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The Organization of Social Enterprise

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Ofer Eldar
University of California at Berkeley and ECGI

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Abstract

Nonprofit theory falls short in accounting for information asymmetries in beneficiaries' abilities and needs. This paper introduces a model in which entrepreneurs receiving donations choose (1) a for-profit or nonprofit form, and (2) giving to beneficiaries (e.g., training programs) or forming social enterprises that transact with them (e.g., work-integration). When abilities significantly vary, entrepreneurs form social enterprises to measure abilities and tailor higher-quality disbursals. High variance leads entrepreneurs to solely transact with beneficiaries, equalizing philanthropic quality across legal forms. For-profit entrepreneurs commit to high-quality through low-scale philanthropy rather than adopting the nonprofit form. Certification verifying such transactions sustains quality even when unobservable, mitigating scaling challenges.

Keywords: organizations, nonprofits, measurement, theory of the firm, corporate social responsibility, social enterprise

JEL Classifications: L3, K1, H2

Ofer Eldar
Professor of Law
University of California at Berkeley
Law Building
Berkeley, CA 94720-7200, USA
phone: +1 919-613-7068
e-mail: ofer.eldar@berkeley.edu

The Organization of Social Enterprise

Ofer Eldar*

Abstract

Nonprofit theory falls short in accounting for information asymmetries in beneficiaries' abilities and needs. This paper introduces a model in which entrepreneurs receiving donations choose (1) a for-profit or nonprofit form, and (2) giving to beneficiaries (e.g., training programs) or forming social enterprises that transact with them (e.g., work-integration). When abilities significantly vary, entrepreneurs form social enterprises to measure abilities and tailor higher-quality disbursals. High variance leads entrepreneurs to solely transact with beneficiaries, equalizing philanthropic quality across legal forms. For-profit entrepreneurs commit to high-quality through low-scale philanthropy rather than adopting the nonprofit form. Certification verifying such transactions sustains quality even when unobservable, mitigating scaling challenges.

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*University of California, Berkeley; IWH Halle Institute for Economic Research, European Corporate Governance Institute (email: ofer.eldar@berkeley.edu); I thank Nava Ashraf, Ken Ayotte, David Baron, Patrick Bayer, Shai Bernstein, Marco Battaglini, Jean de Bettignies, Dhammika Dharmapala, Pierre Fleckinger, John de Figueiredo, Henry Hansmann, William Hubbard, Tracy Lewis, Hao Liang, Lorenzo Magnolfi, Barak Richman, David Robinson, Larry Samuelson, Tano Santos, Richard Schmalbeck, Matthew Spiegel, Juan Carlos Suárez Serrato, Aron Tobias, and participants at the Conference on the Economics of the Social Sector at Chicago Booth Business School, the 17th Annual Strategy & the Business Environment Conference, the annual meeting of the Society for Institutional & Organizational Economics at Columbia University, and Duke Economics department, for valuable conversations and comments. I also thank Peiran Xiao, Bruno Smaniotto, and Julia Wang for extremely able research assistance. All errors are my own.

Introduction

Social enterprises, such as microfinance institutions, fair trade organizations and work-integration firms, play a key role in advancing development goals by expanding access to capital, improving employment opportunities and productivity, and enhancing consumer welfare. Rather than being defined solely by their dual mission, social enterprises are more accurately characterized as subsidized entities that transact directly with beneficiaries (Dees, 2008) in markets shunned by strictly for-profit firms due to informational asymmetries regarding the abilities and needs of disadvantaged groups (Eldar, 2017).[1] These enterprises represent a shift from traditional donative models to entrepreneurial approaches that actively involve beneficiaries. For example, microfinance institutions provide loans to low-income individuals, fair trade enterprises source products from small-scale producers, and work-integration firms employ those facing systemic unemployment (Helms, 2006; Beatriz & Morduch, 2010; Dragusanu et al., 2014; Prahalad, 2010).

The evolution of these firms raises important questions for theories of organizational forms. While some social enterprises are established as nonprofits, many others operate as for-profits without the discipline imposed by the non-distribution constraint. For example, for-profit institutions like Compartamos and BancoSol have played a consequential role in expanding access to capital in developing countries. These social enterprises challenge traditional theories, which argue that the non-distribution constraint is essential for incentivizing entrepreneurs to produce higher-quality philanthropy (Hansmann, 1980; Glaeser & Shleifer, 2001). The coexistence of both for-profit and nonprofit social enterprises calls for an explanation of the function and choice of organizational forms.[2]

This article presents a theory explaining the organization of social enterprises. The core idea is the distinction between organizations that pursue social goals through transactions with beneficiaries and those that transfer subsidies to them. As shown in Figure 1, organizations with a social mission can adopt one of four models based on two parameters: (1) for-profit versus nonprofit structure, and (2) giving to beneficiaries versus transacting with them. For example, corporations engaging in corporate charity, such as Google, are for-profits that distribute subsidies. Donative organizations, like Oxfam, are nonprofits that transfer subsidies to beneficiaries. Social enterprises, whether for-profit or nonprofit, transact with beneficiaries as consumers (e.g., borrowers) or input providers (e.g., workers), while also distributing subsidies. These categories are not mutually

[1] For a discussion of the definition of social enterprise, see Section A of the Online Appendix.

[2] This article complements Hansmann (1980) and Glaeser & Shleifer (2001) by incorporating social entrepreneurship aimed at advancing development missions into the theory of organizational forms. It overlaps with the organizations described in Hansmann (1980) by considering donative organizations as an alternative to social entrepreneurship. This article does not address the role of commercial nonprofits, such as nursing homes, daycare centers, universities and hospitals, which arise in circumstances where consumers face difficulties in observing the quality of private services provided to them by the organization (see Choi, 2015; Vlassopoulos, 2009; Habib, 2018). While organizations like hospitals and universities may accept donations to benefit the ultimate customers, they do not transact with their consumers in situations where strictly for-profit firms avoid transacting due to informational asymmetries—for example, in the case of commercial banks that avoid making loans to disadvantaged groups. See Section A of the Online Appendix.

exclusive. A social enterprise may also engage in giving; for instance, a fair trade firm—whether for-profit or nonprofit—might donate a portion of its profits to charitable causes.

Figure 1: **A Taxonomy of Organizations**

	Giving	Transacting
For-Profits	Corporate Charity	For-profit Social Enterprises
Nonprofits	Donative Organizations	Nonprofit Social Enterprises

A key feature of the analysis is that social enterprises address information asymmetries regarding beneficiaries' attributes (e.g., productivity or creditworthiness). Social enterprises that transact with beneficiaries measure their abilities by metering productivity and output (Alchian & Demsetz, 1972; Holmström, 1998). This information enables them to tailor subsidies effectively to beneficiaries' needs (Eldar, 2017). For example, when the goal is to improve employment and productivity, general policies or training programs may not be effective; instead, specific interventions must be tailored to the attributes of different beneficiaries. By observing beneficiaries' output through transactional relationships, fair trade and work-integration firms can customize training to meet beneficiaries' needs. This measurement function makes social enterprises more effective in addressing development goals, such as increasing employment and access to capital. In contrast, giving organizations, which do not transact with beneficiaries, lack a market platform to measure beneficiaries' attributes. As a result, when information asymmetries are high, they are more likely to misallocate subsidies—providing too much, too little, or the wrong kind altogether.

The level of informational asymmetry and the need to tailor subsidies to beneficiaries' abilities are captured by the variance in their abilities. When variance is high, an organization aiming to increase access to credit or improve employment may need to adjust price discounts or training programs to match individual abilities. In such cases, transacting with beneficiaries is more effective than simply giving, due to the information the entrepreneur acquires. Thus, social entrepreneurs deliver higher-quality philanthropy than traditional giving-based models. However, when variance is low, the quality advantage of transactional models is limited.

Incorporating the distinction between transacting and pure giving into analyses of organizational choice provides a deeper understanding of how legal forms affect philanthropic quality. Notably,

for-profits do not necessarily produce lower-quality philanthropy than nonprofits. Instead, quality depends on the variance in beneficiaries' abilities and the extent to which entrepreneurs prioritize it. When variance is high, the risk of low-quality disbursal increases—entrepreneurs may allocate subsidies that are too small or too large. If the entrepreneur values quality, she has altruistic incentives to measure beneficiaries' abilities by engaging in a transactional relationship with them. Once she has established a transactional relationship with the beneficiaries, she also has for-profit incentives to help them become productive. In this way, her altruistic and profit motives align.

When high informational asymmetries lead entrepreneurs to tailor subsidies through transactional relationships, they achieve maximum-quality philanthropy, regardless of legal form. The social entrepreneur's incentive to allocate high-quality, tailored subsidies outweighs the nonprofit form's potential advantages in motivating quality. Conversely, when variance in beneficiaries' abilities is low or the entrepreneur places less value on quality, she engages in at least some giving without measuring beneficiaries' abilities. In such cases, the non-distribution constraint continues to incentivize higher-quality philanthropy than for-profits by promoting more transactions and reducing ineffective giving.

This result contrasts with Glaeser and Shleifer (2001), who, following Hansmann (1980), model nonprofits as having stronger incentives than for-profits to produce higher-quality outcomes due to the non-distribution constraint, which limits the temptation to cut costs by shirking on quality. In their model, nonprofits always outperform for-profits in delivering high-quality philanthropy. However, this conclusion relies on assumptions that equate quality with scale (i.e., more philanthropy), assume quality is unlimited, and presume entrepreneurs have perfect information on how to improve outcomes, even for complex tasks like development missions.

The analysis sheds light on entrepreneurs' organizational choices. Absent tax benefits, entrepreneurs prefer the for-profit form—even when donors value quality and no formal certification mechanism exists. When effective philanthropy requires significant information about beneficiaries' abilities, donors support for-profit social entrepreneurs who focus exclusively on transacting with beneficiaries. These entrepreneurs typically seek only small donations—deliberately leaving money on the table—as a signal of quality to potential donors, such as customers or investors aligned with the firm's mission. The intuition is that there is a tradeoff between the quality and scale of philanthropy, and entrepreneurs who prioritize quality engage in lower-scale philanthropy by assisting fewer beneficiaries. This insight provides an explanation for many social entrepreneurs' emphasis on financial sustainability and their reluctance to rely on donative capital. When informational asymmetries are smaller and entrepreneurs are more likely to combine giving and transacting, nonprofits provide higher-quality disbursals. Donors who highly value quality may give more to nonprofit firms, but entrepreneurs still prefer the for-profit form due to the combined effects of diminishing returns to donations and the non-distribution constraint. In these cases, tax benefits may be necessary to induce nonprofit formation. This aligns with standard tax rules, which more readily grant exemptions when entrepreneurs engage in substantial giving rather than exclusively transact with beneficiaries, such that the firm's commercial activity is less salient.

The theoretical analysis has three major contributions. First, it explains the proliferation and relative success of for-profit social enterprises in industries such as microfinance, fair trade, work-integration, and low-cost retail and services (Chu, 2007; Prahalad, 2010). These firms address complex development goals—like increasing productivity or access to capital—where there are informational asymmetries regarding beneficiaries' abilities and needs, and where subsidy effectiveness is critical to program success. For-profit social enterprises tend to be more effective when the variance in beneficiaries' abilities (e.g., creditworthiness, skills, or ability to pay) is high. Their quality advantage stems from transactional relationships with beneficiaries. This success contrasts with dissatisfaction over the effectiveness of programs run by donative organizations, especially NGOs and development agencies, in addressing poverty and development missions (Weisbord, 2001; Easterly, 2009; Banerjee & Duflo, 2009; McKenzie & Woodruff, 2013). The existing literature on nonprofits has yet to explain why for-profit social enterprises have emerged as effective in addressing development missions, despite not being subject to the discipline imposed by the non-distribution constraint.

Second, this article offers a novel functional basis for defining social enterprises by their structural feature: transactional relationships with beneficiaries. This contrasts with common definitions based on purpose or outcomes, such as social value creation (see Baron, 2007; Benabou & Tirole, 2010; Mayer & Ganahl, 2014; Besley & Ghatak, 2017; Kaul & Luo, 2018; De Bettignies & Robinson, 2018; Chowdhry et al., 2018).[3] For example, Besley and Ghatak (2017) model for-profits, nonprofits, and social enterprises as firms where managers pursue only profits, only social value, or both, and assume nonprofits offer fixed wages while for-profits and social enterprises offer equity. Their model predicts nonprofits are optimal when pro-social motivation is high, for-profits when it is low, and social enterprises when moderate. Contrary to these findings, I show that nonprofits are most valuable when the need for high-quality philanthropy is limited or when entrepreneurs place relatively low weight on quality. The intuition is that when tailoring is essential or entrepreneurs have strong preferences for quality, the nondistribution constraint is not necessary to incentivize them to provide high-quality philanthropy.

Finally, certification mechanisms that verify a firm's commitment to transacting with beneficiaries offer an effective policy tool for supporting social entrepreneurship. Rather than attempting to measure philanthropic quality directly—which is often infeasible due to the challenges of impact measurement (Galle, 2018; Eldar, 2020)—certification signals quality by ensuring entrepreneurs transact directly with their beneficiaries. Certification enables both private (e.g., impact investors) and public (e.g., governments) donors to direct resources toward high-quality philanthropy. Empirical evidence supports the efficacy of such mechanisms. Fair trade products have become part of mainstream consumer markets—particularly in goods like coffee and bananas—demonstrating that certification can facilitate scale without compromising quality. Fair trade certification—conducted by nonprofit organizations—has improved financial outcomes for producers by providing better market access and compensation (Dragusanu, Giovannucci & Nunn, 2018; Dragusanu, Giunta &

[3]For further discussion of definitions of social enterprise, see Section A of the Online Appendix.

Nunn, 2022). Likewise, the Community Development Financial Institutions (CDFI) program certifies financial institutions serving low-income populations, making them eligible for subsidies from the CDFI Fund. Between 2018 and 2023, the number of certified CDFIs increased by 40%, and industry assets tripled to over $450 billion, indicating substantial growth and impact (Federal Reserve Bank of New York, 2023). CDFI programs have expanded access to capital (Freedman, 2012; Cortes & Lerner, 2013; Kovner & Lerner, 2015), whereas giving-based programs have had limited success (Easterly, 2009; McKenzie & Woodruff, 2013). These examples illustrate how certification supports high-quality social enterprises while enabling them to scale.

1 Basic Set-up

The model is structured as follows. A firm is operated by a single entrepreneur who represents both managers and shareholders. The entrepreneur runs a business—such as a bakery, lender, or agricultural firm—and also cares about the community or faces reputational pressure to assist it, for example by providing training to low-income workers with no employment history.

The entrepreneur may choose to help disadvantaged individuals by (1) donating a portion of her earnings to fund training programs, and/or (2) employing and training them within the firm. In both cases, the entrepreneur provides training. However, in the giving model, the entrepreneur does not employ beneficiaries, while in the transacting model, training occurs on the job. The analysis primarily focuses on beneficiaries facing systemic unemployment who require professional training. Accordingly, "transacting" and "employing" are used interchangeably. However, the analysis also applies to other disadvantaged groups, such as low-income borrowers or consumers. The entrepreneur must also choose the firm's legal form: (1) for-profit or (2) nonprofit.

The entrepreneur's utility consists of earnings and an altruistic or reputational component that reflects the ex post quality of the firm's philanthropy:

$$U = V(P) + \gamma q, \tag{1}$$

where P is the firm's earnings, q is the quality of the firm's philanthropy, and $\gamma \geq 0$ reflects the entrepreneur's regard for the quality of philanthropy–essentially her altruism in this model. V is a constraint on distributing profits. If the entrepreneur chooses the nonprofit form, she can only distribute a fraction (V) of the organization's net earnings to herself. V is an increasing concave function (following Glaeser & Shleifer, 2001; Choi, 2015), and $V(x) \leq x$, $\forall x \in \mathscr{R}_+$, $V''(\infty) = 0$. For simplicity we assume that $V(x) = vx$, and $0 < v \leq 1$. When $v = 1$, the firm is a for-profit.

The firm's earnings (P) consist of two sources of income:

- Firm Revenues ($R(a)$): Revenues depend on workers' abilities (a). Firm revenues are given by $\int_0^w r \times a(j)$, where $a(j)$ is the ability of worker j, r is the return on human capital, and w is a fixed number of workers employed by the firm. I assume $r \geq 1$ to focus on productive

firms that generate non-negative returns on capital.[4]

- Donations ($D(n)$): Donations depend on the number of disadvantaged people (i.e., beneficiaries) the entrepreneur promises to assist (n). $D(n)$ is an increasing twice-differentiable function in n and $D(0) = 0$. $D(n)$ is concave because donors' marginal utility from helping more people declines as n increases.

The assumption that donation amounts depend on n implies two related assumptions. First, the number of beneficiaries, which proxies for the entrepreneur's scale of philanthropy, is observable ex ante by the donor. The number of beneficiaries that organizations like Oxfam (a nonprofit) or Tom's Shoes (a for-profit) claim to assist is generally known, while the actual disbursements—and their quality or impact—are not. Second, donors, constrained by time and attention, often lack both the capacity and interest to assess the likelihood of the entrepreneur's philanthropy being effective before donating, and thus base their decisions solely on the scale of philanthropy (Charles & Kim, 2016; Coupet & Schehl, 2021). I relax this assumption in Section 3, but here it is modeled as part of a donor's decision process, where utility is concave in the number of beneficiaries assisted. The donor's utility function is $U^D = Y - D(n) + F(n)$, where $F(n)$ is an increasing concave function representing the donor's utility from charitable contributions.[5] For simplicity, I assume that $D(n)$ in the entrepreneur's utility function is concave.

For the purposes of this article, I am indifferent to the source of donation-subsidies. Donations may come from consumers paying a premium above the market price for products of equivalent quality, investors accepting below-market returns, or workers accepting lower salaries. They may even originate from the entrepreneur herself. Alternatively, donations or subsidies may come from external donors contributing directly to the firm.

The beneficiaries of the entrepreneur's philanthropy are disadvantaged workers with lower abilities than standard workers. Standard workers (i.e., those who are not disadvantaged) all have the same ability, $\bar{a}$. By contrast, each disadvantaged worker i has a lower level of ability, $a(i) \in [0, \overline{a})]$ $\forall i \in \boldsymbol{\mathcal{R}}_+$. This implies that if the firm employs only standard workers, $R(a) = w \times r \times \bar{a}$, but if the firm employs disadvantaged workers revenues are lower. This simplifying assumption implies that standard for-profit firms always hire standard workers with abilities $\bar{a}$, avoiding disadvantaged workers whose abilities are unknown.[6] The same applies, for example, to commercial banks that avoid making loans to low-income individuals in rural communities or coffee retailers that refuse to source products from disaggregated low-income farmers in developing countries.

[4] In Section B.1 of the Online Appendix, I show that the main results are robust to the case where $r < 1$.

[5] A donation occurs only if $D(n)$ increases with n and is sufficiently convex such that $D''(n) > F''(n)$. This condition implies that $D(n)$ is either convex or less "concave" than $F(n)$. The first order condition, $F'(n^*) = D'(n^*)$, indicates that the marginal cost of donations, $D'(n)$, is constrained by the concavity of $F(n)$ as n grows. Consequently, the marginal donation the donor is willing to make, represented by $D'(n)$, slows to match the decreasing $F'(n)$, even if $D(n)$ itself may be convex.

[6] This assumption reflects the classic market rationing and collapse associated with well-known problems of adverse selection and moral hazard (Akerlof, 1970; Stiglitz & Weiss, 1981). One could design a model in which information asymmetries exist for all workers, but are more severe for disadvantaged groups. However, such a model would add unnecessary complexity without yielding different or more meaningful results.

A disadvantaged worker may receive a disbursal that increases their ability up to $\bar{a}$. In this example, the disbursal reflects the cost of training the beneficiary. To reach $\bar{a}$, beneficiaries must receive the disbursal amount, which I quantify as $d = \bar{a} - a(i)$. Any disbursal below this amount is insufficient, and any disbursal above it is wasteful. The quality of the disbursal is reflected in the extent to which it is tailored to the beneficiaries' needs.

The entrepreneur chooses to assist n beneficiaries, where $n \geq 0$, and delivers a subsidy to each beneficiary i in the amount of $d(i)$, where i is defined over a continuum for convenience. However, due to informational asymmetries, the entrepreneur does not readily observe the true abilities of the beneficiaries. This occurs because disadvantaged groups have limited means to signal their abilities. For example, they may lack employment histories, credit records, or educational credentials. This feature of the model reflects standard accounts of informational asymmetries in low-income communities (Armendáriz & Morduch, 2010). As a result, the entrepreneur's choice of $d(i)$ may be too high (i.e., $d(i) > \bar{a} - a(i)$), resulting in waste, or too low ($d(i) < \bar{a} - a(i)$), leaving the beneficiary's ability below $\bar{a}$ even after receiving a disbursal.

To address this information asymmetry, the entrepreneur may form a social enterprise. Social enterprises employ disadvantaged workers and allocate disbursals through transactional relationships (e.g., training on the job) rather than providing training externally (e.g., through a standalone program). The advantage of a social enterprise is that by transacting with beneficiaries, the entrepreneur can measure their true abilities. Specifically, the entrepreneur may incur a cost $C(m)$ to measure the abilities of the m disadvantaged workers she employs. By incurring $C(m)$, the entrepreneur observes the true abilities $a(i)$ of those m workers and allocate to each a disbursal $d(i) = d^m(i)$. If she instead chooses to help g beneficiaries through giving, she allocates each a disbursal $d(i) = d^g(i)$ without observing their actual abilities.

Accordingly, the firm's earnings (P) account for the monetary costs of philanthropy, which include:

- Disbursals to g beneficiaries through the firm's giving program, given by: $\int_0^g d^g(i)di$.
- Disbursals to m beneficiaries through the firm's transactional program, given by: $\int_0^m d^m(i)di$.
- Measurement costs $C(m)$, where $C(m)$ is a twice-differentiable, increasing, convex function, and $C(0) = 0$.[7]

The sequence of the model works as follows:

- At $t = 0$, the entrepreneur chooses the number of beneficiaries (n), including the number of beneficiaries she transacts with (m) and those assisted through giving (g), where $n = m + g$. She also decides whether to incur the measurement costs $C(m)$.
- At $t = 1$, the entrepreneur learns the true abilities of the m beneficiaries (if she incurred $C(m)$) and sets the disbursal allocations $d^m(i)$ and $d^g(i)$.

[7] As shown, in Section B.2 of the Online Appendix, the analysis is robust to a linear cost function.

The measurement costs $C(m)$ reflect the cost of evaluating disadvantaged individuals by monitoring their performance after the transactional relationship begins. Following Holmström (1998), the rationale is that through this relationship, the firm observes beneficiaries' output and infers their abilities. A clear example is Greyston Bakery, which hires disadvantaged workers facing systemic unemployment on a no-questions-asked basis and incurs substantial costs to evaluate their abilities on the job. The bakery can then tailor training to each worker's needs. The analysis also applies to other social enterprises: fair trade firms learn about farmers' abilities by committing to buy their products, and microfinance firms assess borrowers' creditworthiness by lending and monitoring repayment (Armendáriz & Morduch, 2010). $C(m)$ captures the cost of a dynamic learning process through repeated interactions, involving intensive monitoring that purely for-profit firms typically do not undertake (Eldar, 2017).

Giving organizations may attempt to evaluate beneficiaries' performance through impact studies after allocating disbursals, but such evaluations are often prohibitively costly. Without a platform to observe beneficiaries' productive abilities, these studies become extremely expensive, and many giving-focused development programs have proven wasteful and ineffective (Easterly, 2009; McKenzie & Woodruff, 2013). While a less efficient measurement technology for giving firms is conceivable, it adds no meaningful insight to the analysis. For simplicity, I assume measurement is only available when firms transact with beneficiaries.

Finally, the altruistic component of the entrepreneur's utility function reflects her regard for the quality or effectiveness of the firm's philanthropy (γq). The quality of philanthropy (q) is defined as a quadratic function of the deviation from the disbursal needed to assist each beneficiary. Misallocating disbursals reduces quality. Specifically, $q = -\int_0^n \left(d(i) - (\bar{a} - a(i))\right)^2 di$, which measures the effectiveness of allocations. If disbursals (i.e., $d(i)$) are too high or too low (i.e., $d(i) \neq \bar{a} - a(i)$), the entrepreneur's utility decreases.[8] Importantly, accepting donations subjects the entrepreneur to reputational costs tied to these n beneficiaries. These reputational costs limit the scale of philanthropy she is willing to undertake and, consequently, the donations she accepts, as they can increase with the number of beneficiaries when suboptimal disbursals are made.

An important feature of social enterprises is the alignment of the social entrepreneur's profit and social goals. To see this, we can rewrite q as: $q = -\int_0^m \left(d^m(i) - (\bar{a} - a(i))\right)^2 di - \int_0^g \left(d^g(i) - (\bar{a} - a(i))\right)^2 di$. Maximum quality is achieved when $d(i) = \bar{a} - a(i)\ \forall i$, such that $q = 0$. If the entrepreneur employs m individuals with abilities below $\bar{a}$, the firm's earnings decline because only $w - m$ workers have abilities $\bar{a}$. The entrepreneur can improve the performance of these m beneficiaries by providing them with disbursal $d(i) = \bar{a} - a(i)$, increasing their abilities to $\bar{a}$. Accordingly, by transacting with beneficiaries and setting $d(i) = \bar{a} - a(i)$ for each i, the firm maximizes revenues, improves the quality of disbursals, and eliminates reputational costs.

The extent to which the entrepreneur values quality is captured by γ, which reflects her own altruism or the reputational costs associated with failing to help the community effectively after sourcing donations from investors and consumers. For instance, consider the reputational backlash

[8] For a discussion of alternative quality measures, see Section B.3 of the Online Appendix.

Google faced after falling short of its aspirations to alleviate poverty (Strom & Helft, 2011). In contrast, Glaeser and Shleifer (2001) assume that the altruistic component of the entrepreneur's utility increases with the volume of disbursals, regardless of whet her the beneficiaries actually benefit.[9]

In summary, the entrepreneur's maximization problem is:

$$\max_{m,g,d(i)} v\left[R(a)+D(n)-\mathbb{E}\int_0^m d^m(i)di-\mathbb{E}\int_0^g d^g(i)di-C(m)]+\gamma q\right] \text{ s.t. } n=m+g, \quad (2)$$

where, $R(a)$ depends on m, and $d^m(i)$ is chosen by the entrepreneur:

$$R(a)=r(w-m)\bar{a}+r\cdot\mathbb{E}\int_0^m\left[\min\left(a(i)+d^m(i),\bar{a}\right)\right]di,$$

and the altruistic component of the utility function is:

$$\gamma q=-\gamma\cdot\mathbb{E}\left[\int_0^m\left(d^m(i)-(\bar{a}-a(i))\right)^2di\right]-\gamma\cdot\mathbb{E}\left[\int_0^g\left(d^g(i)-(\bar{a}-a(i))\right)^2di\right].$$

2 Analysis of the Entrepreneur's Choices

2.1 Transacting and Giving as Substitutes

I begin by solving for the entrepreneur's allocation decisions, conditional on whether she forms a social enterprise or engages in giving. All proofs are provided in Section B of the Appendix unless otherwise noted. We first solve for the optimal allocation $d^{g*}(i)$:

$$d^{g*}(i)=\bar{a}-\mathbb{E}(a)-\frac{v}{2\gamma}\ \ \forall i\in[0,n]. \quad (3)$$

The last term, $\frac{v}{2\gamma}$, reflects the entrepreneur's disutility from paying. This disutility vanishes as $\gamma\to\infty$.[10] Thus, the more the entrepreneur values effectiveness, the closer she will set disbursals to the average need of the beneficiaries ($\bar{a}-\mathbb{E}(a)$). Additionally, the disutility from paying vanishes as $v\to 0$, consistent with the theory that the non-distribution constraint provides greater incentives to generate more charity.

We next solve for $d^{m*}(i)$, conditional on the entrepreneur transacting with beneficiaries and incurring measurement costs such that she observes a.

[9]The entrepreneur in Glaeser & Shleifer (2001) chooses q, the quantity of disbursal, and her utility is given by $D-c(q)+\gamma\times q$, where D is a constant independent of q because donors cannot observe quantity when making their donations.

[10]To see why equation (3) holds, suppose the entrepreneur sets $d^*(i)=\bar{a}-\mathbb{E}(a)-\frac{v}{2\gamma}-\varepsilon$ for j beneficiaries, and the amount in equation (3) for all other beneficiaries, where $\varepsilon>0$. The entrepreneur's utility in this scenario would increase by $j\times\varepsilon$ due to the savings in disbursals, but decrease by $j\left(\varepsilon+\varepsilon^2\right)$ due to the loss in quality.

Lemma 1. *If the social entrepreneur expends C(m) on measurement at t=0, she has both financial and altruistic incentives to tailor subsidies to beneficiaries' need at t=1, such that,* $d^{m*}(i) = \bar{a} - a(i) \ \ \forall i \in [0, m]$.

The intuition is that if $d^m(i) < \bar{a} - a(i)$, the entrepreneur loses revenue because the beneficiary performs poorly. Conversely, if $d^m(i) > \bar{a} - a(i)$, the disbursal is wasteful because a cannot exceed $\bar{a}$. Therefore, increasing disbursals beyond this amount does not improve the quality of philanthropy.

Lemma 2. *If the entrepreneur chooses to transact with beneficiaries, she will always incur measurement costs and tailor subsidies to their abilities.*

If the entrepreneur transacts with beneficiaries but does not measure their abilities, she sets d without knowing their true a. In this case, d is chosen as if the entrepreneur is engaging through giving, though she has slightly stronger incentives to provide a higher disbursal since her revenues depend on the beneficiary's productivity. However, because the disbursal is not tailored to the beneficiary's abilities, it may be too small or too large. If the disbursal is insufficient to help the beneficiary reach the capabilities of standard workers ($\bar{a}$), the entrepreneur loses revenue due to poor performance. Conversely, if the disbursal exceeds what is necessary to help the beneficiary reach $\bar{a}$, it results in waste. Additionally, failing to tailor the disbursal to the beneficiary's abilities imposes reputational costs for ineffectiveness. Thus, giving is superior to transacting without incurring $C(m)$. If the entrepreneur already faces reputational costs for ineffectiveness, she would prefer to employ only standard workers to maximize revenue and limit altruistic efforts to giving. This result shows that when the entrepreneur transacts with beneficiaries, her profit and altruistic incentives to tailor subsidies are aligned.

The entrepreneur chooses m and g, where $n = m + g$. She chooses n to attract donations ($D(n)$). Each increase in n presents a choice: employ the beneficiary (and measure their abilities) or provide a subsidy. Giving and transacting are substitutes—the entrepreneur can either give and bear the costs of ineffectiveness or "save" these costs by incurring measurement costs. Letting $n = n', m = m',$ and $g = g'$, we can rewrite the entrepreneur's ex ante utility in equation (2) as:

$$v\left(r \cdot w \cdot \overline{a} + D(n') - C(m') - n'\left(\bar{a} - \mathbb{E}(a)\right)\right) - g' \cdot \gamma Var(a) + \frac{v^2 g'}{4\gamma}. \tag{4}$$

If n is increased by raising m, the marginal change in expected utility is $vD'(n') - (\bar{a} - \mathbb{E}(a)) - C'(m')$. If n is increased by raising g, the marginal change is $v\left(D'(n') - (\bar{a} - \mathbb{E}(a))\right) - \gamma Var(a) + \frac{v^2}{4\gamma}$. The entrepreneur will raise m only if $C'(m') < \frac{\gamma}{v} Var(a) - \frac{v}{4\gamma}$, and $C'(m') < D'(n') - (\bar{a} - \mathbb{E}(a))$. These conditions imply that the costs of measurement must be lower than both the reputational cost of ineffectiveness and the marginal donation minus the expected disbursal. If these conditions are not met, the entrepreneur will increase n by raising g.

At the optimum, there are two possible outcomes. The first, m^*_{mec}, satisfies what I call the "measurement effectiveness constraint." Beyond this point, the measurement costs of employing more beneficiaries exceed the gains in effectiveness, i.e., $\frac{\gamma}{v} Var(a) - \frac{v}{4\gamma}$, even if more donations are available. This is given by:

$$C'(m^*_{mec}) = \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma} < D'(m^*_{mec}) - (\bar{a} - \mathbb{E}(a)). \tag{5}$$

The second, m^*_{mcc}, satisfies the "measurement compensation constraint." Here, the entrepreneur requires that part of the donations—net of the disbursal to beneficiaries—covers the costs incurred in performing the measurement function. This is expressed as:

$$C'(m^*_{mcc}) = D'(m^*_{mcc}) - (\bar{a} - \mathbb{E}(a)) < \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma}. \tag{6}$$

These conditions show that transacting is preferable when $Var(a)$is large, reflecting the informational advantage of social enterprises. Conversely, giving is preferable when $Var(a)$ is small. Similarly, transacting is favored when the entrepreneur has a high regard for quality (γ), while giving is more suitable when γ is low. Thus, the entrepreneur internalizes the need to tailor disbursals when the variance in abilities is greater and she places higher value on subsidy effectiveness.

Moreover, equations (5) and (6) imply that we can infer the entrepreneur's optimal choices for m^*,g^* and n^* based on the parameters of the distribution of a, γ, and the legal form (v). The entrepreneur selects the maximum m when $Var(a)$ and γ are sufficiently large such that the measurement compensation constraint binds and marginal donations no longer offset the reputational costs of ineffective giving. Accordingly, $m^* = m^*_{mcc} = \max(m)$, $n^*_{mcc} = m^*_{mcc}$, and $g^*_{mcc} = 0$. Here, n^*_{mcc} also represents the minimum number of beneficiaries the entrepreneur chooses to assist. When the measurement effectiveness constraint is satisfied, and $n^*_{mec} > m^*_{mec}$, the entrepreneur increases n through giving until $n^* = n^*_{mec} = \arg\left(D'(n^*_{nec}) = \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma} + (\bar{a} - \mathbb{E}(a))\right)$. This implies that n^*_{mec} decreases as $Var(a)$ and γ increase. Conversely, m_{mec} increases with $Var(a)$ and γ because $C(m)$ is continuous and convex up to $\max(m)$=m^*_{mcc}. When $m^* = m^*_{mcc} = n^*_{mcc}$, $D'(n^*_{mcc}) < \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma} + (\bar{a} - \mathbb{E}(a))$, which implies that $n^*_{mec} > n^*_{mcc}$ because $D(n)$ is continuous and concave. Lemma 3 and Proposition 1 follow directly from this analysis.

Lemma 3. *There exists a one-to-one mapping between m^* and n^*, $m^*$and g^*, and $g^*$and n^*.*

Proposition 1. ***(A)*** *When the variance in abilities ($Var(a)$) is high and the entrepreneur has high regard for quality (γ is high), she transacts with a larger number of beneficiaries (m). Conversely, when $Var(a)$ and γ are low, she is more likely to engage in giving to a greater number of beneficiaries (g).*

(B) *When $Var(a)$ and γ are small, such that $m^* = m^*_{mec}$, where $C'(m^*_{mec}) = \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma} < D'(m^*_{mec}) - (\bar{a} - \mathbb{E}(a))$, the total number of beneficiaries the entrepreneur chooses to assist (n^*) decreases with the number transacted with ($\frac{\partial n^*}{\partial m^*}(Var(a), \gamma) < 0$) and increases with the number helped through giving ($\frac{\partial n^*}{\partial g^*}(Var(a), \gamma) > 0$).*

(C) *When $Var(a)$ and γ are large, such that $m^* = m^*_{mcc}$, where $C'(m^*_{mcc}) = D'(m^*_{mcc}) - (\bar{a} - \mathbb{E}(a)) < \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma}$, the total number of beneficiaries the entrepreneur chooses to assist (n^*_{mcc}) is equal to the number of beneficiaries the entrepreneur transacts with (m^*_{mcc}), and the entrepreneur does not engage in giving ($g^*_{mcc} = 0$).*

(D) *The maximum number of beneficiaries transacted with, $m(Var(a),\gamma)$, and the minimum total number assisted, $n(Var(a),\gamma)$, occur when $n^* = m^* = m^*_{mcc}$, such that the entrepreneur engages exclusively in transacting with beneficiaries.*

This proposition highlights the trade-off faced by social entrepreneurs between scale and quality. The scale of philanthropy is determined by n. Quality is defined as $q = -\int_0^n \left(d(i) - (\bar{a} - a(i))\right)^2 di$, where misallocation of donations reduces the quality of philanthropy. Using Lemma 1 and equation (3), expected quality is: $\mathbb{E}[q] = -g^* \left(Var(a) + \frac{v^2}{4\gamma^2}\right)$. Maximum quality is achieved when the entrepreneur engages exclusively in transacting ($g^* = 0$), resulting in $\mathbb{E}[q] = 0$. When the entrepreneur mixes transacting and giving, $\frac{\partial n^*}{\partial m^*}(Var(a),\gamma) < 0$ and $\frac{\partial n^*}{\partial g^*}(Var(a),\gamma) > 0$. For very small $Var(a)$, the need for transacting is low. As $Var(a)$ and γ increase, both the need for tailoring and the entrepreneur's regard for quality are higher, leading to larger m^* and smaller n^*. For sufficiently high $Var(a)$, expected quality increases with γ, such that $\mathbb{E}[q] \to 0$ as $n, m \to m_{mcc} = n_{mcc}$.[11]

Corollary 1. *When $n^* = m^* = m^*_{mcc}$, the expected quality of philanthropy is maximized. Conversely, when $m^* = m^*_{mec}$ and $Var(a)$ is sufficiently high, the expected quality of philanthropy increases as $m^*(Var(a),\gamma)$ rises and $n^*(Var(a),\gamma)$ declines.*

Accordingly, there is a trade-off between expected quality and scale (See Example 1 in Section D of the Online Appendix). Entrepreneurs who prioritize effectiveness tend to focus on a smaller number of beneficiaries, while those operating in environments with lower information asymmetries and relying on standardized disbursals are more likely to prioritize scale. Thus, some social enterprises achieve broader reach at the expense of quality, whereas others concentrate on delivering tailored support to a more limited group. For example, large corporations selling fair trade products while engaging in traditional corporate charity often achieve scale but with potentially weaker impact. In contrast, smaller fair trade firms such as Cafédirect and Equal Exchange focus on transacting with a limited number of disadvantaged farmers, providing them with tailored training and support (Eldar, 2017).

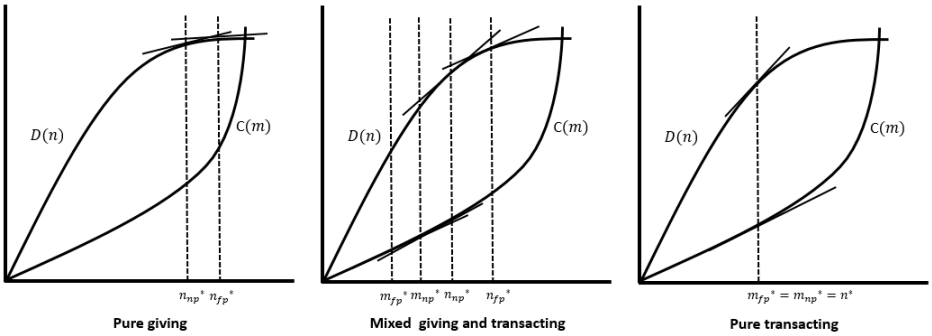
2.2 The Effect of Legal Form on the Scale and Quality of Philanthropy

To evaluate the effect of legal form on the scale and quality of philanthropy, we must consider the choices made by for-profit and nonprofit entrepreneurs. Recall that for nonprofits, $v < 1$, and for for-profits, $v = 1$. For this analysis, we assume $v < 1$ (rather than $v \leq 1$). The subscripts fp

[11] The relationship between expected quality and $Var(a)$ is defined as $\frac{\partial \mathbb{E}[q]}{\partial Var(a)} = -\frac{\partial g^*}{\partial Var(a)}\left(Var(a) + \frac{v^2}{4\gamma^2}\right) - g^*$. This derivative may be negative or positive. Using the condition that $D'(n^*_{mec}) = (\bar{a} - \mathbb{E}(a)) + \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma}$, it can be shown that $g^*(Var(a))$ is a declining convex function of $Var(a)$, and $\frac{\partial g^*}{\partial Var(a)}(Var(a)) < 0$ is an increasing concave function. For high values of $Var(a)$, $\frac{\partial \mathbb{E}[q]}{\partial Var(a)} > 0$. By contrast, expected quality always increases with γ. Specifically, $\frac{\partial \mathbb{E}[q]}{\partial \gamma} = -\frac{\partial g^*}{\partial \gamma}\left(Var(a) + \frac{v^2}{4\gamma^2}\right) + \frac{g^* v^2}{2\gamma^3} > 0$, because $\frac{\partial g^*}{\partial \gamma} < 0$.

and np denote the choices of for-profit and nonprofit entrepreneurs, respectively. A critical factor in comparing the two forms is that the maximum threshold for measurement costs is higher for nonprofit entrepreneurs; specifically, $\frac{\gamma}{v}Var(a) - \frac{v}{4\gamma} > \gamma \times Var(a) - \frac{1}{4\gamma}$ (see equation (5)). The reason is that the non-distribution constraint amplifies the weight of the altruistic component in the entrepreneur's utility function. As illustrated in Figure 2, three main cases arise depending on the levels of γ and $Var(a)$:

Figure 2: **Legal Form and the Entrepreneur's Choice between Transacting and Giving**



This figure illustrates the three key outcomes of the entrepreneur's decision-making process in selecting m and n, depending on whether the firm operates as a nonprofit (np) or a for-profit (fp).

Case 1. Pure Giving: A firm will engage exclusively in giving if the measurement effectiveness constraint in equation (5) is not satisfied for any m. Suppose $C'(0) > \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma}$. This implies that when $Var(a)$ is low or γ is small, the nonprofit entrepreneur will form a donative organization ($m_{np}^* = 0$). Similarly, the for-profit entrepreneur will engage in pure giving ($m_{fp}^* = 0$) because $\frac{\gamma}{v} \times Var(a) - \frac{v}{4\gamma} > \gamma Var(a) - \frac{1}{4\gamma}$, and $C(m)$ is convex. Setting $m^* = 0$ and solving equation (2), the number of beneficiaries served by donative organizations is determined by $D'(n_{np}^*) = \bar{a} - \mathbb{E}(a) + \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma}$. For for-profits, $D'(n_{fp}^*) = \bar{a} - \mathbb{E}(a) + \gamma Var(a) - \frac{1}{4\gamma} < D'(n_{np}^*)$. Since $D(n)$ is concave, this implies that $n_{np}^* = g_{np}^* < g_{fp}^* = n_{fp}^*$. While for-profits give to more beneficiaries, nonprofits provide higher per-capita disbursals because $d_{np}^{g*} = \bar{a} - \mathbb{E}(a) - \frac{v}{2\gamma} > d_{fp}^{g*} = \bar{a} - \mathbb{E}(a) - \frac{1}{2\gamma}$. As a result, the expected quality of philanthropy by nonprofits is higher: $\mathbb{E}[q_{np}] = -g_{np}^* \left(Var(a) + \frac{v^2}{4\gamma^2}\right) > -g_{fp}^* \left(Var(a) + \frac{1}{4\gamma^2}\right) = \mathbb{E}[q_{fp}]$.

Case 2. Mixed Giving and Transacting: A firm will combine giving and transacting when $Var(a)$ and γ are moderate such that the benefits of measurement are limited, and the entrepreneur continues to allocate donations beyond the point at which measurement is effective. Suppose that $C'(m^*) = \gamma Var(a) - \frac{1}{4\gamma}$ satisfies the measurement effectiveness constraint for the for-profit firm (see equation (5)). This means that the for-profit entrepreneur will continue to increase n until n satisfies the equation $D'(n_{fp}^*) = \bar{a} - \mathbb{E}(a) + \gamma Var(a) - \frac{1}{4\gamma}$. Thus, the entrepreneur will mix employing the beneficiaries and giving to them. At $m = m_{fp}^*$, the nonprofit entrepreneur will continue to increase the number of beneficiaries she employs because $C(m)$ is convex, implying

$m^*_{np} > m^*_{fp}$. The nonprofit entrepreneur will increase n up to $n^*_{np} < n^*_{fp}$, as in Case 1.[12] It follows that $g^*_{fp} > g^*_{np} \geq 0$ because $n = m + g$. Accordingly, $\mathbb{E}[q_{np}] > \mathbb{E}[q_{fp}]$.

Case 3. Pure Transacting: A firm engages exclusively in transacting when γ and $Var(a)$ are high, such that the measurement compensation constraint in equation (6) is satisfied, i.e., $C'(m^*) = D'(m^*) - (\bar{a} - \mathbb{E}(a))$. As $D(n)$ is concave, the marginal income from donations decreases with n, and at high levels of $\gamma Var(a)$, the measurement compensation constraint will bind. When the informational advantages are significant, social enterprises focus exclusively on transacting. Importantly, the measurement compensation constraint is identical for both for-profit and nonprofit firms because it does not depend on v. Consequently, $m^*_{np} = m^*_{fp} = n^*_{np} = n^*_{fp}$, and $g^*_{np} = g^*_{fp} = 0$. Moreover, since $d^{m*}_{np} = d^{m*}_{fp} = \bar{a} - a(i)$ (per Lemma 1), $\mathbb{E}[q_{np}] = \mathbb{E}[q_{fp}] = 0$. Accordingly, the quality of philanthropy for both for-profit and nonprofit firms is maximal.

Proposition 2. *When $Var(a)$ and γ are medium or low, a nonprofit is expected to produce higher-quality philanthropy, measured as subsidy-effectiveness ($\mathbb{E}[q_{np}] > \mathbb{E}[q_{fp}]$), while a for-profit produces philanthropy at a greater scale than a nonprofit ($n^*_{np} < n^*_{fp}$). When $Var(a)$ and γ are high, such that the entrepreneur engages exclusively in transacting with beneficiaries, nonprofits and for-profits produce the same quality ($\mathbb{E}[q_{np}] = \mathbb{E}[q_{fp}]$) and scale ($n^*_{np} = n^*_{fp}$ and $g^*_{np} = g^*_{fp} = 0$).*

This result shows that when informational asymmetries are not substantial, nonprofit entrepreneurs do not necessarily produce more charity than for-profits but instead deliver higher-quality philanthropy. However, when informational asymmetries are substantial, entrepreneurs already have strong incentives to gather information about beneficiaries' abilities and allocate donations accordingly. In such cases, where all disbursals are tied to transactions and measurement, the nonprofit form is no longer necessary to ensure effectiveness. This finding reinforces the view that for-profits can be just as effective as nonprofits in delivering high-quality philanthropy (Haber, 2016; Pallotta, 2022).

Corollary 2. *Without information asymmetries (i.e., when $a(i)$ is observable for every i), the entrepreneur never forms a social enterprise by transacting with the beneficiaries (i.e., $m^* = 0$); a for-profit produces philanthropy at a greater scale than a nonprofit ($n^*_{np} < n^*_{fp}$); and a nonprofit provides higher-quality philanthropy than a for-profit ($q_{np} > q_{fp}$).*

When there are no information asymmetries, there is no benefit to measurement because the entrepreneur already observes a. Social enterprises emerge primarily in development contexts, where entrepreneurs are not able to observe the abilities of disadvantaged groups, such as productivity or creditworthiness. In contrast, in other social contexts—such as providing assistance to the destitute—information asymmetries are less significant, and the need for tailoring is correspondingly lower.

[12] We assume the nonprofit also mixes between giving and transacting, although it is possible that the nonprofit will engage exclusively in transacting if the measurement compensation constraint is satisfied.

3 The Entrepreneur's Choice of Legal Form

I first examine the entrepreneur's choice of legal form when donations depend on scale, as in the baseline specification. I then show that these choices remain largely the same even when donations depend on the expected quality of philanthropy.

3.1 Donation Amounts Depend on Scale Only

To determine which legal form the entrepreneur will choose, we compare the entrepreneur's utility from forming a nonprofit (U^E_{np}) with that of forming a for-profit (U^E_{fp}). The ex ante utility of the nonprofit entrepreneur is defined by equation (4), with n' and m' replaced by n^* and m^*, respectively. For the for-profit entrepreneur, the utility is identical except that $v = 1$. This analysis assumes that nonprofits receive no tax benefits.

The simplest case arises when the entrepreneur engages exclusively in transacting with the beneficiaries (Case 3 in Section 2.2), where $m^*_{fp} = m^*_{np}$ and $g^*_{fp} = g^*_{np} = 0$. In this scenario, $U^E_{np} = vU^E_{fp}$), making the for-profit form the clear choice. The nonprofit form is redundant, as it imposes restrictions without affecting the scale or quality of philanthropy. When the entrepreneur mixes transacting and giving (Case 2 in Section 2.2), the nonprofit produces higher-quality philanthropy, while the for-profit achieves greater scale. Nonetheless, the entrepreneur still selects the for-profit form because:

$$U^E_{fp} = r \times w \times \bar{a} + D\left(n^*_{fp}\right) - C(m^*_{fp}) - n^*_{fp}\left(\bar{a} - \mathbb{E}(a)\right) - g^*_{fp}\gamma Var(a) + g^*_{fp}\frac{1}{4\gamma} > \tag{7}$$

$$r \times w \times \bar{a} + D\left(n^*_{np}\right) - C(m^*_{np}) - n^*_{np}\left(\bar{a} - \mathbb{E}(a)\right) - g^*_{np}\gamma Var(a) + g^*_{np}\frac{1}{4\gamma} >$$

$$v\left(r \times w \times \bar{a} + D\left(n^*_{np}\right) - C(m^*_{np}) - n^*_{np}\left(\bar{a} - \mathbb{E}(a)\right)\right) - g^*_{np}\gamma Var(a) + g^*_{np}\frac{v^2}{4\gamma} = U^E_{np}.$$

The first inequality holds because the for-profit entrepreneur maximizes utility by choosing optimal allocations for the for-profit form. The second inequality holds because $v < 1$. From equation (7), the for-profit form also dominates the nonprofit form when the entrepreneur engages solely in giving (Case 1 in Section 2.2), with $n^*_{fp} = g^*_{fp}$, $n^*_{np} = g^*_{np}$, and $C(m^*_{fp}) = C(m^*_{np}) = C(0) = 0$. Thus, even though nonprofits may produce higher-quality philanthropy than for-profits (see Proposition 2), the entrepreneur still chooses the for-profit form.

Lemma 4. *The entrepreneur chooses the for-profit form if: (a) there are information asymmetries regarding beneficiaries' abilities (a); (b) quality is defined as subsidy-effectiveness ($q = -\int_0^n (d(i) - (\bar{a} - a(i))di$); (c) donation amounts increase concavely with the scale of philanthropy (n); and (d) the scale of philanthropy is observable ex ante.*

Accordingly, even when the nonprofit delivers higher-quality philanthropy (see Cases 1 and 2 in

Section 2.2), the for-profit still attracts more donations ($D(n^*_{fp}) > D(n^*_{np})$). This occurs because the for-profit assists more beneficiaries ($n^*_{fp} > n^*_{np}$) and spends less on measurement (because $m^*_{fp} < m^*_{np}$), placing less emphasis on quality than the nonprofit. Although reputational costs from misallocated disbursals rise with scale, the for-profit is more willing to tolerate them in order to raise additional donations (see Example 2 in Section D of the Online Appendix).

Lemma 4 relies on two assumptions. The first is that donations to nonprofits are not tax-deductible. Tax deductibility increases nonprofit donations and can incentivize entrepreneurs to choose the nonprofit form. Without tax exemptions, nonprofits may struggle to raise funds even if they provide higher-quality philanthropy. By contrast, large charitable arms of for-profit firms frequently attract substantial capital—via consumer premiums or investors accepting lower returns—even amid concerns over the quality of for-profit philanthropy (see Reza & Masulis, 2015).[13] The second assumption is that the donor is passive, caring only about scale rather than expected quality. In the next subsection, I show that this result holds qualitatively even when this assumption is relaxed—especially in cases where quality is paramount due to high Var (a) $Var(a)$.

3.2 Donation Amounts Depend on Expected Quality

Although quality is not verifiable ex ante, donors may base donation amounts on the expected quality of philanthropy. Large donors, including foundations, NGOs, government agencies, and sophisticated individuals, may infer the entrepreneur's preferences for quality from her organizational choices and allocate more funding to firms likely to deliver higher-quality outcomes. Let the donor's utility function be: $U^D = Y - D(n) + F(n) + \pi \mathbb{E}_\gamma [\mathbb{E}[q]]$, where $F(n)$ is increasing and concave, $D(n)$ is increasing and may be convex, linear, or concave (provided it is not more concave than $F(n)$), $\pi > 0$ reflects the donor's valuation of quality relative to scale, and $\mathbb{E}[q] = -g^* \left(Var(a) + \frac{v^2}{4\gamma} \right)$ as in Section 2. Like the entrepreneur, the donor knows the mean and variance of a and the legal form v, but not the true value of a. However, the donor does not observe the entrepreneur's γ, which affects allocation decisions (m and g), and thus the expected quality of philanthropy. Accordingly, the donor forms beliefs over γ when determining $D(n^*)$ by choosing n^*.

The donor's first order condition is $D'(n^*) = F'(n^*) - \pi \left(Var(a) + \frac{v^2}{4} \mathbb{E}_\gamma \left[\frac{1}{\gamma} \right] \right)$. If π is sufficiently high such that $\pi \geq \frac{F'(n)}{Var(a) + \frac{v^2}{4} \mathbb{E}_\gamma \left[\frac{1}{\gamma} \right]}$ $\forall n$, then the donor funds only transacting and avoids supporting giving. In this case, the donor's first-order condition becomes $D'(n^*) = F'(n^*)$, as in the baseline model. Recall that the first order condition of the entrepreneur when she only transacts with beneficiaries is $D'(n^*) = C'(n^*) + (\bar{a} - \mathbb{E}(a))$, and when she engages in at least some giving, it is $D(n^*) = \bar{a} - \mathbb{E}(a) + \frac{\gamma}{v} Var(a) - \frac{v}{4\gamma}$. Combining the first order conditions of both the donor and entrepreneur, the choice of n^* must satisfy one of the following equilibrium conditions:

[13] The effect of tax deductibility on philanthropy quality is more nuanced. As shown in Section C.2 of the Online Appendix, tax benefits induce entrepreneurs to scale up. When the tax incentive is modest, the entrepreneur increases scale by transacting with more beneficiaries, thereby maintaining high quality. However, excessively large tax benefits may encourage ineffective giving, thereby reducing quality.

$$C'(n^*) = F'(n^*) - (\bar{a} - \mathbb{E}(a)) < \left(\frac{\mathbb{E}[\gamma]}{v} + \pi\right) Var(a) + \frac{v}{4}(\pi v - 1)\,\mathbb{E}_\gamma\left[\frac{1}{\gamma}\right], \text{ or} \tag{8}$$

$$F'(n^*) = \bar{a} - \mathbb{E}(a) + \left(\frac{\mathbb{E}[\gamma]}{v} + \pi\right) Var(a) + \frac{v}{4}(\pi v - 1)\,\mathbb{E}_\gamma\left[\frac{1}{\gamma}\right], \tag{9}$$

where the first reflects an expectation of exclusive transacting, and the second allows for some ineffective giving. Note that compared to the baseline model in Section 2, the donor's regard for quality (π) raises the maximum threshold for measurement costs, $\left(\frac{\mathbb{E}[\gamma]}{v} + \pi\right) Var(a) + \frac{v}{4}(\pi v - 1)\,\mathbb{E}_\gamma\left[\frac{1}{\gamma}\right]$, which increases in π, and therefore encourages the entrepreneur to engage in high-quality philanthropy through transacting.[14]

The donor knows the entrepreneur's choice of n, but not m, g and d. The entrepreneur is still free to set $d(i) = 0$, meaning no actual assistance is extended to the beneficiaries. However, due to the one-to-one mapping from n^* to m^* and g^* (per Lemma 3), the donor can infer the expected quality of philanthropy and the true γ. Thus, we can substitute $\mathbb{E}[\gamma] = \gamma$ and $\mathbb{E}_\gamma\left[\frac{1}{\gamma}\right] = \frac{1}{\gamma}$ in equations (8) and (9). The potential equilibria mirror those in Section 2.2. When $Var(a), \gamma$ and π are high, the entrepreneur engages exclusively in transacting ($n^* = m_{mcc}$) and the number of beneficiaries is minimal (see Proposition 1(D)). She thereby commits to quality by helping fewer people, and the donor infers that the quality of philanthropy is maximal—regardless of legal form (see Proposition 2). In effect, the entrepreneur signals quality by "leaving money on the table," declining additional donations to avoid expanding beyond what she can serve effectively.

When $Var(a), \gamma$ and π are relatively low, such that $n^* > m_{mcc}$,the donor knows the entrepreneur will engage in some giving. As in the baseline model, the marginal expected decline in quality per additional beneficiary is smaller for nonprofits (as $Var(a) + \frac{v^2}{4\gamma} < Var(a) + \frac{1}{4\gamma}$). As a result, the donor may prefer a greater scale of philanthropy by the nonprofit, with $n^*_{np} \geq n^*_{fp}$ and $D(n^*_{np}) \geq D(n^*_{fp})$. This occurs only if $F'(n^*_{np}) < F'(n^*_{fp})$,which can be rewritten using equation (9) as $\pi \geq \frac{4\gamma^2 Var(a)+v}{v(1+v)}$,meaning that π must be large enough relative to $Var(a)$ and γ (but not so large that the donor dislikes any giving—i.e., $\pi < \frac{F'(n)}{Var(a)+\frac{v^2}{4\gamma}}$ for some $n > 0$). However, even when $D(n^*_{np}) > D(n^*_{fp})$, the entreprenuer chooses the for-profit form.

Proposition 3. *The entrepreneur chooses the for-profit form when the following conditions hold: (a) she faces information asymmetries regarding beneficiaries' abilities (a), (b) quality is defined as subsidy-effectiveness ($q = -\int_0^n (d(i) - (\bar{a} - a(i)))^2\, di$), (c) donation amounts increase concavely with the scale of philanthropy (n), and (d) donors care about the expected quality of philanthropy.*

This analysis explains why social entrepreneurs often form as for-profits despite the lack of tax benefits—even when donors value quality and no formal certification mechanism exists. When effective philanthropy requires significant information about beneficiaries' abilities and average altruism is high, donors are willing to fund for-profit social entrepreneurs. These entrepreneurs typically seek only modest donations, deliberately leaving money on the table to signal quality to

[14] Setting $\pi = 0$ and removing uncertainty about γ, recovers the baseline threshold: $\frac{\gamma}{v} Var(a) - \frac{v}{4\gamma}$.

customers or investors supporting the firm's social mission. This reflects many social entrepreneurs' emphasis on financial sustainability and their reluctance to depend on donative capital (Chu, 2007; Yunus & Jolis, 2007). The analysis also predicts that for-profit social enterprises engaging directly with beneficiaries operate on a smaller philanthropic scale and rely less on large donations. This helps explain why highly regarded for-profit social enterprises—such as Greyston Bakery (work integration), Basix (microfinance), the Ignia Fund (social investment), and Conscious Bar (fair trade)—which are known for high-quality philanthropy, remain relatively small in scale.

It further highlights the need for tax exemptions to encourage entrepreneurs to form nonprofits in circumstances where they produce higher-quality philanthropy. Without tax benefits, entrepreneurs still choose the for-profit form even when nonprofits offer higher quality, because donor preferences (captured by π) are insufficient to induce a shift toward nonprofits on their own.[15] In practice, tax deductions for nonprofits—so long as commercial activities do not jeopardize tax-exempt status or trigger unrelated business income tax (UBIT)—mitigate this issue. In the circumstances where nonprofits provide higher quality, the entrepreneur is expected to engage in some giving; therefore, tax exemptions are likely available and may tip the choice toward nonprofit formation.[16] In contrast, tax exemptions are less likely available to social enterprises that engage exclusively in transacting since their operations may be perceived as purely commercial. The analysis also explains why nonprofits tend to operate at a larger scale and rely on relatively large donations. This aligns with nonprofit social enterprises such as Goodwill Works, which operates extensive giving programs alongside employing disadvantaged workers by combining skill development and job placement with its thrift store enterprise.

Finally, the model accounts for for-profit firms that primarily engage in ineffective giving. Such firms emerge when both entrepreneurs and donors have low regard for quality—i.e., low $\mathbb{E}[\gamma]$, low true γ, and low π. This explains how for-profits like Google have sometimes attracted donation-like goodwill from consumers by promising big-scale impact, even when expected quality is low ex ante.

4 Certification of Transactions with Beneficiaries

While the analysis above provides intuition for the proliferation of for-profit social enterprises pursuing development missions, it suggests that social entrepreneurs must commit to small-scale philanthropy in order to signal high quality. As a result, such entrepreneurs face a serious challenge in attaining scale, limiting their potential impact. This concern becomes particularly relevant if we relax the assumption that scale is verifiable ex ante. That assumption may not hold when a highly altruistic entrepreneur develops a unique measurement technology ($C(m)$) that enables her to transact with many beneficiaries (more than $n^*(\mathbb{E}[\gamma])$. Although the analysis remains qualitatively

[15] Note that when the entrepreneur engages in some giving, it is possible—though unlikely—that the overall quality produced by the nonprofit is lower than that of a for-profit if the nonprofit's scale is significantly larger, despite producing higher marginal quality per beneficiary. This outcome is rare in practice because n_{np} is unlikely to far exceed n_{fp} due to the concavity of $F(n)$.

[16] If not excessive, such exemptions can improve the quality of philanthropy relative to for-profits. See Section C.2 of the Online Appendix.

robust when scale is not verifiable (see Section B.4 of the Online Appendix), it implies that donors cannot accurately infer the entrepreneur's true γ and instead base decisions on the expected level of altruism, $\mathbb{E}[\gamma]$. This creates a risk that donors overestimate altruism ($\gamma < \mathbb{E}[\gamma]$), leading to lower-than-expected philanthropic quality. Conversely, if donors underestimate altruism ($\gamma > \mathbb{E}[\gamma]$), the entrepreneur must commit to inefficiently low scale when donors place a high value on quality (i.e., π is high). This problem is particularly acute when the entrepreneur is highly altruistic but the average level of altruism in society is low. In such cases, donors under-fund high-quality philanthropy that is actually aligned with their interests. Thus, the scaling problem of social enterprises is especially severe.

The analysis in this paper offers a simple method of quality assurance through certification—not of the quality of philanthropy directly (which is unknown ex ante), but of the entrepreneur's commitment to transact with m^* beneficiaries. Certification is typically conducted by a government agency or a nonprofit organization.[17] Beneficiaries may be defined by income, unemployment status, geographic location, or lack of access to technology.[18] A well-known example is fair trade certification, which ensures firms source products from disadvantaged farmers in developing countries. Through certification, the entrepreneur commits to transact with m beneficiaries, provided she is compensated for measurement and disbursal costs, such that $D'(m^*) \geq C'(m^*) + (\bar{a} - \mathbb{E}(a))$. Philanthropic quality is then maximized ($\mathbb{E}[q]=0$) because the entrepreneur, incentivized by revenue, sets $d_i^m = \bar{a} - a(i)\ \forall i$, as failing to do so reduces revenue (see Lemma 1). The donor sets the donation amount according to his own altruism: $D'(m^*) = F'(m^*)$.

The theoretical analysis shows that an entrepreneur's altruism (γ) determines the scale of philanthropy without compromising its quality. When γ is low, the entrepreneur chooses to transact with fewer beneficiaries, but still tailors disbursals optimally. When γ is high, she can credibly signal high-quality philanthropy by committing to serve a larger population. Certification mechanisms play a central role in this setting: by verifying the entrepreneur's commitment to transact with beneficiaries, they enable donors to infer quality even when it is unobservable. This removes the need for entrepreneurs to rely on small-scale operations to signal quality, thereby mitigating the scale-quality tradeoff. The empirical record aligns with this theoretical insight. Fair trade certification allows highly committed entrepreneurs to scale distribution while maintaining quality standards, enabling producers to access premium markets and improve financial stability (Dragusanu et al., 2018; Dragusanu et al., 2022). Similarly, the expansion of the CDFI sector—from a 40% increase in certified institutions and a tripling of total assets between 2018 and 2023—demonstrates how certification can attract capital and support large-scale, targeted subsidy deployment (Federal Reserve Bank of New York, 2023). These patterns are consistent with the model's prediction that

[17] Alternatively, a nonprofit may own a for-profit or contract with one, requiring it to transact with beneficiaries (Eldar, 2017; Eldar & Ørberg, 2026). These mechanisms are most practical when the nonprofit is the donor and can use its ownership to control the entrepreneur's choices. In contrast, certification is suited to a broader donor base, including consumers and private investors (see Eldar, 2020).

[18] For a discussion of how beneficiaries can be classified and the challenges involved in doing so, see Eldar (2020).

certification facilitates scale without undermining philanthropic quality, even in the presence of donor uncertainty about altruism.

It is important to emphasize that certification for verifying quality through giving (g) is largely a futile mechanism. Even if a legal mechanism certifies that the entrepreneur gives to beneficiaries, donors cannot accurately predict the actual quality of philanthropy because neither the donor nor the entrepreneur knows a. As a result, certifying giving is impossible without a technology that measures actual disbursals to individual beneficiaries. But such measurement—essentially general impact assessment—is typically prohibitively costly. In contrast, when the entrepreneur is certified as transacting with beneficiaries, she has a market platform and financial incentives to allocate effective, tailored disbursals (see Lemma 2). Certification of transacting does not require monitoring actual disbursals because the entrepreneur who undergoes certification has an economic stake in incurring $C(m^*)$ to learn the true a and allocate optimal disbursals. Thus, certification ensures maximal quality without general impact assessment by aligning entrepreneurial incentives with optimal philanthropy.

Proposition 4. *Certification of the number of beneficiaries the entrepreneur transacts with (m) enables donors to ensure that entrepreneurs provide maximal quality philanthropy ($\mathbb{E}[q] = 0$). In contrast, certification of the number of beneficiaries the entrepreneur gives to (g) cannot assure donors of philanthropic quality due to information asymmetries regarding the true abilities of beneficiaries (a).*

Certification may be implemented by private actors, such as the Fair Trade Labeling Organization, or embedded in public programs that subsidize social enterprises, such as CDFIs. When embedded in a public program, the government plays a dual role—as both certifier and donor. As a donor, the government faces the same challenge as other donors who care about the quality of philanthropy, but it also possesses the legal authority and institutional tools to certify social enterprises. CDFIs, for example, are certified and subsidized by the CDFI Fund, a government agency, as financial institutions serving low-income communities. Similarly, several European legal regimes certify firms that employ disadvantaged workers and entitle them to subsidies (Eldar, 2020). Such certifications enable for-profit firms to credibly commit to delivering high-quality philanthropy.

The certification system also enables the government to set the optimal level of subsidies. These subsidies are conditional on the firm transacting with a specified number of beneficiaries. As long as the subsidy amount is equal to or greater than $C(m^*) + m^*(\bar{a} - \mathbb{E}(a))$, the entrepreneur will agree to transact with m^* beneficiaries. Alternatively, the subsidy may take the form of a tax credit, which in this model functions like a tax deduction by reducing the cost of donations for private donors.[19] In this setting, the donors are often investors who provide capital at below-market rates. For example, the New Markets Tax Credit Program offers investors in CDFIs a tax credit equal to 39% of the original investment. Unlike such targeted tax credits—conditional

[19]The tax deduction is incorporated by multiplying $D(n)$ by a scalar ($\lambda > 1$) in Equation (2). The tax credit required to incentivize the entrepreneur to transact with m^*beneficiaries is given by $\lambda = \frac{C'(m^*)+(\bar{a}-\mathbb{E}(a))}{D'(m^*)}$.

on transacting with m m beneficiaries—a general tax deduction for donations to nonprofits may actually encourage ineffective giving (see Section C.2 of the Online Appendix). Accordingly, to facilitate subsidized funding to social enterprises, policymakers should prioritize the development of certification mechanisms for firms that transact with their beneficiaries.

5 Quality versus Quantity as Defining Philanthropic Goals

This article articulates the core function of social enterprises as resolving informational asymmetries regarding beneficiaries' abilities and needs. A key assumption in the model is that quality is defined as subsidy-effectiveness, achieved when the entrepreneur tailors subsidies to match beneficiaries' needs. However, when quality is instead defined as quantity—following Glaeser & Shleifer (2001)—and there are no informational asymmetries such that all disbursals are presumed effective, nonprofits produce higher-quality philanthropy than for-profits by making more disbursals. These two theories are not mutually exclusive. In some contexts, donors may expect entrepreneurs to simply deliver more aid, regardless of tailoring.

A concrete example is the debate over whether microfinance and fair trade firms should serve marginally vulnerable beneficiaries or focus on the most disadvantaged, and whether disbursals should exceed the amount needed to raise abilities (Chu, 2007; Nicholls & Opal, 2005; Haight, 2011). Social enterprises may have financial incentives to prioritize beneficiaries who, though disadvantaged (i.e., excluded from commercial markets), have relatively higher abilities. For instance, fair trade firms may source from more skilled farmers within rural communities. In such cases, although $\mathbb{E}(a)$ is below $\bar{a}$, it is skewed upward, meaning disbursals per beneficiary are smaller and profits are higher because $\bar{a} - \mathbb{E}(a)$ is smaller. The model is neutral on this point: regardless of $\mathbb{E}(a)$, the social enterprise achieves maximum quality by helping each beneficiary reach $\bar{a}$. Disbursing more than $\bar{a} - a(i)$ does not raise quality in the model—it is wasteful.

This tension reflects distinct models of social entrepreneurship, rooted in different conceptions of quality. Some entrepreneurs and donors focus on subsidy-effectiveness; others emphasize volume. For example, Compartamos, a for-profit microfinance bank, targets less vulnerable populations and avoids favorable interest rates, while ASA, a nonprofit in Bangladesh, serves poorer borrowers and offers lower rates. Both expand access to capital where commercial banks do not operate, but ASA also delivers more charitable benefit through greater disbursals to poorer borrowers. When donors care about quantity, nonprofits may be preferable, as in Glaeser & Shleifer. When the focus is on effectiveness amid informational asymmetries, for-profits are more likely to be the optimal form.

Conclusion

Recent literature on the rise of corporate philanthropy and the blurring of lines between for-profits and nonprofits has rightly emphasized the altruistic motives of entrepreneurs, investors, and consumers. However, it has largely overlooked the key informational asymmetries that social

enterprises are uniquely positioned to address. This article fills that gap by showing how transacting with disadvantaged groups enables entrepreneurs to acquire critical information about beneficiaries' abilities and needs. The central innovation of social enterprises lies not in the mixed motives of their founders—which are also present in traditional nonprofits and for-profits—but in their distinctive structure: one that is grounded in transactions with beneficiaries. This structure gives entrepreneurs both the tools and the incentives to learn about their beneficiaries and to design effective, tailored subsidies. When informational asymmetries are significant, these incentives can be strong enough to render the nonprofit form unnecessary for ensuring high-quality philanthropy.

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Appendix

A Definitions

1. Variables

a	The level of abilities of each beneficiary
$\bar{a}$	The maximum level of abilities for each beneficiary
$C(m)$	The costs of measurement
$d(i)$	The amount of disbursals to each beneficiary
$d^m(i)$	The amount of disbursals to each beneficiary the firm transacts with
$d^g(i)$	The amount of disbursals to each beneficiary the firm does not transacts with
$D(n)$	The amount of donations the firm receives
g	The number of beneficiaries that receive a subsidy through giving
m	The number of beneficiaries the firm transacts with
n	The total number of beneficiaries the firm assists
r	The return from employing one worker independent of the worker's abilities
U^D	The utility of the donor
U^E	The utility of the entrepreneur
v	The portion of the firm's earnings the entrepreneur can appropriate, where $0 < v \leq 1$
w	The number of workers the firm employs
κ	A parameter that denotes the increase in firm's profits due to income tax exemption
λ	A parameter that denotes the increase in $D(n)$ due to tax deduction on donations

2. Subscripts

fp	The allocations of the firm (n_{fp}, m_{fp} and g_{fp}) when the entrepreneur forms a for-profit
np	The allocations of the firm (n_{np}, m_{np} and g_{np}) when the entrepreneur forms a nonprofit
mcc	The allocations of the firm (n_{mcc}, m_{mcc} and g_{mcc}) when the measurement compensation constraint in equation (6) is met
mec	The allocations of the firm (n_{mec}, m_{mec} and g_{mec}) when the measurement compensation constraint in equation (5) is met

B Proofs

B.1 Proof of Lemma 1

Suppose the entrepreneur decides to expend $C(m)$ and sets the allocations such that $d^{m'}(j) = \bar{a} - a(j) - \varepsilon$ for the j'th worker, and $d^m(i) = \bar{a} - a(i),\ \forall i \neq j$, where $\varepsilon > 0$. She can increase her utility by setting $d^{m'}(j) = \bar{a} - a(j)$. The reason is that increasing $d^{m'}(j)$ by ε increases her utility by $v\,(r-1)\,\varepsilon + \gamma \times \varepsilon^2$, the additional profit from setting the subsidy to the right amount, and the reputational benefits from additional effectiveness. Alternatively, setting $d^{m'}(j) = \bar{a} - a(j) + \varepsilon$ is clearly disadvantageous because it does not increase profits, but will only result in reputational costs from ineffectiveness.

B.2 Proof of Lemma 2

Suppose that at the optimum the entrepreneur chooses $n = n^*$ and $g = g^*$. Let $m^* = m_1 + m_2$, where m_1 is the number of beneficiaries the firm transacts with and expends the costs of measuring their abilities, and m_2 is the number of beneficiaries the firm transacts with but chooses not to measure. Using Lemma 1, she then sets $d^{m_1*}(i) = \bar{a} - a(i)$. With respect to the disadvantaged workers she employs but does not measure, to pin down the optimal disbursal $d^{m_2*}(i)$ for any $i \in [0, m_2]$, she solves

$$\max_{d^{m_2}(i)} v\left[r \times E\left[\min(a(i) + d^{m_2}(i), \bar{a})\right] - d^{m_2}(i)\right] - \gamma \times E\left[\left(d^{m_2}(i) - (\bar{a} - a(i))\right)^2\right]. \tag{10}$$

The first-order condition gives

$$d^{m_2}(i) - (\bar{a} - \mathbb{E}(a)) = \frac{v}{2\gamma}\left[r\frac{\partial E\left[\min(a(i) + d^{m_2}(i), \bar{a})\right]}{\partial d^{m_2}(i)} - 1\right]. \tag{11}$$

Assume that the ability $a(i) \in [0, \bar{a}]$ is distributed with c.d.f. $F(a)$, then

$$\begin{aligned}\frac{\partial E\left[\min(a(i) + d^{m_2}(i), \bar{a})\right]}{\partial d^{m_2}(i)} &= \frac{\partial}{\partial d^{m_2}(i)}\left[\int_0^{\bar{a}-d^{m_2}(i)} (a(i) + d^{m_2}(i))dF(a) + \bar{a}\int_{\bar{a}-d^k(i)}^{\bar{a}} dF(a)\right] \\ &= \frac{\partial}{\partial d^{m_2}(i)}\left[-\int_0^{\bar{a}-d^{m_2}(i)} F(a)da + \bar{a}dF(\bar{a})\right] = F\left(\bar{a} - d^{m_2}(i)\right).\end{aligned} \tag{12}$$

Thus, her optimal choice $d^{m_2*}(i)$ solves the equation below

$$d^{m_2*}(i) = (\bar{a} - \mathbb{E}(a)) + \frac{v}{2\gamma}\left[rF\left(\bar{a} - d^{m_2*}(i)\right) - 1\right], \ \forall i \in [0, m_2]. \tag{13}$$

Finally, she will set $d^{g*}(i) = \bar{a} - \mathbb{E}(a) - \frac{v}{2\gamma}$, as in equation 3. Let $P_{m_2} = \Pr\left(a(i) + d^{m_2*}(i) \leq \bar{a}\right) = F\left(\bar{a} - d^{m_2*}(i)\right)$ and normalize v to 1. Then, her expected utility is equal to

$$\begin{aligned}&r\left(w - m_2\right)\overline{a} + \left(1 - P_{m_2}\right)m_2 r\bar{a} + P_{m_2}m_2 r\left(E\left[a|a \leq \bar{a} - d^{m_2*}(i)\right] + d^{m_2*}(i)\right) + D(n^*) - C(m_1) \\ &- (m_1 + g^*)(\bar{a} - \mathbb{E}(a)) + \frac{g^*}{4\gamma} - m_2 d^{m_2*}(i) - \gamma m_2 E\left[d^{m_2*} - (\bar{a} - a(i))^2\right] - \gamma g^* Var(a),\end{aligned} \tag{14}$$

where $d^{m_2*}(i) = (\bar{a} - \mathbb{E}(a)) + \frac{rP_{m_2} - 1}{2\gamma}$.

We now want to examine the entrepreneur's decision between employing a worker without measuring his abilities and making a disbursal to that worker through giving. Plugging in $d^{m_2*}(i)$ and replacing g^* with g', we can rewrite the equation as follows:

$$r\left(w-m_2\right)\overline{a}+\left(1-P_{m_2}\right)m_2r\bar{a}+P_{m_2}m_2r\left(E\left[a|a\leq\mathbb{E}(a)\right)-\frac{rP_{m_2}-1}{2\gamma}\right]+\bar{a}-\mathbb{E}(a)+\frac{rP_{m_2}-1}{2\gamma}\Big)$$
$$+D(n^*)-C(m_1)-(m_1+g^*)(\bar{a}-\mathbb{E}(a))+\frac{g^*}{4\gamma}-m_2\left((\bar{a}-\mathbb{E}(a))+\frac{rP_{m_2}-1}{2\gamma}\right)$$
$$-\gamma m_2E\left[\left(a(i)-\mathbb{E}(a)+\frac{rP_{m_2}-1}{2\gamma}\right)^2\right]-\gamma g^*Var(a) \tag{15}$$

The entrepreneur will increase g' (and decrease m_2) if

$$P_{m_2}\times r\left(\mathbb{E}(a)-\frac{r-1}{2\gamma}-E\left[a|a<\mathbb{E}(a)-\frac{r-1}{2\gamma}\right]\right)+\frac{r^2P_{m_2}^2}{4\gamma}>0, \tag{16}$$

which is always satisfied. Therefore, the entrepreneur will always choose $m_2^*=0$, and $m^*=m_1$.

B.2 Proof of Corollary 2

When the entrepreneur knows the abilities of disadvantaged people, she need not expend any costs in measuring the abilities of the beneficiaries. It follows immediately that $m^*=0$, which means that social enterprises are redundant. The entrepreneur sets the disbursals to the beneficiaries at $d^{g*}(i)=\bar{a}-a(i)-\frac{v}{2\gamma}\quad\forall i\in[0,n]$, and the number of beneficiaries is defined by $D'(n^*)=\bar{a}-a(i)+\frac{\gamma}{v}Var(a)-\frac{v}{4\gamma}$. It follows immediately that $n_{np}^*<n_{fp}^*$, and $q_{np}=-n_{np}^*\frac{v^2}{4\gamma^2}>q_{fp}=-n_{fp}^*\frac{1}{4\gamma^2}$.

B.3 Proof of Proposition 3

If the amount of donations the entrepreneur receives is the same whether she forms a for-profit or a nonprofit, such that $D\left(n_{np}^*\right)=D\left(n_{fp}^*\right)$, then it is clear that the entrepreneur will opt for the for-profit form (Case 3 in Section 2.2). The donor will provide a higher donation amount to a nonprofit when he expects her to deliver higher quality philanthropy than a for-profit. This occurs when $Var(a)$ and $E\left[\gamma\right]$ are relatively low, and the entrepreneur combines transacting and giving or engages exclusively in giving (Cases 1 and 2 in Section 2.2). When π is relatively low such that $n_{fp}^*>n_{np}^*$ and $D(n_{fp}^*)>D(n_{np}^*)$, it is clear that the entrepreneur will choose the for-profit form based on Equation (7). When π is relatively high, such that $n_{np}^*>n_{fp}^*$ and $D(n_{np}^*)>D(n_{fp}^*)$, we compare the utility of the for-profit and nonprofit entrepreneurs. The change in the entrepreneur's utility if she converts from a for-profit to a nonprofit can be expressed as the increase in donations minus the reputational costs from the additional giving, and the loss in revenue due to the non-distribution constraint. Assuming, n^* is observable such that the donor can infer γ, we can write the change in utility as follows:

$$\left(n^*_{np} - n^*_{fp}\right)\left(v\left(D'(n^*_{fp}) - (\bar{a} - \mathbb{E}(a))\right) - \gamma Var(a) + \frac{v^2}{4\gamma}\right) -$$
$$(1-v)\left(r \times w \times \bar{a} + D(n^*_{fp}) - C(m^*_{fp}) - n^*_{fp}\left(\bar{a} - \mathbb{E}(a)\right) + \frac{g^*_{fp}}{4\gamma}\right) = \tag{17}$$
$$\left(n^*_{np} - n^*_{fp}\right)\left(v\left(\bar{a} - \mathbb{E}(a) + \gamma Var(a) - \frac{1}{4\gamma} - (\bar{a} - \mathbb{E}(a))\right) - \gamma Var(a) + \frac{v^2}{4\gamma}\right) -$$
$$(1-v)\left(r \times w \times \bar{a} + D(n^*_{fp}) - C(m^*_{fp}) - n^*_{fp}\left(\bar{a} - \mathbb{E}(a)\right) + \frac{g^*_{fp}}{4\gamma}\right) =$$
$$\left(n^*_{np} - n^*_{fp}\right)(v-1)\left(\gamma Var(a) + \frac{v}{4\gamma}\right) -$$
$$(1-v)\left(r \times w \times \bar{a} + D(n^*_{fp}) - C(m^*_{fp}) - n^*_{fp}\left(\bar{a} - \mathbb{E}(a)\right) + \frac{g^*_{fp}}{4\gamma}\right).$$

This expression is negative because $0 < v < 1$, $Var(a) > 0$, $\gamma > 0$, and the revenue loss is positive as well.

Online Appendix to the "The Organization of Social Enterprise"

Ofer Eldar

UC Berkeley

A Definition of Social Enterprise

This article defines social enterprises as subsidized entities that transact directly with beneficiaries (Dees, 2008) in markets avoided by strictly for-profit firms due to informational asymmetries regarding the abilities and needs of disadvantaged groups. This definition is developed in detail in Eldar (2017) and Eldar (2020), but the gist of the arguments made therein is summarized here. Following Hansmann (1980), it is important to create distinctions based on structural elements rather than on an organization's stated or purported purpose. Therefore, the distinction between for-profits and nonprofits is based on the non-distribution constraint, rather than on the organization's purpose. The rationale is that any organization can have social purposes, and there is no clear, meaningful distinction between profit and social goals that can serve as the basis for economic theories about different organizational forms or for policies that regulate potential abuses of these forms.

The key structural elements in this definition are: (1) the organization receives a donation or subsidy, and (2) the organization transacts with a group of beneficiaries. Donations or subsidies may be provided by external donors contributing directly to the firm, but often the donation is "latent," meaning it is incorporated into another transaction. A donation might come from consumers paying a premium above the market price for equivalent products, investors accepting below-market returns, or workers taking lower salaries. Donations may even come from the entrepreneur, who foregoes more profitable opportunities. In these instances, quantifying the exact amount of donations can be challenging in practice, but economically it is equivalent to an explicit donation.

The second element—that the organization transacts with beneficiaries—raises the important question of who qualifies as a beneficiary. This definition draws on canonical literature identifying informational problems, such as adverse selection and moral hazard, which lead commercial firms to avoid transacting with disadvantaged groups. Common proxies for market failure in these contexts include poverty criteria, geographic indicators (such as rural or under-served locations), and, in

some cases, reliance on family labor. Social enterprises step in to fill this gap by transacting directly with these excluded groups, whether as customers, employees, or suppliers. In doing so, they advance development goals such as expanding access to capital, providing employment opportunities, creating direct market channels for small suppliers to access global markets, and enhancing consumer welfare.

This definition, however, does not generally encompass the commercial nonprofits described in Hansmann (1980), such as hospitals, daycare centers, and nursing homes. To be sure, commercial nonprofits (like hospitals) can adopt either for-profit or nonprofit legal forms, much like microfinance institutions and other social enterprises. However, Hansmann's commercial nonprofits emerge primarily in response to a different type of market failure—where consumers struggle to observe or verify the quality of private services provided by the organization (e.g., healthcare services). This is fundamentally different from the type of information asymmetry that social enterprises address, which concerns the entrepreneur's costs of observing the abilities of disadvantaged groups. Moreover, the consumers of commercial nonprofits are not typically "beneficiaries" in the sense used here. They are fully capable of transacting with commercial firms and, in fact, often pay a price premium to nonprofits that credibly commit to providing higher-quality services (Glaeser & Shleifer, 2001). That some hospitals and universities also receive donations—often earmarked for specific projects, such as building new facilities or funding research—simply reflects the fact that these organizations can also operate as donative nonprofits. This simply illustrates Hansmann's observation that the categories of donative and commercial nonprofits need not be mutually exclusive.

It is important to compare the definition of social enterprise I adopt in this article with the more simplistic definition often used in practice—namely, an organization with a "blended mission" combining profit and purpose (e.g., Mayer & Ganahl, 2014). This broad definition is economically unhelpful because, under this logic, virtually any business could claim a social purpose (e.g., creating jobs or providing valuable goods and services to consumers). A more refined version might define social enterprises as businesses that explicitly sacrifice profit to prioritize their social mission. This refined definition implies that the firm's owners and investors effectively subsidize the firm by accepting below-market returns, or that the firm operates as a nonprofit subject to a non-distribution constraint. However, in the case of a social enterprise, the subsidy can come from multiple sources—not just from equity investors or founders. Donors, customers, or suppliers can also provide the subsidy. For instance, consumers may be willing to pay a premium to support sourcing from low-income farmers, or to support employment of workers who face systemic barriers to employment. Therefore, the defining feature of social enterprises is that they serve as conduits for a subsidy aimed at benefiting disadvantaged groups—not whether they strictly maximize profits or adopt a particular legal form.

The second element distinguishes social enterprises from for-profit firms that produce public goods requiring a subsidy. Both types serve as conduits for subsidies, but social enterprises facilitate transactions with an identifiable group of beneficiaries, whereas firms producing public goods offer goods that are non-rival and non-excludable. The role and incentives of a social enterprise to

assess beneficiaries' abilities and needs differ fundamentally from a business providing a public good. Determining whether a business effectively provides public goods requires certifying the quality of its philanthropy. By contrast, for social enterprises, certification focuses on whether they transact with beneficiaries, rather than on assessing their overall philanthropic impact (See Section 4). Although both types might be called socially oriented in that they channel subsidies, following Hansmann (1980), different categories of organizations should reflect different economic functions and different risks, so they should not be grouped under the same category.

Finally, a major advantage of the definition of social enterprise used in this article is that it is relatively easy to identify because of its feature of the transactional relationship with beneficiaries who belong to disadvantaged groups as direct stakeholders in the business of the firm, either as customers or providers of input. Fair trade, microfinance, and firms that sell low-cost products and services are all clearly viewed as social enterprises. Firms that purport to have a blended mission, however, range from Google, which was dubbed by many academic scholars as a social enterprise in its early days, to OpenAI, that claims to create artificial intelligence for the benefit of humanity, to Patagonia, that sells premium clothing that is arguably more environmentally sustainable. A broad definition of social enterprise makes it difficult to distinguish between firms that seek to mask profit-maximizing business models as socially driven, and those that genuinely sacrifice profits to advance social missions.

B Robustness to Alternative Model Specifications

B.1 Negative Returns on Human Capital ($r < 1$)

Some firms may generate negative returns on human capital (i.e., $r < 1$) when they employ the disadvantaged, which makes training less profitable for the entrepreneur. In this case, the entrepreneur's optimal disbursal becomes $d^{m*}(i) = \bar{a} - a(i) - \frac{v(1-r)}{2\gamma}\ \forall i \in [0, m]$ when she chooses to measure. Accordingly, her ex ante utility is

$$v \times \left(r \times w \times \overline{a} + D(n') - C(m') - n'\left(\bar{a} - \mathbb{E}(a)\right)\right) - \gamma \times g' Var(a) + \frac{v^2 g'}{4\gamma} + \frac{v^2(1-r)^2 m'}{4\gamma}, \quad (18)$$

where the last term is generated by the difference between the optimal disbursal ($d^{m*}(i)$) and the actual need ($\bar{a} - a(i)$). Hence, in the effectiveness and the measurement compensation constraints, the only change is that their left-hand sides decrease by $\frac{v(1-r)^2}{4\gamma}$. Thus, equations (5) and (6) become:

$$C'(m^*_{mec2}) - \frac{v(1-r)^2}{4\gamma} = \frac{\gamma}{v} Var(a) - \frac{v}{4\gamma} < D'(m^*_3) - \left(\bar{a} - \mathbb{E}(a)\right), \quad (19)$$

$$C'(m^*_{mcc2}) - \frac{v(1-r)^2}{4\gamma} = D'(m^*_4) - \left(\bar{a} - \mathbb{E}(a)\right) < \frac{\gamma}{v} Var(a) - \frac{v}{4\gamma}. \quad (20)$$

Therefore, m_{mec} and m_{mcc} become larger, and the main differences in the results could only be m^*_{np} and m^*_{fp} in Case 1-3 in Section 2.2. Note that $C'(m^*_{mcc2}) = \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma} + \frac{v(1-r)^2}{4\gamma} = \frac{\gamma}{v}Var(a) - \frac{v\times r(2-r)}{4\gamma}$ still decreases in v, so we still have $m^*_{np} \geq m^*_{fp}$ in Case 2 in Section 2.2 ($\gamma \times Var(a)$ is medium). However, in Case 3 in Section 2.2 ($\gamma \times Var(a)$ is high), since $C'(m^*_{mcc2}) - D'(m^*_{mcc2}) = -(\bar{a} - \mathbb{E}(a)) + \frac{v(1-r)^2}{4\gamma}$ increases in v, we have $m^*_{fp} \geq m^*_{np}$ (and $n^*_{fp} \geq n^*_{np}$) instead of an equality. This leads to a small change to Proposition 2 because when $\gamma \times Var(a)$ is high the for-profit entrepreneur will provide greater scale than the nonprofit, although again the quality provided by both for-profits and nonprofits will be the maximal quality. Finally, Proposition 3 continues to hold because $U^E_{fp} > U^E_{np}$ using the same proof in equation (7) .

B.2 Linear Cost Function

Let $C(m) = \rho m$, such that $C'(m) = \rho > 0$ where ρ is a scalar. The analysis of the entrepreneur's choices remains qualitatively similar to that with a convex measurement function. Instead of three cases as in Section 2.2, two cases arise:

1. If $\rho \geq \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma}$, transacting with beneficiaries is always too costly, resulting in $m^* = 0$, and $n^* = g^*$.

2. If $\rho < \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma}$, transacting with beneficiaries is always less costly than ineffective giving, leading to $g^* = 0$, and $m^* = n^*$.

This implies that organizations focus exclusively on one of two approaches: transacting with beneficiaries (Case 1 in Section 2.2) or engaging in giving (Case 3 in Section 2.2). There is no mixing between transacting and giving (i.e., Case 2 in Section 2.2 does not arise under this assumption). Importantly, all the propositions in the paper remain valid under this assumption. In particular, under Proposition 2, when the entrepreneur engages in giving, a nonprofit produces higher quality than a for-profit, and when the entrepreneur engages in transacting, a for-profit produces the same quality of philanthropy as a nonprofit.

B.3 No Penalty for Waste

The quality function in the entrepreneur's utility may be considered too demanding because it penalizes the entrepreneur not only for giving too few subsidies, but also for wasting money by giving too much to the beneficiaries. While there is increasing concern about the wastefulness of donative funding, it could possibly be argued that altruistic entrepreneurs worry only about the risk that the beneficiaries receive too little help. The entrepreneur's maximization problem would then be:

$$\max_{m,g,d(i)} v\left[r(w-m)\bar{a} + r \times E\int_0^m \left[\min\left(a(i) + d^m(i), \bar{a}\right)\right] di + D(n) - \int_0^m d^m(i)di - \int_0^g d^g(i)di - C(m)\right] - \tag{21}$$

$$\gamma \times E\left[\int_0^m \left(1_{\bar{a}-a(i))>d^m(i)}\left((\bar{a}-a(i))-d^m(i)\right)\right)^2 di\right] - \gamma \times E\left[\int_0^g \left(1_{\bar{a}-a(i))>d^g(i)}\left((\bar{a}-a(i))-d^g(i)\right)\right)^2 di\right]$$

$$\text{s.t. } n = m + g.$$

It is still clear that $d^{m*}(i) = \bar{a} - a(i)$. It can further be shown that $d^{g*}(i) = \bar{a} - Ea - \varepsilon$, where $0 < \varepsilon < \frac{v}{\gamma P_{\varepsilon+Ea>a}} - 2$, or $\varepsilon = 0$ if $\frac{v}{\gamma P_{\varepsilon+Ea>a}} - 2 \leq 0$.[20] For simplicity, and without loss of generality, I will assume that $\varepsilon = 0$. Letting $n = n', m = m',$ and $g = g'$, the ex ante utility of the nonprofit entrepreneur is: $v \times (r \times w \times \overline{a} + D(n') - C(m') - n'(\bar{a} - \mathbb{E}(a))) - g'\gamma Var(a|Ea > a)$. The measurement compensation constraint is the same as in equation (6). The threshold for satisfying the measurement effectiveness constraint is different from equation (5), such that the entrepreneur only cares about $Var(a)$ conditional on $\mathbb{E}(a) > a$. It is straightforward to show that all the key propositions apply to this case too, except that $Var(a|\mathbb{E}(a) > a)$ replaces $Var(a)$ as the main measure of information asymmetry.

B.4 Scale is Not Observable Ex Ante

In the main analysis, we assume that scale is observable ex ante. However, if scale is not observable, Lemma 3 does not hold, and the donor cannot infer the true γ from n^*. Instead, he sets n^* and $D(n^*)$ based on his preferences and his expectations over γ. Thus, in this case, we cannot replace $\mathbb{E}[\gamma]$ and $\mathbb{E}_\gamma\left[\frac{1}{\gamma}\right]$ with γ and $\frac{1}{\gamma}$, respectively, in equations (8) and (9). The donor forms an expectation over γ to determine whether the measurement effectiveness or measurement compensation constraint is satisfied, which in turn determines whether he expects the entrepreneur to engage exclusively in transacting or in some giving. A high $\mathbb{E}[\gamma]$ suggests either an altruistic environment where entrepreneurs prioritize effectiveness, or the donor's belief that the entrepreneur is altruistic based on her track record or her reputation. Importantly, the threshold for $\mathbb{E}[\gamma]$ depends on $Var(a)$, which reflects the need for social entrepreneurship. When $Var(a)$ is high, the threshold for $\mathbb{E}[\gamma]$ is lower, as reputational costs from ineffective giving increase, strengthening incentives to tailor disbursals.

Ultimately, the outcome is qualitatively similar to the baseline model where n is observable ex ante. When $Var(a)$, $\mathbb{E}[\gamma]$ and π are high, the donor expects the entrepreneur to provide maximal quality by engaging exclusively in transacting. Conversely, when $Var(a), \gamma$ and π are relatively low, the donor expects the entrepreneur to engage in some ineffective giving. If π is large such that $\pi \geq \frac{4\mathbb{E}[\gamma]Var(a)+v}{v(1+v)\mathbb{E}_\gamma\left[\frac{1}{\gamma}\right]}$ (but not so large that the donor dislikes any giving—i.e., $\pi < \frac{F'(n)}{Var(a)+\frac{v^2}{4}\mathbb{E}_\gamma\left[\frac{1}{\gamma}\right]}$ for some $n > 0$), then $n^*_{np} \geq n^*_{fp}$ and $D(n^*_{np}) \geq D(n^*_{fp})$. The entrepreneur takes n^* and $D(n^*)$ as given by the donor, but she makes her own decision based on her true γ, knowing that she faces greater

[20] To prove this, we simply let $d^g(i) = \bar{a} - Ea - \varepsilon$, where $\varepsilon > 0$, and compare it to the utility of the entrepreneur if she chooses $d^g(i) = \bar{a} - Ea$. Using the same approach, it is easy to show that letting $d^g(i) = \bar{a} - Ea + \varepsilon$ yields a contradiction and therefore $d^g(i) \leq \bar{a} - Ea$.

reputational costs that are proportional to n^* if she accepts a larger donation.

The key difference from the baseline analysis is that the donor may overestimate or underestimate γ. If the donor overestimates γ, then m is lower than expected, and so is the quality of philanthropy. However, this risk is not material in most cases. Donors may have a general sense of the entrepreneur's philanthropic scale based on her reputation and publicly available information. Moreover, even if the entrepreneur's optimal n is not strictly observable, it may be inferred from the donation size itself, with smaller donations suggesting a higher γ. Low-γ entrepreneurs will seek low-π donors who offer larger donations that entail higher reputational costs, which they underweight in their utility. By contrast, high-γ entrepreneurs will raise smaller donations from high-π donors because they place greater weight on reputational costs associated with accepting larger donations. In this sense, when entrepreneurs communicate their preferred scale by raising different donation amounts, the case where n is not observable converges to the analysis in Section 3.2.

Moreover, Proposition 3 holds when scale is not observable ex ante, and the entrepreneur chooses the for-profit form. This outcome is straightforward when $D(n^*_{np}) = D(n^*_{fp})$, but it holds even when $D(n^*_{np}) > D(n^*_{fp})$. The intuition is that the donor effectively maximizes the joint expected utility of donor and entrepreneur. The for-profit form enables more optimal allocations because donation growth is constrained by concavity in scale, and the distribution constraint both limits the entrepreneur's revenue and amplifies reputational costs from ineffective giving.

If we assume n^* is not observable ex ante, $D'(n^*_{fp})$ is determined with no knowledge of γ, so Equation (17) in the Proof to Proposition 3 becomes:

$$\left(n^*_{np} - n^*_{fp}\right)\left(\left(v\mathbb{E}\left[\gamma\right] - \gamma\right) Var(a) + \frac{v}{4}\left(\frac{v}{\gamma} - \mathbb{E}_\gamma\left[\frac{1}{\gamma}\right]\right)\right) - (1-v)$$
$$\left(r \times w \times \bar{a} + D(n^*_{fp}) - C(m^*_{fp}) - n^*_{fp}\left(\bar{a} - \mathbb{E}(a)\right) + \frac{g^*_{fp}}{4\gamma}\right).$$

This expression can only be negative if $\gamma < v\mathbb{E}\left[\gamma\right]$ or $\gamma < \frac{1}{v\mathbb{E}[\gamma]}$. This means that the choice of the nonprofit form by the entrepreneur reveals that she is a low-γ type that selects the nonprofit form just to draw more donations. The donor would then adjust the donation amount downward, making the utility from adopting the nonprofit form lower than that of the for-profit form. Accordingly, in the absence of tax deductions, the entrepreneur has no incentive to adopt the nonprofit form even if the donor is willing to provide more funds for higher-quality philanthropy.

C The Effect of Tax Benefits

C.1 Income Tax Exemption

Nonprofits are entitled to income tax exemptions if their income is related to a charitable purpose. To account for the tax exemption, instead of multiplying the income portion of the

entrepreneur's utility only by v we need to multiply it also by κ, where $\kappa > 1$. We assume $v \times \kappa < 1$ on the basis that, if a nonprofit's income were to exceed that of a comparable for-profit, it would likely trigger the imposition of the Unrelated Business Income Tax (UBIT) or, worse, lead to the nonprofit being viewed as pursuing a commercial, non-exempt purpose—potentially resulting in the loss of its tax-exempt status.

Income tax exemption mitigates the impact of the non-distribution constraint because the nonprofit entrepreneur would enjoy a greater portion of the firm's cash-flows. The main effect is therefore to increase the threshold for measurement in both the measurement effectiveness and compensation constraint in equations (5) and (6) by replacing $\frac{\gamma}{v}Var(a) - \frac{v}{4\gamma}$ with $\frac{\gamma}{v\kappa}Var(a) - \frac{v\kappa}{4\gamma}$. When $Var(a)$ and γ are high, such that the entrepreneur engages exclusively in transacting, income tax exemption may have no effect as long as the measurement compensation constraint is satisfied. However, for sufficiently low $Var(a)$ and γ when the measurement effectiveness constraint binds, income tax exemption would reduce m^*_{np} and increase g^*_{np} and n^*_{np}. Accordingly, income tax exemption can reduce the quality of philanthropy produced by nonprofits.

Remark 1. For a sufficiently low $Var(a)$ and γ, income tax exemption increases the scale of philanthropy but reduces its quality.

While income tax exemption naturally makes the nonprofit form more attractive for the entrepreneur, it does not on its own change the entrepreneur's choice of legal form because equation (7) is satisfied. However, the analysis sheds light on the potential effect of extending income tax exemption to for-profits that engage in social missions. Within this model, this means setting $v = 1$, such that $v \times \kappa = \kappa > 1$. When the measurement compensation constraint binds without a tax exemption, a sufficiently large κ may shift a for-profit that engages exclusively in transacting to engaging also in giving. Moreover, when the measurement effectiveness constraint binds, the for-profit firm would provide even lower-quality philanthropy. Accordingly, extending income tax exemptions to for-profits that purport to engage in social missions may be ill-advised.

C.2 Tax deductions

Donors to nonprofit firms receive tax deductions. The tax deduction is incorporated into the analysis by multiplying $D(n)$ by a scalar ($\lambda > 1$) in equation (2). This has several effects on the choices of the nonprofit entrepreneur. The measurement effectiveness (equation (5)) and measurement compensation constraints (equation (6)) can be rewritten by simply replacing $D'(n)$ with $\lambda D'(n)$. If the firm engages exclusively in transacting, the effect of the tax deduction is to increase the number of beneficiaries the entrepreneur transacts with. The greater the tax deduction, the greater m is as long as $C'(m^*) = \lambda D'(m^*) - (\bar{a} - \mathbb{E}(a)) < \frac{\gamma}{v}Var(a) - \frac{v}{4\gamma}$. But because $C(m)$ is convex, if the tax deduction is large, such that $\lambda > \frac{\frac{\gamma}{v}Var(a) - \frac{v}{4\gamma} + (\bar{a} - \mathbb{E}(a))}{D'(m^*)}$, the measurement effectiveness constraint binds, and the entrepreneur engages in some giving. Likewise, if without the tax deduction the entrepreneur would engage in some giving, the tax deduction has no effect on the entrepreneur's choice of m, but the choice of n is determined by $D'(n^*) = \frac{\frac{\gamma}{v}Var(a) - \frac{v}{4\gamma} + (\bar{a} - \mathbb{E}(a))}{\lambda}$,

and thus n^* and g^* are larger with the tax deduction. Thus, the tax deduction actually reduces the quality of philanthropy produced by the nonprofit firm. Accordingly, the tax deduction may have a positive or negative impact on the quality of philanthropy of nonprofits.

Remark 2. When $Var(a)$ and γ are high such that the entrepreneur engages exclusively in transacting, the larger a tax deduction the larger the number of beneficiaries a nonprofit would transact with (m_{np}) as long as $\lambda \leq \frac{\frac{\gamma}{v}Var(a)-\frac{v}{4\gamma}+(\bar{a}-\mathbb{E}(a))}{D'(m^*)}$. When $\lambda > \frac{\frac{\gamma}{v}Var(a)-\frac{v}{4\gamma}+(\bar{a}-\mathbb{E}(a))}{D'(m^*)}$, the measurement effectiveness constraint is satisfied and the tax deduction causes the entrepreneur to engage in giving. When $Var(a)$ and γ are medium or low such that the entrepreneur engages in giving, the tax deduction causes nonprofit entrepreneurs to produce greater scale (n) but at lower quality by engaging in more giving (g).

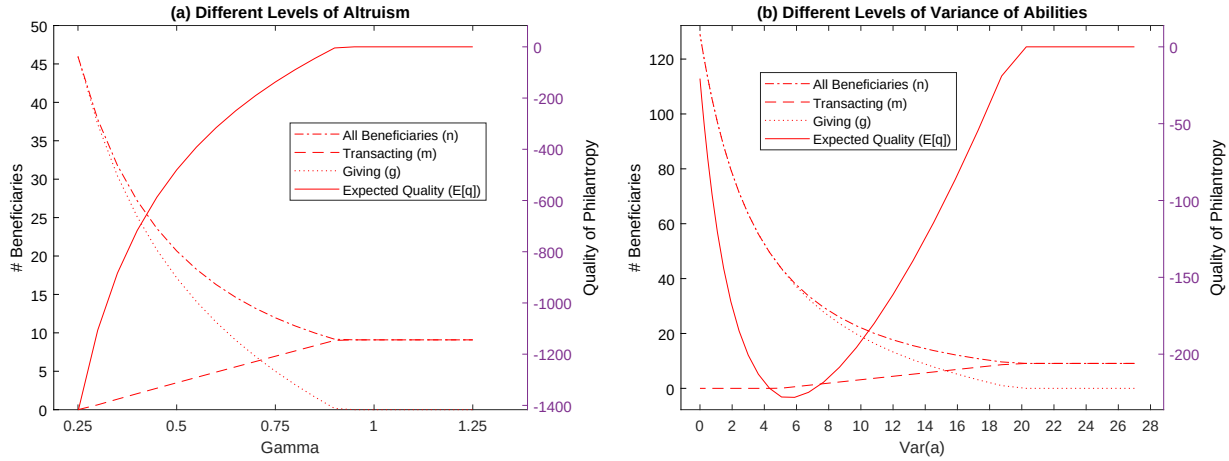
The tax deduction can cause the entrepreneur to choose the nonprofit form because equation (7) does not necessarily hold. Taken together with Remark 2, the tax deduction enjoyed by nonprofits may result in lower quality produced by the entrepreneur to the extent that it is sufficiently large to (a) cause the entrepreneur to form a nonprofit rather than a for-profit, and (b) induce the nonprofit entrepreneur to engage in more giving than a for-profit entrepreneur would. Thus, tax deductions may reduce the quality of philanthropy when entrepreneurs' regard for quality (γ) is low (See Example 3 in Section D of the Online Appendix).

Finally, extending tax deductions to for-profits is unlikely to be a desirable policy. It will reduce the quality of philanthropy when $Var(a)$ and γ are low, and while it will increase m^* when $Var(a)$ and γ are high, the for-profit entrepreneur would not produce higher quality or quantity than would the nonprofit (based on Proposition 2). Accordingly, a tax deduction for for-profits may increase the entrepreneur's utility to the extent that she avoids the burden of complying with the non-distribution constraint, but it would not increase the quality of philanthropy.

D Illustrative Examples

Example 1. The following example illustrates the key finding of the theoretical analysis. Suppose that $w = 100$, $r = 1.1$, $a \backsim U(0, \bar{a})$, $\bar{a} = 18$,such that $\mathbb{E}(a) = 9$ and $Var(a) = 27$. For present purposes, I limit the analysis to for-profits, such that $v = 1$. The donation and cost functions are given by $D(n) = 200\sqrt{n}$ and $C(m) = m^2 + 6m$. Figure OA1 shows the allocations m and g chosen by the entrepreneur first in Figure OA1(a) for different values of γ, and then in Figure OA1(b) for different variations of $Var(a)$ which I generate by incremental decreases and increases of the maximum and minimum value of a , respectively, such that $\mathbb{E}(a)$ stays the same and assuming $\gamma = 1.25$.

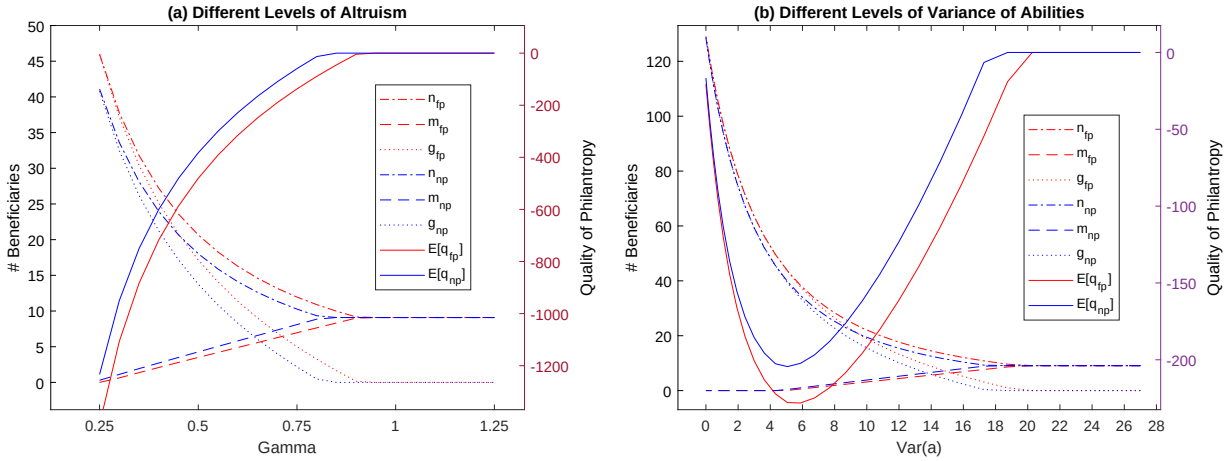
Figure OA1: **The For-Profit Entrepreneur's Choices**



As γ and $Var(a)$ are larger, the entrepreneur's choice of m is also larger and g gets smaller until $g^* = 0$ and $n^* = m^*$. Note also that as γ and $Var(a)$ increase, n decreases. The expected quality of philanthropy increases up to the point where the measurement compensation constraint is satisfied. The graphs show the tradeoff between scale and quality. When there is a greater need for customized philanthropy and when entrepreneurs care about effectiveness, entrepreneurs invest their resources on helping a smaller number of beneficiaries rather than spreading the donations they receive across a larger set of individuals. Note however that for very low $Var(a)$, expected quality decreases in $Var(a)$ simply because the costs of misallocating disbursals are very low. The giving model is thus more effective when there is less need for tailoring subsidies to beneficiaries' abilities.

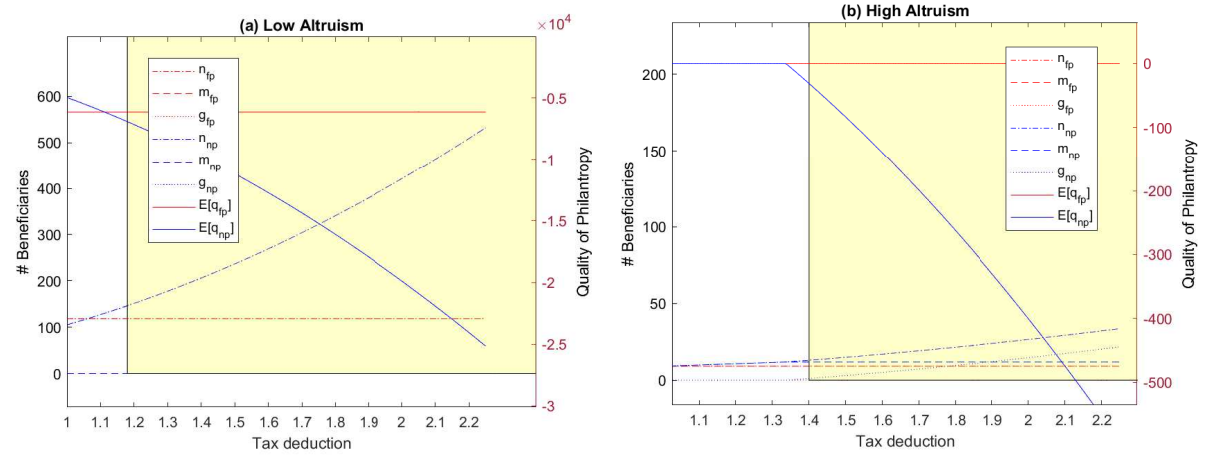
Example 2. I plot the entrepreneur's choices as in Example 1, but here I also show the entrepreneur's choices if it operates as a nonprofit. Figure OA2 compares the choices made by for-profit and nonprofit entrepreneurs. As shown in the figure, both legal forms display similar patterns in the choice of m and g in response to different values of γ and $Var(a)$. In accordance with Proposition 2, when $Var(a)$ γ are low or medium the expected quality of philanthropy produced by the nonprofit entrepreneur is higher. But when γ and $Var(a)$ are high, both for-profit and nonprofit entrepreneurs focus exclusively on transacting and the expected quality is maximal for both legal forms.

Figure OA2: **Comparing the For-Profit and Nonprofit Entrepreneur's Choices**



Example 3. Example 3 illustrates the impact of different levels of tax deductions (λ) on the entrepreneur's choices and the scale and quality of philanthropy. In Figure OA3(a), I assume low altruism ($\gamma = 0.1$). Without tax deductions ($\lambda = 1$), the entrepreneur chooses the for-profit form. Increasing λ raises n_{np} but lowers $\mathbb{E}[q_{np}]$, as the entrepreneur raises g_{np}. In the yellow region ($\lambda > 1.18$), the entrepreneur selects the nonprofit form ($U^E_{np} > U^E_{fp}$), even though $\mathbb{E}[q_{np}] < \mathbb{E}[q_{fp}]$. In Figure OA3(b), with high altruism ($\gamma = 1$), at $\lambda = 1$, both forms yield maximal quality. As λ rises, m_{np} grows due to high γ. At $\lambda = 1.34$, the measurement effectiveness constraint is satisfied, and further increases in λ cause g_{np} to rise, resulting in a decline in expected quality, $\mathbb{E}[q_{np}]$. It is only in the yellow region ($\lambda > 1.4$) that the tax advantage is large enough for the utility from forming a nonprofit to exceed that of forming a for-profit ($U^E_{np} > U^E_{fp}$). In this case, m_{np} is slightly larger than m_{fp} (due to convexity of $C(m)$), but g_{np} increases and $\mathbb{E}[q_{np}]$ declines as λ gets larger.

Figure OA3: **Tax Deduction and the Entrepreneur's Choices**



Thus, when the tax deduction is too large, it may encourage nonprofit entrepreneurs to engage in ineffective giving, thereby reducing the expected quality of philanthropy. This effect is especially

pronounced when γ is low, and the tax deduction increases g_{np} without affecting m_{np}. However, when γ is high, the tax deduction increases m_{np}, resulting in some scale increase (albeit small, due to convexity of $C(m)$) without reducing expected quality. Nonetheless, in the yellow region– where the entrepreneur chooses the nonprofit form, the entrepreneur engages in substantial giving and $\mathbb{E}[q_{np}] < \mathbb{E}[q_{fp}] = 0$.

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