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Ponthiere, Gregory; Stevens, Nicolas

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# The Morality of Markets. A Comment\*

# Gregory Ponthiere<sup>†</sup>and Nicolas Stevens<sup>‡</sup> April 18, 2024

#### Abstract

Dewatripont and Tirole (2024) defend the morality of markets on the ground of an irrelevance result: the social production of moral actions is independent from competitive pressure on markets. No matter how strong competitive pressure is, markets perform well in diffusing signals about moral values and in coordinating suppliers of moral actions. In this comment, we argue, on the contrary, that markets lead to a double crowding out of moral values: first, imperfect transmission of moral values on markets leads to an underproduction of moral actions despite the presence of highly ethical suppliers; second, competitive pressure on markets favors the eviction of highly ethical suppliers by less ethical suppliers.

Keywords: Competition, markets, morality, crowding out.

JEL numbers: D21, D6.

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<sup>†</sup>UCLouvain, Hoover Chair in Economic and Social Ethics and Global Labor Organization (gregory.ponthiere@uclouvain.be).

<sup>&</sup>lt;sup>‡</sup>UCLouvain, Center for Operations Research and Econometrics (nicolas.stevens@uclouvain.be).

### 1 Introduction

—Is the market moral? This question admits various answers depending on what is meant by "moral". If, as in most economics, morality is reduced to allocative efficiency, then the two fundamental theorems of welfare economics provide a strong argument in favour of the morality of markets. However, in their recent paper, Dewatripont and Tirole (2024) defend the morality of markets in a deeper sense: markets are not only efficient at coordinating suppliers in the production of goods and services, but, also, in the production of "virtuous activities". Dewatripont and Tirole defend the morality of markets on the ground of an irrelevance result: the social production of moral actions is independent from competitive pressure. No matter how strong competition is, markets perform well in diffusing signals about moral values and in coordinating suppliers of moral actions. The goal of this short paper is to reexamine the interpretation and implications of Dewatripont and Tirole's irrelevance result. Let us first briefly present the model.

Dewatripont and Tirole (2024) consider an economy with n firms  $\{1...n\}$ . Each firm has two (observable) choice variables: a price  $p_i \in \mathbb{R}^1_+$  and a "morality" level  $a_i \in [0, \overline{a_i}]$  viewed as a feature of the activity of the firm. Consumers, who express material and moral motives, face a net price:

$$\hat{p_i} = p_i + \phi(a_i) \tag{1}$$

from which results a demand function  $D_i(\hat{p})$  with  $\sum_{i=1}^n D_i(\hat{p}) = 1$ . Thus individuals are essentially viewed as consumers of the morality "produced" by firms. The term  $\phi(a_i)$  (with  $\phi''(a_i) \geq 0$ ) stands for the monetary equivalent (or shadow value) of the moral choice  $a_i$  made by firm i. This is exogenous to the model.<sup>1</sup> Consumers are socially responsible if  $\phi'(a_i) < 0$  and socially neutral if  $\phi'(a_i) = 0$ . Each firm faces a cost  $c_i(a_i)$  of taking a moral action  $a_i$  (with  $c_i'(a_i) > 0$ ,  $c_i''(a_i) > 0$ ) but the firm also internalizes the welfare impact  $W_i(a_i)$  (with  $W_i'(a_i) > 0$ ,  $W_i''(a_i) < 0$ ) resulting from its action. The firms' augmented profit maximization problems are:

$$\max_{p_i, a_i \ge 0, a_i \le \overline{a_i}} (p_i - c_i(a_i)) D_i(\hat{p}) + \alpha_i \mathcal{W}_i(a, \hat{p})$$
(2)

where  $\alpha_i$  is a (common knowledge) parameter standing for the intensity of the firm's social preference and  $W_i = W = \sum_{j=0}^n W_j(a_j) D_j(\hat{p})$  is the function representing the internalization of the social welfare by the firm i. The first-order conditions of problem (2) lead to:

$$\alpha_i W_i'(a_i) - \phi'(a_i) = c_i'(a_i) \tag{3}$$

which is the *irrelevance result*. The right-hand-side (RHS) of the equation is the supply of moral actions, while the left-hand-side (LHS) is the demand for moral actions, which comes from two sources: moral concerns of firms (first term of LHS) and moral concerns of consumers (second term of LHS). Equation (3) establishes that—remarkably—the allocation of the firms' morality choices  $a_i$  is independent of the demand, thus *independent of competitive pressure*.

The purpose of this comment is to reexamine the implications of this irrelevance result. Before turning to the positive content of the irrelevance result, let us first clarify its normative content. Should the irrelevance result be understood as an argument for the market? The title The Morality of Markets, as well as parts of the introduction and the conclusion of that article, might suggest that it holds a normative content. It claims, for example, that the paper's irrelevance result provides a "strong warning against the wholesale moral condemnation of markets and pro-competitive institutions". But these claims should not make us overstate the normative content of the irrelevancy result. Without specifying, by means of a social welfare criterion, what the good allocation of moral actions  $a_i$  is, it is impossible to conclude anything about the

<sup>&</sup>lt;sup>1</sup>Unlike Dewatripont and Tirole (2024), we assume that consumers adopt a unique metric for valuing the morality choice of all firms  $(\phi(\cdot))$ . This has however no impact on the discussion. We also abstract from the case of "socially irresponsible" consumers  $(\phi'(a_i) > 0)$ .

<sup>&</sup>lt;sup>2</sup>For instance, Dewatripont and Tirole refer to the criticism of Sandel (2012) against markets as sources of degradation (see *infra*).

goodness of the allocation achieved by the market, as expressed by equation (3).<sup>3</sup> Alone, that is, without normative premisse, the irrelevance result is *normatively mute*: it says nothing to the question "should the market be the institution that coordinates moral choices made by firms?"

The present paper will focus on the positive content of the irrelevance result. Indeed, the irrelevance result provides a rich positive analysis of the impact of the market on morality by examining the question "does the market—in particular, competitive pressure—crowd out moral values?". At first glance, the irrelevance result seems to answer: No. This paper will provide some nuances to this No. We show how Dewatripont and Tirole's model can be extended to cast light on various facets of the crowding out of moral values on markets, and, hence, on the morality of markets. Since the demand of morality (LHS of equation (3)) comes from two sources—consumers and firms—we will proceed in two steps, examining in turn the crowding out of moral values of consumers (term  $-\phi'(a_i)$  in equation (3)) in Section 2, and the crowding out of firms' moral values (term  $\alpha_i W_i'(a_i)$  in equation (3)) in Section 3. Our reexamination of the irrelevance result leads us to conclude that markets can crowd out moral values, either by failing to transmit perfect signals about consumers's moral values, or by favoring the replacement of highly ethical suppliers by less ethical ones.

### 2 Crowding out of consumers' moral values

Since the production of moral actions  $a_i$  follows from moral concerns expressed by consumers, an important assumption of Dewatripont and Tirole's model—underrated in the paper, in our opinion—is whether or not consumers do, in fact, exhibit moral concerns in their daily purchase decisions on markets. The model implicitly assumes that moral concerns held by individuals will effectively be expressed in the market:  $\phi(a_i)$  is assumed to be exogenous (it is not influenced by the market nor by competitive pressure) and to reflect the "true" moral preferences of individuals, that is, to convey all relevant moral information. There are reasons to be sceptical about this assumption.

From a psychological viewpoint, three cognitive mechanisms can erode moral concerns in a market context (Falk and Szech, 2013). (i) In markets, responsibility is diluted, so agents feel less responsible for the consequences of their action—in particular, a related notion is what has been called the perception of "being pivotal" Falk et al. (2020).<sup>4</sup> (ii) The fact that, in markets, individuals observe others making trades can make it appear socially acceptable, therefore diminishing moral awareness. (iii) The market tends to make agents focus on material preferences as opposed to moral preferences.

When considering the relationship between ethical norms and market norms, some philosophers, like Sandel (2012), argue that the market is not a neutral instrument that serves human actions. The market does not only allocate goods, it affects the way in which individuals understand and value these goods. According to this view, individual moral preferences are not simply given and, to some extent, satisfied through the market, they are also informed and influenced by it. Institutions (for example, the market versus a "deliberative institution") define the "logic of a situation" which shapes the moral concerns that are expressed. Assuming individuals have both private—or material—preferences and social—or moral—preferences, resorting on markets may exacerbate the first, as opposed to "deliberative institutions" that will promote the expression of the second.<sup>5</sup> In sum, these psychological and philosophical viewpoints insist on the role of the institutional context as a cognitive and normative framework that shape the the values that individuals are expected to express.

The crowding out of consumer's moral values has also been observed in experiments. "Protest bids" are frequently observed in compensation variation studies concerning the valuation of environmental goods

<sup>&</sup>lt;sup>3</sup>To state a normative argument for (or against) the market, one should first formulate an ideal of social justice (for instance with a social welfare function), then deduce what the "optimal"  $a_i$  implied by this ideal are, and finally evaluate whether the market allocation (equation (3)) corresponds to the optimal  $a_i$ .

<sup>&</sup>lt;sup>4</sup>Note that the importance of the "awareness of responsibility" as a determinant of the willingness-to-pay for a moral outcome has also been highlighted in empirical works (Liebe et al., 2011).

<sup>&</sup>lt;sup>5</sup>Material preferences do not require a justification: they are the subjective—"reason blind"—preferences of individuals. On the contrary, the expression of moral preferences requires that individuals decenter from their private interests. Moral preferences require a justification—they should withstand to a public debate—, and the market does not ask for it (O'Neill, 2016).

(Vatn, 2005). They are generally regarded as an expression of the rejection by individuals of the reliance on markets to perform moral actions. A recent study by Frey and Pirscher (2018) illustrates these protest bids in a context where firms take moral decisions about animal welfare (for example, firms may decide to invest into more space for laying hens). These moral decisions are conveyed to consumers with "labels" on goods that are purchased and individuals express their moral concerns through a willingness-to-pay (WTP) in the market. The study shows evidences that "market-based instruments cannot capture certain moral values": a non-negligible proportion of subjects express moral concerns for farm animal welfare but do not translate it through a positive WTP in their consumption decisions in the market. Another famous—although controversial —German study by Falk and Szech (2013) provides empirical evidence of the erosion of moral values in a market context. Their results highlight the dependence of the WTP of individuals for a "moral action" to the institutional context. In their "mouse experiments", individuals are confronted to a decision of either or not killing a mouse  $(a_i)$  for some payments. The WTP  $(\phi(a_i))$  for not killing the mouse turns out to be significantly higher in a non-market environment than if the market is used to express the moral preferences of individuals.

The aforementioned theoretical and empirical evidences question the assumption stating that the true moral preferences of consumers are perfectly expressed in the market. In the remaining of this section, we slightly extend the model of Dewatripont and Tirole (2024) to account for the possibility of imperfect transmission of moral values in the market.<sup>7</sup> For that purpose, we assume that individuals hold a moral concern  $\phi(a_i)$  but express a concern  $\beta\phi(a_i)$  in their purchases on the market. There is a perfect (resp. imperfect) transmission of moral preferences in the market if  $\beta = 1$  (resp.  $\beta < 1$ ). The parameter  $\beta$  accounts for the possibility of an eviction of consumers' moral values on markets. While the "true" value for individual agents of the moral action  $a_i$  is  $\phi(a_i)$ , only  $\beta\phi(a_i)$  passes through the market, so that the net price is:

$$\hat{p}_i = p_i + \beta \phi(a_i) \tag{4}$$

While Dewatripont and Tirole implicitly assume  $\beta=1$  (perfect transmission of moral values on markets), the case where  $\beta<1$  stands for an *imperfect transmission*—individuals do not express fully their moral concern in the market.

**Proposition 1.** Under imperfect transmission of moral values, the allocation of  $a_i$  by the firms is given by

$$\alpha_i W_i'(a_i) - \beta \phi'(a_i) = c_i'(a_i) \tag{5}$$

Let  $a_i^*$  be the equilibrium morality choices under perfect transmission ( $\beta = 1$ ) and  $\hat{a_i}$  be the equilibrium morality choices under imperfect transmission ( $\beta < 1$ ). Then  $\hat{a_i} < a_i^*$ .

Figure 1 illustrates the reasoning graphically. Expression (3) can be viewed as defining the equilibrium  $a_i$  as the intersection of the supply cost of morality (RHS) and the demand for morality (LHS). The latter includes both the firm's and the consumers' value of morality, as expressed in the market. Under imperfect transmission of moral values, the irrelevance result still holds, but the consumers' value of morality is scaled down by  $\beta$ , leading to a lower morality choice by firms. If the market crowds out consumers' moral concerns ( $\beta < 1$ ), the irrelevance result shows that it leads to a lower level of morality implemented by firms performing moral actions.

In sum, this section qualifies the sense in which markets can be seen as "moral" in the light of Dewatripont and Tirole's irrelevance result. The mere fact that the social production of moral actions is invariant to the degree of competitive pressure does not guarantee that the level of production of morality resulting from free markets can fully reflect consumers's moral values. Markets can only be "moral" provided these allow for the perfect signaling and transmission of moral values to suppliers.

<sup>&</sup>lt;sup>6</sup>Breyer and Weimann (2015) have critized the assumptions and conclusions of the experiments, which led to further clarrifications from Falk and Szech (2015). Other empirical studies exhibited more mixed results regarding the erosion of the morality by the market (see the survey by Choi and Storr (2023)).

<sup>&</sup>lt;sup>7</sup>Note that assuming imperfect transmission of moral preferences on markets is weaker than assuming that markets shape moral preferences, as supposed by Sandel (2012).

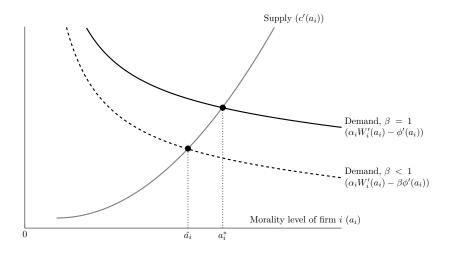


Figure 1: Equilibrium morality choice of firm  $i(a_i)$  under perfect  $(\beta = 1)$  and imperfect  $(\beta < 1)$  transmission of moral preferences in the market.

#### 3 Crowding out of firms' moral values

Let us now examine the moral concerns held by firms. The relationship between the market structure and the (im)possibility of firms' ethical behavior was the object of a book by Baumol (1991). According to Baumol, "perfect market forms impose vice rather than virtue" to firms (Baumol, 1991, p. 3). Baumol's argument goes as follows. Any prosocial behavior that is not used in the standard production process (such as prosocial investments in poor neighborhoods) is equivalent to a wasteful activity. In a perfectly competitive and contestable market, any waste of resource is precluded: a firm that would not use resources efficiently would be underprized by a competitor who is making a more efficient—or less scrupulous—usage of resources. As a consequence, firms could only engage into virtuous—wasteful—activities if they enjoy some market power. Competitive pressure pushes virtuous firms out of the market.<sup>8</sup> (Firms could pursue some social goals in a competitive market, but only if, *incidentally*, it is aligned with the maximization of profits: for example, for advertising purposes, to attract consumers or for hiring purposes.) Similarly, Shleifer (2004) argues that competition "destroys ethical behavior" of firms, exhibiting examples such as employment of children, commercial activities of universities or corporate earnings manipulations.

At first glance, analyses by Baumol (1991) and Schleifer (2004) seem to be in striking contradiction with Dewatriport and Tirole's irrelevance result. The present section shows how Dewatriport and Tirole's framework can be extended so as to reconcile both analyses. Note that Dewatripont and Tirole (2024) briefly discuss the crowding out of ethical suppliers in section 4.3 of their paper. The goal of the present section is to deduce and to illustrate some implications of this crowding out for the scope of the irrelevance result.

One paramount feature of Baumol (1991) and Schleifer (2004) is that it includes the eventuality for a firm a leave the market in case it is unprofitable. This amounts to impose that each firm active in the market should break even. The firm's problem becomes:

$$\max_{p_i, a_i \ge 0} (p_i - c_i(a_i)) D_i(\hat{p}) + \alpha_i W_i(a, \hat{p})$$

$$(\delta_i) \ a_i \le \overline{a_i}$$

$$(6b)$$

$$(\lambda_i) \quad a_i \le \overline{a_i} \tag{6b}$$

$$(\gamma_i) \quad (p_i - c_i(a_i))D_i(\hat{p}) \ge 0 \tag{6c}$$

With respect to model (2), the main novelty is that we impose a constraint of profitability on the firm. The

<sup>&</sup>lt;sup>8</sup>On this result, see also Fleurbaey and Ponthière (2023).

first-order conditions are:

$$0 \leq a_{i} \quad \perp \quad c'_{i}D_{i} - (p_{i} - c_{i})\frac{\partial D_{i}}{\partial \hat{p}_{i}}\phi' - \alpha_{i}W'_{i}D_{i} - \alpha_{i}\phi' \sum_{j=0}^{n} W_{j}\frac{\partial D_{j}}{\partial \hat{p}_{i}} + \lambda_{i} + \gamma_{i}c'_{i}D_{i} - \gamma_{i}(p_{i} - c_{i})\frac{\partial D_{i}}{\partial \hat{p}_{i}}\phi' \geq 0$$

$$0 \leq \lambda_{i} \quad \perp \quad \overline{a}_{i} - a_{i} \geq 0$$

$$0 \leq p_{i} \quad \perp \quad -D_{i} - (p_{i} - c_{i})\frac{\partial D_{i}}{\partial \hat{p}_{i}} - \alpha_{i}\sum_{j=0}^{n} W_{j}\frac{\partial D_{j}}{\partial \hat{p}_{i}} - \gamma_{i}D_{i} - \gamma_{i}(p_{i} - c_{i})\frac{\partial D_{i}}{\partial \hat{p}_{i}} \geq 0$$

$$0 \leq \gamma_{i} \quad \perp \quad (p_{i} - c_{i}(a_{i}))D_{i}(\hat{p}) \geq 0$$

Assuming an interior solution  $(p_i > 0, 0 < a_i < \overline{a}_i)$ , the system leads to the following proposition, to be contrasted with the irrelevance result (3).

**Proposition 2.** Under the augmented model (6), the allocation of  $a_i$  by the firms is given by

$$\frac{\alpha_i W_i'(a_i)}{1 + \gamma_i} - \phi'(a_i) = c_i'(a_i) \tag{7}$$

where  $\gamma_i$  denote the shadow value, for firm i, of relaxing the non-negative profit constraint. Whenever the constraint is binding,

$$1 + \gamma_i = \frac{\eta_i \alpha_i \frac{\partial \mathcal{W}_i / \partial \hat{p}_i}{\partial D_i / \partial \hat{p}_i}}{p_i}$$

with elasticity  $\eta_i = -\frac{\partial D_i}{\partial p_i} / \frac{D_i}{p_i}$ . This is  $1 + \gamma_i \to \infty$  as  $\eta_i \to \infty$ : a higher degree of competitive pressure, materialized by a higher  $\gamma_i$ , implies that firm i chooses a lower moral action  $a_i$ .

If firm i is not constrained by the profitability (for instance when the firm enjoys a large mark-up),  $\gamma_i = 0$  and the expression (7) is equivalent to the irrelevance result (3). If firm i has no prosocial preference ( $\alpha_i = 0$ ), the term  $\gamma_i$  vanishes and the chosen  $a_i$  is such that the supply of morality ( $c'_i(a_i)$ ) equals consumers' demand for morality ( $-\phi'(a_i)$ ). If the firm has prosocial preferences ( $\alpha_i > 0$ ), and its profitability constraint is tight ( $\gamma_i > 0$ ), the impact of these preferences on the moral choice  $a_i$  is discounted by a factor  $1 + \gamma_i$ . The term  $\gamma_i$  is directly influenced by competitive pressure: the higher competitive pressure is, the more the firm will be tightened by profitability constraint. At the competitive limit, moral preferences expressed by firms do not influence the morality level  $a_i$  that is actually implemented, only the consumers' demand does. The following numerical example illustrates Proposition 2.

Example 1. Let us consider a market with two active firms. The demand faced by each firm is  $D_i(\hat{p}) = 1/2 + (\hat{p}_j - \hat{p}_i)/2\tau$  with  $\sum_{i=1}^2 D_i(\hat{p}) = 1$ . The higher the  $\tau$ , the higher the mark-up of the firms. As  $\tau \to 0$ , the market tends towards the competitive limit:  $\eta_i = p_i/(2\tau D_i) \to \infty$ . Let us assume that firm 2 does not hold any moral concern  $(\alpha_2 = 0)$  while firm 1 is "virtuous" with  $\alpha_1 = 1$ . Let us further assume the following functional forms:  $\phi(a_i) = -\alpha_c a_i$  ( $\phi'(a_i) < 0$ , i.e. consumers are socially responsible),  $c_i(a_i) = \delta a_i^2/2$  and  $W_i(a_i) = 2\epsilon \sqrt{a_i}$ . Let us choose parameters' value  $\alpha_c = \delta = \epsilon = 10$ .

Firm 2 morality choice is  $a_2 = \alpha_c/\delta = 1$ . The morality of firm 1, when profitability constraint is not tight, is determined by the irrelevance result (3), here:  $\alpha_1\epsilon/\sqrt{a_1} + \alpha_c = \delta a_1$ . When the profitability constraint is tight, it is determined by the equation (7), here:  $\frac{\tau D_1}{a_1 - \sqrt{a_1}\sqrt{a_2}} + \alpha_c = \delta a_1$ . In the later case, as the competitive pressure increases  $(\tau \to 0)$ , the firm 1 will cut ethical corners  $(a_1 \to a_2)$ . Solving numerically the problem for firm 1, one obtains the following results. For  $\tau \geq 5.28$ , the profitability constraint of firm 1 is not tight, and  $a_1 = 1.75$  for any  $\tau \geq 5.28$ , as predicted by the irrelevance result. For  $\tau < 5.28$ , the profitability constraint of firm 1 is tight and its morality choice is affected by the competition. The supply and demand equilibrium (equation (7)) is illustrated on Figure 2 for various choices of  $\tau$ :  $a_1 = 1.75$  for  $\tau = 5.28$  ( $\gamma = 0$ ),  $a_1 = 1.57$  for  $\tau = 3$  ( $\gamma = 0.39$ ),  $a_1 = 1.34$  for  $\tau = 1$  ( $\gamma = 1.57$ ),  $a_1 = 1.11$  for  $\tau = 0.1$  ( $\gamma = 7.76$ ).

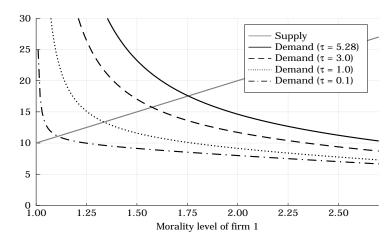


Figure 2: Equilibrium morality choice of firm 1  $(a_1)$  depending on the competitive pressure  $(\tau)$ .

Proposition 2 points to another direction in which Dewatripont and Tirole's irrelevance result should be qualified. That point is complementary to the point made in Proposition 1, which highlighted the crowding out of consumer's moral values because of imperfect transmission of their values on the market, even in the presence of highly ethical suppliers. Proposition 2 underlines another path through which moral values can be crowded out: markets favor the replacement of highly ethical suppliers by less ethical suppliers. In sum, this section reconciliates Dewatripont and Tirole's irrelevance result with previous findings by Baumol (1991) and Schleifer (2004). Competitive pressure is benign for the social production of moral actions only insofar as the non-negative profit constraint is not binding. Otherwise, the social production of moral actions is negatively affected by competitive pressure. The paradox, analysed by Baumol and formalized in Proposition 2, is that the market form that is generally contemplated as ideal for its allocative efficiency—perfect competition—leads mechanically to a crowding out of firm's moral values. It shows the impossibility—within the scope of the model—for the market to achieve at the same time economic efficiency and the promotion of "virtuous" activities.

## 4 Concluding remarks

This comment reexamined the positive core of Dewatripont and Tirole's irrelevance result, and identified two mechanisms along which the crowding out of moral values takes place on markets. A first crowding out of moral values occurs through the imperfect transmission of consumers's moral values on the market. Imperfect transmission of moral values on markets leads to an underproduction of moral actions despite the presence of highly ethical suppliers, and despite the irrelevance of competitive pressure. A second mechanism of crowding out of moral values occurs through the replacement, on the market, of highly ethical suppliers by less ethical suppliers when the profitability constraint is binding. Given that competitive pressure strengthens profitability constraints, this second mechanism does not leave the irrelevance result unaffected.

Are these results depressing? Not necessarily, depending on postulates—to be explicited—concerning the fair social division of moral labor. On the one hand, our results are depressing if one believes that the burden of moral actions should rely exclusively on the shoulders of firms, as assumed in Dewatripont and Tirole (2024). Under that view, one needs markets to be "moral", since there is, by assumption, no other social institutions on which one could rely for the expression of moral concerns and for the coordination of moral actions. On the other hand, our results are not depressing if one believes in a more balanced social division of moral labor, in which the burden of moral actions would not rely exclusively on firms, but would be divided between firms, States, citizens and other organizations such as NGOs. Under that alternative view, the playing field for the coordination of moral actions would go beyond the mere market place, to

include also deliberative institutions. But in any case, the definition of the fair social division of moral labor must be addressed by means of appropriate theoretical tools and concepts, which remain to be constructed.

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