

HIGHER PURPOSE, INCENTIVES AND ECONOMIC PERFORMANCE

by

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Abstract

We develop a model of organizational higher purpose and show that it dissipates agency frictions and elicits higher employee effort. The effect on profits depends on the relationship between the higher-purpose utilities of leaders and employees. With positively associated utilities, firm profit is non-monotonic in the commitment to higher purpose; otherwise, profit declines with the commitment to purpose. Agency costs of external finance in some firms crowd out higher-purpose investments by *other* firms, with profits nonincreasing in higher-purpose investments cross-sectionally. Moreover, higher external financing costs and uncertainty about how much employees' higher-purpose utilities both reduce higher-purpose investments.

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I. INTRODUCTION

A. Research Question and Motivation

What is organizational higher purpose? We define it as a prosocial contribution goal that transcends the usual business goals like profit maximization, but our interest is in the *intersection* of higher purpose and business decisions, *not* in corporate charity.¹ We focus on how organizational higher purpose becomes the arbiter of *all* business decisions. The goal is to analyze the economics of higher purpose, namely how it alters decision making in organizations, the challenges organizations face in embracing higher purpose, the importance of authenticity and communication, and the way higher purpose impacts employee effort incentives and organizational output.

Our work is motivated by recent empirical evidence. Gartenberg, Prat and Serafeim (2019)) used a sample of nearly 500,000 people across 429 firms involving 917 firm-year observations from 2006 to 2011 and found that an authentic higher purpose communicated with clarity positively impacts both operating financial performance and stock price². Quinn and Thakor (2018) provide interview-based evidence that organizations in which leaders embrace an *authentic* higher purpose to motivate employees provide exceptionally high effort and creativity³. However, they highlight a paradox, namely that this positive effect on performance is encountered only when employees see an authentic commitment to the purpose and not solely as another motivational tool to elicit higher effort.⁴ Hedblom, Hickman and List

¹ Thus, our focus differs from the literature on gifts and donations (e.g., Buraschi and Cornelli (2002) and Prendergast and Stole (2001)) as well as that on corporate social responsibility (CSR) initiatives that are distinct from the firm's normal business, say a grocery store donating money to cancer research.

² Specifically, they found that the high performers had both clarity of higher purpose and comradery among employees.

³ The definition of authenticity is that the leader is not using higher purpose merely as a public relations tool, but truthfully attaches positive utility to it. Therefore, the leader is willing to make decisions that sacrifice economic output and personal wealth to pursue the higher purpose.

⁴ Fredrickson (2003) reviews the empirical literature showing that positive emotions like inspiration, hope, optimism and others move through a social system in a viral manner and can significantly impact collective behavior.

(2019) provide evidence based on a field experiment that "...when a firm convinces its workers that their efforts make the world a better place (as opposed to purely making money)...", output increases and wage costs to down. Grant et al. (2007) conducted a field experiment in which treatment-group call center employees doing fund raising for a university were connected to the higher purpose of that activity, and they performed significantly better in fund raising than employees in a control group who had the same "fund-raising script" for calls but were not similarly connected to the higher purpose

We begin in Section II with a discussion of this evidence and extract from it key elements that the theory should be consistent with. In Section III, we develop a simple model consistent with these stylized facts and derive four results. First, organizational higher purpose induces employees to work harder under some circumstances. Second, even when employees work harder, in the base model net profit is *lower* with higher purpose. Third, there are circumstances in which the impact of higher purpose on firm profit is non-monotonic, initially increasing in the leader's personal utility from purpose and then decreasing in it. Fourth, in Section IV, when we introduce external financing and the possibility that inefficient personal consumption can masquerade as higher purpose investment, higher purpose investment declines, and cross-sectionally profit is nonincreasing in purpose investment. In this section, we also introduce uncertainty about whether the employee values higher purpose. This causes the firm to increase wages, face a higher cost of external finance and invest less in higher purpose. Thus, both uncertainty about the owner's (firm's) higher purpose motives and uncertainty about the employee's motives lead to a crowding out of higher purpose investments. We show that when the organization is large enough, all of the wage-related gains from higher purpose pursuit are wiped out due to uncertainty about employee motives. We solve for how much the firm would be willing to invest in employee selection to eliminate this uncertainty. In this section, we also point out one way to formally distinguish between higher purpose and corporate social responsibility (CSR). We end the section with a discussion of the possible general equilibrium effects of higher purpose on aggregate investment.

Our analysis assumes that the firm's customers and investors do not attach any utility/value to the firm's higher purpose pursuit. In practice, they sometimes do. For example, customers of 4Ocean are

willing to buy the firm's products because they endorse the firm's higher purpose of ridding the oceans of plastic waste. Introducing this feature only strengthens our results.

We conclude in Section V with a discussion of the role played by uncertainty in the model. While the result that the pursuit of higher purpose improves effort incentives (elicitation of the desired effort at a lower cost) obtains in our model even without any uncertainty, most of our other results depend crucially on different types of uncertainty. All proofs are in the Appendix.

B. Related Literature

This paper is broadly related to the literature on how prosocial goals affect organizational outcome. One strand of this literature deals with corporate social responsibility (CSR), e.g., Bénabou and Tirole (2010). The empirical evidence on how the adoption of CSR affects organizational performance is mixed. Some papers report a positive effect on firm profits (e.g., Waddock and Graves (1997)), others report mixed, negative or no effects (e.g., Barrett and Salomon (2012), Godfrey, et.al, (2009), and Servaes and Tamayo (2013)). Most of these studies focus on how CSR is tool for firms to engage in “virtue signaling” to customers who value CSR. Other papers focus on how CSR works through the supply channel in firms, in terms of affecting the motivation of employees. Theoretically, this has been studied by Bénabou and Tirole (2006) who develop a model in which doubt about the true motive for good deeds leads to an “overjustification effect”, with diminished prosocial behavior; see also Seabright (2009).⁵ The empirical evidence of CSR on firm performance through the employee behavior channel is also mixed. List and Momeni (2017) use a large-scale field experiment to document that the adoption of CSR increases employee misbehavior—there is a greater propensity for employees to shirk on their primary job responsibility. The paper suggests that this is due to “moral licensing” in the sense that the “doing good” feeling associated with CSR induces workers to misbehave on another dimension. Hedblom, Hickman and List (2019) also use a field experiment and document that CSR has both a selection effect in

⁵ More tangentially related is Bénabou and Tirole (2003) in which a tension between extrinsic and intrinsic motivations arises because giving high-powered incentives may convey bad news about the task or agent ability. Bolton, Brunnermeier and Veldkamp (2013) examine the impact of the organizational leader in overcoming a misalignment of incentives that inhibit coordination.

employee hiring and a treatment effect in positively influencing their effort and output. Dijk and Holmen (2017) show in a lab experiment with a principal-agent setting that CSR generates a “warm glow” in employees that makes them work harder.

Our paper differs in many respects from this literature. First, higher purpose is not the same as CSR in the sense that the pursuit of higher purpose is closely tied to the business of the firm as we focus on the *intersection* of higher purpose and business goals, whereas CSR focuses more broadly on prosocial behavior. To see this distinction, note that in our framework, the organization’s higher purpose becomes the arbiter of *all* business decisions when it is authentic, whereas the pursuit of CSR by a firm may have nothing to do with any of its other business decisions. As an example of this, consider the company *4Ocean*. Its stated higher purpose is to actively clean our oceans and coastlines,⁶ and its business is to buy from fishermen plastic and other garbage scooped up from the ocean, recycle it and make products like bracelets sold to consumers. The business strategy is completely integrated with the higher purpose. In contrast, an automobile company donating money to a charity (or even to 4Ocean) for cleaning up the oceans would be making an investment in CSR but not in higher purpose; its CSR donations may have no impact on its business decisions about car design, manufacturing and marketing. Thus, pursuit of higher purpose is also prosocial (like CSR), but it has a narrower definition than CSR. We provide a formal discussion of the difference later in the paper. The existing literature does not distinguish between CSR and higher purpose the way we define it.⁷

Second, we focus on organizational higher purpose with the goal of developing a model that sheds light on the recent evidence discussed earlier. Our model also focuses on the role of communication by the leader after the higher purpose is adopted that helps employees connect the organizational higher

⁶ On its website it says “Let’s end the ocean plastic crisis together”.

⁷ For example, in the Dijk and Holmen (2017) lab experiment, agents were told that the company would contribute its profits to the Swedish Red Cross. This is CSR, but it has little to do with the firm’s business itself, so it is *not* higher purpose as we define it. One possible reason for the mixed results in the empirical literature on the impact of CSR on firm performance may have to do with the fact the literature does not distinguish between broad CSR initiatives unrelated to the firm’s core business and higher purpose, so in cases involving authentic higher purpose the performance impact may have been positive and in other cases it may have been insignificant or negative.

purpose to their own personal purpose, and how this affects their effort supply incentives and profits. This leads to new results, like the non-monotonicity of profit in purpose investment.

Third, we introduce external financing and allow for the possibility that the so-called higher-purpose investment may simply be a diversion of organizational resources for private benefit; this is a problem that is front and center when one considers Friedman's (1970) exhortation for firms to focus on shareholder value maximization. . We show that this possibility crowds out authentic higher purpose investments. Similarly, we also examine the effect of uncertainty about whether employees value higher purpose.

Our paper is also related to Besley and Ghatak's (2005) work on "mission-oriented" organizations. That paper focuses on how matching mission-oriented employees to principals who have the same mission economizes on the need for high-powered incentives, and it explains why non-profits may function differently from profit-seeking organizations. The similarity is that our paper also focuses on how the pursuit of higher purpose reduces wage costs for firms. However, there are numerous key differences in that our focus is *not* on matching principals and agents with similar missions, although we discuss the matching problem in an extension. These differences have to do with our focus on the role of external financing frictions, as well as different type uncertainties and how they impinge on the cost of external finance and the higher purpose investments of firms.

Finally, the external financing part of our analysis links our paper to recent research on how agency costs can be minimized by matching external financing instruments with agents. Starmans (2019) develops a model in which entrepreneurs (agents) have projects with different probability distributions of cash flows and identical mean cash flows. Financiers (principals) choose debt or equity or a combination, depending on which minimizes agency costs. In our external financing analysis, we focus on equity because we have a single type of entrepreneur seeking financing. As a more general point, our analysis is not a search for the mechanism that minimizes agency costs, although we show how the pursuit of higher purpose can reduce agency costs by motivating employees. Rather, our focus is on the interaction of organizational higher purpose, agency frictions within the firm, external financing frictions and economic

output. Thus, we do not exhaustively compare the agency-cost implications of higher purpose pursuit with other ways to reduce agency costs like organization structure, design, investing in technology to reduce the agent's effort cost, and so on.

II. THE STYLIZED FACTS

This section discusses the findings on the practices of organizations in which higher purpose intersects business goals. These findings provide guidance for developing an economic theory of purpose.⁸

A. Organizational Higher Purpose Examples

Every authentic organizational higher purpose we uncovered in our survey-based research falls in one of three categories: (i) explicitly customer-centric, (ii) explicitly employee-centric, and (iii) explicitly society-centric. Some combine two or more of these categories.

An example of a customer-centric higher purpose is Walt Disney's pitch document for raising financing for Disneyland:⁹

“The idea of Disneyland is a simple one. It will be a place for people to find happiness and knowledge. It will be a place for parents and children to share pleasant times in one another's company; a place for teachers and pupils to discover greater ways of understanding and education. Here the older generation can recapture the nostalgia of days gone by, and the younger generation can savor the challenge of the future. Here will be the wonders of Nature and man for all to see and understand.”

An example of an employee-centric higher purpose is provided by Gerry Anderson, the CEO of DTE Energy, who we interviewed.¹⁰ In 2008, DTE Energy was faced with financial distress. Anderson had been told that his firm was going to become the first “junk-bond utility”. He knew major changes were needed. He was advised by his executive team to close some plants and lay off people to cut costs.

⁸ The discussion in this section borrows heavily from Quinn and Thakor (2018, 2019).

⁹ See Thomas (1994).

¹⁰ See Quinn and Thakor (2018).

But Anderson wondered: how could he ask his employees for their “discretionary energy” if he abandoned them in their time of need? So he did the opposite of what he was advised to do. He told his employees that a layoff would be the last lever he would pull to preserve the integrity of the company. But he told them that to ensure survival of the company and its continued contribution to its communities, he needed them to give the company “every ounce of creative energy they had.”¹¹ What was interesting was that not only did DTE’s employees react positively to this, but so did its suppliers. Anderson discusses a specific case in which suppliers were willing to go out of their way to customize some replacement parts for a plant that ended up saving the company millions of dollars because it obviated the need to replace an entire system. By 2010, the company was prospering financially, so Anderson modified the purpose statement to be explicitly prosocial, defining it as a shift from “preservation” to “inspiration”. He stated that while DTE was doing well, the communities it was serving were still struggling, so the company’s higher purpose would be to make positive contributions to their economic well-being.

Finally, an example of an explicitly prosocial higher purpose is provided by Monsanto. We interviewed Richard Mahoney,¹² who was CEO of Monsanto from 1983 to 1995. In 1987, Mahoney received a report about the company’s air-polluting emissions and was shocked by it. He decided to adopt pollution-reduction as an organizational higher purpose. He announced an ambitious goal reducing emissions by 90% by 1992 and proceeded to do so, despite much initial skepticism that it could be done. He also challenged other companies to reduce their air emissions by taking the “Monsanto Pledge”.¹³

In each of these cases, the impact on performance was strikingly positive. Disney’s higher purpose guided the company’s strategy under both Michael Eisner and Robert Iger, and Disney delivered exceptional shareholder value. Gerry Anderson was amazed at how well DTE Energy performed after his announcement of the initial purpose and then the modified purpose to the employees. Not only did the

¹¹ *HBR IdeasCast* ... <https://hbr.org/ideacast/2018/07/turning-purpose-into-performance>.

¹² See the discussion in Quinn and Thakor (2019).

¹³ See Mahoney (1996).

company survive The Great Recession, but its performance exceeded all expectations and peer performance, defined in terms of employee engagement, safety and stock price performance.¹⁴ And with Monsanto, the effect on employees was positive, as they felt proud to be working for the company. Moreover, the company's image in the industry was enhanced and it began to be viewed as an industry leader in environmental consciousness, including by the EPA, and other external stakeholders. In each case, however, authenticity of purpose and its clear communication were essential ingredients.

B. How Higher Purpose Affects Performance

An organization benefits from a higher purpose in two ways.¹⁵ First, it becomes the moral glue binding employees together and generates often-unexpected spontaneous contributions from employees. The pursuit of purpose increases the value of personal effort for an employee because the effort contributes to contractible economic output as well as to a prosocial higher purpose the employee values. This reduces agency costs. For the firm, the result is either more effort with the same wages or the same effort with lower wages.

Second, by communicating the firm's higher purpose to external stakeholders—financiers, suppliers and customers—conflicts with these stakeholders are sometimes reduced. Financing may thus be raised less expensively and products sold at higher profit margins.

Consider the first benefit. We interviewed Jim Weddle, then CEO of Edward Jones, a financial advisory company. He told us about how they discovered their higher purpose and its effect on the company. With guidance from Peter Drucker, the company made a change from its stated purpose of making a profit to an articulated higher purpose of helping their clients meet their most important financial goals in life, such as educating their children, leaving a legacy for their grandchildren, etc. Subsequently, profit was viewed simply as a metric that indicated how well the purpose was being served. This has guided the company for decades, and has become a magnet for new employees. While they want

¹⁴ As Gerry Anderson said, "I did not understand the power of purpose". See HBR IdeasCast. <https://hbr.org/ideacast/2018/07/turning-purpose-into-performance>.

¹⁵ This discussion is based in part of Quinn and Thakor (2019).

to be paid for their work, they also want to be part of an organization of higher purpose. In operationalizing the purpose, the leaders began to cultivate the notion of a culture that reflects an extended family of employees and customers. This notion was tested during the 2007–09 financial crisis when the company faced financial challenges. It showed its commitment to its purpose by promising the employees that there would be no layoffs during the crisis. As a result, it has a culture associated with low turnover and high profitability.

For the second benefit, we turn to Sandler O’Neill and Partners, a Wall Street investment bank that lost a big fraction of its workforce on 9/11/2001. It took a Herculean effort by its new CEO, Jimmy Dunne, and other leaders to save the company. We interviewed Jimmy Dunne in connection with our research. He explained to us that in the traumatic process, after the 9/11 attack, Dunne and others clarified the company’s highest purpose—caring for employees like family—of the company. The clarification led to unconventional decisions. At one point, Dunne decided to pay the families of those who died on 9/11 the salaries and benefits of those employees, not only for all of 2001, but for some years after that, despite the substantial financial risk in doing so.

Dunne said that consequently Sandler was seen as being different. He stated: “Our status increased. People began to talk about the ‘Sandler Way’ to describe how we treated our employees and their families.” Inside the company, employees became increasingly loyal. Customers gave them more business.¹⁶ Even competitors helped. In one instance, Goldman Sachs released a Sandler employee from a commitment to join Goldman’s Asia office because they felt Sandler “needed the employee more.”¹⁷

On this issue, there may even be benefits from financiers. To illustrate this, an episode of “Shark Tank”, in which a farmer named Johnny Georges approached the sharks for funding. Georges, had invented a product that covered trees while they were being watered, in order to conserve water in irrigation. The product was called “tree T-PEE”, and it was a simple water and nutrient containment

¹⁶ As Dunne put it: “They *wanted* to do business with us.”

¹⁷ Sandler’s pursuit of higher purpose in this manner is akin to the delegated exercise of prosocial behavior (on behalf of stakeholders) described by Bénabou and Tirole (2010).

system. Georges' higher purpose was water conservation in farming. While shark after shark turned him down, one shark—John Paul Dejoria—agreed to fund him at the terms that Georges had proposed with no haggling, because he believed in Georges' higher purpose.

C. The How of Implementing Higher Purpose

We found in our interview-based research is that it is not enough to articulate a higher purpose. The organization also has to “connect” its employees to the purpose by explaining how the purpose affects its business decisions and having employees reflect on what they can do to contribute to the purpose. Typically, there is a “spillover” effect. The more passionately the firm's leadership commits to the higher purpose, the higher is the value employees attach to that purpose.¹⁸ This passion is often reflected in business decisions and extra effort expended by leaders in these organizations that exemplify their authentic belief in the higher purpose.

An example of this is KPMG, the Big 4 Accounting firm. In 2004, it asked the question: “What is our highest purpose?”¹⁹ Subsequently, they launched a major initiative to discover the purpose of KPMG, eventually coming up with “inspire confidence and empower change”.

The next step was to ask: “what do you do at KPMG?” The answer was captured in a video: “We Shape History”.²⁰ This was followed by a program called the “10,000 Stories Challenge”. The 27,000 employees of the company were given a digital program and invited to create posters in which they had to answer the question: “what do you do at KPMG?” People wrote headlines like: “I combat terrorism”, “I help financial institutions prevent money laundering”. The company had indicated in June that if 10,000 posters were created by Thanksgiving, the employees would get two more days of Christmas break. They received 10,000 posters within a month, and eventually received 42,000 of them (people did more than

¹⁸ We also discovered in our interviews is that employees can often distinguish between the charlatans who inauthentically attempt to masquerade inefficient diversion of resources for personal gain as higher purpose investments, and those whose passion for it is authentic. That is, employees appear to rely on soft information and behavioral clues within the organization quite effectively to make this distinction. As one CEO told us: “Everyone in the organization can evaluate everyone else, including the CEO”.

¹⁹ See Quinn and Thakor (2019).

²⁰ This was linked to the company's rich past like assisting in managing the Lend-Lease Act that helped defeat Nazi Germany.

one).

Performance soared. Employee pride and engagement scores increased and the company climbed 17 places in Fortune's Best Companies to Work For list.

D. Key Takeaways

The discussion above provides the following takeaways for formal modeling:

- (1) An organizational higher purpose is a prosocial contribution goal that is intimately tied to the organization's business and is customer-centric, employee-centric or explicitly society-centric.
- (2) Embracing a higher purpose dissipates intrafirm agency frictions, motivating employees to work harder for the same wages or providing the same effort for lower wages. But to have this effect, the purpose must be authentic and resources dedicated to connecting employees to the purpose.
- (3) The higher the personal value (utility) the organization's leaders attach to the higher purpose, the stronger is the effect of the purpose on employees.
- (4) Commitment to an authentic higher purpose often imposes a direct organizational cost, but despite this cost, it can lead to higher profits in some circumstances.

III. THE MODEL AND ANALYSIS

In this section, we sketch a model that features some of the elements highlighted in the previous section and then analyze it.

A. The Model

All agents are risk neutral²¹ and the riskless rate is zero. The "firm" consists of a principal (owner henceforth) who owns an asset and an agent (employee henceforth) who collaborates with the owner in producing output z , a random variable. The production function is:

²¹ Risk aversion *may* affect our results. For example, in a dynamic model with the possibility of employment termination, an employee-centric higher purpose will lead to lower wage costs, strengthening our results. On the other hand, one can imagine a variation of our model in which a pro-social higher purpose may increase output and wage uncertainty, which may increase wage costs, unless the organization takes explicit steps to shield employees from this uncertainty (for example, by reducing financial leverage; see Jaggia and Thakor (1994)).

$$z = \begin{cases} Z \in \mathbb{R}_+ & \text{with probability } q(e) \\ 0 & \text{with probability } 1 - q(e) \end{cases} \quad (1)$$

where \mathbb{R}_+ is the positive real line, e is the employee's effort and q is increasing and concave in e . The employee's choice of e is privately observed, privately costly, and non-contractible. The employee is paid a wage $w \geq 0$ at the end of the period based on z , which can be observed and contracted upon. The employee's reservation utility is zero. The agent has no wealth and so cannot post a performance bond. Thus, there is a limited liability constraint, which guarantees the agent a non-negative wage.

At date $t=0$ (start of the period), the owner negotiates a wage contract with the employee to pay an output-contingent wage at date $t=1$ (end of the period). All consumption occurs at $t=1$. With non-negative wages, it is obvious that the employee will receive $w > 0$ if $z=Z$ and 0 otherwise at $t=1$. The wage contract must satisfy the incentive compatibility constraint to motivate the employee to choose e . For now, let $e \in \{0, e_1\}$ with $e_1 > 0$, and, disutility of effort $\Psi(e)$ satisfying $\Psi' > 0$, $\Psi'' > 0$ and $\Psi(0) = 0$.

Before the employee chooses e , the owner declares (a binding precommitment) to divert a fraction $\alpha \in [0, 1]$ of the realized output to serving a higher purpose. This diversion is a subtraction from the tangible output available for consumption. Thus, the firm's observed output will be $[1 - \alpha]z$. The owner enjoys a utility $\beta \Omega(\alpha z)$, where $\beta \geq 0$, $\Omega' > 0$, $\Omega'' < 0$, from this diversion, with $\Omega(0) = 0, \Omega'(0) = \infty$, $\Omega'(Z) = 0$. We allow β to vary in the cross section, so $\beta \in \{0, \beta_l, \beta_h\}$, with $0 < \beta_l < \beta_h < \infty$. The employee enjoys a utility of $V(\alpha z | c)$, $V' > 0$, $V'' < 0$, from contributing to the higher purpose, but only if the owner "connects" the employee to the purpose at a cost c . The cost is $c = 0$ if no connection is made, and it is $c = \bar{c} > 0$ if the connection is made. The employee's effort choice is made after he observes α and c . For simplicity, if the employee is not connected to the purpose, then $V(\alpha z | 0) = 0 \forall \alpha$, whereas if $c = \bar{c}$, the employee is connected to the purpose and $V(\alpha z | \bar{c}) > 0 \forall \alpha > 0$.

Why should employees care about the firm's higher purpose? One microfoundation for this assumption may come from Tirole's (1999) collective reputation model in which an individual's current

incentives are affected by his past behavior and his track record is observed with noise. In this case, the collective reputation of the group matters to the individual. In our setting, an employee may have a concern for *social reputation* (as in Bénabou and Tirole (2006), for example), and the firm's higher purpose may facilitate the employee's development of this reputation since it is known that the employee's effort input contributed to the pursuit of this purpose.

In addition to the production process described above, the firm has an illiquid asset worth $\Lambda > 0$ if the owner holds on to it until $t=1$, and worth 0 if it is liquidated at $t=0$. For much of our analysis, this illiquid asset will not play a role, so we will suppress it. However, in Section IV, it will play a role in distinguishing between higher purpose and CSR.

Comment on modeling of higher purpose investment: The idea behind modeling the investment in higher purpose this way is that it typically involves a financial sacrifice for the firm and involves a connection with both organizational resources and employee effort, as was the case for Gerry Anderson of DTE Energy when he decided not to save money by shutting down plants and laying off people, or for Richard Mahoney when he decided to invest in reducing pollution-causing emissions by 90% in six years (see Section II).

Note that the commitment to purpose imposes a direct and observable cost on the firm that the employees can see and react to, and the magnitude of the commitment is affected by employee effort. This provides a contrast with a CSR investment by the firm, in which case the firm may make operating decisions that are either unrelated to the CSR initiative (or perhaps may even work against it) and then uses some of the profit to make a CSR investment/donation. For example, think of a clothing company that donates \$10 million to help refurbish some inner city neighborhoods. This is consistent with CSR, but the donation has no impact on the firm's business decisions and the firm's ability to make the donation is unaffected by how employees change their effort inputs in response to the initiative. Or think of an automobile company that cheats on emission control requirements to generate higher profits but donates money to environmental causes with high accompanying publicity as a way to "check the CSR box". According to the assumptions of our base model in both examples, employees will see through this

and not react in the same way as they will to an authentic higher purpose investment.²²

Returning to the model, the owner's problem is to:

$$\max_{\alpha, w, c} \{q(e)[1-\alpha]Z + q(e)\beta\Omega(\alpha Z) - q(e)w - c\} \quad (2)$$

subject to:

$$q(e)[w + V(\alpha Z)] - \Psi(e) \geq 0 \quad (3)$$

$$e \in \arg \max_{e \in \{0, e_1\}} \{q(e)[w + V(\alpha Z)] - \Psi(e)\} \quad (4)$$

Here the owner maximizes his expected utility over his expected output, $q(e)\{[1-\alpha]Z - w\} - c$, which we will call "net profit" henceforth, subject to the participation constraint (3) and incentive compatibility constraint (4).

B. An Overarching Observation About Tradeoffs in the Model

Later in the analysis, we will introduce external financing wherein the owner sells a fraction of the firm in a competitive capital market to raise I for investment. Defining the firm's expected pecuniary payoff as $P \equiv q(e)\{[1-\alpha]Z - w\}$ and ignoring c for now, the owner's problem is to maximize $P + q(e)\beta\Omega(\alpha Z)$ subject to (3), (4), and $fP = I$.

Higher purpose may be valued by four groups: the owner, the employees, the customers who buy the firm's product, and the investors. The key is that it takes only one of these four groups to value higher purpose for the firm to wish to invest in it, and this incentive to invest in purpose is strengthened by more groups attaching value to it. The parameter β represents the weight the owner attaches to purpose, so if $\beta > 0$, the firm will invest in purpose even if no one else values it. If employees value purpose (i.e., $V(\alpha Z) > 0$ for $\alpha > 0$) then we will show that the wage w is lowered, and this creates an inducement for the owner to invest in purpose even if $\beta = 0$. If customers value purpose, then Z will be increasing in α ,

²² Although in an extension of the base model above that we consider later, we introduce the possibility of the owner making a diversion of corporate resources for private benefit and having this masquerade in a potentially undetectable way as a higher purpose investment.

so $(1-\alpha)Z$ may be increasing and concave in α rather than being strictly decreasing. If investors value purpose, then f will be decreasing in α .

In the analysis that follows, we shut down the last two channels through which the owner may be induced to invest in higher purpose. That is, we assume that customers and investors do not care *per se* about the firm's higher purpose. It should be clear, however, that including these two channels of influence will only strengthen our main results.

C. Analysis of Base Case

For benchmark solutions, we first solve the case with $\alpha = 0$ (no resources diverted to higher purpose) and then the choice of α when $\beta = 0$ (no utility from higher purpose for owner). When $\alpha = 0$, it follows trivially that the owner chooses $c = 0$. Denote w_α as the employee's wage when the owner chooses α . With $\alpha = 0$, the optimal wage contract that satisfies (3) and (4) and induces an effort choice of e_1 is:

$$w_0 = \frac{\Psi(e_1)}{q(e_1)} \quad (5)$$

It will be assumed that

$$q(e_1)[Z - w_0] > 0 \quad (6)$$

which means incenting an effort choice of $e = e_1$ dominates $e = 0$ even with $\alpha = 0$. Substituting (5) in (6)

below gives:

$$q(e_1)Z - \Psi(e_1) > 0 \quad (7)$$

Next, consider $\beta = 0$. The solution to (3) and (4) with $\alpha \in [0, 1]$ is:

$$w_\alpha = \frac{\Psi(e_1)}{q(e_1)} - V(\alpha Z) \quad (8)$$

Substituting (8) in (2), assuming $c = \bar{c}$, the owner chooses α to maximize

$$q(e)[1-\alpha]Z - q(e)w_\alpha - c. \quad (9)$$

This is the maximization problem of an owner who does *not* believe in higher purpose and pursues it solely to benefit from the employee's effort. The first-order condition for the optimal α yields:

$$V'(\alpha Z) = 1 \quad (10)$$

and the second-order condition is obviously satisfied.

Let α_β^* represent the owner's optimal choice of α when she attaches a value $\beta \Omega(\alpha z)$ to a higher-purpose diversion of αZ . Thus, the solution satisfying (10) is α_0^* . Assume that

$$q(e_1)[1-\alpha_0^*]Z - \Psi(e_1) + V(\alpha_0^*Z) - \bar{c} > 0 \quad (11)$$

It is obvious that, given (7), (11) will hold for $\bar{c} = 0$ (because α_0^* is being chosen optimally under the optimal wage contract). Thus, it must hold for \bar{c} small enough. Assuming (11) means \bar{c} is not too high.

Finally, we solve for the general case of $\beta > 0$. The owner chooses α_β to maximize

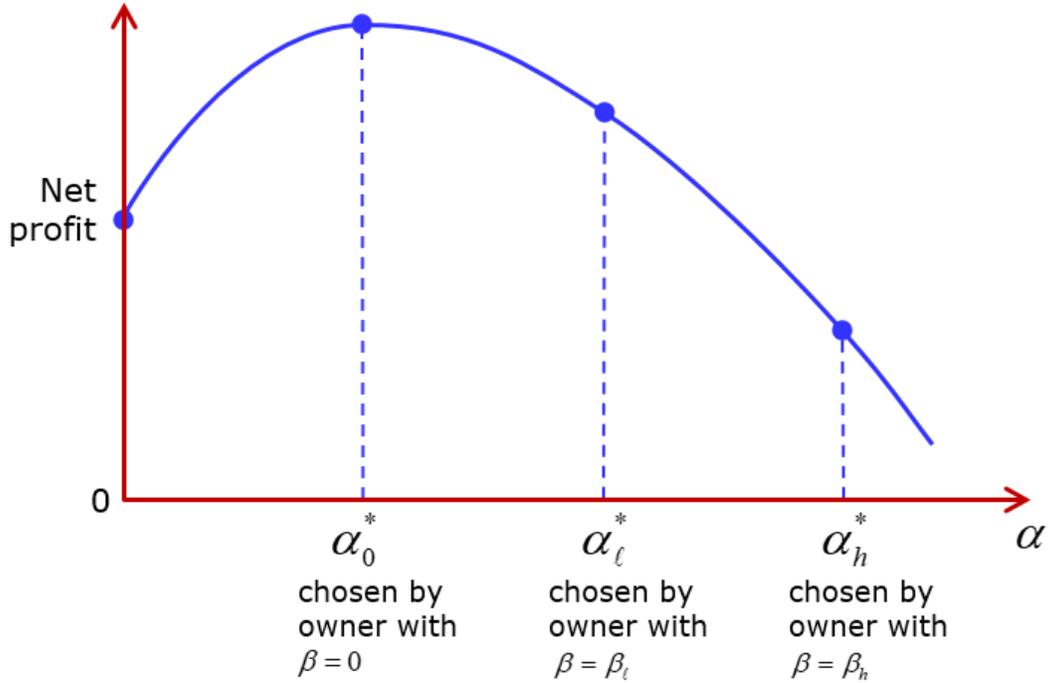
$$q(e)\{[1-\alpha_\beta]Z + \beta \Omega(\alpha_\beta Z) + V(\alpha_\beta Z)\} - \Psi(e) - c \quad (12)$$

Proposition 1: *Net profit is maximized by the owner with weight $\alpha = 0$ attached to higher purpose. An owner with a higher β allocates a higher fraction α of resources to higher purpose and generates a lower net profit.*

Our analysis is static, so it does not analyze employee turnover. However, it is easy to see that in a dynamic extension, a higher-purpose firm will retain an employee who attaches utility to that purpose without matching a competing offer with a slightly higher wage from a firm not pursuing purpose. This implies that the pursuit of higher purpose can facilitate employee retention.

Can an owner who values higher purpose ever generate a higher net profit? The above analysis says no. *Figure 1* plots net profit as a function of α . As the figure shows, net profit peaks at $\beta = 0$.

Figure 1. Net Profit as a Function of Commitment to Higher Purpose



D. An Extension: Positively Associated Higher Purpose Values

Now consider an extension in which the value attached to higher purpose by the employee is positively associated with the value attached to it by the owner. The idea is that an owner who believes more passionately in higher purpose can convey that more persuasively to the employee.²³ So now suppose the employee's utility associated with higher purpose is $\zeta(\beta)V(\alpha Z)$, where $\zeta(0) = 0$ and $\zeta(\beta_l) = \zeta(\beta_h) = \bar{\zeta} > 0$. This means the utility the employee attaches to higher purpose is nondecreasing and concave in the utility the owner attaches to it.

Lemma 1: An owner with $\beta = 0$ chooses $\alpha_0^* = 0$.

This is intuitive. An owner who does not care about higher purpose wants to invest in it only to reduce her wage cost. But with positively associated values of higher purpose, the employee does not care

²³ It may also be the case that there is a selection effect as owners who believe strongly in a given higher purpose tend to attract like-minded employees.

about purpose either in this case, so the wage cost is unaffected and the owner chooses $\alpha_0^* = 0$.

Now, given (7), we know that such an owner will still design the wage contract to induce a choice of e_1 . This contract is given by (5).

We now expand the employee's effort choice to also include $e_2 > e_1$, where we view e_2 as “discretionary” effort²⁴—an exceptionally high level of effort. Further assume

$$q(e_2)Z - \Psi(e_2) < 0 \quad (13)$$

So, the owner who chooses $\hat{\alpha}_0^* = 0$ will not design the wage contract to elicit e_2 . Further, recall that α_l^* and α_h^* are the optimal choices of α for owners with β_l and β_h respectively, when a choice of e_1 is being elicited. Let $\hat{\alpha}_l^*$ and $\hat{\alpha}_h^*$ represent analogous quantities when e_2 is being elicited. Further, assume:

$$q(e_2)\{[1 - \hat{\alpha}_h^*]Z + \bar{\zeta}V(\hat{\alpha}_h^*Z)\} - \Psi(e_2) - \bar{c} > q(e_1)Z - \Psi(e_1) \quad (14)$$

$$\begin{aligned} & q(e_2)\{[1 - \hat{\alpha}_h^*]Z + \beta_h\Omega(\hat{\alpha}_h^*Z) + \bar{\zeta}V(\hat{\alpha}_h^*Z)\} - \Psi(e_2) \\ & > q(e_1)\{[1 - \alpha_h^*]Z + \beta_h\Omega(\alpha_h^*Z) + \bar{\zeta}V(\alpha_h^*Z)\} - \Psi(e_1) \end{aligned} \quad (15)$$

where $\hat{\alpha}_h^*$ satisfies the first-order condition

$$-q(e_2)Z + q(e_2)\{\bar{\zeta}V'(\hat{\alpha}_h^*Z)Z + \beta_h\Omega'(\hat{\alpha}_h^*Z)Z\} = 0 \quad (16)$$

From (7), we know that the right-hand side of (14) is positive. This means that the firm's net profit is positive when an owner with β_h designs the wage contract to elicit effort e_2 . Further, (15) says that an owner with β_h prefers e_2 to e_1 .

Finally, assume

$$\begin{aligned} & q(e_2)\{[1 - \hat{\alpha}_l^*]Z + \beta_l\Omega(\hat{\alpha}_l^*Z) + \bar{\zeta}V(\hat{\alpha}_l^*Z)\} - \Psi(e_2) \\ & > q(e_1)\{[1 - \alpha_l^*]Z + \beta_l\Omega(\alpha_l^*Z) + \bar{\zeta}V(\alpha_l^*Z)\} - \Psi(e_1) \end{aligned} \quad (17)$$

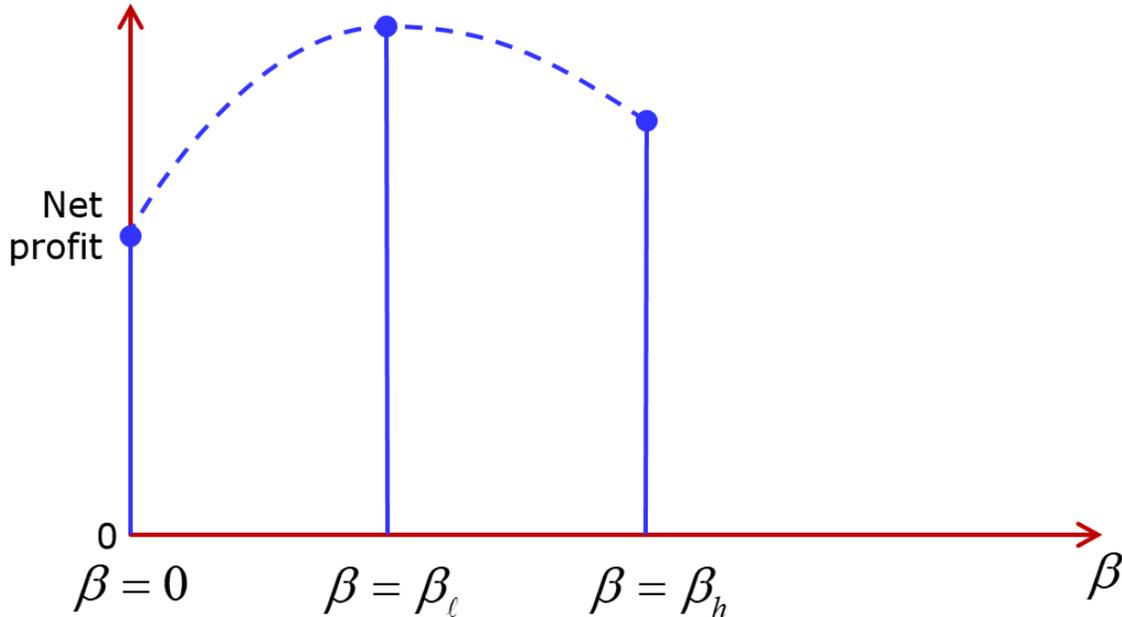
²⁴ As stated by DTE Energy CEO, Gerry Anderson, in *Harvard Ideacast* ... <https://hbr.org/ideacast/2018/07/turning-purpose-into-performance>.

so the owner with β_ℓ also prefers e_2 to e_1 . We now have:

Proposition 2: *An owner with β_ℓ will choose $\hat{\alpha}_\ell^*$ such that the firm produces a higher net profit than profits produced by a firm whose owner has $\beta = 0$ as well as a firm whose owner has $\beta = \beta_h$ and chooses $\hat{\alpha}_h$.*

The situation in Proposition 2 is depicted in *Figure 2* below. This figure shows that owners with moderate levels of “passion” for higher purpose produce the maximum net profit. Others either underinvest ($\beta = 0$) or overinvest ($\beta = \beta_h$) in purpose relative to what is needed for profit maximization.

Figure 2. Net Profit is Non-Monotonic in β With Positively Associated Higher Purpose Utilities



IV. FURTHER EXTENSIONS

In this section, we analyze three extensions of the model: external financing with moral hazard, uncertainty about employee commitment to purpose, and coordination problems with multiple employees. We also discuss how higher purpose differs from CSR, and the possible general equilibrium effects of higher purpose investments.

A. Misrepresenting Higher Purpose with External Financing

The analysis above uses two strong assumptions, which are that the owner's utility of higher purpose is observable, and there is no external financing. We relax these assumptions now and assume that the owner's higher purpose utility is unobservable. The common prior is that the probability is $b \in (0,1)$ that the owner has $\beta = \beta_l$ or $\beta = \beta_h$ and $1-b$ that $\beta = 0$, with the priors $\Pr(\beta = \beta_l) = b_l \in (0,b)$ and $\Pr(\beta = \beta_h) = b - b_l$. Further, every owner raises the entire financing for the project, I , from outside investors using equity. A fraction $f \in [0,1]$ of ownership, endogenously determined below, is given to outside investors in exchange for I . This partial separation of ownership and control creates moral hazard—each owner enjoys a private benefit of $\pi \in (0,1)$, conditional on project success, from diverting a unit of output for personal consumption.²⁵ The sequence of events is as follows. The owner announces α and the wage contract (a binding, publicly-verifiable commitments), then I is raised from investors, then the employee chooses e and the actual diversion of output for higher purpose or personal consumption (both unobservable) occur. This can be viewed as (inefficient) perquisites consumption *a la* Jensen and Meckling (1976). Thus, the owner can announce a diversion as a higher-purpose investment when it is undetectably a personal consumption.²⁶ The firm can incur the cost $c = \bar{c}$ to connect employees to the purpose without employees discovering that the diversion is not authentic. The diversion itself is publicly observable, although not whether it is for higher purpose or consumption. We start by assuming that the CEO either diverts for higher purpose or personal consumption, but not both. We verify later this must hold in equilibrium.

An example of a diversion for personal consumption may be a bank CEO who makes highly-subsidized loans to borrowers in a particular low-income neighborhood in the guise of being socially responsible, but with the real purpose of driving up property values for a friend or relative who owns

²⁵ That is, like the utility from higher purpose, this benefit is only available with probability $q(e)$.

²⁶ This is the classic worry that investors have, and it is part of the rationale for the Friedmanian emphasis on profit maximization as a goal; see Friedman (1970).

property in the neighborhood. Another example would be a CEO making corporate contributions to the development of a community with the (secret) intention of later running for elected office in that community.

Now assume

$$q(e_1)Z - \Psi(e_1) > I \quad (18)$$

so the first-best project NPV > 0 at e_1 .

The owner now chooses α , w and c as before to solve.

$$\max_{\alpha, w, c} \{ [1-f] \{ q(e)[1-\alpha]Z - q(e)w - c \} + q(e)\beta\Omega(\alpha Z) \} \quad (19)$$

subject to (3), (4) and f determined by the pricing constraint:

$$f [q(e) \{ [1-\alpha]Z - w \} - c] = I \quad (20)$$

Define

$$\Delta(\alpha) \equiv \beta_h \Omega(\alpha Z) - \alpha \pi Z \quad (21)$$

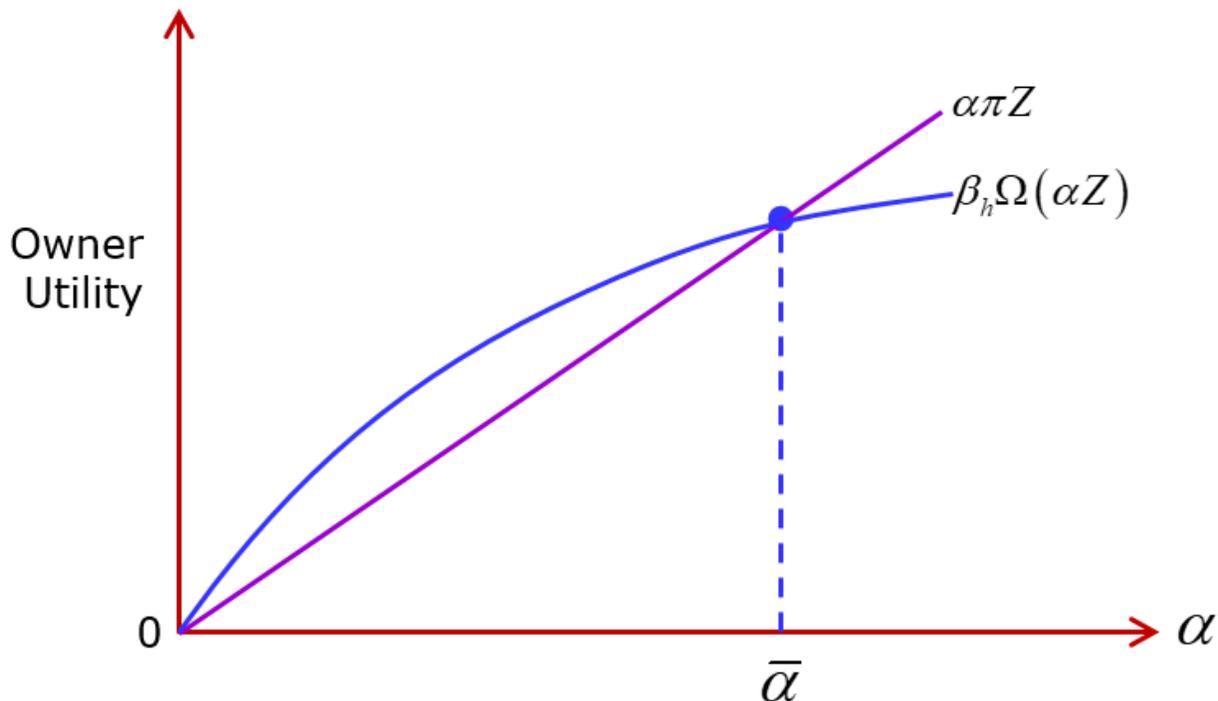
as the difference between the owner's utility from investing αZ in higher purpose and the utility from diverting it for personal consumption.

It is clear that Δ is concave, initially positive and increasing in α and eventually negative. Let $\bar{\alpha}$ satisfy

$$\Delta(\bar{\alpha}) = 0 \quad (22)$$

Thus, $\bar{\alpha}$ is the maximum level of diversion such that for $\alpha > \bar{\alpha}$ even an owner with $\beta = \beta_h$ prefers personal consumption over higher purpose. See *Figure 3*.

Figure 3. Owner Utility as a Function of α .



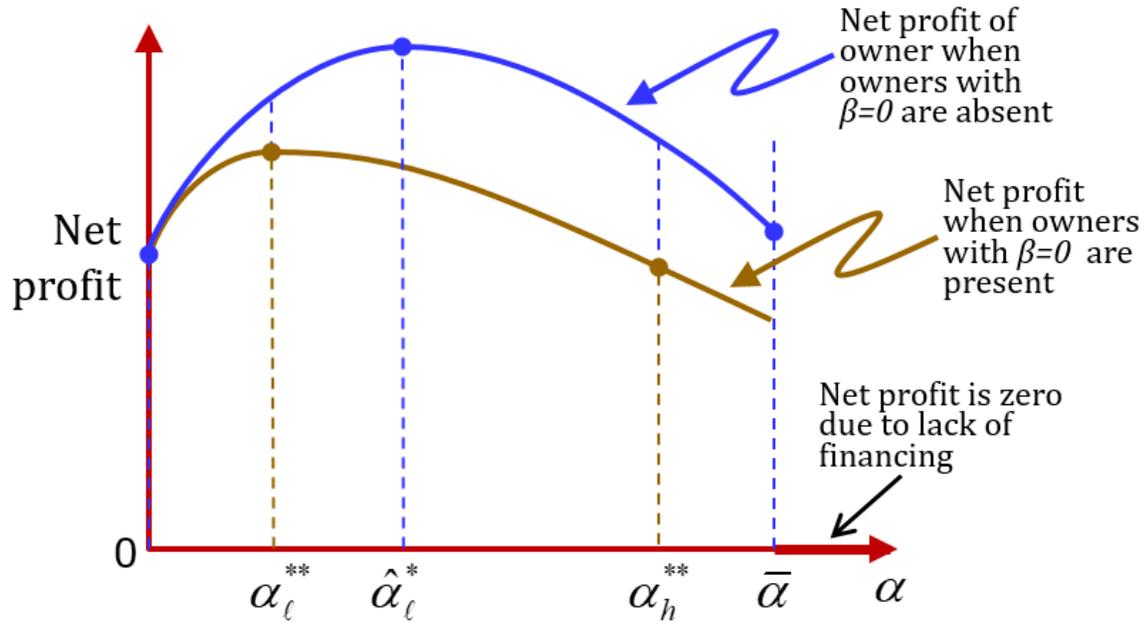
The next result establishes that the possibility of diversion for personal consumption by the owner crowds out investment in higher purpose.

Proposition 3: *No equilibrium diversion choice exceeds $\bar{\alpha}$. Depending on parameter values, the sequential equilibrium involves either: (i) partial separation in which the firms with $\beta=0$ and $\beta = \beta_\ell$ pool at some $\alpha_\ell^{**} < \hat{\alpha}_\ell^*$ (Proposition 2) and firms with $\beta = \beta_h$ choose $\alpha_h^{**} \leq \hat{\alpha}_h^*$, or (ii) pooling in which all firms choose some $\alpha_p^{**} \leq \bar{\alpha} < \hat{\alpha}_\ell^*$. Any owner choosing $\alpha \notin \{\alpha_\ell^{**}, \alpha_h^{**}\}$ is viewed as an owner with $\beta = 0$.*

This proposition is depicted in Figure 4. The proposition shows that when personal consumption can masquerade as higher purpose investment, employees need to be paid higher wages to choose e_2 , making purpose more costly and reducing higher purpose investment by firms that are pooled in equilibrium with those whose owners divert only for personal consumption. Thus, self-interested behavior by some firms creates a negative externality, crowding out the higher purpose investments of other firms. This is reminiscent of the “overjustification” effect in Bénabou and Tirole (2006). However, in that paper

the crowding out of intrinsic motivation by extrinsic rewards is due to a signal extraction problem—agents may believe that the prosocial behavior is motivated by external rewards, which spoils the “image enhancement” from prosocial behavior. In our model, it stems from external financing frictions and is due to adverse selection that reduces employee motivation and increases expected wages, making the pursuit of higher purpose financially more costly for the owner. Moreover, we now return to net profit being nonincreasing (strictly decreasing in any separating equilibrium) in equilibrium higher purpose investment in the cross-section.

Figure 4. Net Profit as a Function of Commitment to Higher Purpose with External Financing and Possible Personal Diversion



B. Uncertainty About Employee Commitment to Purpose

We have assumed thus far that employees always value higher purpose. But suppose there is uncertainty about this. There is a probability $\lambda \in (0,1)$ that the employee values higher purpose and a probability $1-\lambda$ that he does not. Each employee privately knows whether he/she values higher purpose. Now offering the employee the wage contract in Proposition 3 (see (A-9)) that adjusts for the employee’s higher purpose utility will violate the incentive compatibility constraint for effort if the employee does not

value higher purpose, leading to $e = 0$.²⁷ If λ is not too high, the owner will wish to avoid that risk and set the wage at:

$$w = \frac{\Psi(e_i)}{q(e_i)}, i \in \{1, 2\} \quad (23)$$

to guarantee a choice of either e_1 or e_2 , whichever effort is desired, regardless of whether the employee values higher purpose. The following result can now be derived:

Proposition 4: *With uncertainty about whether the employee values higher purpose;*

- (i) *employees who value higher purpose earn rents in equilibrium, i.e., their participation constraints are slack;*
- (ii) *owners invest less in higher purpose; and*
- (iii) *the cost of external financing, for any given α , increases.*

This proposition indicates that employees who value higher purpose get a surplus when there is uncertainty about their commitment to purpose. This will make it easier for the firm to retain such employees in the face of competing wage offers from firms that do not value or invest in purpose, *even if the competing wage is a little higher*. However, this uncertainty about employees crowds out higher purpose investments by firms and also raises the financial cost the owners of firms perceive in investing in higher purpose.

C. Multiple Employees, Coordination Problems and Other Impediments to Higher Purpose

So far we have considered a firm with one owner and one employee. We now examine a firm with $n > 1$ employees in which employee i chooses effort $e_i \in \{0, 1\}$ and the firm's output distribution is:

$$z = \begin{cases} Z & \text{with probability } q \text{ if } e_i = 1 \forall i \in \{1, \dots, n\} \\ 0 & \text{with probability } 1 - q \text{ if } e_i = 1 \forall i \in \{1, \dots, n\} \\ 0 & \text{with probability } 1 \text{ if } e_i = 0 \text{ for any } i \in \{1, \dots, n\} \end{cases}$$

²⁷ An employee who does not value higher purpose would be indifferent between accepting the wage contract that induces a purpose-driven employee to participate and rejecting it, so we assume he would accept it and then choose $e = 0$. Trivial modifications of the model would make this a strictly preferred strategy for the employee.

Only the aggregate output z is observed. Thus, each employee is “pivotal” to achieving a positive payoff (Z) with a positive probability.

As in the previous subsection, there is a probability $\lambda \in (0,1)$ that the employee values the firm’s higher purpose and only the employee privately knows whether he is purpose-driven. Let $\Psi(e) = e\Psi$, with $\Psi > 0$. Now an employee who values higher purpose will choose $e = 1$ with a wage of w (conditional on the output being Z) if:

$$\lambda^{n-1}q[w + V(\alpha Z)] - \Psi \geq 0 \quad (25)$$

where λ^{n-1} is the probability that the $n-1$ other employees value higher purpose and it is assumed that the wage contract is such that an employee who does not value higher purpose will choose $e = 0$, whereas an employee who values higher purpose will choose $e = 1$. Since the incentive compatibility constraint holds tightly in equilibrium, then the wage is

$$w = \frac{\Psi}{\lambda^{n-1}q} - v(\alpha Z) \quad (26)$$

Given this wage, clearly an employee who does not value higher purpose will choose $e = 0$. If the firm sets the wage at

$$w_o = \frac{\Psi}{q} \quad (27)$$

then *all* employees – those who value higher purpose and those who do not – will choose $e = 1$.

If the owner chooses to design wages to elicit $e = 1$ only from employees who value higher purpose, then the owner maximizes

$$\mathcal{L} = \lambda^n q \left\{ [1-a]Z - n \left[\frac{\Psi}{\lambda^{n-1}q} - V(aZ) \right] \right\} \quad (28)$$

where $[1-a]Z > n \left[\frac{\Psi}{\lambda^{n-1}q} - V(aZ) \right]$ is assumed.

If the owner designs wages to elicit $e = 1$ from all employees, then the owner maximizes

$$\mathcal{L}_o = q \left\{ [1-\alpha]Z - n \left[\frac{\Psi}{q} \right] \right\} \quad (29)$$

Note that for n large enough,

$$\frac{\Psi}{\lambda^{n-1}q} - V(\alpha Z) > \frac{\Psi}{q} \quad (30)$$

Let \hat{n} be such that (30) holds as an equality. Then we have the following result:

Proposition 5: *There exists n^* large enough such that for an organization with $n > n^*$ employees, the owner will choose $w_o = \Psi / q$, thereby foregoing all of the wage-related gains from higher purpose. For such a firm, there are two Nash equilibria, a bad one in which all employees choose $e = 0$ and a good one in which they all choose $e = 1$. Such a firm would be willing to invest up to a maximum of $nqV(\alpha Z)$ to sort out employees who do not value higher purpose and hire only those who value higher purpose.*

The intuition is that motivating multiple employees when there is uncertainty about how much each employee values higher purpose encounters two problems. One is a coordination problem that leads to multiple Nash equilibria, one of which is a bad equilibrium in which all employees shirk. This problem exists with multiple employees even when there is no uncertainty about how much employees value the firm's higher purpose. The other is a problem that arises due to uncertainty about how much employees value higher purpose, and this is that as the number of employees increases, the joint probability that *all* employees will choose $e = 1$ declines. This increases the wage that must be paid and reduces the expected value of the output. For a sufficiently large firm, these costs of motivating only purpose-driven employees to work hard become so large that it pays for the firm to elicit hard work from all employees and let the purpose-driven employees earn a rent in equilibrium.

Of course, if the firm can eliminate uncertainty about whether employees are purpose-driven, it can once again harvest the wage-related gains from employing only purpose-driven employees. This gain defines the upper bound on what the firm is willing to spend in sorting out employees.

D. CSR Versus Higher Purpose

Let us now reintroduce the illiquid asset of the firm, valued at λ if held until $t = 1$ and go back to the base case with one employee. Suppose the firm announces that a fraction $\alpha \in (0,1)$ of Λ will be donated to CSR cause. As with higher purpose, the employee derives a utility of $V(\alpha Z)$ from this CSR initiative. Now the incentive compatibility condition to get the employee to choose $e = 1$ (when the feasible effort set is $(\{0,1\})$) is:

$$q w + V(\alpha Z) - \Psi \geq V(\alpha Z) \quad (31)$$

which leads to:

$$w = \frac{\Psi}{q} \quad (32)$$

Thus, the pursuit of CSR has no effect on the employee's wage and incentives. The reason is transparent – the CSR initiative is not related to the operating decisionmaking in the firm and the magnitude of the firm's contribution is unaffected by the agent's effort.

Of course, there may be CSR initiatives that involve donating a portion of the firm's profits and these profits have a higher expected value with higher employee effort. In this case, there will be wage-related benefits. But this is not true for all CSR initiatives.

E. General Equilibrium Effects

In our analysis, we have held the firm's capital investment, I , in productive assets fixed. However, even for an owner with $\beta = 0$ in the base model, investing in higher purpose increases profit. So, if I were endogenized, higher purpose may affect I . To examine this, consider (9), assume Z is an increasing and concave function of I , and state the objective of the owner as choosing I and α (as a function of I) to maximize $q(e)[1 - \alpha]Z - q(e)W_\alpha - I$, ignoring c . Using the Envelope Theorem, the first-order condition for I is:

$$q(e)\{[1 - \alpha]Z' + V'(\alpha Z)Z'\alpha\} - 1 = 0. \quad (33)$$

It is easy to verify that the second-order condition holds.

Now consider the problem of an owner with $\beta = 0$ who is choosing I in a setting in which the employees do not care about purpose. Then the first-order condition for I is:

$$q(e)Z' - 1 = 0 \tag{34}$$

Let I° be the I satisfying (34), and I^* the I that satisfies (33). Then we have:

Corollary 1: *If I is endogenously chosen, the owner with $\beta = 0$ chooses the same I when employees care about purpose as when they do not, i.e., $I^* = I^\circ$.*

The intuition is that, for any I , the optimal α is always chosen to make the marginal wage-related benefit of an investment in higher purpose equal to the investment. Thus, at the margin, the owner does not benefit from expanding scale.

This notwithstanding, the allocation of investment to higher purpose can have general equilibrium effects we have not considered. Specifically, if the αZ allocated to higher purpose stimulates investments by *others* – as it would in many of the examples we discussed earlier – then there will be enhanced aggregate investment in the economy due to higher purpose. This will be true even if the investments by others represent only a fraction of αZ .

V. CONCLUSION

We have developed an economic model of organizational higher purpose, based on stylized facts gathered from CEO interviews. We define higher purpose as a prosocial goal that transcends the usual business goals of the organization, but yet acts as the arbiter of all business decisions. That is, decisions are made at the intersection of business goals and higher purpose. This distinguishes higher purpose from the broader definition of corporate social responsibility (CSR). In the standard economic paradigm—say Friedman’s famous exhortation to firms to focus on profit maximization—there is no role for higher purpose. Yet, we have encountered many examples of organizations where an authentic higher purpose improved economic performance, and our model explains why. General equilibrium considerations also suggest that higher purpose is likely to elevate aggregate productive investment in the economy.

The theory has empirical implications. One is that there will be heterogeneity in the profits of

firms pursuing higher purpose, with some doing better than those not pursuing purpose and some doing worse. Another is that firms pursuing higher purpose will elicit higher effort, and have greater employee commitment and lower turnover. Finally, larger firms will devote more resources to recruiting employees who value their higher purpose in order to improve employee-purpose matching.

The core insight of the paper—an authentic organizational commitment to higher purpose reduces the firm’s wage cost—can be obtained readily in a simple model with no uncertainty, given our basic assumptions. However, uncertainty plays a major role in other parts of our analysis. For example, without exogenous uncertainty about the output, forcing contracts can be used to implement any desired employee effort, so Proposition 4 would be lost. The firm would simply offer the wage contract in (A-9), force a choice of e_2 and only hire workers who accept that wage contract. Hence, uncertainty about the employee’s commitment to effort would not matter. Similarly, absent uncertainty about the owner’s type, we would lose Proposition 3. Thus, uncertainty is central to the results about factors that crowd out higher purpose investments.

Higher purpose also engenders trust both within the firm and with its stakeholders.²⁸ This stylized fact has played no role in our analysis and may be explored in future research.

²⁸ Thakor and Merton (2019) have recently developed a theory of trust in the context of lending.

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APPENDIX: PROOFS

Proof of Proposition 1: With $\beta > 0$, the first-order condition for the owner's choice of α_β is:

$$-q(e_1)Z + q(e_1)\{V'(\alpha Z)Z + \beta \Omega'(\alpha_\beta Z)Z\} = 0 \quad (\text{A-1})$$

and the second-order condition

$$q(e_1)\{V''(\alpha_\beta Z)Z^2 + \beta \Omega''(\alpha_\beta Z)Z^2\} < 0 \quad (\text{A-2})$$

is satisfied since V and Ω are concave. Totally differentiating the first-order condition with respect to β yields:

$$d\alpha_\beta^* / d\beta = \frac{-\Omega'(\alpha Z)Z}{Z^2 \{V''(\alpha Z) + \beta \Omega''(\alpha Z)\}} > 0 \quad (\text{A-3})$$

Thus, an owner with a higher β chooses a higher α .

Now, an owner with $\beta = 0$ maximizes net profit, so her choice of α , α_0^* , will produce the highest net profit. Because net profit concave in α (see (10)), as α increases above α_0^* , net profit will decline, and the bigger $\alpha - \alpha_0^*$ is, the bigger is the decline. ■

Proof of Lemma 1: With $\beta = 0$, given the change in the employee's utility function, the owner chooses α_0 to maximize

$$q(e_1)[1 - \alpha_0]Z - \Psi(e_1) - \bar{c} \quad (\text{A-4})$$

which is strictly decreasing in α_0 . ■

Proof of Proposition 2: From Proposition 1, we know that, holding the employee's utility from higher purpose fixed, the owner with the higher β achieves a lower net profit. This shows that the owner with β_l produces a higher net profit than an owner with β_h . From (14), we know that an owner with β_h produces a higher net profit than an owner with $\beta = 0$. ■

Proof of Proposition 3: Define:

$$\mathcal{L} \equiv q(e)\{[1-\alpha]Z - w\} - c \quad (\text{A-5})$$

Then an owner with higher purpose maximizes $[1-f]\mathcal{L} + q(e)\beta\Omega Z$ subject to

$$f\mathcal{L} = I \quad (\text{A-6})$$

and (3) and (4). For an owner with $\beta > 0$ who diverts for personal consumption, the objective function is to maximize.

$$[1-f]\mathcal{L} + q(e)\alpha\pi Z \quad (\text{A-7})$$

This owner maximizes $\mathcal{L} + q(e)\alpha\pi Z - I$, after substituting $f_0\mathcal{L} = I$, which assumes this owner is

separating in equilibrium from owners with $\beta = 0$. Since $\pi < 1$, we know that owner's utility,

$\mathcal{L} + q(e)\alpha\pi Z - I$, is strictly decreasing in α . Thus, if an owner with $\beta = 0$ separates from owners with $\beta > 0$, his optimal diversion is 0.

Recalling that $\hat{\alpha}_h^*$ and $\hat{\alpha}_\ell^*$ are the optimal diversions of the β_ℓ and β_h owners when personal consumption is disallowed, note that the equilibrium diversions cannot exceed $\bar{\alpha}$ since even owners with $\beta > 0$ would choose personal consumption with $\alpha > \bar{\alpha}$. With investors rationally pricing this, it was just proved that the optimal $\alpha = 0$. Thus, there are four cases:

Case 1: $\hat{\alpha}_h^* \leq \bar{\alpha}$: Now suppose the owner with β_h chooses $\alpha_h^{**} = \hat{\alpha}_h^*$ and the owner with β_ℓ chooses $\alpha_\ell^{**} = \hat{\alpha}_\ell^*$. An owner with $\beta = 0$ must either choose $\alpha = 0$ or pool with a β_h or β_ℓ owner. Pooling with an owner means a higher net profit than pooling with an β_h owner, so pooling with an owner with β_ℓ is preferred. Moreover, if β_ℓ chooses $\alpha_\ell^{**} = \hat{\alpha}_\ell^*$, then net profit is higher than with $\alpha = 0$. Thus, the owner with $\beta = 0$ chooses to pool with the β_ℓ owner. Define

$$\hat{b}_\ell \equiv b_\ell [b_\ell + 1 - b]^{-1} \quad (\text{A-8})$$

as the probability that an owner who chooses α_ℓ^{**} is the one with $\beta = \beta_\ell$ when the owner with $\beta = 0$ pools with her.

Then, the analog of (8) is the wage:

$$w = \frac{\Psi(e_2)}{q(e_2)} - \hat{b}_\ell \bar{\zeta} V(\alpha_\ell^{**} Z) \quad (\text{A-9})$$

The β_ℓ owner's chosen α_ℓ^{**} satisfies the first-order condition:

$$-q(e_2)Z + q(e_2)\{\bar{\zeta}V'(\alpha_\ell^{**}Z)Z\hat{b}_\ell + \beta_\ell\Omega'(\alpha_\ell^{**}Z)Z\} = 0 \quad (\text{A-10})$$

Defining SOC as the expression for the second-order condition (clearly $\text{SOC} < 0$), we see that

$$d\alpha_\ell^{**} / d\hat{b}_\ell = \frac{-\text{SOC}}{q(e_2)\bar{\zeta}V'(\alpha_\ell^{**}Z)Z} > 0 \quad (\text{A-11})$$

Thus, the β_h owner chooses $\alpha_h^* \leq \bar{\alpha}$, and the β_ℓ owner chooses $\alpha_\ell^{**} < \hat{\alpha}_\ell^*$ when the owner with $\beta = 0$ pools with her.

Case 2: $\hat{\alpha}_h^* > \bar{\alpha} \geq \hat{\alpha}_\ell^*$: Using arguments similar to those above, it follows that the β_h owner will choose $\alpha_h^{**} = \bar{\alpha}$, and the owners with $\beta = 0$ and $\beta = \beta_\ell$ will choose $\alpha_\ell^{**} \in (0, \hat{\alpha}_\ell^*)$ as in Case 1.

Case 3: $\hat{\alpha}_\ell^* > \bar{\alpha} > \alpha_\ell^{**}$ of Case 1: Again, the equilibrium is partially separating with the β_h owner choosing $\alpha_h^{**} = \bar{\alpha}$, and the β_ℓ and $\beta = 0$ owners choosing α_ℓ^{**} as in Case 1.

Case 4: $\bar{\alpha} \leq \alpha_\ell^{**}$: The equilibrium is now pooling with all types of owners choosing $\alpha_p^{**} = \bar{\alpha}$. Thus, it has been proved that $\alpha_\ell^{**} < \hat{\alpha}_\ell^*$ and $\alpha_h^{**} \leq \hat{\alpha}_h^*$. Finally, the proof shows that the owner with $\beta = 0$ personally consumes the entire diversion, whereas the β_ℓ and β_h owners strictly prefer investing in higher purpose.

So no owner engages in both personal consumption and higher purpose investment while diverting

$\alpha \in \{\alpha_\ell^{**}, \alpha_h^{**}\}$. And no owner chooses a different α because investors then believe the owner has $\beta = 0$. ■

Proof of Proposition 4: (i) The proof follows directly from comparing (A-9) and (23) with $e_1 = e_2$. An

employee who values higher purpose enjoys a utility of $\hat{b}_\ell \bar{\zeta} V(\alpha_\ell^{**} Z)$ more than he needs to satisfy his participation constraint when the wage is given by (23).

(ii) The first-order condition (A-10) is now altered to:

$$-q(e_2)Z + q(e_2)\{\beta_i \Omega'(\tilde{\alpha}_i^{**} Z)Z\} \quad (\text{A-12})$$

Thus, the $\tilde{\alpha}_i^{**}$ chosen to satisfy (A-12) is clearly less than the $\tilde{\alpha}_i^{**}$ that satisfies (A-10) due to the concavity of Ω .

(iv) This follows from (20) and the results that w is higher. ■

Proof of Proposition 5: (30) holds as an equality with $n = \hat{n}$, so the inequality in (30) holds $\forall n = \hat{n}$. It follows immediately from this that the n^* such that $\mathcal{L} = \mathcal{L}_0$ satisfies $n^* < n$. The result that there are two Nash equilibria as described in the proposition is obvious. The benefit to the owner of removing mistrust of employees (in terms of how much they value higher purpose) is the difference in expected wages in the good Nash equilibria in the two cases:

$$\begin{aligned} n\Psi - [n\Psi - nqV(\alpha Z)] \\ = nqV(\alpha Z) \end{aligned} \quad \blacksquare \quad (\text{A-13})$$

Proof of Corollary 1: Since the first-order condition for α when the employee cares about purpose is (10) even when I is endogenously chosen, we can substitute (10) in (33) to get:

$$q(e)Z' = 1 \quad (\text{A-14})$$

as the first-order condition for I^* . Since this is the same as (33), we have $I^* = I^o$. ■