisbrod, 1977), and often attracting and selecting workers whose personal preferences are aligned with the cause (Akerlof & Kranton, 2005; Besley & Ghatak, 2003; Bowles, Gintis, & Osborne, 2001; Clark & Wilson, 1961). As a result, nonprofits may be naturally less inclined to take advantage of ex post information asymmetry. Third, because nonprofits derive their legitimacy from the efficacy with which they serve the focal cause (Baum & Oliver, 1996; DiMaggio & Anheier, 1990) as well as their responsiveness to the voices of their constituents and community (Anheier & Ben-Ner, 1997; Ben-Ner, 1986; Knoke, 1988),<sup>10</sup> they may be especially concerned with maintaining a positive reputation (Cho & Zhou, 2017), and therefore less likely to take advantage of ex post information asymmetry given the chance of being found out. Finally, being committed to a single cause means that nonprofits may have both the incentive and the ability to develop more specialized knowledge around an issue, and may thus be better positioned to serve as experts in situations involving merit goods. For all these reasons, nonprofit organizations have a comparative advantage in undertaking transactions involving high ex post information asymmetry.

### 3.2 | Bounded externalities and self-governing collectives

A second market friction associated with social issues is the presence of externalities, that is, situations where each actor's actions impact the outcomes of others, and each actor's outcomes are impacted by the actions of others, creating the need for collective action (Arrow, 1969; Coase, 1960; Commons, 1931; Olson, 1965). These may include negative externalities, whereby the actions of one party harm others, or positive externalities, where the actions of one party benefit others. While the prior literature has distinguished between different types of externalities based on whether they are excludable and / or subtractable (Buchanan, 1965; Ostrom, 2005, 2010; Ostrom & Ostrom, 1971), we focus on a different distinction, one based on the scope of excludability. In many cases, externalities may be nonexcludable but bounded, that is, there exists a natural constituency of actors who are

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<sup>10</sup>It follows that nonprofits founded to satisfy the personal agenda or ego of their founder (Horvath & Powell, 2016), to serve elite interests (Marquis et al., 2011), or simply to take advantage of public support (Rose-Ackerman, 1996) may be unresponsive to or unrepresentative of the needs of vulnerable parties, and thus fundamentally inefficient.

the sole or primary beneficiaries from the externality (Olson, 1986). So, for instance, while the light from a lighthouse is technically nonexcludable, the lighthouse itself is useful only to those sailing in and out of neighboring ports, creating the potential for exclusion (Coase, 1974). Where such natural bounds exist, the externality would still be nonexcludable within these bounds, but may be excludable across these bounds, that is, it may be possible to limit any benefit from cooperation to those who are part of the community (Ostrom, 1990; Stigler, 1974).

The possibility that an externality may be naturally bounded—that is, excludable outside of a specific subset of actors—is important because it creates the potential for private ordering (Ahuja & Yayavaram, 2011; Baron, 2001; Williamson, 1996). Being part of a bounded community will lower the incentive to free-ride, while raising the incentives to monitor each other (Hansmann, 1996), and making free-riding more readily observable (Ostrom, 1990). Not only will the shared interests within the community make it easier to agree on a joint solution, it may also lead to solutions that are better conceived, allowing actors to incorporate local expertise and interests (Andersson & Ostrom, 2008; Ingram & Clay, 2000; Ostrom, 1990, 2005) and avoid a costly, prolonged, and potentially ineffective decision process, wherein outsiders try to apply general rules to situations they may understand poorly (Coase, 1974; Maitland, 1985; Williamson, 1996).

This is not to suggest that cooperation among members of a bounded community will be automatic. Actors still have reason to fear free-riding within the group and may therefore still face bargaining problems (Arrow, 1969), causing them to fail to agree on a cooperative solution in spite of their compatible preferences (Sen, 1967; Sugden, 1984). Agreeing and committing to a common set of actions, as well as to a shared set of rules—that is, to the constitution governing the collective action (Ostrom, 1990; Ostrom & Ostrom, 1971)—may thus still involve substantial costs (Hansmann, 1996), especially in situations where subtractability is high and members of the community must not only decide how to cooperate to enhance the overall benefit to the group, but also how this benefit is to be shared among them.

Our contention is that self-regulating collectives are the comparatively efficient form for enabling private ordering in situations where externalities are naturally bounded, because they allow those who have the most to gain from cooperation to directly and simultaneously communicate with each other and commit to a mutually optimal solution (Sen, 1967; Stigler, 1974; Sugden, 1984). So long as the number of actors within the community of shared interest is relatively small, and the contributions of each actor are easy to observe (Hölmstrom, 1979), members of the collective can self-organize and monitor, relying on direct negotiation with each other to arrive at a mutually acceptable solution, and direct observation of each other's actions to maintain discipline. This is the case, for instance, with irrigation collectives where farmers can monitor each other's water use by simply observing their neighbors' fields (Ostrom, 1990), or on online platforms where each actor's ratings are visible to all. Self-monitoring may be especially effective where the members of the collective are embedded in a network of strong ties (Dorobantu, Kaul et al., 2017; Granovetter, 1985; Yue et al., 2013), as is likely to be the case given geographic proximity or shared affiliation or identity. Such ties will help enable governance both because the threat of social censure in the future will make free-riding more costly (Jones, Hesterly, & Borgatti, 1997), and because familiarity with the others involved may make actors more willing to risk being vulnerable to them (Williamson, 1996). Note that contribution to a collective may take the form of abatement of negative externalities, as in the case of voluntary environmental programs (Barnett & King, 2008; Prakash & Potoski, 2007, 2012) and collectives to manage common pool resources (Ostrom, 1990); or the generation and sharing of positive externalities, as in standard-setting organizations (Rosenkopf & Tushman, 1998; Rysman & Simcoe, 2008) and industry peer networks (Zuckerman & Sgourev, 2006).

### 3.3 | General externalities and the role of the state

While self-governing collectives may be comparatively efficient at dealing with bounded externalities, when it comes to general externalities—that is, situations where the benefits from individual actions diffuse across a broad range of individuals, and the natural community of interest is therefore the entire population rather than a subgroup—the advantage may lie with the state. State bureaucracies have an advantage in such situations, since the state alone has coercive authority over its citizens (Arrow, 1969; Klein et al., 2013; Rangan, Samii, & Van Wassenhove, 2006), enabling it to tax, proscribe, and punish (Stiglitz, 1989). Thus, not only can a state bureaucracy exclude some actors from the benefits of externalities, it can also compel relevant actors to contribute to the provision (abatement) of positive (negative) externalities, both by directly collecting contributions from its citizens in the form of taxes, and by mandating disclosure of otherwise unobservable contributions, coupled with strong sanctions for noncompliance. This ability to compel participation constitutes a strong comparative advantage of state bureaucracy, because while other governance forms could certainly develop administrative and technological systems to exclude nonparticipants (as we have seen above), they cannot really compel those whose actions impact their outcomes to participate if they choose not to. It is only through the action of state bureaucracy (or the threat of such action) that the relevant actors may be forced to cooperate.

### 3.4 | Uncertainty, innovation, and for-profit firms

Having considered both *ex post* information asymmetries and externalities, we next turn to consider other forms of market friction, which, we contend, do not directly give rise to social issues (as we have defined them), but may exacerbate social issues resulting from these other frictions. We begin by considering the market frictions of uncertainty; specifically, we focus on creative and absolute uncertainty (Packard, Clark, & Klein, 2017). The defining characteristic of such uncertainty is that the set of possible courses of action is open-ended (Packard et al., 2017), so that the uncertainty can only be resolved through the deliberate actions of those facing the uncertainty. In this way, creative or absolute uncertainty is distinct from environmental uncertainty; while environmental uncertainty is largely exogenous to the actor and may be dealt with by maintaining flexibility and keeping one's options open, creative or absolute uncertainty require active learning and innovation by the actor to resolve the uncertainty (Folta, 1998; Packard et al., 2017). This need for entrepreneurial action based on subjective judgments in the face of uncertainties that cannot be resolved either analytically or statistically (Foss, Klein, Kor, & Mahoney, 2008; Klein, 2008; Knight, 1921; Langlois, 1992) may apply not only to business opportunities but also to many social issues. While traditional theoretical models of collective action or the provision of public goods often assume that the optimal solution is known and universally understood (Cornes & Sandler, 1983; Olson, 1965), in many real-world situations the range of available options and outcomes may be unbounded, and the probabilities connecting them unknown (Ostrom, 1990).

In such contexts, for-profit firms may play an important role in developing innovative solutions to social issues. First, governance by fiat within hierarchies enables the coordination needed for successful adaptation, even as the law of forbearance that operates within the hierarchy creates conditions conducive to greater cooperation and flexibility in pursuit of novel innovations (Williamson, 1985, 1996). As a result, hierarchical governance may help enable the sharing and recombination of tacit knowledge in the pursuit of innovation (Kogut & Zander, 1992; Liebeskind, 1996). Second, the role of the owner-manager as residual claimant creates the appropriate incentives for uncertainty-bearing (Klein, 2008; Knight, 1921; Sautet, 2000). Just as entrepreneurs in the context of private

goods are incentivized to discover new opportunities or develop new capabilities by the right to claim the residual rents from their inventions (Foss et al., 2008; Kaul, 2013; Klein, 2008; Langlois, 1992), for-profit governance may also motivate entrepreneurs to develop innovative solutions to social problems, both by devising new solutions and by adapting existing solutions to make them more efficient and effective.

### 3.5 | Production economies, co-specialization, and the role of for-profits

For-profits may also have an advantage in realizing production economies, which include economies of scale, learning, and scope (Yao, 1988), as highlighted by the traditional TCE literature (Alchian & Demsetz, 1972; Teece, 1980; Williamson, 1975, 1985). As already mentioned, the use of administrative fiat and forbearance within the hierarchy will help enable coordination among activities, which may be necessary to realizing production economies. While other organizational forms could use fiat and forbearance to realize production economies as well (Olson & Zeckhauser, 1970), for-profit firms may have an advantage over these other forms due to the strength of their internal incentives. While the impossibility of selective intervention means that incentives within for-profit firms are weaker than those that operate in the market (Williamson, 1985, 1996), it also means that incentives in non-profits, collectives, or state bureaucracies are weaker than those in for-profits. Thus, coordination costs (Williamson, 1985, 1996) may be lower under for-profit governance than under these other forms, giving for-profits a slight advantage in realizing production economies, *ceteris paribus*.

Where the role of for-profits may be especially important, however, is in cases where there are economies of scope between activities that face high *ex post* information asymmetry or externalities on one hand, and purely commercial activities that are not subject to these frictions on the other. This is perhaps most frequently the case when negative externalities are coproduced in the production or delivery of business goods and services, for example, pollution from factories (Coase, 1960). Even when externalities are not coproduced, however, it may be that the resources and capabilities required to generate positive externalities (or abate negative ones) have other, purely commercial uses—for example, drug development capabilities (Vakili & McGahan, 2016). We term such cases commercial co-specialization, meaning that the focal activity or transaction is most efficiently carried out when it is co-specialized (Argyres & Zenger, 2012; Chi, 1994; Kaul, 2013) with a purely commercial activity. Given the impossibility of selective intervention (Williamson, 1985, 1996), however, placing the co-specialized commercial transaction under any other governance form may negatively impact its efficiency and competitiveness. Thus, situations where social problems share economies of scope with purely commercial activities may be most efficiently governed by for-profit firms (Besley & Ghatak, 2007; Kaul & Luo, 2018).

## 4 | THE COMPARATIVE GOVERNANCE OF MARKET FRICTIONS

Thus far, we have considered the comparative efficiency of pure forms in dealing with individual market frictions, as summarized in Table 1. These frictions may occur jointly however; individual transactions may be subject to multiple frictions. We therefore turn to consider a variety of hybrid arrangements (Battilana & Lee, 2014; Kivleniece & Quelin, 2012; Williamson, 1991a) that may be comparatively efficient in dealing with combination of frictions. To do so, we draw on the comparative advantage of the different pure forms as summarized in Table 1, and look for the combination of these forms that may best be able to mitigate the challenges resulting from the combination of market frictions, keeping in mind that combining different forms may result in substantially higher

coordination costs inside the organization, given the impossibility of selective intervention (Williamson, 1985, 1996) and the challenge of combining forms with competing logics (Battilana & Dorado, 2010; Pache & Santos, 2010; Rivera-Santos & Rufin, 2010). In defining the comparatively efficient arrangement we therefore try to limit ourselves to arrangements that bring together no more than two forms—either in partnership or as a hybrid, depending on the modularity of the relevant activity—and choose the combination of forms that, we argue, will jointly minimize the transaction costs resulting from the combined market frictions.

#### 4.1 | Markets and firms

The resulting mapping between the nature of the transaction and the comparatively efficient organizational arrangement is shown in Table 2. Row (1) in Table 2 shows cases where both externalities and ex post information asymmetries are low. Per our definition above, these cases do not involve social issues, since they involve no private sector failure (Pitelis, 1994) and represent purely commercial transactions that are the traditional purview of competitive or business strategy (Chi, 1994; Oberholzer-Gee & Yao, 2018; Yao, 1988). Nevertheless, we discuss them briefly, if only to highlight the correspondence between our framework and the prior literature.

**TABLE 2** Mapping the comparatively efficient governance arrangement

Externality	Ex post information asymmetry		Low creative or absolute uncertainty		High creative or absolute uncertainty
			Low commercial co-specialization	High commercial co-specialization	Column (3)
			Column (1)	Column (2)	
Low	Low	Row (1) <sup>a</sup>	Market <i>e.g., Financial spot markets, farmers' markets</i>	For-profit governance <i>e.g., GE, Walmart, Google, Apple</i>	
	High	Row (2)	Service Nonprofit <i>e.g., Doctors without Borders, animal shelters, non-profit nursing homes</i>	Non-profit certification / partnerships <i>e.g., BBB, Underwriters Laboratories, Tom's shoes, Microsoft's partners in learning</i>	Social entrepreneurship <i>e.g., Method products, Drinkwell, Thorn technologies, benefit corporations</i>
Bounded	Low	Row (3)	Self-governing collective <i>e.g., Irrigation collectives, labor unions, PTAs, credit unions, retail co-ops</i>	BoP initiatives <i>e.g., Commercial micro-finance initiatives, Project Shakti</i>	Sharing economy <i>e.g., AirBnB, Kickstarter, Goodreads</i>
	High	Row (4)	Member Nonprofits <i>e.g., Churches, American Bar Association, Academy of Management</i>	Social activism <i>e.g., Fairtrade, HRC, before they book</i>	Social platforms <i>e.g., Edustar, Ushahidi</i>
General	Low	Row (5)	Govt. provision / maintenance <i>e.g., NYPD, National Park Service, IRS</i>	Govt. regulation / subsidies <i>e.g., OSHA, EPA, Medicare</i>	Govt. contracting <i>e.g., Road maintenance, NIH, NSF</i>
	High	Row (6)	Govt. sponsorship / political activism <i>e.g., Charter schools, NRDC, ACLU</i>	Public good certification / PPP / others <i>e.g., Rainforest alliance, World Food Programme, Project XL</i>	Public entrepreneurship / PPP / others <i>e.g., Hybrid prisons, EMS in India</i>

*Note.* More details on these examples, as well as enhanced descriptions of the underlying dimensions of the framework can be found in Appendix S1. We strongly recommend that readers review Appendix S1 while interpreting this table. PPP: public-private partnership; BoP: Base of the Pyramid.

<sup>a</sup> Cases in Row (1) are adequately handled by normal business or commercial transactions and therefore do not involve “social issues” per our definition.

Column (1) in Table 1 shows the case where uncertainty and commercial co-specialization are low. In the case of Row (1) this means that all transaction costs are low and the transaction may be carried out through the market. Examples of such arrangements range from financial spot markets to labor exchanges to farmers' markets and craft fairs—settings where commodity products are exchanged between atomistic agents, and there is no small numbers bargaining problem. Columns (2) and (3) of Table 2 consider cases where commercial co-specialization is high (meaning that there are substantial economies of scope between the focal transaction and a purely commercial one) and where (creative or absolute) uncertainty is high, respectively.<sup>11</sup> Given low externalities and low ex post information asymmetry, these cases are best governed within a for-profit firm—either a large corporation or an entrepreneurial startup—as discussed in the previous section.<sup>12</sup> Indeed, this cell in Table 2 represents the traditional theory of the firm in the strategy literature (Alchian & Demsetz, 1972; Teece, 1980; Williamson, 1975, 1985, 1991a).

## 4.2 | Nonprofits, CSR and social enterprise

Row (2) in Table 2 examines transactions where externalities are low, but ex post information asymmetry is high. Where uncertainty and commercial co-specialization are low as well, as in Column (1), such cases are best governed by a nonprofit, specifically by nonprofits playing a service role (Kaul & Luo, 2018; Yaziji & Doh, 2009), that is, providing goods and services supported by charitable donations from private individuals. Examples include NGOs serving social causes such as Doctors without Borders, Salvation Army, soup kitchens, animal shelters, suicide prevention centers, and so on; as well as nonprofit providers of private services subject to ex post information asymmetry, such as nonprofit hospitals (Rushing, 1974), nursing homes (Baum, 1999; Baum & Oliver, 1996), and performing arts organizations (Kuan, 2001).

Next, consider the case where high ex post information asymmetry is combined with commercial co-specialization, as in Column (2). The comparatively efficient governance arrangement in this case may be some form of delegated philanthropy, where a for-profit acts on the behalf of its stakeholders to provide goods and services to those in need (Bénabou & Tirole, 2010). Typical examples of this case include situations where the firm provides goods or services related to its main business to recipients who cannot pay for them directly, with the expectation of being rewarded for doing so by other stakeholders (Kaul & Luo, 2018), for example, pro bono provision of services (Carnahan, Kryscynski, & Olson, 2017), or in-kind donations of consumer goods to those in need (Marquis & Park, 2014). Such provision should generally involve a partnership between a for-profit and a nonprofit (Chatain & Plaksenkova, 2018; Galaskiewicz & Sinclair-Colman, 2006; Gatignon & Ballesteros, 2018; King, 2007), however, because in the absence of nonprofit oversight for-profits may be incentivized to take advantage of ex post information asymmetry by engaging in underprovision (Glaeser & Shleifer, 2001; Kaul & Luo, 2018) or quality shading (Hart, 2003; Hart & Moore, 2008), and because the for-profit may not understand the relevant context well enough to make a truly welfare-enhancing choice (Khan, Munir, & Willmott, 2007). Examples include certification of for-profit compliance by nonprofits (Chatterji & Toffel, 2010; Fischer & Lyon, 2014; Rao, 1998), for example, Better Business Bureaus or Underwriters Laboratories; and support from reputable

<sup>11</sup>Since high creative or absolute uncertainty always privileges the involvement of for-profit firms in any case, we do not distinguish between cases with low and high commercial co-specialization within the high uncertainty case.

<sup>12</sup>In some such cases, the comparatively efficient governance arrangement may be a partnership between two for-profit firms. The literature on such alliances or other for-profit hybrids (Geyskens, Steenkamp, & Kumar, 2006; Makadok & Coff, 2009; Williamson, 1991a, 1996) is too extensive to discuss here, and is not the focus of our work in any case. We limit ourselves to acknowledging that for-profit governance may include governance via collaborations between for-profits.

nonprofits for corporate social initiatives, for example, Microsoft's partnerships with NGOs for its Partners in Learning program (Bhanji & Oxley, 2013), Tom's shoes partnerships with NGOs to deliver their shoes in Africa (Battilana & Lee, 2014; Marquis & Park, 2014), and Starbucks' partnership with Conservation International to grow sustainable coffee (Chatain & Plaksenkova, 2018). Partnerships between for-profits and nonprofits also include nonprofit support of CSR efforts by providing training and expertise in dealing with social issues, for example, the training of hotel executives by nonprofits dealing with human trafficking. They may also include for-profit support of nonprofit initiatives, through both in-kind donations, for example, donations of medications by pharmaceutical companies to nonprofit providers; and interventions that leverage the firm's knowledge and expertise, for example, Toyota's streamlining of New York soup kitchens (New York Times, 2013).

Column (3) in Row (2) deals with situations involving high creative or absolute uncertainty and high ex post information asymmetry, such as those where it is unclear how a social problem may best be solved. In such cases, the comparatively efficient governance arrangements may be social entrepreneurship (Martin & Osberg, 2007; Santos, 2012; Zahra, Rawhouser, Bhawe, Neubaum, & Hayton, 2008), that is, initiatives that develop new technologies and business models combining social and business objectives (Battilana & Lee, 2014; Fosfuri, Giarratana, & Roca, 2016) in order to benefit disenfranchised stakeholders and be financially rewarded for doing so, for example, Method products, or Drinkwell (a startup that offers villagers in South Asia a low-cost system to purify well water). In such cases, the fact that the social mission is an explicit part of the firm's strategy, often from its very inception, serves as a credible commitment to playing a fiduciary role, as does the adoption of hybrid regulatory forms such as benefit corporations. The key point is that for such organizations the social mission lies at the core of their purpose, unlike in the case of CSR initiatives by established companies. Given the impossibility of selective intervention (Williamson, 1985, 1996), the fidelity of social initiatives placed within a larger hierarchy that includes purely commercial activities is inevitably compromised, which is why it may be comparatively efficient to place such initiatives in a hybrid organization designed specifically for that purpose (Kaul & Luo, 2018).

### 4.3 | Community organizations

Row (3) of Table 2 considers the case where externalities are bounded, and a community with shared interests exists. In the absence of other frictions, as in Column (1), such situations are best governed through self-governing collectives, as mentioned above. Where subtractability is high, these may take the form of common pool collectives—such as irrigation collectives (Ostrom, 1990), kibbutzes (Ingram & Simons, 2000), or Euro-IX (an association of European ISPs and internet exchange points)—where actors develop and commit to a shared constitution of rules for the sharing of a common good. Where subtractability is low, the efficient arrangement may be a club good collective, such as labor unions (Hannan & Freeman, 1987), resident's associations (Hansmann, 1996), bowling leagues (Putnam, 2001), fraternal associations (Skocpol, 2003), banking self-regulation arrangements (Yue et al., 2013), and voluntary environmental programs (Prakash & Potoski, 2007, 2012) that bind actors together through mutual monitoring in pursuit of a shared, nonsubtractable benefit (Buchanan, 1965; Prakash & Potoski, 2007). Further, where production economies are involved, these collectives may morph into business cooperatives, which are similar to for-profit firms (Boone & Ozcan, 2014), except that the residual rights lie with the members who share the externality rather than with outside investors (Hansmann, 1996). Examples of such cooperatives include credit unions (Barron, West, & Hannan, 1994; Chatterji, Luo, & Seamans, 2017), retail cooperatives (Ingram & McEvily, 2007), and agricultural cooperatives (Schneiberg, King, & Smith, 2008).

Next, consider the case where bounded externalities are combined with high commercial co-specialization, for instance, where the actions of the firm have a positive or negative impact on a local community, for example, the effect of the tourism industry on local conditions in tourist destinations (Hall, Matos, Sheehan, & Silvestre, 2012). In such cases, as in Column (2), the comparatively efficient governance arrangement may be a Base of the Pyramid (BoP) initiative, or some other inclusive growth strategy (George et al., 2012; London & Hart, 2011; Prahalad, 2005). While such strategies involve for-profit firms leveraging economies of scope with their established business to generate positive externalities for local communities, the benefits from such initiatives are stronger when they preserve and leverage the existing social capital of these communities, and are responsive to their needs (Ansari, Munir, & Gregg, 2012). Examples include commercial micro-finance initiatives (Cobb, Wry, & Zhao, 2016; Singh & Dutt, 2015; Wolfolds, 2016), as well as other BoP programs, such as Unilever's Project Shakti in rural India (Porter & Kramer, 2011).

Where bounded externalities are combined with creative or absolute uncertainty, the comparatively efficient governance arrangement may be a sharing economy platform, that is, the creation of a forum through which actors with shared interests can communicate and collaborate with each other. Given the inherent uncertainty of any such novel platform, its creation is likely to require some for-profit involvement. As in column (3), several recent for-profit initiatives in the "sharing economy" space, such as Uber and Airbnb, fall within this category, as do crowdsourcing / crowdfunding initiatives such as Kickstarter or Goodreads, as well as other open source communities (Hippel & Krogh, 2003; Shah, 2006), for example, Android Studio, Oracle's MySQL. Such platforms make it easier for actors to coordinate on and adopt a single solution, creating, in effect, a privately managed collective.

Moving to Row (4), where bounded externalities are combined with high ex post information asymmetry—such as in cases where the members of the community lack the ability to measure or assess the benefits from collective action—the comparatively efficient arrangement may be the monitoring of the collective's actions by a third-party (Delmas & Montes-Sancho, 2010; Prakash & Potoski, 2007, 2012), or, more often, the replacement of the collective by a membership-based nonprofit (Clark & Wilson, 1961; Knoke, 1988; Skocpol, 2003). Examples of such nonprofits include churches and other religious organizations (Miller, 2002), as well as professional associations such as the American Bar Association or the Academy of Management (Greenwood, Sudaby, & Hinings, 2002; Prakash & Potoski, 2007). These organizations perform service and certification functions similar to the nonprofits discussed earlier, except they do so primarily (or exclusively) for the benefit of their members, and rely on contributions or dues from their members. Moreover, unlike other forms of self-regulating collectives, membership-based nonprofits generally deal in credence goods and therefore involve the application of technical or specialized expertise.

Where bounded externalities and ex post information asymmetry problems are combined with commercial co-specialization, as in Column (2), we have a situation where the actions of the firm generate positive or negative externalities for a community, but the firm's key stakeholders are unable to observe or assess these effects, for example, the exploitation of farming communities or indigenous populations when firms in developed markets source from third world countries. In such cases, the comparatively efficient governance arrangement is some form of social activism through which private ordering is achieved in the shadow of regulatory sanctions (Baron, 2001, 2009; Baron & Diermeier, 2007; Ingram & Rao, 2004). Social activists serve as representatives of the interests of disenfranchised communities in the face of externalities produced by business activities, exerting pressure on corporations to either abate negative externalities or generate

positive externalities, and being more successful in doing so when they are organized as a non-profit with the authority and expertise to represent the community interest (Dorobantu, Henisz, & Nartey, 2017; Hiatt, Sine, & Tolbert, 2009; Ingram, Yue, & Rao, 2010; King & Soule, 2007; McDonnell, King, & Soule, 2015). Examples include Fairtrade International, Greenpeace's endorsement of Kimberly-Clark's sourcing policy (Walker, 2014), and Human Rights Campaign's (HRC) Corporate Equality Index.

Finally, in Column (3), consider transactions involving bounded externalities, high uncertainty, and high ex post information asymmetry, that is, situations where groups of actors with shared interests are trying to work together to develop a collective solution, but lack the ability to judge the efficacy of the solutions they develop; for instance, doctors looking to share their experience and knowledge with each other, but being unable to verify the accuracy of knowledge shared. The comparatively efficient arrangement for such transactions may be a social platform, which is a collaborative platform created and managed by a nonprofit entity. Social platforms work much like sharing economy platforms, in that they enable members of the community to interact and cooperate in new ways, except that because of the ex post information asymmetry involved, such platforms are better run by nonprofits than by for-profits—the intuition being that the relative disadvantage of for-profits in playing a fiduciary role is greater than the disadvantage of nonprofits in driving innovation. Examples include the Ushahidi platform (George et al., 2012) or the Edustar platform (Chatterji & Jones, 2012). Several open source or user communities (Franke & Shah, 2003; Shah, 2006) are also organized by nonprofits—for example, Unix, the Mozilla Foundation—precisely because of the fear of opportunistic action by for-profit platform owners.

#### 4.4 | Regulation, government provision, and public-private partnerships

Row (5) in Table 2 considers cases where externalities are general—that is, situations where the effects of the transaction are felt by the general population, suggesting the need for some form of state intervention—but ex post information asymmetry is low. Where both commercial co-specialization and uncertainty are low, as in Column (1), the comparatively efficient arrangement is likely to be state bureaucracy, especially in cases where financial or economic considerations are not primary or where frequent adaptation is not desirable, so that bureaucratic inefficiency may be a design feature, enabling probity and credible commitment (Williamson, 1996, 1999, 2000; Henisz, 2000). In such situations, the state may choose the level of the good to supply for its citizens and undertake the provision of the public good itself (Olson & Zeckhauser, 1970). Examples include the military, police and fire departments, IRS, and so on. The state may also play a maintenance role in the case of naturally occurring common pool resources that are of value to society at large, for example, the National Park Service and various federal and state fish and game administrations.

Moving to Column (2), where general externalities are combined with commercial co-specialization—that is, when the externalities in question are generated by the business activities of firms—it may be more efficient for the state to play an indirect role, influencing the actions of for-profit firms rather than managing public good provision directly. In the case of negative externalities, this may involve monitoring of for-profit firm activities by state-run regulatory agencies, for example, OSHA, EPA. In the case of positive externalities, it may involve the provision of subsidies or tax incentives, such as government support for electric vehicles and alternate energy production, for example, state support for wind energy (Marcus & Fremeth, 2016). In cases with positive externalities, the government may also fund consumption by its citizens, paying for-profits for the provision of goods and

services to those who cannot afford them (but, importantly, can accurately assess their value), for instance through food voucher programs, Medicare, and so on.<sup>13</sup>

Where general externalities are combined with high uncertainty, as in Column (3), government contracting may be the comparatively efficient governance arrangement. In such cases, innovation is desirable, and may be best achieved by the government taking responsibility for the provision of the good or service (to fully account for externalities), but contracting the actual provision out to a for-profit enterprise that would then have the incentive to achieve greater efficiency and cost-saving. Examples include private provision of city services such as road maintenance or trash collection (Levin & Tadelis, 2010; Warner & Hefetz, 2008). The state may also play an important role in funding scientific research through public grants (NSF, NIH, etc.) and public-private research collaborations (Bruce, Figueiredo, & Silverman, 2018), with such support being especially important in pursuing basic scientific research, developing general purpose technologies, or seeding new technology domains and markets—all contexts with high general externalities where new innovations produce substantial knowledge spillovers (Mazzucato, 2015).<sup>14</sup> Note that such contracting is only advisable in cases where ex post information asymmetry is low and the quality of private provision is easily monitored or assessed<sup>15</sup>; where this is not the case the benefits of innovation may be offset by the costs of quality shading and other forms of private expropriation (Brown & Potoski, 2003; Hart, 2003; Hart et al., 1997; Levin & Tadelis, 2010).

Finally, Row (6) considers the case where externalities are general and ex post information asymmetries are high; in other words, cases where actions generate widespread externalities, but those affected by the externalities either have no voice, or are unable to correctly measure and assess the effect of these externalities for themselves. Examples include actions leading to climate change, which affect everyone on the planet, but whose exact causes and consequences are challenging to assess (Lyon & Maxwell, 2011). They may also include provision of such services as prisons or primary schools where ex post information asymmetries may be high because those directly experiencing the service (prisoners, children) may not be able to credibly voice complaints over how they are treated, creating the potential for quality shading (Hart et al., 1997). Given low uncertainty and limited commercial co-specialization, as in Column (1), the comparatively efficient governance arrangement in such situations is likely to be a collaboration between the state and a nonprofit. This may involve government sponsorship of nonprofits, with the state using its coercive authority to raise funds for the provision of a good or service, while the nonprofit plays the fiduciary role of ensuring that the funds are used appropriately. Examples include charter schools (Beckman & Gatewood, 2011)—which are funded by the state in recognition of the externalities of education, but managed as nonprofits given the high ex post information asymmetry involved—and government contributions to foreign aid efforts run by nonprofit organizations (Kapucu, 2006). This category may also include political activism by advocacy nonprofits (Skocpol, 2003; Yaziji & Doh, 2009), for example, Sierra Club, ACLU, NRDC.

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<sup>13</sup>Toll goods—which have high excludability but are nonsubtractable (Ostrom, 2005, 2010)—are generally best governed as for-profits, given the potential for natural monopoly, but may require some state intervention to help resolve uncertainty about future demand (Klein et al., 2013; Rangan et al., 2006).

<sup>14</sup>Mazzucato (2015) ascribes the advantage of the state in funding such research to its superior ability to tolerate “uncertainty,” while bemoaning the state’s inability to capture the value from its investments in fundamental research. We contend that it is precisely the infeasibility of capturing value from these investments—a reflection of the positive externalities associated with them—that makes state funding comparatively efficient (and necessary). Note, moreover, that the role of the state in our analysis (as in Mazzucato’s) is to fund and support private (for-profit or nonprofit) innovation, not to undertake such innovation on its own.

<sup>15</sup>In the case of state support for science, ex post information asymmetry is moderate, given the substantial technical expertise required. This is why such support is often channeled through relatively independent agencies (e.g., NSF, SBIR) and relies heavily on the scientific expertise of the public servants involved (Bruce et al., 2018)

Where general externalities and high ex post information asymmetry are combined with either high commercial co-specialization or high uncertainty, as in Columns (2) and (3), the appropriate governance arrangement is more complicated. The logic of our argument would suggest a tri-partite collaboration between the state, nonprofits, and for-profits in such cases, but as already discussed, such a collaboration may be difficult given high coordination costs. Where these coordination costs can be resolved, the comparatively efficient arrangement is nonprofit provision with technical assistance from a for-profit and funding from the state. This is the case, for example, in the UN World Food Programme, wherein a nonprofit entity addresses world hunger with support from the UN's member states and in partnership with leading food companies that provide technical expertise and distribution, leveraging economies of scope with their core businesses.

Where the coordination costs of bringing together three governance forms are too high, the comparatively efficient governance arrangement may be to fall back on a simpler hybrid, with one form playing a dual role. This generally happens in one of three ways. First, as already mentioned, nonprofits may take on the role of the state, working with for-profits as partners, certifiers, or advocates of for-profit social initiatives. Examples include such nonprofits as the Rainforest Alliance, UTZ, and the Marine Stewardship Council (Prakash & Potoski, 2012) that promote sustainable practices through a combination of certification and collaboration. Second, nonprofits (or, better yet, social enterprises) may step up to play an innovative role in lieu of for-profits, while collaborating with the state. Thus, nonprofits may serve as public entrepreneurs (Klein, Mahoney, McGahan, & Pitelis, 2010), devising novel solutions to social problems (Shah, Agarwal, & Sonka, 2017), and then seeking to mobilize support behind these solutions in order to have them institutionalized by the state, for example, the development of new software and business models to provide emergency medical services (EMS) in Indian cities (George, Rao-Nicholson, Corbishley, & Bansal, 2014). Third, the state may be tasked with playing a fiduciary role (in lieu of nonprofit involvement), protecting the interests of its citizens against exploitation by for-profits and developing the expertise necessary to (at least partially) play the nonprofit's role. In such cases, the comparatively efficient governance arrangement is a public-private partnership (PPP) (Kivleniece & Quelin, 2012; Rangan et al., 2006). This may include complex and contingent contracts for for-profit provision supported and closely monitored by the state, so as to enable the firm to innovate and realize economies of scope while the state ensures the public benefit (Brown, Potoski, & Van Slyke, 2016; Potoski, 1999), for example, Project XL (Delmas & Marcus, 2004; Marcus, Geffen, & Sexton, 2002). It may also include collaborative or joint provision by the state and for-profits, where the state is able to closely monitor the quality and appropriateness of the service provided, while allowing the for-profit to innovate and improve efficiency, for example, hybrid governance in prisons (Cabral et al., 2013), as well as certification programs run by state agencies (Delmas & Toffel, 2008), for example, EnergyStar, National Organic Program.

Overall, rows (5) and (6) of Table 2 offer a nuanced picture of the role of the state in dealing with social issues (Stiglitz, 1989). On one hand, they suggest that the range of activities for which direct provision by the state is the comparatively efficient solution is fairly limited, consisting only of situations where both ex post information asymmetry and commercial co-specialization are low, and stability over time is to be privileged over innovation (Shleifer, 1998). As such, our analysis embraces the notion of government failure (Coase, 1964; Maskin & Tirole, 2008), highlighting, in particular, the comparative ineffectiveness of public bureaucracy in both driving efficiency and innovation (Schmidt, 1996) and representing the interests of local communities (Ostrom, 1990). On the other hand, we also highlight the critical role of the state in funding or otherwise supporting activities with

widespread externalities (Olson, 1965, 1986), including scientific and technological research (Mazzucato, 2015).

Similarly, Column (2) in Table 2 offers a more nuanced view of CSR activities, stressing how the nature of CSR varies with the extent to which the benefits provided are excludable. Thus, CSR activities may range from those involving social goods (Kaul & Luo, 2018) where the benefits are perfectly excludable and go to specific individuals or organizations (e.g., Buy One Give One programs, pro bono services), to activities that benefit specific communities (e.g., fairtrade initiatives, labor standards), to for-profit provision of public goods (Cornes & Sandler, 1983; Murdoch & Sandler, 1997) where the benefits from the firm's activities are diffused across the entire population (e.g., pollution reduction, lower carbon footprint). What these different initiatives have in common is that they leverage economies of scope with the firm's commercial activities to serve the disenfranchised, and rely on rewards from other stakeholders for doing so—and this, in turn, means that they depend on oversight by third parties to represent the interests of the disenfranchised (Besley & Ghatak, 2007; Kaul & Luo, 2018), though the nature of this oversight varies with the nature of benefits involved.

More generally, two points about Table 2 are worth highlighting before we close. First, the various cells in the table are best thought of as points along a continuum rather than as silos. Clearly, the choice among the various governance arrangements depicted in the table will depend upon the relative magnitude of the market frictions to which a transaction is subject. So, for instance, the easier (or less costly) a service is to monitor or assess, the greater the relative advantage of government contracting compared to PPPs (Hart, 2003; Hart et al., 1997). Second, Table 2 suggests that the comparatively efficient arrangement to govern a transaction may change as the nature of market frictions changes. So, for instance, as creative uncertainty increases, goods and services that were once provided by the state directly may be better contracted out to private actors, as instanced by the rise of private military contractors in the aftermath of the cold war, as the United States tried to adapt to new types of warfare (Baum & McGahan, 2013). Similarly, changes in social values and beliefs—for example, changing gender roles or changing perceptions of military efforts—may increase the transaction costs associated with community organizations, prompting a shift to professionalized nonprofits over time (Skocpol, 2003). Our theoretical framework thus helps to explain the tradeoffs between different governance arrangements, and the factors that may privilege one over the other across time and place.

## 5 | DISCUSSION

In this study, we sought to answer the question: What is the comparatively efficient governance arrangement for dealing with social issues? To do so, we drew on a wide range of prior research to highlight the comparative advantage of different organizational forms in dealing with various market frictions. We then developed a conceptual mapping between the combination of market frictions to which a transaction is subject, and the comparatively efficient arrangement—either a pure form, or a hybrid—under which it is governed. Our mapping identifies 15 distinct types of transactions where social problems of allocation arise, and shows how private arrangements—for-profits, nonprofits, and collectives—may play an important role in efficiently addressing these problems, with 9 of these 15 types requiring no state intervention at all.

By providing a coherent and holistic theory of the comparatively efficient governance arrangement for dealing with social issues, our study contributes to work in strategy, organizations, and public policy. We contribute to the nonmarket strategy literature (Baron, 2016; Dorobantu, Kaul et al., 2017) by offering a comprehensive theory of how businesses can help deal with social issues

(George et al., 2012; Mahoney et al., 2009). In particular, we move beyond the idea the firms may benefit financially from being socially responsible (Barnett & Salomon, 2012; Flammer, 2015; Waddock & Graves, 1997) to argue that there are conditions under which they may be comparatively efficient in enhancing social welfare, especially where there is a need to develop novel solutions to social problems (Agarwal, Audretsch, & Sarkar, 2007; Klein et al., 2010), or where there are economies of scope between their private operations and the provision of public goods (Besley & Ghatak, 2007; Kaul & Luo, 2018). At the same time, we also highlight important boundary conditions for for-profit involvement, stressing the potential for self-serving actions by firms (Akerlof & Shiller, 2015; Kaul & Luo, 2018; Milgrom & Roberts, 1986) and the consequent need for active monitoring of these efforts by those better suited to playing a fiduciary role.

For research on organizations, our study delves deeper into the logic of hybrid organizations (Battilana & Lee, 2014; Mahoney & McGahan, 2007), highlighting the role of such cross-sector collaborations in addressing key social issues (Cabral et al., 2013; Klein et al., 2013; Lenox & Chatterji, 2018). While existing work in this area has generally focused on the challenges such forms face in combining competing logics, and the ways in which they organize to overcome these challenges (Battilana & Dorado, 2010; Pache & Santos, 2010), we complement these perspectives by providing a theoretical rationale grounded in comparative efficiency for why these hybrid arrangements exist in the first place. In particular, we emphasize conditions under which these hybrids may be more efficient than the pure forms they bring together, despite the higher coordination costs of combining forms.

Finally, our study also speaks to research in public policy. We extend work in new institutional economics (Coase, 1984; North, 1986; Williamson, 2000) by applying the comparative governance approach of dealing with “incomplete contracting in its entirety” (Coase, 1937; Hansmann, 1996; Williamson, 1996, 1998) to the resolution of social problems (Coase, 1960). As such, we move beyond doctrinaire approaches (Stiglitz, 1989) that either champion or question private involvement in serving public interests (Barley, 2007; Shleifer, 1998) to offer a contingent account of the role of public bureaucracy (Williamson, 1999; Wilson, 1989), highlighting the need for state involvement in overcoming externalities on one hand, and the potential for government failure (Coase, 1964; Stiglitz, 1989) on the other, and suggesting that while direct state provision is rarely comparatively efficient, state support of private initiatives is often welfare enhancing.

As mentioned in the introduction, our study is limited in that we focus on issues of allocation rather than distribution (Arrow, 1969; Pitelis, 2013), highlight comparisons between arrangements rather than within them, and do not study, or claim to predict, the process through which governance arrangements are chosen (Klein, Mahoney, McGahan, & Pitelis, 2018; North, 1990; 2006). While these are certainly important issues worthy of further attention, we suggest that they must reside outside the scope of the current study, which is already quite ambitious in the ground it covers. Future research could explore these issues, using the framework in Table 2—and the logic underpinning it—as a starting point. In particular, it may be useful and important to examine how distributional imperatives interact with the considerations of allocative efficiency (Arrow, 1985); in a world of positive transaction costs the determination of property rights is itself subject to allocation problems, so that the choice of governance arrangements may have important implications for how property rights (and consequently economic value) are distributed among actors (Williamson, 1995). Thus, the choice of governance arrangements may determine whose interests get priority, with the rise of professional nonprofits, for example, potentially increasing the emphasis on “post-material” issues that are of greater salience to the upper- and middle-class citizens whose donations fund these nonprofits

(Berry, 1999; Skocpol, 2003). Examining how greater attention to property rights impacts our discriminating alignment framework is thus a potentially important extension of our study.

As one of the first studies to attempt a comprehensive mapping of the comparatively efficient governance arrangement across the range of market frictions, our article is also limited in that it is meant to be largely exploratory—intended more to serve as a foundation for further development than as a definitive theoretical account. Institutional arrangements take a great diversity of forms in practice, and the factors that drive the choice between them are varied and complex (Ostrom, 2005, 2010), far outstripping what may be analyzed in a single article. Our hope is that by laying out the range of governance arrangements that may be used to solve social issues, and the conditions under which they may be comparatively efficient, our study will help set an agenda for further research into how social issues are best governed.

Future work could also assess the validity of our arguments empirically. One way to test our theory would be to match the nature of the activity to the relative prevalence of governance arrangements, using variance in market frictions over time and geography. While we recognize, as acknowledged earlier, that the choice of governance arrangement may be driven by a variety of factors, we nevertheless expect that institutions will evolve, however gently, toward efficiency (Demsetz, 1967; Ingram & Clay, 2000), so that as the underlying nature of transactions change, the arrangements used to govern them should also change in the direction predicted by Table 2. A second, more direct way to test our theory would be to study the relative welfare performance of alternate governance arrangements, the prediction being that arrangements that conform to our theory will outperform those that do not.

To conclude, our study provides a systematic, albeit preliminary, answer to the question: what is the comparatively efficient governance arrangement to deal with social issues? Drawing on a range of disciplines, we derive the comparative advantage of different organizational forms in governing different sources of market frictions, and use this to develop a comprehensive mapping between the nature of a transaction and the comparatively efficient governance arrangement. In doing so, we not only move beyond a doctrinaire emphasis on the virtues of private or public actors in addressing social problems, we highlight the role of a wide range of hybrid forms in this regard. Our study thus contributes to literature in strategy, organizations, and public policy, offering both a theoretical rationale for various forms of private action in public interest, and a pragmatic basis for choosing the comparatively efficient arrangement to deal with any given social problem.

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## ORCID

Jiao Luo  <https://orcid.org/0000-0002-8003-3958>

Aseem Kaul  <https://orcid.org/0000-0003-1455-6897>

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## SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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**PRIVATE ACTION IN PUBLIC INTEREST:  
THE COMPARATIVE GOVERNANCE OF SOCIAL ISSUES**

**Jiao Luo\*\***

Carlson School of Management, University of Minnesota  
321 19<sup>th</sup> Avenue South, Minneapolis MN 55455  
e-mail: [luoj@umn.edu](mailto:luoj@umn.edu)

**Aseem Kaul**

Carlson School of Management, University of Minnesota  
321 19<sup>th</sup> Avenue South, Minneapolis MN 55455  
e-mail: [akaul@umn.edu](mailto:akaul@umn.edu)

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**Online Appendix\*\*\***

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\*\* Authors contributed equally and are listed in reverse alphabetical order.

\*\*\*This is the full version of the paper. An abridged version, shortened to meet length requirement, is included in the journal.

**PRIVATE ACTION IN PUBLIC INTEREST:  
THE COMPARATIVE GOVERNANCE OF SOCIAL ISSUES**

**Research Summary**

We develop a theoretical framework to define the comparatively efficient organizational form for dealing with a social issue, based on the market frictions associated with it. Specifically, we argue that for-profits have an advantage in undertaking innovation and coordinating production economies, non-profits in playing a fiduciary role given *ex post* information asymmetry, self-governing collectives in dealing with bounded externalities through private ordering, and state bureaucracies in governing general externalities. We build on these arguments to develop a mapping between combinations of these market frictions and the comparatively efficient arrangements to govern them, including a variety of hybrid arrangements such as private-public partnerships, social enterprises, corporate social responsibility, etc. Our framework thus contributes to research in strategy, organizations, and public policy.

**Managerial Summary**

What is the best way to deal with a social problem? While some believe such problems are best left to the state, others argue that business should take the lead in solving them, or favor non-profit solutions. In this paper, we move beyond such one-size-fits-all approaches, highlighting the different strengths of different organizational forms. We argue that for-profits' strong incentives make them more innovative; non-profits are more trustworthy in representing the best interests of others; collectives enable actors to self-organize around a common interest; and the state is best for issues that impact the entire population. We thus develop a mapping between the nature of the social problem and the organizational form—or combination of organizational forms—that may deal with it most efficiently.

**Keywords:** market frictions; externalities; information asymmetry; collective action; transaction cost; institutional economics; non-market strategy; non-profit; public-private partnerships; hybrid organizations

## Introduction

The role of for-profit businesses in addressing social problems—climate change, disease, hunger, poverty, exploitation, *etc.*—is a topic of growing interest in the field of strategic management (Barney, 2005; Mahoney, McGahan, and Pitelis, 2009; George *et al.*, 2016). Building on an early emphasis on the ethical imperative for firms to recognize and take responsibility for the broader consequences of their actions (Freeman, 1984; Stern and Barley, 1996; Hinings and Greenwood, 2002; Hahn, 2008), the literature has increasingly come to emphasize the strategic value of socially responsible actions (Baron, 2001; McWilliams and Siegel, 2001; Porter and Kramer, 2006; 2011; Dorobantu, Kaul, and Zelner, 2017; Flammer and Luo, 2017). While this work provides strong evidence for a positive link between corporate social responsibility (CSR) and firm financial performance (Waddock and Graves, 1997; King and Lenox, 2001; Barnett and Salomon, 2012; Henisz, Dorobantu, and Nartey, 2014; Flammer, 2015), it is far from clear that such activities truly contribute to social welfare (Barnett, 2016; Jones *et al.*, 2016; Amis, Munir, and Mair, 2017; Kaul and Luo, 2018). After all, there are many other organizations—government agencies (Pigou, 1920; Olson, 1965; Arrow, 1969; Shleifer, 1998), non-profits (Rose-Ackerman, 1996; Besley and Ghatak, 2001; 2003; 2007; Johnson and Prakash, 2007; Marquis, Davis, and Glynn, 2011), self-regulating collectives (Ostrom, 1990; Prakash and Potoski, 2007; 2012; Yue, Luo, and Ingram, 2013), and various hybrid forms (Pache and Santos, 2010; Battilana and Lee, 2014)—that could and do address social problems. In order to determine whether and when for-profit actions to address social problems are welfare enhancing, we therefore need a more holistic theory of the comparative advantage of various organizational arrangements in addressing social issues.

In this paper, we offer an initial attempt at such a theory. Specifically, we focus on social issues of allocation—*i.e.*, social problems that arise on account of market frictions that result in Pareto suboptimal resource allocations (Debreu, 1959; Coase, 1960; Arrow, 1969; Arrow and Hahn,

1970)<sup>1</sup>—and determine the comparatively efficient governance arrangement for dealing with such issues. Our analysis builds on the new institutional economics (NIE) tradition (Coase, 1984; Williamson, 2000; Dorobantu *et al.*, 2017), in that we focus on the transaction costs<sup>2</sup> that drive suboptimal welfare outcomes, identify the organizational forms best suited to dealing with those transaction costs, and derive the governance arrangement that would be comparatively efficient in addressing them<sup>3</sup>. Rather than take a doctrinaire approach that champions a particular solution to social issues (Stiglitz, 1989), we thus offer a discriminating alignment approach wherein “transactions, which differ in their attributes, are aligned with governance structures, which differ in their cost and competence, so as to effect a discriminating—mainly a transaction cost-economizing—result” (Williamson, 1996; p. 12).

Adopting this general approach, we contend that social issues of allocation arise primarily on account of two types of market friction—externalities and (*ex post*) information asymmetries—though they may be exacerbated by uncertainty and production economies. We then argue that private organizations have distinct advantages in dealing with these market frictions: non-profit organizations are uniquely well-suited to playing a fiduciary role in situations with high (*ex post*) information asymmetry, self-governing collectives provide a superior means of private ordering in situations with bounded externalities, and for-profit firms are well-positioned to innovate and devise new solutions in the face of creative or absolute uncertainty, as well as to realize economies of scope between commercial and non-commercial activities (Besley and Ghatak, 2007; Kaul and Luo, 2018).

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<sup>1</sup> We discuss the distinction between issues of allocation and issues of distribution, as well as the link between issues of allocation and market frictions, in more detail in the next section.

<sup>2</sup> By transaction costs we mean the broad set of costs of running the economic system (Coase, 1937; Arrow, 1969), including costs of bargaining, maladaptation, and measurement (Williamson, 1996). Market frictions are the characteristics of market exchanges that give rise to these transaction costs (Mahoney and Qian, 2013).

<sup>3</sup> As Coase puts it, “Economists who study problems of the firm habitually use an opportunity cost approach and compare the receipts obtained from a given combination of factors with alternative business arrangements. It would seem desirable to use a similar approach when dealing with questions of economic policy and to compare the total product yielded by alternative social arrangements” (Coase, 1960; p. 42).

These private forms may prove inadequate, however, in dealing with general externalities, where the state's coercive authority to tax, proscribe, and punish gives it a unique advantage (Arrow, 1969; Stiglitz, 1989; Klein *et al.*, 2013). Building on these arguments we develop a conceptual mapping between the underlying features of social problems and the governance arrangement that may be most efficient in dealing with them. Our mapping not only considers the choice between pure forms, but also includes a range of hybrid arrangements that combine features of these pure forms in response to different combinations of market frictions (see Figure 2 below). We thus offer a holistic theory explaining the existence of these hybrid arrangements, based on their comparative efficiency in dealing with social issues.

In putting forward our theory, we do not claim to provide a panacea for all social ills. Our analysis is focused on efficiency considerations and does not consider ethical issues related to the distribution of endowments and power in society<sup>4</sup>. We also rely throughout on the principle of remediableness<sup>5</sup>, so that the governance arrangements we highlight are not optimal or flawless, just more likely to be effective than other feasible arrangements on average. Moreover, our framework is not meant to predict which governance arrangements will arise in practice. We recognize that the choice of governance arrangements may be driven by a wide range of cultural, normative, or relational pressures (DiMaggio and Powell, 1983; Galaskiewicz and Wasserman, 1989; DiMaggio and Anheier, 1990; Marquis, Glynn, and Davis, 2007) that have little to do with efficiency (North, 1990). Our purpose is simply to describe the feasible governance arrangements that would be chosen were efficiency the sole criterion, so as to provide a baseline against which deviations from the goal of comparative efficiency may be assessed.

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<sup>4</sup> As a recent call for management research on welfare issues puts it, “we cannot deal with multiple dimensions of social welfare simultaneously, making a social optimum a destination beyond our reach”, with the result that “focusing on Pareto improvements in aggregate economic welfare becomes a reasonable approach” (Jones *et al.*, 2016, p. 221).

<sup>5</sup> According to which “an outcome for which no feasible superior alternative can be described and implemented with net gains is presumed to be efficient” (Williamson, 1996; p. 195).

By providing a coherent and holistic theory that maps distinct types of social issues to the governance arrangements that may be comparatively efficient in addressing them, we advance research in strategy, organizations, and policy. Our study highlights the potential advantage of for-profit firms in advancing social welfare (Besley and Ghatak, 2007; Kaul and Luo, 2018), thus answering recent calls for a broader, more inclusive view of value creation in the strategy literature (Mahoney *et al.*, 2009; George *et al.*, 2012), while also pointing to reasons why an exclusive reliance on for-profit firms in solving social issues may be inadvisable. We also emphasize the role of hybrid organizational forms and cross-sector partnerships (Mahoney and McGahan, 2007; Battilana and Lee, 2014; Lenox and Chatterji, 2018)—including various forms of public-private collaboration (Cabral, Lazzarini, and de Azevedo, 2013; Klein *et al.*, 2013)—in addressing social issues, and offer a theoretical rationale for the comparative efficiency of such forms relative to pure types. In addition, we contribute to research in new institutional economics (Coase, 1984; North, 1986; Williamson, 2000), applying the insights of this work on the organization of business transactions (Coase, 1937; Williamson, 1975; 1985; 1991a; 1996; Hansmann, 1996) to the organization of transactions involving social issues (Coase, 1960; Olson, 1965). Our study thus sets the stage for further research into how activities at the intersection of public and private interests are best organized (Olson, 1986; Buchholtz and Konrad, 1995; Besley and Ghatak, 2001; 2007; Kaul and Luo, 2018).

### **Social issues and market frictions**

We begin our analysis by delving deeper into the nature of social issues. To do so, we follow a long-standing distinction between issues of distribution and issues of allocation (Musgrave, 1959; Buchanan, 1968; Arrow, 1969; 1985; Cooter, 1982). Issues of distribution reflect questions of justice and fairness (Rawls, 1971; Sen, 2009; Marti and Scherer, 2016) and are fundamentally concerned with how property rights (and the corresponding endowments of income and wealth) are defined

and distributed among social actors. Distribution issues arise because of the problem of social choice, *i.e.*, the problem of aggregating individual values<sup>6</sup> to a single set of social preferences (Arrow, 1951; Sen, 1999). Because any such aggregation is necessarily imperfect (Arrow, 1951), every feasible distribution of rights will inevitably privilege the welfare of some social actors over others (Pitelis and Glykoy-Pitelis, 1991), creating the potential for socio-political conflict. Nevertheless, every society must, at every given point in time, define a social contract (Musgrave, 1970)—*i.e.*, a set of property rights that reflect, however imperfectly, the preference ordering of that society (Arrow, 1951)—as a precondition for any kind of market transactions (North, 1977). This social contract may take the form of the formal institutions of the law and government, that serve to define, establish, and defend the rights of individuals (North, 1977; 1990), as well as the informal institutions of cultural and social norms that prescribe what is considered appropriate in that society (Scott, 1995; Ingram and Clay, 2000). As individual values—and the corresponding social preferences—change, these institutions will adapt to reflect these preferences (North, 1986; 1990), either in the form of radical (and potentially revolutionary) transitions from one institutional system to another (Polanyi, 1957; Nee, 1989; Fligstein, 1990; Padget and Powell, 2012), or in the form of more incremental changes within the existing system, *e.g.*, the implementation of new laws and policies aimed at redistribution of rights and resources (Stigler, 1970; Stiglitz, 1989). This process of institutional change is likely to be contested and slow, however, with institutions being generally resistant to change (North, 1990; 2006; Williamson, 2000) and subject to strong status quo bias (Pitelis and Glykoy-Pitelis, 1991; Pitelis, 1994), so that distributional issues of inequity and injustice may persist unresolved for long periods of time.

A second set of social issues relate to problems of resource allocation (Musgrave, 1959;

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<sup>6</sup> We follow Arrow (1951) in defining individual values to include not only direct consumption preferences but the individual's "general standards of equity" (Arrow, 1951; p. 18). In particular, we make room for the possibility of interdependent or other-regarding preferences (Hochman and Rodgers, 1969; Fong, 2001).

Arrow, 1969). In principle, given a well-defined set of property rights (irrespective of how those rights are distributed), the operation of free markets should ensure that resources are allocated in a Pareto-optimal way (Coase, 1960; Arrow and Hahn, 1970). In practice, however, a variety of market frictions generally hinder the efficient allocation of resources, so that the resulting outcome is rarely Pareto-optimal<sup>7</sup>. In other words, allocation issues mean that even though the welfare of some social actors could be enhanced without reducing the welfare of other actors through the exchange and reallocation of resources within the existing distribution of property rights<sup>8</sup>, such an exchange may fail to take place due to market frictions. Thus, while social issues of distribution deal with choices between Pareto optimal outcomes<sup>9</sup>, social issues of allocation deal with deviations from the Pareto optimal outcome given an *ex ante* distribution choice (Hochman and Rodgers, 1974).

An example may help to illustrate the two types of social issues more clearly. Consider the case of a factory manufacturing fire extinguishers that generates waste that it dumps into a river. The distribution issue here is whether the property rights in the river should be assigned to the fire-extinguisher manufacturer or to a downstream community, which in turn reflects the relative weight we place on the welfare of the community or the welfare of the fire-extinguisher manufacturer (and by extension, its customers and employees). The allocation issue is how, given the assignment of property rights to either party, the use of the stream is to be negotiated, so that the Pareto-optimal outcome may be realized. So, for instance, if the prevailing institutions award the property rights to the downstream community, should the community rely on a government agency to monitor the firm, or a non-profit, or should it organize its own local collective to negotiate an optimal pollution

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<sup>7</sup> As Williamson puts it, “the fiction of zero transaction costs is used thus as an entering wedge and is always and everywhere followed by an insistence on studying the world of positive transaction costs” (Williamson, 1995, p.26).

<sup>8</sup> This includes voluntary transfers of property rights or wealth between actors in response to interdependent utilities (Hochman and Rodgers, 1969)—what Musgrave (1970) terms ‘secondary redistribution’.

<sup>9</sup> Choices that, in the absence of market frictions, could be achieved through lump-sum transfers of endowments according to the second theorem of welfare economics (Arrow, 1969; 1985; Arrow and Hahn, 1970)

level with the firm? Or would it be better if the firm voluntarily curtailed its pollution in exchange for a ‘license to operate’ from the community? In the absence of market frictions—and the resulting transaction costs—any of these organizational alternatives would lead to the same (Pareto-optimal) outcome (Coase, 1960); given market frictions, however, these different alternatives will result in distinct outcomes, that may be more or less efficient, *i.e.*, may deviate less or more from Pareto optimality.

In this paper, we focus on social issues of allocation. While distribution issues are undeniably important, resolving allocation issues is a necessary condition for achieving social welfare (Arrow, 1985). Moreover, we believe the solution to distribution issues lies partly in the domain of ethics (Rawls, 1971; Freeman, 1984) and partly in the domains of political science and sociology that examine how the formal and informal institutions of society develop and change (Nee, 1989; Fligstein, 1990; Haveman and Rao, 1997; King and Pearce, 2010; Mahoney and Thelen, 2010; Padgett and Powell, 2012). In contrast, allocation issues result from market frictions (Coase, 1960; Arrow and Hahn, 1970)—and thus lie well within the purview of strategy scholars, who have long studied how private organizational forms resolve these frictions (Yao, 1988; Mahoney and Qian, 2013). Our focus on allocation issues is thus consistent with the organizational economics tradition of first-order economizing (Williamson, 1985; 1991b; 1996) in order to “get the governance structures right” (Williamson, 2000; p. 599) within the ‘shift parameters’ of the prevailing institutions (Williamson, 1995). It is also consistent with the choice within constraints approach championed by new institutionalism (Ingram and Clay, 2000; Ingram and Silverman, 2002), since we focus on the allocative choices agents make, within the distributional constraints defined by the prevailing formal and informal institutions.

Note that economizing in this sense does not mean simply choosing the option with the lowest production cost, but includes effective adaptation and the elimination of waste (Williamson,

1991b; 1996; Dorobantu *et al.*, 2017). Consistent with the notion of incomplete contracting in its entirety, the comparatively efficient governance structure in our conception is the one that minimizes all relevant costs, including the transaction costs of bargaining, maladaptation, and measurement (Williamson, 1991b; 1996). So, for instance, if for-profit provision were associated with quality shading (Hart, Shleifer, and Vishny, 1997; Hart, 2003) or excessive provision of ‘public bads’ (Benson, 2008), then these maladaptation costs would need to be taken into account when considering whether for-profit provision were truly comparatively efficient. Since all deviations from the Pareto optimal allocation are thus included in costs, our transaction cost minimizing approach to allocation is equivalent to the choice, by farsighted actors, of the (feasible) governance structure that maximizes social value (Williamson, 1991b) within the bounds of prevailing institutions.

If social issues of allocation result from market frictions, does that mean that all market frictions result in social allocation issues? In a sense, they do—since market frictions lead, by definition, to Pareto sub-optimal allocations (Arrow and Hahn, 1970), all market frictions result in a reduction in social welfare from its theoretical maximum, and any governance arrangement that lowers transaction cost relative to the market is thus welfare enhancing. Nevertheless, when we speak of social issues we normally refer to issues that cannot be resolved through the operation of normal commercial or business activities. Many market frictions are adequately resolved in the course of normal business practice; for instance, while the presence of production economies may make market transactions comparatively inefficient, we would not consider this a social issue because such economies may be realized and captured within a (for-profit) hierarchy in the course of normal business transactions (Yao, 1988; Teece, 1980; Mahoney and Qian, 2013). In contrast, we think of pollution as a social issue because normal business transactions are unlikely to result in optimal levels of pollution (Coase, 1960). For our purposes then, we refer to social allocation issues as those that are not resolved in the course of normal business transactions, *i.e.*, where self-interested

actions by empowered agents are insufficient to achieve welfare maximizing outcomes<sup>10</sup>.

As we discuss in more detail below, we assert that such social issues arise primarily as the result of two market frictions: *ex post* information asymmetries and externalities (Coase, 1960; Cooter, 1982; Barr, 1992). *Ex post* information asymmetries mean that agents may lack the knowledge or ability to judge which actions will best advance their own welfare, with the result that they may be unable to act in their own best interest. Externalities mean that agents' welfare is not dependent solely on their own actions, but may depend on the actions of non-excludable others. In both these cases, the welfare outcomes of agents are beyond their immediate, private control—hence the 'social' issue. This is not to suggest, however, that other forms of market friction have no role to play in social issues. On the contrary, a key part of our analysis is to consider how other types of market frictions (Mahoney and Qian, 2013) combine with information asymmetries and externalities to complicate and exacerbate issues of social allocation. More specifically, in what follows we assume that bounded rationality and opportunism feature in all transactions, contributing to incomplete contracting over social issues (Williamson, 1975; 1985; 1991b; 2000)<sup>11</sup>. Further, we argue that issues of social allocation may be exacerbated by the presence of both uncertainty and production economies (Yao, 1988; Mahoney and Qian, 2013). The point is only that (as we discuss further below), these other market frictions do not, by themselves, result in social issues; absent externalities and (some types of) information asymmetries, they may be adequately resolved through appropriate forms of business organization (Penrose, 1959; Williamson, 1975; 1991a; Teece, 1980; Geyskens, Steenkamp, and Kumar, 2006).

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<sup>10</sup> Pitelis (1994) refers to such situations as 'private sector failure'.

<sup>11</sup> That is, we do not consider purely hypothetical scenarios where actors are unboundedly rational, or can be relied on to not behave opportunistically, though we do generally assume that actors are farsighted (Williamson, 1991b; 1995; 1996).

## Market frictions and pure forms

Having distinguished between social issues of distribution and allocation, and linked the latter to market frictions (Yao, 1988; Mahoney and Qian, 2013), we next turn to consider the comparatively efficient governance arrangements to deal with these frictions, in line with a discriminating alignment approach (Williamson, 1996; 1998). In particular, we begin by considering four pure forms: for-profit firms (Coase, 1937; Williamson, 1975; 1985), non-profit organizations (Hansmann, 1980; 1996; Besley and Ghatak, 2001; 2003; Marquis *et al.*, 2011), self-governing collectives<sup>12</sup> (Ostrom, 1990; 2010; King and Lenox, 2000; Prakash and Potoski, 2012; Yue *et al.* 2013), and state bureaucracy (Pigou, 1920; Wilson, 1989; Stiglitz, 1989; Williamson, 1999). We take each market friction, describe the ways in which it may contribute to socially suboptimal outcomes, and discuss the pure organizational form that we contend is most advantageous in dealing with that market friction, comparing it to alternate forms. Note that when comparing organizational forms we hold the transaction itself constant, so that the ability of the different organizational forms to economize on the transaction costs resulting from the market friction is the only driver of their comparative efficiency (Williamson, 1975; 1985)<sup>13</sup>.

\*\*\*Insert Figure 1 about here\*\*\*

Our main arguments are summarized in Figure 1, which offers a mapping between the four types of market frictions—*ex post* information asymmetry, externalities (bounded and general),

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<sup>12</sup> While self-governing collectives are also not-for-profit entities, they are distinguished from non-profit organizations by an emphasis on consensus-based decision making rather than administrative fiat. Thus, while non-profits are run by professional managers, self-governing collectives are run by representatives drawn from among their members (Skocpol, 2003). In practice, of course, the line between the two may blur; a point we return to in the next section where we discuss membership-based non-profits (Clark and Wilson, 1961; Knoke, 1988).

<sup>13</sup> While it may be observationally true that some transactions may ‘only’ be undertaken through a particular form, this is a reflection of the comparative efficiency of the form in lowering the relevant transaction costs. Absent transaction costs, there is no reason why the same transaction could not be organized in other forms (Williamson, 1991b).

(creative or absolute) uncertainty, and production economies<sup>14</sup>—and the four pure organizational forms—for-profits, non-profits, collectives, and state bureaucracy—based on the comparative efficiency of each form in dealing with each type of market friction. As such, Figure 1 offers a composite profile of the comparative logic of the different forms. Thus, we contend that the very combination of ideological motivation and non-distribution constraint that causes non-profits to excel at playing a fiduciary role in the presence of *ex post* information asymmetries, also makes them less innovative and less efficient at realizing production economies. Similarly, the strong incentives that make for-profits exceptionally good at finding innovative solutions and advantage them in realizing production economies, also make them untrustworthy in the face of *ex post* information asymmetries or externalities. State bureaucracies have a strong advantage when dealing with general externalities because of their coercive power over all citizens, but the need for probity in exercising that power makes them slow to change and subject to high levels of contestation and capture, as well as high centralization, leaving them poorly equipped to innovate, or to play a strong fiduciary role. And self-governing collectives can use direct communication and consensus to efficiently achieve private ordering over bounded externalities, but these very characteristics hamper their ability to innovate, realize production economies, or deal with externalities that extend beyond their domain. The rest of this section explains and elaborates these conclusions.

#### *Information asymmetry and non-profit organizations*

We begin by considering market frictions caused by information asymmetry. Problems of information asymmetry have long been recognized as an important impediment to the functioning of markets (Arrow, 1963; 1969; Akerlof, 1970; Yao, 1988; Barr, 1992; Chi, 1994; Akerlof and Shiller, 2015; Oberholzer-Gee and Yao, 2018). For our purposes, we distinguish between two types of

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<sup>14</sup> Our mapping of market frictions draws on that of Mahoney and Qian (2013), except that we group asset specificity and economies of scale and scope under the larger category of production economies (Yao, 1988)—a choice we justify further below—and, as already mentioned, we assume bounded rationality and opportunism feature in all transactions.

information asymmetry: that which exists *ex ante* but may be resolved *ex post*; and that which remains unresolved *ex post*. As has been discussed at length in the literature, the former type of asymmetry may be resolved through a variety of mechanisms, including contingent contracts, repeated transactions, and the establishment of a brand or a reputation by a for-profit business (Klein and Leffler, 1981; Yao, 1988; Nayyar, 1990; Hart, 2008; Cabral, 2016)—so long as the uninformed party to the transaction eventually learns what the informed party knew all along, the resulting transaction costs, though positive, may thus be adequately resolved by for-profit firms. Our focus in this section will therefore be on *ex post* information asymmetry, *i.e.*, on situations where the information asymmetry may persist even after the transaction is complete, since these are the situations where rational and farsighted self-interest on the part of uninformed actors may be insufficient to enable Pareto optimal transactions.

*Ex post* information asymmetry can arise in many ways. Most notably, it may arise in the case of credence goods, *i.e.*, goods where the value of what the consumer receives is unverifiable or extremely costly to verify even after consumption (Darby and Karni, 1973). Such credence goods may include altruistic or social goods, where actors who pay for the goods do not consume them directly, but contribute towards goods and services that are provided to others, and derive utility from the welfare of these recipients (Becker, 1974; Kaul and Luo, 2018). In such cases, the gap between those who receive the goods and services and those who pay for them gives rise to information asymmetry, with the contributing actors having to incur additional costs to verify recipient benefit<sup>15</sup>, and potentially paying for some level of purely symbolic provision (Milgrom and Roberts, 1986; Kaul and Luo, 2018). Such a gap exists when the recipients of the benefit are distant from those paying for the goods and services, either geographically, as in the case of donations for

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<sup>15</sup> Failing such verification, the information asymmetry associated with altruism may result in a dead weight loss, with recipients receiving goods and services that they value less than they cost those paying for them (Waldfogel, 1993).

disaster relief or aid to foreign countries (Tilcsik and Marquis, 2013; Gatignon and Ballesteros, 2018), or in time, as in actions undertaken for the benefit of future generations. It may also exist when the recipients lack the ability or expertise to represent their own interests, *e.g.*, day care for young children (Nelson and Krashinsky, 1973), nursing care for the elderly (Hansmann, 1987; Baum and Oliver, 1996), or protection for animals and wildlife; or cannot be trusted to do so honestly, *e.g.*, the treatment of criminals in prisons, or drug addicts in rehabilitation centers.

Problems of non-verifiability may also occur in the case of ‘merit goods’ (Musgrave, 1959; Head, 1966; Besley, 1988), where individuals may lack the knowledge or expertise to properly assess the value of what they are receiving, and must rely on the opinion of experts to judge its utility. So, for instance, parents who have received no formal schooling themselves may find it difficult to evaluate the quality of schooling received by their children (Beckman and Gatewood, 2011), and patients may find it hard to assess the quality of medical care they receive (Arrow, 1963), so that patient satisfaction may be weakly (or even negatively) correlated with health outcomes (Fenton, Jerant, and Bertakis, 2012). Similar problems may arise where transactions are complex and their outcomes are causally ambiguous (Lippman and Rumelt, 1982; Chi, 1994), so that it may be hard to tell, even *ex post*, whether the observed outcome was the result of deliberate action (or inaction) on the part of the transaction partner. So, for instance, a key challenge in measuring school performance is the range of tasks involved in schooling and the difficulty of ascribing student performance to a single cause (Ravitch, 2013).

Finally, *ex post* information asymmetry may also result from challenges in measuring transaction outcomes (Chi, 1994; Besley and Ghatak, 2005; Hwang and Powell, 2009). In some cases, for instance, the outcomes of a transaction may be imperfectly measured, in that there may be a gap between perfunctory performance (*i.e.*, the minimum level of performance that may be measured with certainty) and consummate performance (*i.e.*, the maximum level of performance that

could be achieved through the transaction), leaving room for quality-shading (Hart, 2003; 2008; Hart and Moore, 2008) and moral hazard (Hölmstrom, 1979; Chi, 1994; Luo, Kaul, and Seo, 2018). Relatedly, measurement problems may occur where the benefits to the recipient are complex (Hölmstrom and Milgrom, 1991) or subjective (Waguespack and Salomon, 2015). Measurement problems may also arise where measurement, though technically feasible, is costly, making comprehensive assessment infeasible (Kaul and Luo, 2018). Note that these various sources of *ex post* information asymmetry are not mutually exclusive and may co-occur. So, for instance, problems of climate change are fraught with *ex post* information asymmetry because they are meant to benefit beneficiaries (future generations) with whom we cannot communicate, require substantial expertise to determine cause and effect, and involve optimizing across a range of relevant dimensions (Lyon and Maxwell, 2011).

In all these cases, *ex post* information asymmetry impairs the functioning of markets, making it challenging for transacting parties to correctly assess the value of transactions (Hansmann, 1980; Anheier and Ben-Ner, 1997), and causing skeptical actors to choose not to transact, while naïve actors receive less than they pay for. Clearly, the resulting transaction costs would be lower if the less-informed party could rely on its transaction partner to act with probity, *i.e.*, to discharge the transaction with loyalty and rectitude (Williamson, 1999). Our contention in this study is that non-profit organizations have a comparative advantage in playing this fiduciary role, *i.e.*, in serving as reliable representatives of the interests of vulnerable parties. First, non-profits operate under a distribution constraint, which serves as a form of credible commitment to ensure that the value they create is in the service of their cause and is less likely to be appropriated by other interests than under alternate governance forms (Nelson and Krashinsky, 1973; Hansmann, 1980; 1987; Glaeser and Shleifer, 2001). The relatively weak incentives of non-profits thus make them less liable to problems of quality-shading or merely symbolic provision (Hansmann, 1980; 1987; Hölmstrom and

Milgrom, 1991; Hart, 2003; Acemoglu, Kremer and Mian, 2007; Kaul and Luo, 2018) and, in the case of merit goods, may incline them to give people what they need rather than what they want. Second, non-profits tend to be ideologically driven, designed to serve a specific cause or reify a specific ideology (Weisbrod, 1977; Rose-Ackerman, 1996; Besley and Ghatak, 2001), and often attracting and selecting workers whose personal preferences are aligned with the cause (Clark and Wilson, 1961; Bowles, Gintis, and Osborne, 2001; Francois, 2000; Belsey and Ghatak, 2003; Akerlof and Kranton, 2005). As a result, non-profits may be naturally less inclined to take advantage of *ex post* information asymmetry. Third, because non-profits derive their legitimacy from the efficacy with which they serve the focal cause (DiMaggio and Anheier, 1990; Baum and Oliver, 1996) as well as their responsiveness to the voices of their constituents and community (Ben-Ner, 1986; Knoke, 1988; Anheier and Ben-Ner, 1997)<sup>16</sup>, they may be especially concerned with maintaining a positive reputation (Cho and Zhou, 2017), and therefore less likely to take advantage of *ex post* information asymmetry given the chance of being found out. Finally, being committed to a single cause means that non-profits may have both the incentive and the ability to develop more specialized knowledge around an issue, and may thus be better positioned to serve as experts in situations involving merit goods. For all these reasons, non-profit organizations have a comparative advantage in undertaking transactions involving high *ex post* information asymmetry.

This is not to suggest that non-profits do not cheat at all (Omer and Yetman, 2007; Burbano and Ostler, 2017)—certainly non-profits may be equally susceptible to managerial self-dealing and other types of agency problems as other organizational forms. Nevertheless, the combination of weak incentives and the fact that distribution of surplus is expressly illegal in this case means that non-profits may be more apt to act with probity (Williamson, 1999) and less inclined to self-serving

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<sup>16</sup> It follows that non-profits founded to satisfy the personal agenda or ego of their founder (Hovarth and Powell, 2016), serve elite interests (Marquis *et al.*, 2011), or simply to take advantage of public support (Rose-Ackerman, 1996) may be unresponsive to or unrepresentative of the needs of vulnerable parties, and thus fundamentally inefficient.

behavior than any other organizational form, making them comparatively efficient in dealing with *ex post* information asymmetry in a remediable sense (Rose-Ackerman, 1996; Williamson, 1996; 2000)<sup>17</sup>. In particular, the lack of a profit motive, or of other competing objectives, means that non-profits may be less susceptible to the incentive conflict that must inevitably compromise the probity of other organizational forms, given the infeasibility of selective intervention (Williamson, 1985; 1996). In other words, even if non-profit employees are just as likely to take advantage of *ex post* information asymmetry to benefit themselves, they at least have little or no incentive to take advantage of *ex post* information asymmetry to benefit anyone else (*e.g.*, shareholders). Note, moreover, that our contention is only that non-profits will be more likely to represent the interests of those they are trying to serve; this does not mean they will not cheat or act dishonestly towards others. In fact, faced with a situation where they can advance their cause at the cost of others, non-profits may be equally, if not more, likely to behave dishonestly, *e.g.*, by avoiding taxes (Omer and Yetman, 2007) or helping their patients move up unfairly on a transplant list (Burbano and Ostler, 2017)<sup>18</sup>.

To better understand the advantage of non-profits in this context, consider, briefly, the other organizational forms. For-profit firms are ill-equipped to play a fiduciary role and safeguard the interests of ill-informed actors, because the very high powered incentives that make them more willing to innovate and take risks (as discussed further below) also make them most likely to try and appropriate value from a transaction for themselves at the expense of their transaction partners (Hart *et al.*, 1997; Francois, 2000; Glaeser and Shleifer, 2001; Hart, 2003; Fischer and Lyon, 2014). Indeed, this is why for-profit firms are rightfully viewed with skepticism when providing credence

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<sup>17</sup> As Rose-Ackerman (1996) puts it, “Although nonprofit managers can, of course, embezzle or misuse funds, at least using a non-profit for private gain is illegal. Thus if one wishes to make a gift, nonprofits should be able to compete for such gifts better than for-profits”.

<sup>18</sup> As we discuss further below, this is why non-profits may be comparatively inefficient in dealing with situations involving general externalities.

goods (Milgrom and Roberts, 1986; Baum and Oliver, 1996; Baum, 1999; Bhanji and Oxley, 2013).

Next, consider state bureaucracies. While the state is certainly tasked with representing the interests of its citizens (at least in a representative democracy), and in that sense could appropriately play a fiduciary role (Williamson, 1999), legislators and regulators are themselves self-interested agents, so that political institutions are subject to substantial contestation (Becker, 1985; North, 1990), and government actors may end up pursuing non-welfare maximizing projects in pursuit of ideological, social, political, or private gains (Maskin and Tirole, 2007). As a result, the interests of minorities, or of those who have no franchise in the political system (such as future generations, immigrants, or foreign nationals) are unlikely to be represented by state bureaucracies—and these are precisely the people who are most likely to bear the costs of *ex post* information asymmetry. Moreover, because of “interventions by multiple authorities and interest groups and strongly conflicting mandates and values” (Klein *et al.*, 2013, p. 71), the political process may require constant trade-offs and compromises (Tirole, 1994), so that the objective of the state is likely to be “less clear, qualitative, changeable, and ill-specified” (Klein *et al.*, 2013, p. 71); indeed, this is the essence of the problem of social choice in the face of pluralistic preferences (Arrow, 1951; Sen, 1999). Such multiplicity of objectives, coupled with the complexity of state bureaucracy, not only makes it difficult to ascertain whether state bureaucracies are truly serving the public interest even after the fact (Stiglitz, 1989), it also limits the incentives for political actors to invest in developing expertise in any single area (relative to actors in non-profits) given the multiplicity of issues they are required to manage<sup>19</sup>. For all these reasons, non-profit organizations are likely to have a substantial advantage in dealing with market imperfections resulting from *ex post* information asymmetry, with consumers turning to them for this purpose where the state is seen as untrustworthy (Brooks and Lewis, 2001;

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<sup>19</sup> These problems may be amplified where regulatory governance is weak (Levy and Spiller, 1994; Spiller and Tommasi, 2005) and the government has been captured by a narrow set of elite interests (Laffont and Tirole, 1991; Hellman, Jones and Kaufmann, 2003; Shleifer, 1998; Holburn and Vanden Bergh, 2008; Dorobantu *et al.*, 2017).

Rangan *et al.*, 2006; Ault and Spicer, 2014).

Finally, non-profits may also be better suited to dealing with problems of *ex post* information asymmetry than self-governing collectives. While collectives would certainly act to articulate and defend the interests of their members, their fiduciary role may be limited to their own membership; when transacting with non-members they may just as likely to prioritize their own interest and act in self-serving ways as for-profits. This may be especially problematic where collectives are formed to be exclusive or to serve elite interests, and may act to capture value for their members at the expense of non-members (Yue *et al.*, 2013). Moreover, because decision making in collectives is consensus-based, it may be harder for them to deal with merit goods problems, because they are likely to base their decisions on what is popular with the many, rather than with the specialized expertise of a few. Of course, collectives where expertise in a given area is the basis of membership—such as in the case of professional associations, *e.g.*, the American Bar Association, the AACSB—may be just as reliable in playing a fiduciary role as non-profits, provided they have strong and credible internal governance (Prakash and Potoski, 2007), and are sufficiently inclusive.

#### *Bounded externalities and self-governing collectives*

A second market friction associated with social issues is the presence of externalities, *i.e.*, situations where each actor's actions impact the outcomes of others, and each actor's outcomes are impacted by the actions of others, creating the need for collective action (Commons, 1931; Coase, 1960; Olson, 1965; Arrow, 1969). These may include negative externalities, whereby the actions of one party harm others, or positive externalities, where the actions of one party benefit others. As the literature has long recognized, reliance on markets may cause positive (negative) externalities to be undersupplied (oversupplied) relative to the social optimum, due to the problem of free-riding—because each actor can benefit from the actions of others, each actor has an incentive to free ride; and because the outcomes of each actor depend on others' actions, every actor has reason to fear

free-riding—a situation poignantly referred to as the ‘tragedy of the commons’ (Hardin, 1968; Cornes and Sandler, 1983; Ostrom, 1990). Prior literature has also distinguished between different types of externalities, specifically based on whether they are excludable and / or subtractable (Buchanan, 1965; Ostrom and Ostrom, 1971; Ostrom, 2005; 2010).

While the distinction between excludability and subtractability is certainly important, in this study we focus on a different distinction, one based on the scope of excludability. In many cases, externalities may be non-excludable but bounded, *i.e.*, there exists a natural constituency of actors who are the sole or primary beneficiaries from the externality (Olson, 1986). So, for instance, while the light from a lighthouse is technically non-excludable, the lighthouse itself is useful only to those sailing in and out of neighboring ports, creating the potential for exclusion (Coase, 1974). Such natural bounds may be the result of proximate geographic location (*e.g.*, local parks, noise pollution, rural economies) or shared affiliation or identity (*e.g.*, workers in the same firm, firms in the same industry)—the point is that a small sub-group of the larger population shares a community of interest that is not shared by everyone else. Where such natural bounds exist, the externality would still be non-excludable within these bounds, but may be excludable across these bounds, *i.e.*, it may be possible to limit any benefit from cooperation to those who are part of the community (Ostrom, 1990). Such exclusion of outsiders will occur naturally if the limits to the community are given or externally defined. So, for instance, workers in an organization who campaign for better working conditions may be unable to exclude others within the organization from benefiting if their demands are granted, but need not fear free-riding by workers in other organizations. Even if the decision to join the community is voluntary, however, those with unique or exclusive preferences may be strongly motivated to participate in the community, because free-riding will incur the high cost of having to accept less preferable collective outcomes (Stigler, 1974).

The possibility that an externality may be naturally bounded—*i.e.*, excludable outside of a

specific sub-set of actors—is important because it creates the potential for private ordering (Williamson, 1996; Baron, 2001; Ahuja and Yayavaram, 2011). In so far as a group of actors can cooperate amongst each other without risking expropriation of the benefits of cooperation by those outside the group, such mutual cooperation may be easier to achieve. Being part of a bounded community will lower the incentive to free-ride, while raising the incentives to monitor each other (Hansmann, 1996), and making free-riding more readily observable (Ostrom, 1990). Not only will the shared interests within the community make it easier to agree on a joint solution, it may also lead to solutions that are better conceived, allowing actors to incorporate local expertise and interests (Ostrom, 1990; 2005; Ingram and Clay, 2000; Andersson and Ostrom, 2008) and avoid a costly, prolonged, and potentially ineffective decision process, wherein outsiders try to apply general rules to situations they may understand poorly (Coase, 1974; Williamson, 1996).

This is not to suggest that cooperation among members of a bounded community will be automatic. Actors still have reason to fear free-riding within the group, and may therefore still face bargaining problems (Arrow, 1969), causing them to fail to agree on a cooperative solution in spite of their compatible preferences (Sen, 1967; Sugden, 1984). Agreeing and committing to a common set of actions, as well as to a shared set of rules—*i.e.*, to the constitution governing the collective action (Ostrom and Ostrom, 1971; Ostrom, 1990)—may thus still involve substantial costs (Hansmann, 1996), especially in situations where subtractability is high and members of the community must not only decide how to cooperate to enhance the overall benefit to the group, but also how this benefit is to be shared among them.

Our contention is that self-regulating collectives are the comparatively efficient form for enabling private ordering in situations where externalities are naturally bounded, because they allow those who have the most to gain from cooperation to directly and simultaneously communicate with each other and commit to a mutually optimal solution (Sen, 1967; Stigler, 1974; Sugden, 1984). So

long as the number of actors within the community of shared interest is relatively small, and the contributions of each actor are easy to observe (Hölmstrom, 1979), members of the collective can self-organize and monitor, relying on direct negotiation with each other to arrive at a mutually acceptable solution, and direct observation of each other's actions to maintain discipline. This is the case, for instance, with irrigation collectives where farmers can monitor each other's water use by simply observing their neighbors' fields (Ostrom, 1990), or on online platforms where each actor's ratings are visible to all. Self-monitoring may be especially effective where the members of the collective are embedded in a network of strong ties (Granovetter, 1985; Yue *et al.*, 2013; Dorobantu *et al.*, 2017), as is likely to be the case given geographic proximity or shared affiliation or identity. Such ties will help enable governance both because the threat of social censure in the future will make free-riding more costly (Jones, Hesterly, and Borgatti, 1997), and because familiarity with the others involved may make actors more willing to risk being vulnerable (Williamson, 1996). Note that contribution to a collective may take the form of abatement of negative externalities, as in the case of voluntary environmental programs (King and Lenox, 2000; Prakash and Potoski, 2007; 2012; Barnett and King, 2008; Reid and Toffel, 2009) and collectives to manage common pool resources (Ostrom, 1990), or it may involve the generation and sharing of positive externalities, as in standard-setting organizations (Rosenkopf and Tushman, 1998; Chiao, Lerner, and Tirole, 2007; Rysman and Simcoe, 2008) and industry peer networks (Zuckerman and Sgourev, 2006).

As before, a comparison to other organizational forms is instructive. While non-profit organizations could conceivably play the same role as collectives, enabling voluntary contributions by actors who share a community of interest, in the absence of substantial challenges in coordination or monitoring, such non-profits would simply impose additional bureaucratic costs of monitoring and maladaptation (Williamson, 1985; 1996), without appreciably improving cooperative outcomes. Of course, where direct observation is challenging, external monitoring by a more formal

organizational structure may be called for (Ostrom, 1990; Delmas and Montes-Sancho, 2010; Short and Toffel, 2010); such cases combine bounded externalities with *ex post* information asymmetries—a case we discuss in more detail below.

Problems of unnecessary bureaucratic costs may plague for-profit firms as well. Moreover, for-profits may be ill-suited to governing bounded externalities, because the interests of the for-profit's shareholders are likely to diverge from those of the bounded community. Not only may those impacted by the externality be slow to accept solutions proposed by the for-profit for fear they may be self-interested, but the introduction of the profit motive may reduce voluntary participation and increase the propensity to free-ride (Frey and Oberholzer-Gee, 1997; Frey and Jegen, 2001). In addition, for-profits may also have a flawed or partial understanding of the true interests of community members, so that the private ordering implemented by for-profits may impose additional costs, as in the case of actions taken by multinational corporations to limit child labor in rural Pakistan (Khan, Munir, and Willmott, 2007), or the potential for Base of the Pyramid (BoP) initiatives to disrupt local communities (Ansari, Munir, and Gregg, 2012) and fail to deliver the intended local benefits (Hall *et al.*, 2012).

Finally, consider state bureaucracy, which is the traditional solution proposed for situations involving externalities (Pigou, 1920; Olson, 1965). The state may, however, be comparatively inefficient in dealing with externalities that are naturally bounded. Because the actions of the state are widely binding, the solutions it adopts will generally require large-scale consensus across a plurality of actors, resulting in a political decision-making process that is onerous and time-taking, and that may lead to sub-optimal solutions (Arrow, 1951; Hansmann, 1996; Sen, 1999). The multidimensionality of state goals (Wilson, 1989), coupled with the heterogeneity of interests (Tirole, 1994), inconsistency of preferences (Klein *et al.*, 2013), and the possibility of capture (Laffont and Tirole, 1991; Hellman *et al.*, 2003) mean that citizens may be especially concerned about the

possibility of free-riding by others. Indeed, it is precisely to avoid the potentially onerous and ill-conceived nature of government regulation that actors faced with bounded externalities may prefer private ordering to legal centralism (Maitland, 1985; Ostrom, 1990; Williamson, 1996; Ingram and Clay, 2000; Prakash and Potoski, 2012; Dorobantu *et al.*, 2017).

#### *General externalities and the role of the state*

The very characteristics that make state bureaucracies inefficient at dealing with bounded externalities do, however, make them comparatively efficient in situations involving general externalities, *i.e.*, situations where the benefits from individual actions diffuse across a broad range of individuals, and the natural community of interest is therefore the entire population rather than a sub-group. State bureaucracies have an advantage in such situations, since the state alone has coercive authority over its citizens (Arrow, 1969; Rangan, Samii, and Van Wassenhove, 2006; Klein *et al.*, 2013), enabling it to tax, proscribe, and punish (Stiglitz, 1989). Thus, not only can a state bureaucracy exclude some actors from the benefits of externalities, it can also compel relevant actors to contribute to the provision (abatement) of positive (negative) externalities, both by directly collecting contributions from its citizens in the form of taxes, and by mandating disclosure of otherwise unobservable contributions, coupled with strong sanctions for non-compliance. This ability to compel participation constitutes a strong comparative advantage of state bureaucracy, because while other governance forms could certainly develop administrative and technological systems to exclude non-participants (as we have seen above), they cannot really compel those whose actions impact their outcomes to participate if they choose not to. It is only through the action of state bureaucracy (or the threat of such action) that the relevant actors may be forced to cooperate.

Overall, then, we expect state bureaucracies to be comparatively efficient in the face of general externalities. Note that our contention that state governance is comparatively efficient for general externalities while self-governing collectives are for bounded externalities maps closely to the

idea of matching the mode of governance to the domain of public goods (Olson, 1986). Indeed, to the extent that externalities are bounded within a geographic area large enough to warrant local government (*e.g.*, a county or municipality) it may be most efficiently handled by the state.

#### *Uncertainty, innovation, and for-profit firms*

Having considered both *ex post* information asymmetries and externalities, we next turn to consider other forms of market friction, which, we contend, do not directly give rise to social issues (as we have defined them), but may exacerbate social issues resulting from these other frictions. We begin by considering the market frictions of uncertainty; specifically, we focus on creative and absolute uncertainty (Packard, Clark, and Klein, 2017)<sup>20</sup>. The defining characteristic of such uncertainty is that the set of possible courses of action is open-ended (Packard *et al.*, 2017), so that the uncertainty can only be resolved through the deliberate actions of those facing the uncertainty. In this way, creative or absolute uncertainty is distinct from environmental uncertainty, which is largely exogenous to the actor and may be difficult or impossible for the actor to influence (Folta, 1998). Thus, while environmental uncertainty may be dealt with by maintaining flexibility and keeping one's options open<sup>21</sup>, creative or absolute uncertainty require active learning and innovation by the actor to resolve the uncertainty (Folta, 1998; Packard *et al.*, 2017).

Creative and absolute uncertainties give rise to transaction costs because they are fundamental, *i.e.*, they cannot be resolved either analytically or statistically (Langlois, 1992; Dequech, 2006; Kaul, 2013). Actions taken in the face of such uncertainty must be based on the subjective judgments of the focal actors—judgments for which no market exists (Knight, 1921; Foss *et al.*,

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<sup>20</sup> We choose to focus on distinguishing between types of uncertainty based on why it arises, thus describing “the basic nature of that uncertainty” (Packard *et al.*, 2017), rather than where the uncertainty occurs, *e.g.*, demand, technological, behavioral, competitive, etc. (Balakrishnan and Wernerfelt, 1986; Sutcliffe and Zaheer, 1998; Walker and Weber, 1984; Geyskens *et al.*, 2006). This is because we are concerned with situations where relevant actors must discover or create novel solutions in order to resolve the uncertainty.

<sup>21</sup> A full discussion of how environmental uncertainty is best dealt with—including differences between technological and demand uncertainty in this regard—is beyond the scope of the current paper and has been extensively covered elsewhere (Walker and Weber, 1984; Geyskens *et al.*, 2006; Mahoney and Qian, 2013).

2008; Klein, 2008). Entrepreneurs seeking to exercise their subjective judgments in order to develop and deploy innovative and novel solutions may thus face challenges in both convincing others to invest in the pursuit of these opportunities *ex ante* (Langlois, 1992; Langlois and Robertson, 1995; Burns *et al.*, 2016) and appropriating the value of their ideas *ex post* (Arrow, 1962; Kaul, 2013).

Creative or absolute uncertainty is not just a problem for business transactions (Packard *et al.*, 2017), it is also an important feature of many social issues. While traditional theoretical models of collective action or the provision of public goods often assume that the optimal solution is known and universally understood (Olson, 1965; Cornes and Sandler, 1983; Bergstrom, Blume, and Varian, 1986), in many real world situations the range of available options and outcomes may both be unbounded, and the probabilities connecting them unknown (Ostrom and Ostrom, 1971; Ostrom, 1990). In many instances the fundamental parameters of the situation—such as the extent of resources available, or the full set of relevant actors—may be initially unknown or imperfectly known, so that an initial process of information gathering and discovery may be required both to identify and understand the problem and define the range of feasible solutions. And even if the relevant parameters of the situation are known, developing a solution to achieve the desired outcome may still require innovation and creativity. So, for instance, while the problem of child sexual exploitation on the internet may be well understood, innovative solutions to deal with this problem may still be required, as pursued by organizations like the Thorn technology taskforce<sup>22</sup>.

In such contexts, for-profit firms may play an important role in developing innovative solutions to social problems. First, governance by fiat within hierarchies enables the coordination needed for successful adaptation, even as the law of forbearance that operates within the hierarchy creates conditions conducive to greater cooperation and flexibility in pursuit of novel innovations (Williamson, 1985; 1996). As a result, hierarchical governance may help enable the sharing and

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<sup>22</sup> For more information see [www.wearethorn.org](http://www.wearethorn.org).

recombination of tacit knowledge and expertise in the pursuit of innovation (Kogut and Zander, 1992; Grant, 1996; Liebeskind, 1996). Second, the role of the owner-manager as residual claimant creates the appropriate incentives for uncertainty-bearing (Knight, 1921; Sautet, 2000; Klein, 2008). Just as entrepreneurs in the context of private goods are incentivized to discover new opportunities or develop new capabilities to meet hitherto unserved needs by the right to claim the residual rents from their inventions (Langlois, 1992; Foss *et al.*, 2008; Klein, 2008; Kaul, 2013), for-profit governance may also motivate entrepreneurs to develop novel and innovative solutions to social problems. Such entrepreneurial action may involve devising a new solution to the problem, *e.g.*, designing a new type of metal silo for grain storage in Central America (Sonka *et al.*, 2014), or developing novel irrigation arrangements (Ostrom, 1990, pp. 167-173); or it may involve adapting existing solutions to new contexts, *e.g.*, in tailoring public health initiatives to new political and cultural contexts (Golooba-Mutebi, 2005). For-profits may also be able to improve the efficiency and effectiveness of existing solutions, developing new capabilities that help to lower cost and improve performance in public good provision (Hart, Shleifer, and Vishny, 1997; Hart, 2003).

While non-profit organizations would certainly have the same potential to use administrative fiat and forbearance to coordinate innovation within an established hierarchy (Shah, Agarwal, and Sonka, 2017), the incentives to innovate in non-profits are likely to be weaker. Because of the non-distribution constraint placed on non-profits (Nelson and Krashinsky, 1973; Hansmann, 1980; 1987), there is no role for a residual claimant in such organizations, making it harder to appropriate value from new ideas that are operationalized in this form. Given the impossibility of selective intervention (Williamson, 1996), this difference in the objective function of non-profits will inevitably result in lower-powered incentives and a less competitive orientation than for-profits (Baum and Oliver, 1996; Glaeser and Shleifer, 2001), making them relatively risk-averse (Hansmann, 1987; Anheier and Ben-Ner, 1997). The ideological, mission-based, or identity-based orientation of

non-profits (Clark and Wilson, 1961; Rose-Ackermann, 1996; Akerlof and Kranton, 2005; Besley and Ghatak, 2003; 2005) may further prove a barrier to innovation, with such organizations often choosing solutions based on ideology, rather than considerations of efficiency (Glaeser and Shleifer, 2001). Similar problems of weak incentives are likely to plague self-governing collectives. Moreover, decision making in collectives is likely to be driven by majority consensus, making them especially unsuited to undertaking actions based on subjective judgments under uncertainty (Klein, 2008; Kaul, 2013), with consensus-based decision making limiting the extent of experimentation such collectives are able to undertake (Sah and Stiglitz, 1988). As a result, such collectives may struggle to innovate.

The potential for innovation may be even lower under state bureaucracy. State bureaucracies are generally associated with weak incentives resulting from the soft budget constraint faced by government bureaucrats (Schmidt, 1996), the challenges to appropriating the value from innovation in a public bureaucracy (Hart, 2003), and the lack of effective competition (Tirole, 1994; Williamson, 1999). Moreover, the state may be subject to competing ideological pressures (Arrow, 1951; Becker, 1985), which will further blunt incentives and cause public bureaucrats to prioritize uncertainty avoidance over innovation (Klein *et al.*, 2013). The state may also be disadvantaged by its centralized structure, which makes it costly to gather and use local expertise (Ostrom, 1990; 2005), and further limits the amount of experimentation (Sah and Stiglitz, 1988; Stiglitz, 1989). Indeed, this lack of innovativeness may be a design feature of public bureaucracies (Williamson, 1996; 2000), with actions of the state being subject to multiple checks and balances, precisely to ensure the credibility and probity of government commitments (Williamson, 1996; 1999; Henisz and Williamson, 1999; Henisz, 2000). Thus, the very features of state bureaucracies that make them trustworthy may also inhibit their ability to innovate freely. Note that the state may still have an important role to play in funding scientific innovation (Mazzucato, 2015)—especially where general externalities are involved—a point we return to in the next section.

*Production economies, co-specialization, and the role of for-profits*

Finally, we turn to consider production economies, which include economies of scale, learning, and scope (Yao, 1988). Such production economies arise due to the presence of indivisibilities, which make it more efficient to undertake production in greater quantities (Penrose, 1959; Teece, 1980; Mahoney and Qian, 2013). By themselves, however, indivisibilities do not necessarily lead to market frictions, since absent asset-specificity, the services of the indivisible assets could be traded on the market. It is only when indivisible assets are also specialized or co-specialized in their use, that investments in such assets result in a fundamental transformation, giving rise to small-numbers bargaining, and making it comparatively efficient to place such assets under hierarchical governance (Williamson, 1975). Since asset specificities are thus closely related to indivisibilities, and since we expect them to have similar transaction cost implications, we combine them both into the single category of production economies for tractability.

Building on the traditional TCE literature (Alchian and Demsetz, 1972; Williamson, 1975; 1985; Klein, Crawford, and Alchian, 1978; Teece, 1980), we argue that for-profit firms may be comparatively efficient in managing production economies. As already mentioned, the use of administrative fiat and forbearance within the hierarchy will help enable coordination among activities, which may be necessary to realizing production economies. While other organizational forms could use fiat and forbearance to realize production economies as well (Olson and Zeckhauser, 1970), for-profit firms may have an advantage over these other forms due to the strength of their internal incentives. While the impossibility of selective intervention means that incentives within for-profit firms are weaker than those that operate in the market (Williamson, 1985; 1996), it also means that incentives in non-profits, collectives, or state bureaucracies, are weaker than those in for-profits, as already discussed. Thus, coordination costs (Williamson, 1985; 1996) may be lower under for-profit governance than under these other forms, giving for-profits a

slight advantage in realizing production economies, *ceteris paribus*.

Where the role of for-profits may be especially important, however, is in the case of economies of scope between dissimilar activities, *i.e.*, activities subject to different market frictions. If both transactions were similar, then the comparatively efficient form for the combined activity may be the one for either activity. Thus, economies of scope between two activities both subject to general externalities may be most efficiently governed by the state, *e.g.*, 911 dispatchers realizing economies of scope across various emergency services, while scope economies between activities with high *ex post* information asymmetry may be efficiently managed by non-profits, *e.g.*, non-profit hospitals capturing economies of scope between different medical specialties, or universities realizing scope economies between different academic departments (Holtmann, 1983; Cohn, Rhine, and Santos, 1989). The point is that so long as there are other frictions (general externalities or *ex post* information asymmetries) present, it may generally be comparatively efficient to organize such activities under state bureaucracies or non-profits despite the presence of scope economies between them, because the slight advantage of for-profits in lowering coordination costs is more than offset by their disadvantage in dealing with other frictions. Of course, where there are economies of scope between two activities, neither of which are subject to *ex post* information asymmetry or externalities, for-profit governance may still be most efficient (Penrose, 1959; Teece, 1980; Chi, 1994).

In many cases, however, the economies of scope are between two activities that have different characteristics. In particular, there are often economies of scope between activities that face high *ex post* information asymmetry or externalities, and purely commercial activities that are not subject to these frictions. This is perhaps most frequently the case when negative externalities are co-produced in the production or delivery of business goods and services, *e.g.*, pollution from factories (Coase, 1960). Even when externalities are not co-produced, however, it may be that the resources and capabilities required to generate positive externalities (or abate negative ones) have

other, purely commercial uses—*e.g.*, drug development capabilities (Vakili and McGahan, 2016). We term such cases commercial co-specialization, meaning that the focal activity or transaction is most efficiently carried out when it is co-specialized (Chi, 1994; Argyres and Zenger, 2012; Kaul, 2013) with a purely commercial activity. Given the impossibility of selective intervention (Williamson, 1985; 1996), however, placing the co-specialized commercial transaction under any other governance form may negatively impact its efficiency and competitiveness. So, for instance, it may be substantially less costly for a chemical manufacturer to control emissions in its plant (King and Lenox, 2001), or for a clothing manufacturer to monitor child labor in its own production process (Besley and Ghatak, 2007), than for a non-profit or the state to try and do so independently. Similarly, it would be extremely inefficient for the state or a non-profit to undertake drug development, because drug development capabilities are non-contractible and therefore difficult to lease out, and prohibitively expensive to build at less than efficient scale. Thus, situations where social problems share economies of scope with purely commercial activities may be most efficiently governed by for-profit firms (Besley and Ghatak, 2007; Kaul and Luo, 2018).

### **The comparative governance of market frictions**

Thus far, we have considered the comparative efficiency of pure forms in dealing with individual market frictions, as summarized in Figure 1. These frictions may occur jointly, however, *i.e.*, individual transactions may be subject to multiple frictions. We therefore turn to consider a variety of hybrid arrangements (Williamson, 1991a; Menard, 2004; Kivleniece and Quelin, 2012; Battilana and Lee, 2014) that may be comparatively efficient in dealing with combinations of frictions. To do so, we draw on the comparative advantage of the different pure forms as summarized in Figure 1, and look for the combination of these forms that may best be able to mitigate the challenges resulting from the combination of market frictions, keeping in mind that

combining different forms may result in substantially higher coordination costs inside the organization, given the impossibility of selective intervention (Williamson, 1985; 1996) and the challenge of combining forms with competing logics (Battilana and Dorado, 2010; Pache and Santos, 2010; Rivera-Santos and Rufin, 2010). In defining the comparatively efficient arrangement we therefore generally prefer a pure form, unless there are multiple frictions associated with the transaction that are high enough to justify incurring the additional coordination cost of a hybrid form. Moreover, we try to limit ourselves to arrangements that bring together no more than two forms—either in partnership or as a hybrid, depending on the modularity of the relevant activity—and choose the combination of forms that, we argue, will jointly minimize the transaction costs resulting from the combined market frictions.

\*\*\*Insert Figure 2 about here\*\*\*

### *Markets and firms*

The resulting mapping between the nature of the transaction and the comparatively efficient organizational arrangement is shown in Figure 2. Row (1) in Figure 2 shows cases where both externalities and *ex post* information asymmetries are low. Per our definition above, these cases do not involve social issues, since they involve no private sector failure (Pitelis, 1994) and represent purely commercial transactions that are the traditional purview of competitive or business strategy (Yao, 1988; Chi, 1994; Oberholzer-Gee and Yao, 2018). Nevertheless, we discuss them briefly, if only to highlight the correspondence between our framework and the prior literature.

Column (1) in Figure 1 shows the case where uncertainty and commercial co-specialization are low. In the case of Row (1) this means that all transaction costs are low and the transaction may be carried out through the market. Examples of such arrangements range from financial spot markets to labor exchanges to farmers' markets and craft fairs—settings where commodity products are exchanged between atomistic agents, and there is no small numbers bargaining problem.

Columns (2) and (3) of Figure 2 consider cases where commercial co-specialization is high (meaning that there are substantial economies of scope between the focal transaction and a purely commercial one) and where (creative or absolute) uncertainty is high, respectively<sup>23</sup>. Given low externalities and low *ex post* information asymmetry, these cases are best governed within a for-profit firm—either a large corporation or an entrepreneurial startup—as discussed in the previous section<sup>24</sup>. Indeed, this cell in Figure 2 represents the traditional theory of the firm in the strategy literature (Alchian and Demsetz, 1972; Williamson, 1975; 1985; 1991a; Teece, 1980). While this row thus does not correspond to social issues as we have defined them, it is worth noting that the governance arrangements shown here are comparatively efficient and do result in Pareto optimal allocations, thus enhancing social welfare.

#### *Non-profits, CSR and social enterprise*

Row (2) in Figure 2 examines transactions where externalities are low, but *ex post* information asymmetry is high. Where uncertainty and commercial co-specialization are low as well, as in Column (1), such cases are best governed by a non-profit, specifically by non-profits playing a service role (Yaziji and Doh, 2009; Kaul and Luo, 2018), *i.e.*, providing goods and services supported by charitable donations from private individuals. Examples include NGOs serving social causes such as Doctors without Borders, Salvation Army, soup kitchens, animal shelters, suicide prevention centers, etc.; as well as non-profit providers of private services subject to *ex post* information asymmetry, such as non-profit hospitals (Rushing, 1974), nursing homes (Baum and Oliver, 1996; Baum, 1999), and performing arts organizations (Kuan, 2001).

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<sup>23</sup> Since high creative or absolute uncertainty always privileges the involvement of for-profit firms in any case, we do not distinguish between cases with low and high commercial co-specialization within the high uncertainty case.

<sup>24</sup> In some such cases, the comparatively efficient governance arrangement may be a partnership between two for-profit firms. The literature on such alliances or other for-profit hybrids (Williamson, 1991a, 1996; Geyskens *et al.*, 2006; Makadok and Coff, 2009) is too extensive to discuss here, and is not the focus of our work in any case. We limit ourselves to acknowledging that for-profit governance may include governance via collaborations between for-profits.

Next, consider the case where high *ex post* information asymmetry is combined with commercial co-specialization, as in Column (2). The comparatively efficient governance arrangement in this case may be some form of delegated philanthropy, where a for-profit acts on the behalf of its stakeholders to provide goods and services to those in need (Bénabou and Tirole, 2010). Typical examples of this case include situations where the firm provides goods or services related to its main business to recipients who cannot pay for them directly, with the expectation of being rewarded for doing so by other stakeholders (Kaul and Luo, 2018), *e.g.*, pro bono provision of services (Carnahan, Kryscynski, and Olson, 2017) or in-kind donations of consumer goods to those in need (Marquis and Park, 2014). Such provision should generally involve a partnership between a for-profit and a non-profit (Galaskiewicz and Sinclair-Colman, 2006; King, 2007; Chatain and Plaksenkova, 2018), however, because in the absence of non-profit oversight for-profits may be incentivized to take advantage of *ex post* information asymmetry by engaging in under-provision (Glaeser and Shleifer, 2001; Kaul and Luo, 2018) or quality shading (Hart, 2003; Hart and Moore, 2008)<sup>25</sup>, and because the for-profit may not understand the relevant context well enough to make a truly welfare-enhancing choice (Khan, Munir, and Willmott, 2007). Examples include certification of for-profit compliance by non-profits (Rao, 1998; Chatterji and Toffel, 2010; Fischer and Lyon, 2014), *e.g.*, Better Business Bureaus or Underwriters Laboratories; and support from reputable non-profits for corporate social initiatives, *e.g.*, Microsoft’s partnerships with NGOs for its Partners in Learning program (Bhanji and Oxley, 2013), Tom’s shoes partnerships with NGOs to deliver their shoes in Africa (Battilana and Lee, 2014; Marquis and Park, 2014), and Starbucks’ partnership with Conservation International to grow sustainable coffee (Chatain and Plaksenkova, 2018). Partnerships between for-profits and non-profits may also include non-profit support of CSR efforts by providing training and expertise in

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<sup>25</sup> In rare cases where the interests of for-profit firms and society are unambiguously aligned, *i.e.*, there is no way the firm could benefit itself without benefiting society, non-profit monitoring may be unnecessary.

dealing with social issues, *e.g.*, the training of hotel executives by non-profits dealing with human trafficking; as well as for-profit support of non-profit initiatives, through both in-kind donations of goods, *e.g.*, donations of medications by pharmaceutical companies to non-profit providers, and interventions that leverage the firm's knowledge and expertise, *e.g.*, Toyota's streamlining of New York soup kitchens (New York Times, 2013). Corporate donations (Marquis and Lee, 2013; Tilcsik and Marquis, 2013; Marquis and Tilcsik, 2016; Ballesteros, Useem, and Wry, 2017) also fall in this category, and may be more effective when carried out with a non-profit (Gatignon and Ballesteros, 2018; Hornstein and Zhao, 2018), though absent a comparative advantage in raising funds it is unclear that introducing a for-profit intermediary between the non-profit<sup>26</sup> and potential supporters is comparatively efficient (Kaul and Luo, 2018).

Column (3) in Row (2) deals with situations involving high creative or absolute uncertainty and high *ex post* information asymmetry, such as those where it is unclear how a social problem may best be solved. In such cases, the comparatively efficient governance arrangements may be social entrepreneurship (Martin and Osberg, 2007; Zahra *et al.*, 2008; Santos, 2012), *i.e.*, initiatives that develop new technologies and business models combining social and business objectives (Battilana and Lee, 2014; Fosfuri, Giarratana, and Roca, 2016) in order to benefit disenfranchised stakeholders and be financially rewarded for doing so, *e.g.*, Method products, or Drinkwell (a startup that offers villagers in South Asia a low-cost system to purify well water). In such cases, the fact that the social mission is an explicit part of the firm's strategy, often from its very inception, serves as a credible commitment to playing a fiduciary role, as does the adoption of hybrid regulatory forms such as benefit corporations. The key point is that for such organizations the social mission lies at the core of their purpose, unlike in the case of CSR initiatives by established companies. Given the

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<sup>26</sup> Corporate foundations are also non-profits, though their strong dependence on a specific for-profit may compromise their ability to play a fiduciary role, even as their non-profit status compromises their ability to innovate. It is thus unclear that corporate foundations are ever comparatively efficient.

impossibility of selective intervention (Williamson, 1985; 1996), the fidelity of social initiatives placed within a larger hierarchy that includes purely commercial activities is inevitably compromised, which is why it may be comparatively efficient to place such initiatives in a hybrid organization designed specifically for that purpose (Kaul and Luo, 2018).

### *Community organizations*

Row (3) of Figure 2 considers the case where externalities are bounded, and a community with shared interests exists. In the absence of other frictions, as in Column (1), such situations are best governed through self-governing collectives, as mentioned above. Where subtractability is high, these may take the form of common pool collectives—such as irrigation collectives (Ostrom, 1990), kibbutz (Ingram and Simons, 2000), or Euro-IX (an association of European ISPs and internet exchange points)—where actors develop and commit to a shared constitution of rules for the sharing of a common good. Where subtractability is low, the efficient arrangement may be a club good collective, such as labor unions (Hannan and Freeman, 1987), resident’s associations (Hansmann, 1996), parent teacher associations, bowling leagues (Putnam, 2001), fraternal associations (Skocpol, 2003), banking self-regulation arrangements (Yue *et al.*, 2013), and voluntary environmental programs (Potoski and Prakash, 2005; Prakash and Potoski, 2012) that bind actors together through mutual monitoring in pursuit of a shared, non-subtractable benefit (Buchanan, 1965; Prakash and Potoski, 2007)<sup>27</sup>. Further, where economies of scale or learning are involved, these collectives may morph into business cooperatives, which are similar to for-profit firms (Boone and Ozcan, 2014), except that the rights to residual rents lie with the members who share the externality rather than with outside investors (Hansmann, 1996). Examples of such cooperatives

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<sup>27</sup> While some scholars have spoken of industry self-regulation as a means of managing a ‘reputation commons’ (King, Lenox, and Barnett, 2002; Barnett and King, 2008), given the non-subtractable nature of benefits from industry reputation such arrangements are more appropriately thought of as managing a club good (Potoski and Prakash, 2005; Prakash and Potoski, 2007).

include credit unions (Moody and Fite, 1971; Barron, West, and Hannan, 1994; Chatterji, Luo, and Seamans, 2017), retail cooperatives (Ingram and McEvily, 2007), and cooperatives in dairy, grain, and utilities (Schneiberg, 2006; Schneiberg, King, and Smith, 2008).

Next, consider the case where bounded externalities are combined with high commercial co-specialization, for instance, where the actions of the firm have a positive or negative impact on a local community, *e.g.*, the effect of the tourism industry on local conditions in tourist destinations (Hall *et al.*, 2012). In such cases, as in Column (2), the comparatively efficient governance arrangement may be a Base of the Pyramid (BoP) initiative, or some other inclusive growth strategy (Prahalad, 2005; London and Hart, 2011; George *et al.*, 2012). Such strategies involve for-profit firms leveraging economies of scope with their business in established markets to enter underserved markets and reach traditionally disenfranchised sections of society, in the process generating positive externalities for local communities. Such initiatives generally rely on collaboration and monitoring from members of that community for their success, however, with the benefits from such initiatives being stronger when they preserve and leverage the existing social capital of local communities, and are genuinely responsive to their needs (Ansari, Munir, and Gregg, 2012). Examples include commercial micro-finance initiatives (Ault and Spicer, 2014; Singh and Dutt, 2015; Cobb, Wry, and Zhao, 2016; Wolfolds, 2016), as well as other BoP programs, such as Unilever's Project Shakti in rural India (Rangan, Sehgal, and Rajan, 2007; Porter and Kramer, 2011) or SC Johnson's support for pyrethrum farmers in Rwanda.

Where bounded externalities are combined with creative or absolute uncertainty, the comparatively efficient governance arrangement may be a sharing economy platform, *i.e.*, the creation of a forum through which actors with shared interests can communicate and collaborate with each other. Given the inherent uncertainty of any such novel platform, its creation is likely to require some for-profit involvement. As in column (3), several recent for-profit initiatives in the

‘sharing economy’ space, such as Uber and AirBnb, fall within this category, as do crowdsourcing / crowdfunding initiatives such as Kickstarter or Goodreads, as well as other open source communities (Hippel and Krogh, 2003; Shah, 2006), *e.g.*, Android Studio, Oracle’s MySQL. Such platforms make it easier for actors to coordinate on and adopt a single solution, creating, in effect, a privately managed collective. At the same time, the positive externalities generated by the platform serve as an entry barrier against potential competitors (in the form of network economies), creating both the profit potential necessary for for-profit investment, and the incentive for the for-profit platform provider to continuously innovate and boost the extent of externalities.

Moving to Row (4), where bounded externalities are combined with high *ex post* information asymmetry—such as in cases where the members of the community lack the ability to measure or assess the benefits from collective action—the comparatively efficient arrangement may be the monitoring of the collective’s actions by a third-party (Prakash and Potoski, 2007; 2012; Delmas and Montes-Sancho, 2010), or, more often, the replacement of the collective by a membership-based non-profit (Clark and Wilson, 1961; Knoke, 1988; Skocpol, 2003). Examples of such non-profits include churches and other religious organizations (Miller, 2002), as well as professional associations such as the American Bar Association or the Academy of Management (Greenwood, Suddaby, and Hinings, 2002; Prakash and Potoski, 2007). These organizations perform service and certification functions similar to the non-profits discussed earlier, except they do so primarily (or exclusively) for the benefit of their members, and rely on contributions or dues from their members, while the service non-profits we mentioned earlier typically serve anyone in need, irrespective of affiliation, and rely on donations or revenues for services provided. Moreover, unlike other forms of self-regulating collectives, membership-based non-profits generally deal in credence goods and therefore involve the application of technical or specialized expertise (*e.g.*, priests).

Where bounded externalities and *ex post* information asymmetry problems are combined

with commercial co-specialization, as in Column (2), we have a situation where the actions of the firm generate positive or negative externalities for a community, but the firm's key stakeholders are unable to observe or assess these effects, *e.g.*, the exploitation of farming communities or indigenous populations when firms in developed markets source from third world countries. In such cases, the comparatively efficient governance arrangement is some form of social activism through which private ordering is achieved in the shadow of regulatory sanctions (Baron, 2001, 2009; Ingram and Rao, 2004; Baron and Diermeier 2007). Social activists serve as representatives of the interests of disenfranchised communities in the face of externalities produced by business activities, exerting pressure on corporations to either abate negative externalities or generate positive externalities, and being more successful in doing so when they are organized as a non-profit with the authority and expertise to represent the community interest (King and Soule 2007; Hiatt, Sine, and Tolbert, 2009; Ingram, Yue, and Rao 2010; McDonnell, King, and Soule, 2015; Dorobantu, Henisz, and Nartey, 2017). Examples include Fairtrade International, Greenpeace's endorsement of Kimberly-Clark's sourcing policy (Walker, 2014), Human Rights Campaign (HRC)'s Corporate Equality Index (which rates companies on their level of LGBT protection), and World Animal Protection's 'Before they Book' initiative (which encourages boycotts of tour companies that are cruel to animals)<sup>28</sup>. In some cases, such transactions may also be organized through Community Benefit Agreements, where a non-profit representing the interests of a community signs a formal contract with a for-profit firm to limit negative externalities or increase positive ones (Dorobantu and Odziemkowska, 2017).

Finally, in Column (3), consider transactions involving bounded externalities, high uncertainty, and high *ex post* information asymmetry, *i.e.*, situations where groups of actors with shared interests are trying to work together to develop a collective solution, but lack the ability to

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<sup>28</sup> Some social activists may also work on issues with broader externalities, *e.g.*, sustainability and climate change; we consider such arrangements in more detail below.

judge the efficacy of the solutions they develop; for instance, doctors looking to share their experience and knowledge with each other, but being unable to verify the accuracy of knowledge shared. The comparatively efficient arrangement for such transactions may be a social platform, which is a collaborative platform created and managed by a non-profit entity. Social platforms work much like sharing economy platforms, in that they enable members of the community to interact and cooperate in new ways, except that because of the *ex post* information asymmetry involved, such platforms are better run by non-profits than by for-profits—the intuition being that the relative disadvantage of for-profits in playing a fiduciary role is greater than the disadvantage of non-profits in driving innovation. Examples include the Ushahidi platform (George *et al.*, 2012) or the Edustar platform (Chatterji and Jones, 2012). Several open source or user communities (Franke and Shah, 2003; Shah, 2006) are also organized by non-profits—*e.g.*, Unix, the Mozilla Foundation—precisely because of the fear of opportunistic action by for-profit platform owners. In such cases, the reduction in innovativeness at the platform level due to a lack of for-profit involvement may be (partially) offset by an increase in community participation (Boudreau, 2010; 2012).

*Regulation, government provision, and public-private partnerships*

Row (5) in Figure 2 considers cases where externalities are general—*i.e.*, situations where the effects of the transaction are felt by the general population, suggesting the need for some form of state intervention—but *ex post* information asymmetry is low. Where both commercial co-specialization and uncertainty are low, as in Column (1), the comparatively efficient arrangement is likely to be state bureaucracy, especially in cases where financial or economic considerations are not primary or where frequent adaptation is not desirable, so that bureaucratic inefficiency may be a design feature, enabling probity and credible commitment (Williamson, 1996; 1999; 2000; Henisz, 2000). In such situations, the state may choose the level of the good to supply for its citizens and undertake the provision of the public good itself (Olson and Zeckhauser, 1970). Examples include

the military, intelligence services, police and fire departments, IRS, etc. The state may also play a maintenance role in the case of naturally occurring common pool resources that are of value to society at large, by claiming property rights in the common resource (Coase, 1960; Barzel, 1997) and determining and enforcing the limits to its use. Examples include the National Park Service and various federal and state fish and game administrations.

Moving to Column (2), where general externalities are combined with commercial co-specialization—*i.e.*, when the externalities in question are generated by the business activities of firms—it may be more efficient for the state to play an indirect role, influencing the actions of for-profit firms rather than managing public good provision directly. In the case of negative externalities, this may involve monitoring of for-profit firm activities by state-run regulatory agencies, *e.g.*, OSHA, EPA. In the case of positive externalities, it may involve the provision of subsidies or tax incentives, such as government support for electric vehicles and alternate energy production, *e.g.*, state support for wind energy (Marcus and Fremeth, 2016). In cases with positive externalities, the government may also fund consumption by its citizens, paying for-profits for the provision of goods and services to those who cannot afford them (but, importantly, can accurately assess their value<sup>29</sup>), for instance through food voucher programs, Medicare, etc<sup>30</sup>.

Where general externalities are combined with high uncertainty, as in Column (3), government contracting may be the comparatively efficient governance arrangement. In such cases, innovation is desirable, and may be best achieved by the government taking responsibility for the provision of the good or service (to fully account for externalities), but contracting the actual provision out to a for-profit enterprise that would then have the incentive to achieve greater

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<sup>29</sup> Where this is not the case, *ex post* information asymmetry is high—a case we discuss further below.

<sup>30</sup> Toll goods—which have high excludability but are non-subtractable (Ostrom, 2005; 2010)—are generally best governed as for-profits, given the potential for natural monopoly, but may require some state intervention to help resolve uncertainty about future demand (Rangan *et al.*, 2006; Klein *et al.*, 2013).

efficiency and cost-saving. Examples include private provision of city services such as road maintenance or trash collection (Warner and Hefetz, 2008; Levin and Tadelis, 2010). The state may also play an important role in funding scientific research through public grants (NSF, NIH, etc.) and public-private research collaborations (Bruce, Figueiredo, and Silverman, 2018), with such support being especially important in pursuing basic scientific research, developing general purpose technologies, or seeding new technology domains and markets—all contexts with high general externalities where new innovations produce substantial knowledge spillovers (Mazzucato, 2015)<sup>31</sup>. Note that such contracting is only advisable in cases where *ex post* information asymmetry is low and the quality of private provision is easily monitored or assessed<sup>32</sup>; where this is not the case the benefits of innovation may be offset by the costs of quality shading and other forms of private expropriation (Hart *et al.*, 1997; Hart, 2003; Brown and Potoski, 2003; Levin and Tadelis, 2010). Moreover, to the extent that the activities being contracted out involve substantial economies of scale and scope, successful state contracting may require both appropriate regulatory safeguards to attract private investment in such public good provision (Levy and Spiller, 1994; Spiller and Tommasi, 2005), as well as appropriate contract provisions to enable bundling with related activities (Bennett and Iossa, 2006; Martimort and Pouyet, 2008).

Finally, Row (6) considers the case where externalities are general and *ex post* information asymmetries are high; in other words, cases where actions generate widespread externalities, but those affected by the externalities either have no voice, or are unable to correctly measure and assess

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<sup>31</sup> Mazzucato (2015) ascribes the advantage of the state in funding such research to its superior ability to tolerate ‘uncertainty’, while bemoaning the state’s inability to capture the value from its investments in fundamental research. We contend that it is precisely the infeasibility of capturing value from these investments—a reflection of the positive externalities associated with them—that makes state funding comparatively efficient (and necessary). Note, moreover, that the role of the state in our analysis (as in Mazzucato’s) is to fund and support private (for-profit or non-profit) innovation, not to undertake such innovation on its own.

<sup>32</sup> In the case of state support for science, *ex post* information asymmetry is moderate, given the substantial technical expertise required. This is why such support is often channeled through relatively independent agencies (*e.g.*, NSF, SBIR) and relies heavily on the scientific expertise of the public servants involved (Bruce *et al.*, 2018)

the effect of these externalities for themselves. Examples include actions leading to climate change, which affect everyone on the planet, but whose exact causes and consequences are challenging to assess (Lyon and Maxwell, 2011). They may also include provision of such services as prisons or primary schools where *ex post* information asymmetries may be high because those directly experiencing the service (prisoners, children) may not be able to credibly voice complaints over how they are treated, creating the potential for quality shading (Hart *et al.*, 1997). Given low uncertainty and limited commercial co-specialization, as in Column (1), the comparatively efficient governance arrangement in such situations is likely to be a collaboration between the state and a non-profit. This may involve government sponsorship of non-profits, with the state using its coercive authority to raise funds for the provision of a good or service, while the non-profit plays the fiduciary role of ensuring that the funds are used appropriately. Examples include charter schools (Beckman and Gatewood, 2011)—which are funded by the state in recognition of the externalities of education, but managed as non-profits given the high *ex post* information asymmetry involved<sup>33</sup>—and government contributions to foreign aid efforts run by non-profit organizations (Kapucu, 2006). This category may also include political activism by advocacy non-profits (Berry, 1999; Skocpol, 2003; Yaziji and Doh, 2009), *e.g.*, Sierra Club, ACLU, NRDC. Such non-profits play a role similar to social activist organizations, in that they serve as fiduciary representatives of the interests of the disenfranchised, except that they seek resolution of social issues through public politics, rather than through private politics targeted at corporations (Becker, 1985; Baron, 2001).

Where general externalities and high *ex post* information asymmetry are combined with either high commercial co-specialization or high uncertainty, as in Columns (2) and (3), the appropriate governance arrangement is more complicated. The logic of our argument would suggest

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<sup>33</sup> Some charter schools are, in fact, managed by private for-profits, presumably to facilitate pedagogical innovations, though such intervention may also compromise the quality of education provided (Ravitch, 2013)

a tri-partite collaboration between the state, non-profits, and for-profits in such cases, but as already discussed such a collaboration may be difficult given high coordination costs. Where these coordination costs can be resolved, the comparatively efficient arrangement is non-profit provision with technical assistance from a for-profit and funding from the state. This is the case, for example, in the UN World Food Programme, wherein a non-profit entity addresses world hunger with support from the UN's member states and in partnership with leading food companies that provide technical expertise and distribution, leveraging economies of scope with their core businesses.

Where the coordination costs of bringing together three governance forms are too high, the comparatively efficient governance arrangement may be to fall back on a simpler hybrid, with one form playing a dual role. This generally happens in one of three ways. First, as already mentioned, non-profits may take on the role of the state, working with for-profits as partners, certifiers, or advocates to increase positive externalities and abate negative externalities from for-profit operations. Examples include such non-profits as the Rainforest Alliance, UTZ, and the Marine Stewardship Council (Prakash and Potoski, 2012) that promote sustainable practices through a combination of certification and collaboration. Because of the voluntary nature of such arrangements they are less comprehensive than those involving the state, resulting in potential undersupply of the public good (Bergstrom *et al.*, 1986; Murdoch and Sandler, 1997; Kotchen, 2006), but may still prove comparatively efficient given the coordination costs of government involvement.

Second, non-profits (or, better yet, social enterprises) may step up to play an innovative role in lieu of for-profits, while collaborating with the state. Thus, non-profits may serve as public entrepreneurs (Klein *et al.*, 2010), devising novel solutions to social problems (Shah, Agarwal, and Sonka, 2017), and then seeking to mobilize support behind these solutions in order to have them institutionalized by the state, *e.g.*, the development of new software and business models to provide emergency medical services (EMS) in Indian cities (George *et al.*, 2014). This category may also

include public non-profit partnerships such as collaborations in early child care programs (Selden, Sowa, and Sandfort, 2006).

Third, the state may be tasked with playing a fiduciary role (in lieu of non-profit involvement), protecting the interests of its citizens against exploitation by for-profits and developing the expertise necessary to (at least partially) play the non-profit's role. In such cases, the comparatively efficient governance arrangement is a public-private partnership (PPP) (Rangan *et al.*, 2006; Kivleniece and Quelin, 2012). This may include complex and contingent contracts for for-profit provision supported and closely monitored by the state, so as to enable the firm to innovate and realize economies of scope while the state ensures the public benefit (Potoski, 1999; Brown, Potoski, and Van Slyke, 2016), *e.g.*, Project XL (Marcus, Geffen, and Sexton, 2002; Delmas and Marcus, 2004). It may also include collaborative or joint provision by the state and for-profits, where the state is able to closely monitor the quality and appropriateness of the service provided, while allowing the for-profit to innovate and improve efficiency, *e.g.*, hybrid governance in prisons (Cabral, Lazzarini, and de Azevedo, 2013), as well as voluntary certification programs run by state agencies (Delmas and Toffel, 2008), *e.g.*, EnergyStar, National Organic Program. While reliance on the state to deal with *ex post* information asymmetry problems is clearly problematic, the resulting increase in transaction costs may be lower than the increase in coordination costs associated with a three-part collaboration. Such PPPs may be especially effective when they are subject to strong public accounting standards (Maskin and Tirole, 2007), are monitored by activist non-profits (Kivleniece and Quelin, 2012), or involve partnerships with for-profits with substantial reputational concerns, *e.g.* large chains (Baum, 1999; Pierce and Toffel, 2013).

Overall, rows (5) and (6) of Figure 2 offer a nuanced picture of the role of the state in dealing with social issues (Stiglitz, 1989). On one hand, they suggest that the range of activities for which direct provision by the state is the comparatively efficient solution is fairly limited, consisting

only of situations where both *ex post* information asymmetry and commercial co-specialization are low, and stability over time is to be privileged over innovation (Shleifer, 1998). As such, our analysis embraces the notion of government failure (Coase, 1964; Maskin and Tirole, 2007), highlighting, in particular, the comparative ineffectiveness of public bureaucracy in both driving efficiency and innovation (Schmidt, 1996) and representing the interests of local communities (Ostrom, 1990). On the other hand, we also highlight the critical role of the state in funding or otherwise supporting activities with widespread externalities (Olson, 1965; 1986), including scientific and technological research (Mazzucato, 2015).

Similarly, Column (2) in Figure 2 offers a more nuanced view of CSR activities, stressing how the nature of CSR varies with the extent to which the benefits provided are excludable. Thus, CSR activities may range from those involving social goods (Kaul and Luo, 2018) where the benefits are perfectly excludable and go to specific individuals or organizations (*e.g.*, Buy One Give One programs, pro bono services), to activities that benefit specific communities (*e.g.* fairtrade initiatives, labor standards), to for-profit provision of public goods (Cornes and Sandler, 1983; Bergstrom, Blume and Varian, 1986; Murdoch and Sandler, 1997) where the benefits from the firm's activities are diffused across the entire population (*e.g.*, pollution reduction, lower carbon footprint). What these different initiatives have in common is that they leverage economies of scope with the firm's commercial activities to serve the disenfranchised, and rely on rewards from other stakeholders for doing so—and this, in turn, means that they depend on oversight by third parties to represent the interests of the disenfranchised (Besley and Ghatak, 2007; Kaul and Luo, 2018), though the nature of this oversight varies with the nature of benefits involved.

More generally, two points about Figure 2 are worth highlighting before we close. First, the various cells in the figure are best thought of as points along a continuum rather than as silos. Clearly, the choice among the various governance arrangements depicted in the figure will depend

upon the relative magnitude of the market frictions to which a transaction is subject. So, for instance, the easier (or less costly) a service is to monitor or assess, the greater the relative advantage of government contracting compared to PPPs (Hart *et al.*, 1997; Hart, 2003). Second, Figure 2 suggests that the comparatively efficient arrangement to govern a transaction may change as the nature of market frictions changes. So, for instance, as creative uncertainty increases, goods and services that were once provided by the state directly may be better contracted out to private actors, as instanced by the rise of private military contractors in the aftermath of the cold war, as the United States tried to adapt to new types of warfare (Baum and McGahan, 2013). Similarly, member non-profits that start out serving local communities may evolve into international organizations, as they make common cause with actors in other cities and states, in recognition of more general externalities, *e.g.*, the evolution of Amchitka's 'Don't Make a Wave' committee into Greenpeace. And changes in social values and beliefs—*e.g.*, changing gender roles or changing perceptions of military efforts—may increase the transaction costs associated with community organizations, prompting a shift to professionalized non-profits over time (Skocpol, 2003). Our theoretical framework thus helps to explain the trade-offs between different governance arrangements, and the factors that may privilege one over the other across time and place.

## **Discussion**

In this study, we sought to answer the question: What is the comparatively efficient governance arrangement for dealing with social issues? To do so, we drew on a wide range of prior research to highlight the comparative advantage of different organizational forms in dealing with various market frictions. Specifically, we argued that for-profit firms would be comparatively efficient in undertaking innovative transactions which involve high creative or absolute uncertainty, non-profits in playing a fiduciary role under high *ex post* information asymmetry, self-governing

collectives in enabling private ordering where externalities are bounded, and state bureaucracies in ensuring contribution and compliance where externalities are general. Building on these core arguments, we then developed a conceptual mapping between the combination of market frictions to which a transaction is subject, and the comparatively efficient arrangement—either a pure form, or a hybrid—under which it is governed. Our mapping identifies fifteen distinct types of transactions where social problems arise—*i.e.*, where purely commercial transactions may lead to a comparatively inefficient outcome—and shows how private arrangements—for-profits, non-profits, and collectives—may play an important role in efficiently addressing these problems, with nine of these fifteen types of transactions requiring no state intervention at all.

By providing a coherent and holistic theory of the comparatively efficient governance arrangement for dealing with social issues, our study contributes to work in strategy, organizations, and public policy. We contribute to the nonmarket strategy literature (Baron, 2016; Dorobantu *et al.*, 2017) by offering a comprehensive theory of how businesses can help deal with social issues (Mahoney *et al.*, 2009; George *et al.*, 2012). While several of the governance arrangements we discuss in Figure 2—CSR, social entrepreneurship, social activism, BoP initiatives, industry self-regulation, public-private partnerships—have been studied extensively by themselves in prior work, ours is the first study to integrate them all into a single framework and offer a rigorous theory of the conditions under which each may be comparatively efficient. In doing so, we take a more expansive view of value creation (Mahoney *et al.*, 2009), moving beyond the idea the firms may benefit financially from being socially responsible (Waddock and Graves, 1997; Barnett and Salomon, 2012; Flammer, 2015) to argue that there are conditions under which they may be comparatively efficient in enhancing social welfare, especially where there is a need to develop novel solutions to social problems (Agarwal *et al.*, 2007; 2010; Klein *et al.*, 2010), or where there are economies of scope between their private operations and the provision of public goods (Besley and Ghatak, 2007; Kaul and Luo,

2018). At the same time, we also highlight important boundary conditions for for-profit involvement, stressing the potential for self-serving actions by firms under conditions of *ex post* information asymmetry (Milgrom and Roberts, 1986; Akerlof and Shiller, 2015; Kaul and Luo, 2018) and the consequent need for active monitoring of these efforts by those better suited to playing a fiduciary role. In contrast to the sometimes indiscriminate call for for-profit firms to address any and all social issues, therefore, our study suggests that for-profits are most useful when dealing with social allocation issues involving either production economies or a strong need for innovation.

For research on organizations, our study delves deeper into the logic of hybrid organizations (Menard, 2004; Mahoney and McGahan, 2007; Battilana and Lee, 2014), highlighting the role of such cross-sector collaborations in addressing key social issues (Kivleniece and Quelin, 2012; Cabral *et al.*, 2013; Klein *et al.*, 2013; Lenox and Chatterji, 2018). While existing work in this area has generally focused on the challenges such forms face in combining competing logics and the ways in which they organize to overcome such challenges (Battilana and Dorado, 2010; Pache and Santos, 2010; Mair, Battilana, and Cardenas, 2012), we complement these perspectives by providing a theoretical rationale grounded in comparative efficiency for why these hybrid arrangements exist in the first place<sup>34</sup>. In particular, we emphasize conditions under which these hybrids may be more efficient than the pure forms they bring together, despite the higher coordination costs of combining forms. We also highlight the unique characteristics of these different forms relative to for-profit firms. Thus, for instance, we emphasize that the relatively low-powered incentives of non-profits and state bureaucracies may be a design feature intended to ensure probity (Williamson, 1999), one that may be undermined by excessive rationalization or professionalization of non-profits (Skocpol, 2003; Hwang and Powell, 2009; Ravitch, 2013), or by calls to make the state operate ‘more

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<sup>34</sup> After all, without a compelling reason to combine different institutional logics, the dominant solution to the problem of competing logics would simply be to choose one logic over all others.

like a business’.

Finally, our study also speaks to research in public policy. We extend work in new institutional economics (Coase, 1984; North, 1986; Williamson, 2000) by applying the comparative governance approach of dealing with ‘incomplete contracting in its entirety’ (Coase, 1937; Hansmann, 1996; Williamson, 1996; 1998) to the resolution of social problems (Coase, 1960). In doing so, we recognize that “no single form of organization is good for all social circumstances” (Ostrom and Ostrom, 1971, p. 211), and that “the identification of transaction costs in different contexts and under different systems of resource allocation should be a major item on the research agenda of the theory of public goods” (Arrow, 1969; p. 501). As such, we move beyond doctrinaire approaches (Stiglitz, 1989) that either champion or question private involvement in serving public interests (Shleifer, 1998; Barley, 2007) to offer a contingent account of the role of public bureaucracy (Wilson, 1989; Williamson, 1999), highlighting the need for state involvement in overcoming externalities on one hand, and the potential for government failure (Coase, 1964; Stiglitz, 1989) on the other, and suggesting that while direct state provision is rarely comparatively efficient, state support of private initiatives is often welfare enhancing.

As mentioned in the introduction, our study is limited in that we focus on issues of allocation rather than distribution (Arrow, 1969; Pitelis, 2013), highlight comparisons between arrangements rather than within them, and do not study, or claim to predict, the process through which governance arrangements are chosen (North, 1990; 2006; Klein *et al.*, 2018). While these are certainly important issues worthy of further attention, we suggest that they must reside outside the scope of the current study, which is already quite ambitious in the ground it covers. Future research could explore these issues, using the framework in Figure 2—and the logic underpinning it—as a starting point. In particular, it may be useful and important to examine how distributional imperatives interact with the considerations of allocative efficiency (Arrow, 1985); in a world of

positive transaction costs the determination of property rights is itself subject to allocation problems, so that the choice of governance arrangements may have important implications for how property rights (and consequently economic value) are distributed among actors (Williamson, 1995). Thus, the choice of governance arrangements may determine whose interests get priority, with the rise of professional non-profits, for example, potentially increasing the emphasis on ‘post-material’ issues that are of greater salience to the upper and middle class citizens whose donations fund these non-profits (Berry, 1999; Skocpol, 2003). Examining how greater attention to property rights impacts our discriminating alignment framework is thus a potentially important extension of our study.

As one of the first studies to attempt a comprehensive mapping of the comparatively efficient governance arrangement across the range of market frictions, our paper is also limited in that it is meant to be largely exploratory—intended more to serve as a foundation for further development than as a definitive theoretical account. Institutional arrangements take a great diversity of forms in practice, and the factors that drive the choice between them are varied and complex (Ostrom, 2005; 2010), far outstripping what may be analyzed in a single article. Just the first row of Figure 2—which deals with purely commercial transactions—has been the subject of decades of research examining the nuances of the choice between markets, hybrids, and hierarchies (Williamson, 1991a; Geyskens *et al.*, 2006); similar work examining the choice of optimal governance form to deal with social issues remains to be done. Our hope is that by laying out the range of governance arrangements that may be used to solve social issues, and the conditions under which they may be comparatively efficient, our study will help set an agenda for further research into how social issues are best governed.

Future work could also assess the validity of our arguments empirically. One way to test our theory would be to match the nature of the activity to the relative prevalence of governance

arrangements, using variance in market frictions over time and geography. While we recognize, as acknowledged earlier, that the choice of governance arrangement may be driven by a variety of factors, we nevertheless expect that institutions will evolve, however gently, towards efficiency<sup>35</sup> (Demsetz, 1967; Ingram and Clay, 2000), as farsighted agents recognize the potential to escape or alter ineffective arrangements (Williamson, 1991b; 1996; Ostrom, 2010). In particular, we would expect that as the underlying nature of transactions change, the arrangements used to govern them should also change in the direction predicted by Figure 2. So, for instance, researchers could examine how the prevalence of governance arrangements varies across distinct formal and informal institutional contexts (Ingram and Inman, 1996; Bhanji and Oxley, 2012; Prakash and Potoski, 2012). A second, more direct way to test our theory would be to study the relative welfare performance of alternate governance arrangements, the prediction being that arrangements that conform to our theory will outperform those that do not.

To conclude, our study provides a systematic, albeit preliminary, answer to the question: what is the comparatively efficient governance arrangement to deal with social issues? Drawing on a range of disciplines, we derive the comparative advantage of different organizational forms in governing different sources of market frictions, and use this to develop a comprehensive mapping between the nature of a transaction and the comparatively efficient governance arrangement. In doing so, we not only move beyond a doctrinaire emphasis on the virtues of private or public actors in addressing social problems, we highlight the role of a wide range of hybrid forms in this regard. Our study thus contributes to literature in strategy, organizations, and public policy, offering both a theoretical rationale for various forms of private action in public interest, and a pragmatic basis for

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<sup>35</sup> As Ingram and Clay (2000) put it: “Processes of the selection of social systems and political competition over institutions push the institutional framework gently in the direction of transaction cost efficiency. ‘Gentle,’ however, is key to describing these evolutionary pressures, and consequently, new institutionalists are not surprised to observe inefficient institutions that persist for a long period of time.” (p. 527)

choosing the comparatively efficient arrangement to deal with any given social problem.

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**FIGURE 1: Comparative Advantage of Pure Governance Forms**

	<b>For-profit</b>	<b>Non-profit</b>	<b>Collective</b>	<b>State</b>
<b><i>Ex post</i> Information Asymmetry</b>	Very weak	Strong	Moderate	Weak
<b>Bounded Externalities</b>	Weak	Moderate	Strong	Weak
<b>General Externalities</b>	Weak	Weak	Very weak	Strong
<b>Creative or Absolute Uncertainty</b>	Strong	Moderate	Weak	Very weak
<b>Production Economies (Commercial Co- specialization)</b>	Strong (Very Strong)	Moderate (Weak)	Moderate (Weak)	Moderate (Weak)

**FIGURE 2: Mapping the Comparatively Efficient Governance Arrangement**

Externality	<i>Ex post</i> Information Asymmetry	Creative or Absolute Uncertainty			
		Low		High	
		Low Commercial Co-specialization	High Commercial Co-specialization		
			Column (1)	Column (2)	Column (3)
<b>Low</b>	<b>Low</b>	Row (1)*	Market <i>e.g., Financial spot markets, farmers' markets</i>	For-profit governance <i>e.g., GE, Walmart, Google, Apple</i>	
	<b>High</b>	Row (2)	Service Non-profit <i>e.g., Doctors without Borders, animal shelters, non-profit nursing homes</i>	Non-profit certification / partnerships <i>e.g., BBB, Underwriters Laboratories, Tom's Shoes, Microsoft's Partners in Learning</i>	Social Entrepreneurship <i>e.g., Method Products, Drinkwell, Thorn Technologies, benefit corporations</i>
<b>Bounded</b>	<b>Low</b>	Row (3)	Self-governing Collective <i>e.g., irrigation collectives, labor unions, PTAs, credit unions, retail co-ops</i>	BoP Initiatives <i>e.g., commercial micro-finance initiatives, Project Shakti</i>	Sharing Economy <i>e.g. AirBnB, Kickstarter, Goodreads</i>
	<b>High</b>	Row (4)	Member Non-profits <i>e.g., Churches, American Bar Association, Academy of Management</i>	Social Activism <i>e.g., Fairtrade, HRC, Before they Book</i>	Social Platforms <i>e.g. Edustar, Ushabidi</i>
<b>General</b>	<b>Low</b>	Row (5)	Govt. Provision / Maintenance <i>e.g. NYPD, National Park Service, IRS</i>	Govt Regulation / Subsidies <i>e.g. OSHA, EPA, Medicare</i>	Govt. Contracting <i>e.g. Road maintenance, NIH, NSF</i>
	<b>High</b>	Row (6)	Govt. Sponsorship / Political Activism <i>e.g. Charter schools, NRDC, ACLU</i>	Public good certification / PPP / others <i>e.g. Rainforest alliance, World Food Programme, Project XL</i>	Public entrepreneurship / PPP / others <i>e.g. Hybrid prisons, EMS in India</i>

\* Cases in Row (1) are adequately handled by normal business or commercial transactions and therefore do not involve 'social issues' per our definition.

Notes: More details on these examples can be found in the text.