Incentives and Organizational Design with Motivated Agents

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1. Introduction

A Brief Intellectual History

- As a graduate student at Harvard in the 1990s, it appeared that theoretical work in contract and organizational economics was reaching an apparent peak
- Agency theory, mechanism design (Maskin, Hart, Grossman, Moore, Holmström, Milgrom, Laffont, Tirole) building on earlier work in the 1960s and 1970s on adverse selection, moral hazard
- The complete vs incomplete contracting debates coming to some kind of a truce (I took the graduate contract theory course both by Maskin in one year and Hart in the next one)
- New directions were being explored by Aghion, Dewatripont, Bolton, Baker-Gibbons-Murphy

A Brief Intellectual History

- When I was visiting the LSE in the late 1990s and started talking to Tim Besley, we felt there was a space that this literature was not addressing sufficiently which was becoming quite prominent in the real world (we saw this in Subhrendu Pattanaik's talk)
- All organizations that lie between government organizations and private firms – nonprofits, NGOs, which are called the third sector, with exceptions like Henry Hansmann and Holmström-Milgrom (1991)
- Standard arguments about "creating residual claimancy", "incentives and monitoring" did not apply when output was not easily measurable, multiple-tasks were involved, agents as well as principal's were driven by goals other than money, there could be conflict over mission etc
- Also, work by Deci and Ryan in organizational psychology was questioning the link between financial incentives and worker motivation

A Brief Intellectual History

- This led to our first paper in this area (Besley-Ghatak, 2001) which re-examined Grossman-Hart-Moore when the "project" was a public good
- The work of Benabou and Tirole as well as Akerlof and Kranton have developed roughtly at the same time and have strong parallels as has been the work of Prendergast, Jewitt-Dewatripont-Tirole on the incentives of bureaucrats
- In the next two decades we have, mostly jointly, explored many aspects of the issues outlined above - best described as contract theory/organizational economics meets public economics
- If you want to look at a single paper, that would be our Annual Review of Economics (2018) paper
- Hearteningly many others (including recently in finance!) have started working in this area – there are many interesting issues to explore, both theoretically and empirically

An original dilemma going back to Adam Smith

- *The Wealth of Nations* (1776): individual self-interest, guided by the invisible hand, generates collective prosperity – "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest"
- *The Theory of Moral Sentiments* (1759): "How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him"
- The apparent tension between these two books has echoed through economics for 250 years
- Standard economic theory resolved it by building on *self-interest alone* – moral sentiments were left to philosophers and sociologists
- This lecture argues the tension is an artefact of how economics evolved, not an inherent feature of a market economy (Besley–Ghatak 2026)

Three Separation Assumptions in Standard Economics

Modern economics rests on three key separation assumptions (Besley–Ghatak 2026):

1. **Markets vs. government:** markets allocate private goods via self-interest; government corrects market failures. Firms are not in the business of social objectives
2. **Preferences vs. production:** consumers have utility functions; but *firms* maximise profits independently of what workers, managers, or shareholders personally value. Business is business
3. **Intrinsic vs. extrinsic motivation:** people may enjoy their work, but monetary incentives simply *add* to intrinsic motivation; the two do not interact. More pay always means more effort

Each separation has been useful for building tractable models. Each is *empirically incomplete and theoretically contingent.*

What Breaks Down When Separations Fail

- **Separation 1 fails:** profit-maximising firms do pursue social goals when workers, consumers, or investors care – CSR, social enterprise, ESG are market equilibrium phenomena, not anomalies
- **Separation 2 fails:** ownership and governance matter for what gets produced; motivated managers running nonprofits or social enterprises behave differently from those running for-profits – this is not irrational
- **Separation 3 fails:** financial incentives and intrinsic motivation *interact* – they can crowd each other out (paying for blood donations reduces supply) or act as complements; optimal contracts depend on which applies
- Each failure generates empirical puzzles the standard model cannot address, and a possible modification to the theory that generates new predictions

Empirical Puzzles

- **Nonprofit wage penalty:** workers accept 4–7% wage cuts to work in mission organisations (Johnston & Johnston 2021 *JHR*), yet show higher job satisfaction *(Separation 2)*
- **Crowding-out:** a fine for late daycare pick-up *increased* lateness (Gneezy–Rustichini 2000 *QJE*); performance pay in healthcare often backfires *(Separation 3)*
- **Ownership and quality:** nonprofit hospitals produce differently from for-profits *holding formal incentives constant* *(Separation 2)*
- **Competition and quality:** market competition in public services sometimes *lowers* quality *(Separation 1)*
- **Motivational dynamics:** high-motivation workforces can degenerate when incentive policy changes *(Separations 2 3)*

Our Approach and Roadmap

Each paper minimally modifies the standard principal–agent model by relaxing one or two key assumptions:

1. Prosocial motivation: the core framework
2. Mission, ownership, organisational form
3. CSR: motivated consumers
4. Dynamics of motivation
5. Motivational investments
6. Moral sentiments in market economies

Common elements: agents (and sometimes principals) have *non-pecuniary motivations* – prosocial warm-glow, mission alignment, identity – that interact with financial incentives and organisational design, output is hard to measure, and may have many dimensions

2. The Core Framework: Motivation and Incentives

The Benchmark Principal–Agent Model

- Principal and agent, risk-neutral; output $y \in \{0, 1\}$ with $\Pr(y = 1 \mid e) = e$
- Agent exerts effort $e \in [0, 1]$ at cost $\frac{c}{2}e^2$; output verifiable, effort not
- Contract: (w_0, w_1) – wage for failure and success
- Standard first-order approach: agent chooses e to solve

$$\max_e \; e\, w_1 + (1 - e) w_0 - \frac{c}{2} e^2$$

- Optimal effort: $e^* = \frac{w_1 - w_0}{c}$
- Principal designs $\{w_0, w_1\}$ subject to agent's participation and incentive constraints
- Under risk neutrality and limited liability: "sell the firm" – first-best effort $e^{FB} = \frac{1}{c}$ achieved with a residual claim

Introducing Prosocial Motivation

- Modify the agent's payoff: agent also derives *non-pecuniary* utility θ from project success
- Think of θ as warm-glow, mission alignment, intrinsic motivation for the task
- Agent's utility when exerting effort e:

$$U_A = e(w_1 + \theta) + (1 - e)w_0 - \frac{c}{2}e^2$$

- Let $b \equiv w_1 - w_0$
- Optimal effort:

$$e^* = \frac{b + \theta}{c}$$

- The agent's **mission preference** θ acts like an additional incentive payment
- Key insight: financial incentives b and mission preferences θ are **substitutes** in producing effort

Implications: Substitutability

- Since $e^* = \frac{b+\theta}{c}$, the marginal value of raising b is the same regardless of θ, but the *level* of financial incentives needed to achieve a given effort is lower when θ is high
- Principal's optimal bonus: maximise $e(1-b)+w_0$; with slack participation constraint, optimal b^* satisfies:

$$b^* = \frac{1-\theta}{2}$$

- Hence higher motivation $\Rightarrow$ lower-powered financial incentives
- If agents are super-motivated, there is no incentive pay
- Also,

$$e^* = \frac{1+\theta}{2c}$$

The PC binding case

- Let the minimum flat wage to be paid, that defines the LLC, be $\underline{w}$ and the reservation payoff be $\bar{u}$
- In the PC binding case $w_0 = \underline{w}$ and

$$e(b+\theta) + \underline{w} - \frac{c}{2}e^2 = \bar{u}$$

- Substituting the ICC $e = \frac{b+\theta}{c}$ and solving for b we get

$$b^* = \sqrt{2c(\bar{u} - \underline{w})} - \theta$$

- This yields

$$e^* = \sqrt{\frac{2}{c}(\bar{u} - \underline{w})}$$

- Effort is now fixed but bonus simply taxes away the agent's motivation payoff

Implications

- If we take agents and principals to be exogenously matched, then in a cross section of organisations, assuming all workers have the same reservation payoffs, we have the following implications:
  - Agents working in the social sector will have lower bonus payments and higher effort if the principal and agent's mission preferences are aligned
  - The correlation between productivity (as measured by effort) and bonus will be negative (or zero, in the PC binding case)
- This is a pure selection effect - bonus payments are a sign of misalignment of mission preferences
- We are assuming exogenous matching - now let us consider endogenous matching

Extension: Allowing for Selection

- Now suppose θ is heterogeneous and moreover, both the payoff of the principal and the agent depend on the mission (say, green firms and environmentally-minded workers)
- Principals with different missions offer contracts and there is matching with agents (assume full-information)
- Sorting equilibrium: mission-oriented organisations attract high-θ workers by offering lower wages and higher mission content; commercial organisations attract low-θ workers with higher wages
- This generates compensating differentials in mission-oriented sectors – not a market failure but an equilibrium feature
- Within the mission-oriented sector, horizontal preferences across missions and perfect sorting would put further downward pressure on incentive pay

Questions

- Endogenous mission choice and credibility of commitment to a mission on part of the firm
- Asymmetric information about agent motivation
- What separates these firms - for-profits, nonprofits, social enterprises, government agencies?

Multi-tasking and Measurement Problems

- Important complication: many mission-oriented tasks involve dimensions that are *hard to measure*
- Education: test scores vs. long-run development of students; healthcare: throughput vs. quality of care
- Standard Holmström–Milgrom (1991) multi-tasking logic: if agent allocates effort between measurable task e_1 and non-measurable task e_2, incentivising e_1 may reduce e_2
- When agents have mission preferences for the "right" outcome, this creates an additional reason why high-powered financial incentives can backfire
- The agent internalises the social objective to some extent; financial incentives may distort this towards the measurable dimension

Formal multi-task extension

Evidence on Incentives Design

- Gneezy–Rustichini (2000 *QJE*): Israeli daycare centres introduce a fine for late pick-ups, and *lateness increases*. The fine acted as a price rather than a punishment, replacing a social norm with a market frame and eliminating the moral cost of lateness.
- Duflo, Hanna, Ryan (2012 *AER*), Muralidharan and Sundararaman (2011 *JPE*): teacher incentive pay in India reduces absenteeism and raises test scores.
- Rasul and Rogger (2018 *AEJ:Applied*): in Nigerian bureaucracy, management practices that increase worker *autonomy* improve project completion; those that increase *monitoring* reduce it

3.Mission, Ownership, and Organisational Form

The Puzzle of Organisational Form

- Why do mission-oriented activities cluster in nonprofits, public agencies, and social enterprises – rather than standard firms?
- Standard answer (Hansmann 1980): non-distribution constraint addresses trust problem with donors; asymmetric information about quality
- Our answer (Besley–Ghatak 2001 *QJE*): **ownership determines who controls the mission**, and mission integrity requires protecting the activity from opportunistic renegotiation
- Ownership matters because contracts are incomplete: ex ante, the parties cannot fully specify the mission; ex post, whoever controls the asset can hold up the other party
- Key question: which party should own the asset to maximise total surplus?

Government vs. Private Ownership of Public Goods

Besley–Ghatak (2001 QJE) – Core Model

- A public good is provided by an organisation whose manager values mission θ_M and an outside principal (government or donor) who values mission θ_P
- Investment in project quality by both parties; contracts incomplete – relationship governed by outside options
- Under **government ownership**: government retains control right; manager's investment incentive is $i_M^G \propto \theta_M$, government's is $i_P^G \propto \theta_P$
- Under **private (NGO) ownership**: manager retains control; $i_M^{NGO} \propto \theta_M + \bar{v}$, government's is reduced
- **Main result:** private ownership dominates when the manager's mission preference exceeds the government's ($\theta_M > \theta_P$) and the manager's investment is more important

Formal derivation

Profit with Purpose: Social Enterprise

Besley–Ghatak (2017 AEJ-Policy)

- A "social enterprise" is a for-profit firm that also pursues a social mission – think ethical supply chains, B-corporations, microfinance
- How can profit motive and mission co-exist? And what organisational form supports this?
- Model: entrepreneur has mission preference θ; hires workers; profit and mission output are joint outputs of effort
- Key trade-off: commercial investors want profit maximisation; mission requires some sacrifice of profit
- **Mission integrity:** the entrepreneur needs commitment not to "sell out" the mission under financial pressure
- Result: equity structure matters for mission – social enterprise ownership structures (specific share classes, governance constraints) emerge as equilibrium responses to the mission integrity problem

Formal social enterprise model

When Does Profit with Purpose Work?

- **Condition 1 – Mission observability:** if consumers/donors can verify mission compliance, market discipline can substitute for governance constraints. If not, governance constraints are needed
- **Condition 2 – Complementarity:** if mission and profit are complementary (e.g. reputation effects, employee motivation), social enterprise can dominate both pure nonprofit and pure for-profit
- **Condition 3 – Financing:** mission-compatible investors ("patient capital", impact investors) must exist to fund the enterprise at competitive rates
- Failure modes: **mission drift** (commercial pressures erode mission over time) and **greenwashing** (mission signalling without substance)
- Greenwashing is the equilibrium outcome when mission is unverifiable and investor/consumer demand for ESG is high but monitoring is weak

Key Characteristics

- **Mission-Driven:** These organisations are primarily driven by a social mission or purpose, aiming to address societal challenges and improve the well-being of communities.
- Deviates from the model of pure profit maximization and distribution of profits to shareholders
- For nonprofits there is a rigid non-distribution constraint (NDC), meaning that any surplus generated is reinvested back into the organisation or used to further its social objectives, rather than being distributed to shareholders or owners.
- For social enterprises and hybrid organizations there is more flexibility but still the mission and impact plays a crucial role in what is done with the surplus

Early Theories: Contract Failure

- **Information Asymmetry:** Traditional economic models assume perfect information, but in reality, consumers often struggle to assess the quality of services, especially in areas like healthcare, education, and social services.
- **Credence Goods:** These goods are characterized by a situation where consumers cannot easily evaluate quality even after consumption, making it difficult to hold providers accountable.
- **Non-distribution Constraint as a Safeguard:** Early theories highlighted the role of the non-distribution constraint (NDC) in addressing information asymmetry. The NDC signals to consumers that the organisation is not profit-driven, providing assurance that quality will not be compromised for financial gain.

Limitations of Nonprofits

- **Financial Constraints:** Reliance on donations and grants can limit financial resources, potentially hindering innovation and growth.
- **Indirect Surplus Extraction:** While the NDC prevents direct profit distribution, managers can still benefit through higher salaries and perks, which may create agency problems.
- **Muted Incentives for Efficiency:** The lack of profit motive might reduce incentives to minimize costs and improve operational efficiency.
- **Competition and Behavioural Convergence:** When competing with for-profits, non-profits might adopt similar practices, as observed in the U.S. healthcare system, potentially blurring the distinctions between the sectors.

Recent Theories: Beyond Contract Failure

- **Recognising the Limits of Contract Failure:** The emergence of social enterprises, which blend profit-making with a social mission, challenges the traditional dichotomy of non-profits and for-profits.
- **The Role of Pro-Social Motivation:** Newer theories acknowledge that individuals working in the social sector are often driven by intrinsic motivations, such as a commitment to a cause or a desire to make a positive impact.
- **The Mission-Integrity Problem:** This concept captures the challenge social enterprises face in balancing their social mission with commercial objectives, particularly when these goals are potentially in conflict.

Advantages of Social Enterprises

- **Bridging the Gap:** Social enterprises address the limitations of both non-profits and for-profits by seeking a balance between social mission and financial sustainability.
- **Flexible Mission Orientation:** They avoid the rigidity of strictly prioritizing either profit or social impact, adapting their approach based on the specific context and circumstances.
- **Attracting Investment and Talent:** The hybrid model allows social enterprises to attract a wider range of funding sources, including equity investments, while also appealing to individuals seeking both purpose and financial rewards.

Pros and Cons of Social Enterprises

The Mission-Integrity Problem

- **The Challenge of Dual Objectives:** Social enterprises face the ongoing challenge of balancing their commitment to a social mission with the need to generate financial returns.
- **Navigating Trade-offs:** Often, decisions that maximise profit may come at the expense of social impact, and vice versa.
- **Potential for Mission Drift:** Over time, the pressure to achieve financial sustainability can lead to a gradual shift away from the original social mission, a phenomenon known as mission drift.
- **Information Asymmetry and Managerial Discretion:** Managers of social enterprises often have information about the specific context and the potential trade-offs that outsiders, including investors and the public, do not. This creates a risk that managers might prioritize financial gain over social impact, particularly if their personal incentives are not aligned with the mission.

Cost-Quality Trade-off

- Suppose the quality of a service can be high or low, namely, $q = q_h$ or $q = q_l$ but it is not directly measurable or observable to the consumer.
- To produce higher quality, costs are higher to the firm
- Suppose the costs of producing high and low quality are c_h and c_l respectively, with $c_h > c_l$.
- As quality cannot be directly observed or measured, only a single price can be charged for this service, which is denoted by p.
- If this is a for-profit firm, then choosing low quality would yield a profit of $p - c_l$ (which we denote by π) which is higher than the profit if high quality is chosen instead, namely, $p - c_h$ (which we set to 0 for simplicity).
- If this is a non-profit firm, then the manager or owner does not directly benefit from the cost-savings that arise from lower quality and will therefore have no incentive not to provide higher quality.

Mission Integrity Problem

- Tim Besley and I propose the mission integrity problem as a generalization of the multi-tasking problem that is behind the cost-quality trade-off
- Suppose it is possible to verify the action of the manager, namely whether the pro-social or the commercial action was undertaken.
- The problem is, suppose now there are two types of situations that can arise.
  - Sometimes social considerations indeed outweigh the financial consideration and so taking the pro-social action is the right thing to do.
  - However, in other situations, financial considerations may outweigh social considerations and there, the commercial action is the appropriate one.
- The issue is, only the manager gets to observe the true situation and so by observing his or her actions we cannot figure out whether the right thing is being done.

Mission Integrity Problem

- Suppose a firm chooses an action x that can be one of two types, which I denote by 0 and 1.
- Earlier I equated these types with providing high quality and low quality, respectively, but here I will allow for alternative interpretations.
- The first type of action (denoted by 0) has a potential social benefit but is also costly, while the second type of action (denoted by 1) has no social benefit but is low in cost.
- The former is a pro-social action, while the latter is a commercial action.

Mission Integrity Problem

- There are several applications that would fit this scenario.
- Think of situations in which the goal is to widen access to certain goods or services; education, health care, and legal services are important examples.
- Now the pro-social action can be interpreted as providing access to "deserving" beneficiaries at preferential terms (e.g., free treatment for the poor), while the commercial action involves offering no special access or concessions.
- The manager may observe an individual who is to be served (say, a patient or a student or a potential beneficiary of a targeted welfare program) and decide what action to choose.

Mission Integrity Problem

- The social objective may also be related to externalities associated with the good's production.
- For example, environmental externalities may arise requiring firms to balance cost efficiency against the social costs of pollution.
- Suppose the commercial action is to use a standard technology, while the pro-social action is to use a costlier but more environmentally sound technology.
- The manager's choice is to decide whether it is worth giving up profits by choosing the latter technology if the environmental benefits that are external to the firm are substantial enough.

Mission Integrity Problem

	$\sigma = 0$	$\sigma = 1$
$x = 0$	$S = \bar{S},\ \pi = \bar{\pi}$	$S = \bar{S},\ \pi = \bar{\pi}$
$x = 1$	$S = 0,\ \pi = \bar{\pi}$	$S = 0,\ \pi = \bar{\pi}$

Mission Integrity Problem

- There are situations, or "states," denoted by σ. Like actions, they are of two types, and I will denote them by 0 or 1 as well.
- In state $\sigma = 0$ the pro-social action $x = 0$ is the right one from the social welfare point of view, while in state $\sigma = 1$ the commercial action $x = 1$ is the right one from that point of view.
- How, then, do we ensure that the manager will make the right choice – the choice that is consistent with the mission of the organization? This is the mission-integrity problem.

Mission Integrity Problem

- One way to ensure mission integrity is to impose a rigid mission on an organization.
- Nonprofit organizations, for example, are designed to protect mission integrity by following a clear social mission. Many sectors of the economy – in particular, health, education, and poverty relief – rely heavily on such organizations.
- Here, by design, commercial considerations are set aside, and the manager is expected to choose $x = 0$ irrespective of whether $s = 0$ or 1.
- The downside of this arrangement is that from a social welfare point of view, there may be times when commercial considerations outweigh social considerations. In this scenario, nonprofits are inefficient.

Mission Integrity Problem

- For-profit firms also have a rigid mission – to maximize profit. External shareholders can invest in a for-profit firm knowing that it has a legal obligation to pursue that goal.
- In this case, any deviation from profit maximization would pose an agency problem, even though this deviation may be carried out for the worthiest of social goals
- The downside of this arrangement is that social considerations sometimes outweigh commercial considerations. In this scenario, for-profit firms generate a negative externality.

Mission Integrity Problem

- Thus, it makes sense to seek a more nuanced way to balance those two types of activity – that is indeed one of the claimed advantages of social enterprises: they eschew the rigidity of both nonprofit and for-profit forms.
- The question is, how do they guarantee mission integrity? To be effective, in other words, social enterprises have to solve the problem of achieving the right trade-off between profit and purpose.
- In the absence of contractual solutions, the mission-integrity problem creates a role for what Katz and Page (2010) call "mission-sympathetic parties" who are appointed to achieve an optimal trade-off between commercial and social considerations.

Mission Integrity Problem

- Selection on the basis of motivation can thus become a mechanism to achieve mission integrity. When individuals care about the mission of an organization, they will care about whether the organization is indeed committed to that mission.
- Besley and Ghatak (2017) formalize this argument and show that one key mechanism through which social enterprises can achieve mission integrity while eschewing the rigid approach of nonprofit and for-profit forms is the selection of managers who are motivated by a social mission.
- If social enterprises are able to recruit socially motivated managers they can overcome these problems – right action in the right state
- Ironically, the non-profit clause is essential only if we assume self-interested agents – not with pro-social agents

Non-profits vs. Social Enterprises

- **Highly Motivated Managers:** For managers who are deeply committed to a specific social cause, both non-profits and social enterprises can be effective organizational forms.
- **Moderately Motivated Managers:** In cases where managers have a strong but not absolute commitment to the social mission, the flexibility of social enterprises might be more advantageous. The ability to generate profits and reinvest them in the mission can provide both financial sustainability and a sense of accomplishment, strengthening motivation over time.

Public–Private Partnerships

Besley–Ghatak (2017 Research in Economics)

- PPPs: government contracts with a private provider (often an NGO or social enterprise) to deliver public goods
- Why delegate rather than provide in-house?
- Model: provider has mission preference θ and a cost advantage from private management; government retains a policy objective
- **Selection advantage:** government can select high-θ providers, benefiting from their intrinsic motivation without fully compensating it
- **Mission alignment:** PPPs work well when provider and government objectives are closely aligned; they fail when the provider's mission diverges (e.g. religious schools with different goals than the state)
- Implication: optimal PPP design should involve selection of providers on mission alignment, not just cost

Formal PPP model

Evidence on Ownership and Mission

- **Hospitals:** Duggan (2000 *JPE*): nonprofit hospitals shifted towards more profitable (less needy) patients after California Medicaid reform – nonprofit status does not guarantee mission adherence without complementary incentives
- **Microfinance:** Mersland–Strøm (2009 *JBF*): commercialisation of MFIs leads to mission drift away from poorest borrowers – consistent with theory
- **Education:** Hoxby (2003) and Andrabi et al. (2008): private school competition can improve outcomes when mission is aligned with parental preferences
- **Nursing homes:** Grabowski–Hirth (2003): nonprofit nursing homes provide higher quality on hard-to-measure dimensions; consistent with multi-task model where intrinsic motivation preserves uncontracted quality

4. Corporate Social Responsibility

A Different Angle: Motivated Consumers

- So far: motivated *workers* and *managers* – agents whose effort generates social value
- A complementary approach: motivated *consumers* who care about the social consequences of their purchases
- Evidence: 70% of consumers willing to pay more for ethically superior products (MORI); Fairtrade coffee commands a 5–18% UK market share; SRI assets around 12% of total US assets under management
- **Question:** can profit-maximising firms in competitive markets voluntarily provide public goods alongside private goods – i.e. is CSR feasible?
- **Besley–Ghatak (2007 JPubEcon):** yes – CSR is the private provision of public goods in a market setting, and the analysis maps exactly onto the voluntary contributions equilibrium
- This paper bridges two literatures: the economics of organisations and the economics of public good provision

The CSR Model: Setup

Besley–Ghatak (2007) – Core Environment

- N consumers; fraction are *caring* (value public good g, utility $f(g)$) and the rest are *neutral* ($\gamma_i = 0$)
- Consumer utility: $V_i(p, g) = b - p + \gamma_i f(g)$ – quasi-linear
- Free entry; firms can produce private good x and public good θ jointly at cost $c + \alpha\theta$ per unit
- Firm announces (p_j, θ_j); consumers shop to maximise utility; public good is the sum of all firms' contributions
- This is a *bundled* provision: public good is produced as a joint product with the private good (unlike direct charity)
- Examples: sneaker manufacturers choosing not to use child labour; cosmetics firms not testing on animals; coffee brands paying fair-trade prices

Formal equilibrium derivation

The CSR Equilibrium

- **Proposition (BG 2007):** the unique competitive equilibrium has two types of firms:
  - *Neutral firms:* $p_n^* = c$, $\theta_n^* = 0$ – serve neutral consumers, earn zero profit
  - *Ethical firms:* $p_c^* = c + \alpha\theta_c^*$, $\theta_c^* > 0$ – serve caring consumers; price premium exactly finances public good; zero profit
- Equilibrium public good level: $f'(n\theta_c^*) = \alpha$ – identical to the standard voluntary contributions equilibrium (Bergstrom–Blume–Varian 1986)
- **Implication:** CSR is feasible in competitive markets – no sacrifice of profits required
- CSR generates a Pareto improvement: caring consumers are better off; neutral consumers unaffected
- **But:** provision is sub-optimal (free-rider problem) – caring consumers do not internalise the externality on other caring consumers

CSR vs. Government vs. Nonprofit Provision

- **Government provision:** can internalise externalities; can tax all citizens (including neutral ones); subject to political failures and may use wrong social weights
- **Nonprofit (charitable) provision:** relies on donations; non-distribution constraint reduces opportunism; less susceptible to profit motive diverting from mission
- **CSR (market provision):** feasible without profit sacrifice; reaches consumers who already have market relationship with the firm; subject to opportunism if commitment is not credible
- **Comparative advantage of CSR:** when the public good is a *natural joint product* with the private good (child labour in supply chain, emissions in production process); and when monitoring of firms is better than monitoring of government
- **Comparative disadvantage:** can only reach those who consume the product; cannot address externalities that are fully separable from production; potentially subject to greenwashing

Sustainability of CSR and the Commitment Problem

- So far: firms commit to a level θ before consumers shop
- **Commitment problem:** once consumers have paid, the firm has an incentive to renege and not produce θ – a classic hold-up problem
- Conditions for self-enforcing CSR:
  - *Reputation:* firms that renege lose their ethical reputation; future profits depend on maintaining trust
  - *Third-party verification:* independent auditors (e.g. Fairtrade certification) make reneging detectable
  - *Mission alignment of managers:* if managers value the social mission intrinsically, they will not renege even without external enforcement – connecting back to the motivated agent framework
- This is where the two sides of the research programme connect: motivated *consumers* create demand for ethical products; motivated *managers and workers* supply them credibly
- Without motivated producers, CSR risks being mere signalling – "greenwashing"

5. Dynamics of Motivation: Organisational Purpose and Culture

The Dynamic Perspectives

- Static models treat agent motivation θ as fixed and exogenous
- But organisations exhibit *motivational dynamics*: some organisations maintain high-motivation workforces for decades; others degenerate
- Examples: founding-era nonprofit organisations vs. mature ones; hospitals that maintain a "culture of care" vs. those that lose it
- Questions: Can incentive design *affect* the evolution of workforce motivation over time? What is the role of organisational purpose in sustaining motivation? Can mission be recovered once lost?
- These questions require a dynamic model – which is what Besley–Ghatak–Xu (2025) provides

Organisational Purpose and Dynamics of Motivation

Besley–Ghatak–Xu (2025) – Framework

- There are two types of agents, motivated and selfish.
- Each period a fraction of workers in the firm leave and are replaced. We assume all workers who enter the firm are selfish but can be socialized on arrival in the firm by the existing cadre of workers and some become motivated.
- Firm sets financial incentives β and mission choice σ.
- Workers observe the organisation's mission choice. The increase in the proportion of motivated agents is driven by their fitness advantage.
- Firm's direct costs of mission adoption can be offset by motivational benefits which evolves over time as the firm can economize on providing financial incentives.
- Key mechanism: **complementarity** between having a higher stock of motivated workers and profits once a pro-social mission has been adopted.

The Dynamics

- Let μ_t = average motivation of the workforce at time t
- There exist two stable steady states $\mu = 1$ and $\mu = 0$, and a threshold level $M \in (0, 1)$ such that always choosing $\sigma = 1$ is the optimal path of mission choice if and only if $\mu_0 \geq M$.
- We can think of μ as a kind of organizations specific "cultural capital" that once acquired affects the profit maximizing decision for all time.
- The model display hysteresis since the initial stock of pro-social workers matters to the long-run outcome. Thus the firm effectively becomes locked into a particular mission.

BGX formal model

Implications of the Dynamic Model

- Reaping dynamic benefits from motivated workers may require patience as the motivational capital of the firm builds up over time. Otherwise, the dynamic path is fragile and firms could abandon the goal.
- If a firm lacks patience, it could even be the case that introducing a regulation that commits a firm to a more social objective actually increases profit in the long-run.
- We show that profit considerations do not fully internalize the benefits of pro-social goals even without adding wider societal benefits, since the firm does not internalize gains in worker welfare when it makes its mission choice.

6. Motivational Investments and Financial Incentives

Can Principals Invest in Agent Motivation?

- Principals can *invest* in motivation: training on organisational mission, team-building, creating a sense of purpose, moral leadership
- Question: how does the optimal level of motivational investment interact with the optimal financial incentive?
- Are motivational investment and financial incentives substitutes or complements?
- And does the answer depend on the production technology?
- This is the focus of **Ghatak–Wahhaj (2025, JLEO)**

The Ghatak–Wahhaj Model

- Principal chooses: (i) financial bonus b; (ii) motivational investment $m \geq 0$ at cost $\kappa(m)$
- Agent motivation is $\theta(m)$ with $\theta'(m) > 0$ and $\theta''(m) < 0$; effort is $e^*(b, m)$
- Principal's problem:

$$\max_{b,m} \; e^*(b, m) - b \cdot e^*(b, m) - \kappa(m)$$

  subject to agent's participation constraint
- First-order conditions:

$$\frac{\partial e^*}{\partial b}(1 - b) = e^*(b, m) \quad \text{and} \quad (1 - b)\frac{\partial e^*}{\partial m} = \kappa'(m)$$

- Key result: the cross-partial $\frac{\partial^2 e^*}{\partial b \, \partial m}$, and whether the participation constraint is binding or not determine substitutability vs. complementarity between financial rewards and motivational investments.

Formal derivation | Full Ghatak–Wahhaj model

Main Results

- For workers for whom both the participation constraint and the limited liability constraint bind, whether motivational investments substitute for or complement financial incentives is fully determined by how such investments affect the worker's overall welfare on the job.
- If motivational investments raise the worker's overall welfare, then, under a binding participation constraint, it substitutes for financial incentives. If motivational investments lower the worker's overall welfare, then it complements financial incentives.
- **Empirical evidence:** Using the Bloom and Van Reenen management survey, unemployment rates to proxy labour market tightness, and human capital to proxy outside option, the empirical relationship between management styles and worker outside options is broadly consistent with the theoretical predictions

7. Moral Sentiments in Market Economies

Beyond Organisations: The Broader Question

- All the models above take the *distribution* of prosocial preferences θ as given – shaped by biology, culture, and upbringing outside the model
- The deeper question: **how do market norms interact with moral sentiments?**
- Adam Smith's two books: *Wealth of Nations* (1776) – markets work through self-interest; *Theory of Moral Sentiments* (1759) – markets require a background of moral norms, sympathy, and trust
- Are these two books in tension? Or is there a unified framework?
- Besley–Ghatak (2026 WP): *Moral Sentiments in Market Economies*

Market Norms vs. Moral Norms

- **Market norms:** transactional, price-based, anonymous; contracts specify everything; "a price is a price"
- **Moral norms:** relational, duty-based, identity-linked; governed by social expectations; violation triggers guilt/shame
- Bowles (2008 *Science*): "policies designed for self-interested citizens may undermine the moral sentiments" – introducing prices can crowd out norms
- But norms can also *complement* markets: trust reduces transaction costs; sense of fairness enforces contracts where courts cannot
- Our framework: agents have a *moral type* (conscience/duty parameter) that shapes their behaviour in market interactions; markets affect the *evolution* of this type through selection and socialisation

Key Themes in Besley–Ghatak (2026)

- **Endogenous moral preferences:** preferences are shaped by the institutions and market structures agents operate in – a richer view than fixed types
- **The role of identity:** Akerlof–Kranton (2000 *QJE*) – identity shapes which norms agents follow; market competition can erode identity-based norms
- **Reputation and signalling:** Bénabou–Tirole (2006 *AER*) – prosocial acts may signal type; but this creates scope for "virtue signalling" without substance
- **Market design:** what institutional features preserve prosocial motivation in market economies? Implications for ESG, corporate governance, and public sector design
- This paper is more explicitly normative – connecting the positive analysis to welfare economics and institutional design

8. Conclusion

What We Have Learned: Summary

Five modifications to the standard principal–agent model:

1. **Prosocial motivation:** intrinsic motivation and financial incentives are substitutes; selection on motivation matters; wage compression is optimal in mission-oriented sectors
2. **Mission and ownership:** ownership determines who controls the mission; social enterprise requires mission integrity mechanisms; PPPs work best when mission is aligned
3. **Competition:** market competition can erode the mission premium; harmful when quality depends on non-contractible intrinsic motivation
4. **CSR:** motivated consumers enable profit-maximising firms to retail public goods; maps onto voluntary contributions equilibrium; comparative advantage when public and private goods are natural joint products
5. **Dynamics:** incentive design shapes the evolution of organisational culture; multiple equilibria; hysteresis; motivational investment and financial incentives interact

Open Questions for Future Research

- **Measurement:** how do we identify θ empirically? Better structural estimation of motivation from observational data is an open frontier
- **Endogenous preferences:** more rigorous models of how market structures shape the *distribution* of prosocial preferences in the population
- **Platform economies:** gig workers in mission-adjacent sectors (care, education, health); how does algorithmic management interact with intrinsic motivation?
- **AI and motivated agents:** as AI replaces routine tasks, remaining human tasks are increasingly relational and mission-intensive; new incentive design challenges
- **ESG authenticity:** separating genuine from cosmetic commitment – the greenwashing problem needs better theory and empirical tools
- **Political economy:** motivated citizens in political organisations; democratic institutions and public service motivation

Closing Thought

- The standard model of self-interested agents is a powerful simplification but also a straitjacket
- Introducing non-pecuniary motivation does not require abandoning the rational-choice framework – it enriches it
- Many of the most important economic activities of our time – healthcare, education, public services, social enterprise, climate action – depend on motivated agents
- Understanding the economics of motivation is not a luxury; it is a necessity for good policy and organisational design
- The research programme reviewed here has made progress – but many of the most interesting questions remain open

Thank you

Appendix B: Measurement Problems and Multi-tasking

Setup (Besley–Ghatak 2018, Section 3)

- Output $y \in \{0, 1\}$; principal observes y but with *noise*: only observes signal $\tilde{y}$ that equals y with probability q and is wrong with probability $1 - q$
- Measurement error: $\Pr(\tilde{y} = 1 \mid y = 1) = q$, $\Pr(\tilde{y} = 0 \mid y = 0) = q$; so $\tilde{y}$ is less informative when q is small
- Contract based on $\tilde{y}$: bonus b paid if $\tilde{y} = 1$
- Agent's expected payoff: $e[qb + \theta] + (1 - e)(1 - q)b - \frac{e^2}{2}$; effective incentive is $b(2q - 1) + \theta$
- Optimal effort: $e^* = b(2q - 1) + \theta$
- As $q \to 1/2$ (pure noise), θ is the only incentive; financial incentives become useless
- **Key result:** when measurement is poor (q low), intrinsic motivation is relatively more important; optimal financial incentive b^* is decreasing in q

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Appendix B (cont.): Multi-tasking with Motivated Agents

- Agent allocates effort between two tasks: e_1 (measurable, signal available) and e_2 (non-measurable, no contractible signal)
- Cost: $\frac{1}{2}(e_1^2 + e_2^2)$; tasks independent for simplicity
- Agent has mission preference θ for *both* tasks: payoff $= w + be_1 + \theta(e_1 + e_2) - \frac{1}{2}(e_1^2 + e_2^2)$
- FOC for e_1: $b + \theta = e_1^*$; FOC for e_2: $\theta = e_2^*$
- Result: $e_2^* = \theta$ regardless of b – motivated agents always provide the non-measurable dimension
- With substitutes in cost ($C = \frac{1}{2}(e_1^2 + e_2^2) + \gamma e_1 e_2$, $\gamma > 0$): $e_2^* = \frac{\theta - \gamma b}{1 - \gamma^2}$, so $\frac{\partial e_2^*}{\partial b} < 0$
- High-powered incentives on e_1 crowd out e_2 – the Holmström–Milgrom argument
- **Implication:** keep incentives low-powered in mission contexts to protect the non-contractible quality dimension

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Appendix B (cont.): Selection with Heterogeneous Motivation

- Two types: motivated ($\theta > 0$, fraction γ) and selfish ($\theta = 0$, fraction $1 - \gamma$)
- Principal cannot observe type; offers single contract (w, b)
- Motivated agent's effort: $e_m^* = b + \theta$; selfish agent's effort: $e_s^* = b$
- Participation constraint: motivated agent needs $w + (b + \theta)^2/2 \geq \underline{u}$; selfish needs $w + b^2/2 \geq \underline{u}$
- Since motivated agent has lower outside option (accepts lower w), principal gains from selection
- Under **screening**: offer low-w, low-b contract – attracts only motivated agents who accept wage discount in exchange for mission content; selfish agents opt out
- Under **pooling**: offer higher b to compensate selfish agents – crowds out mission benefit for motivated agents
- **When is screening optimal?** When θ is large and the share of motivated workers γ is not too small

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Appendix C: Government vs. Private Ownership

Besley–Ghatak (2001) – Formal Setup

- Asset A; project produces value B to manager (effort i_M) plus value P to principal (investment i_P)
- Investments are non-contractible; ownership determines outside option in Nash bargaining
- Let $\bar{B}(A)$ = manager's standalone value under ownership; $\underline{B}$ without
- Under government ownership (P owns): Nash bargaining gives manager $\frac{1}{2}[\bar{B}^G(A) + B^G(i_M, i_P) - \underline{B}^G]$
- Under NGO ownership (M owns): manager gets $\frac{1}{2}[\bar{B}^M(A) + B^M(i_M, i_P) - \underline{B}^M] + (\bar{B}^M - \underline{B}^M)$
- NGO ownership raises manager's investment incentive by $(\bar{B}^M - \underline{B}^M)$
- **Optimal ownership rule:** allocate ownership to the party whose investment matters more

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Appendix D: Public–Private Partnership Model

- Government contracts with provider of type $\theta \sim F(\theta)$; type is private information
- Project delivers social value $V(e, \theta)$ increasing in effort e and mission alignment θ
- Government pays transfer T to provider; provider's utility $\theta \cdot V(e, \theta) + T - c(e)$
- Mechanism design: government offers menu $(T(\hat{\theta}), e(\hat{\theta}))$; incentive compatibility requires:

$$\theta \cdot V(e(\theta), \theta) - c(e(\theta)) \text{ is maximised at } \hat{\theta} = \theta$$

- Standard result: efficiency distortion at the bottom; government extracts information rents from high-θ providers
- Key modification: government can screen on θ via the contract terms – optimal contract has mission-aligned providers exert first-best effort; low-θ providers excluded

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Appendix E: Competition Model – Formal Analysis

- Measure 1 of workers with $\theta \sim U[0,1]$; measure 1 of MO organisations and CO organisations
- MO project has value $V^{MO} = v + \theta$ per unit effort; CO project has value $V^{CO} = v$
- Monopoly MO: earns rent $\Pi = (v + \bar{\theta} - c/2) > 0$; shares m with workers; marginal worker with $\theta^* = \underline{w} - m$
- Competitive equilibrium: MO earns zero profit; cannot offer $m > 0$; only workers with $\theta \geq \underline{w}$ join
- Welfare comparison: $W^{monopoly} - W^{competition} = \int_{\theta^*}^{\bar{\theta}} [\theta - \underline{w}]\, dF(\theta) -$ (cost savings from competition)
- If mission-specific quality is valued sufficiently, monopoly is welfare superior – a result specific to motivated agent environments

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Appendix H: Motivational Investment – Full Derivation

- Effort $e = (b + \theta(m))/c$; principal's profit $\Pi = e(1 - b) - \kappa(m)$
- Joint optimisation over b and m:

$$\Pi = \frac{(b + \theta(m))(1 - b)}{c} - \kappa(m)$$

- FOC for b: $\frac{1-b}{c} - \frac{b+\theta}{c} = 0 \Rightarrow b^* = \frac{1-\theta(m)}{2}$
- FOC for m: $\frac{(1-b)\theta'(m)}{c} = \kappa'(m)$
- Substituting b^*: $\frac{(1+\theta(m))\theta'(m)}{2c} = \kappa'(m)$
- The optimal b^* is decreasing in m (substitutes at the optimum): $\frac{db^*}{dm} = -\frac{\theta'(m)}{2} < 0$
- But total effort $e^* = (1 + \theta(m))/(2c)$ is increasing in m – motivational investment raises the level of effort even as it reduces the financial bonus

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Appendix I: CSR Formal Equilibrium

- Firms move first announcing (p_j, θ_j); consumers form Nash equilibrium in shopping decisions
- Consumer i shops at firm j iff $j = \arg\max_{j'}[b - p_{j'} + \gamma_i f(g_{-j'} + \theta_{j'})]$
- With free entry and Bertrand competition, profits are zero: $p_j - c - \alpha\theta_j = 0$ for all active firms
- For *neutral consumers* ($\gamma_i = 0$): optimal firm is cheapest; equilibrium $p_n^* = c$, $\theta_n^* = 0$
- For *caring consumers* ($\gamma_i = 1$): willingness to pay for ethical firm is $\alpha\theta + f(g) - f(g - \theta)$; in equilibrium with n caring consumers each buying from a distinct ethical firm:

$$f'(n\theta_c^*) = \alpha$$

- This is exactly the FOC of the voluntary contributions game with n symmetric donors each contributing θ_c^*
- Pareto improvement: caring consumers strictly prefer the ethical good; concavity of f ensures $f(n\theta_c^*) > \alpha\theta_c^*$

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Appendix J: Social Enterprise – Formal Model

Besley–Ghatak (2017 AEJ-Policy) – Core Setup

- An entrepreneur with mission preference θ_E owns and manages a firm; produces output q and social good g jointly
- Revenue: $R(q)$; social value: $\theta_E \cdot g$; cost: $C(q, g)$; profit: $\pi = R(q) - C(q, g)$
- **Pure for-profit:** maximises π; ignores social value $\theta_E g$ – produces g^{FP} (too little if $\partial C/\partial g > 0$)
- **Social enterprise:** entrepreneur maximises $\pi + \theta_E g$ – internalises mission value
- Optimal social enterprise output: $R'(q^*) = C_q(q^*, g^*)$ and $\theta_E = C_g(q^*, g^*)$ – produce social good up to point where marginal cost equals mission value
- **Mission integrity problem:** under financial pressure (e.g., equity investors with $\theta_I < \theta_E$) firm may be pressured to cut g – the "sell-out" problem

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Appendix J (cont.): Mission Integrity and Governance

Besley–Ghatak (2017 AEJ-Policy)

- **Investor problem:** outside equity investors have $\theta_I \leq \theta_E$; if they obtain control rights, they cut mission to g^{FP}
- **Mission-preserving governance:** entrepreneur retains control (dual-class shares, B-corp charter) – commits not to sell out; sacrifices capital access but attracts motivated workers at lower wages
- **When does social enterprise dominate?**
  1. Motivated workers are numerous (γ large)
  2. Mission wage discount $\Delta w(\theta_E)$ is large
  3. Mission and profit are complementary (ethical reputation)
- **Dynamic sustainability (BGX 2025):** can mission persist as workforce turns over? Requires the high-mission steady state to be stable under socialization dynamics

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Appendix K: PPP – Formal Model

Besley–Ghatak (2017 Research in Economics)

- Government contracts with NGO/private provider; provider's mission type $\theta \in \{\theta_L, \theta_H\}$ is private information; cost of provision $c - \theta$
- Government designs menu $\{(T_L, q_L), (T_H, q_H)\}$; incentive compatibility for high type:

$$T_H + \theta_H q_H \geq T_L + \theta_H q_L$$

- **Optimal contract:** $q_H^* = q^{FB}$ (first-best); $q_L < q^{FB}$ (distorted to deter mimicry); high-type earns information rent
- **Key insight:** government can extract higher quality from high-mission providers *without verifying* θ – motivation economises on transfers
- **Mission misalignment:** if provider's θ reflects own goals rather than government's objective, PPP may deliver the wrong public good

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Appendix L: BGX Dynamics – Full Model

Besley–Ghatak–Xu (2025) – Formal Structure

- Workers: type $\tau \in \{m, s\}$ (motivated/selfish); μ_t = fraction motivated at t
- Motivated worker utility: $z + e[v_m(\sigma) - \psi]$; $v_m(1) = \theta$, $v_m(0) = -\varepsilon$; selfish: $v_s = 0$
- Effort cutoffs: $\hat{\psi}_m = \beta p + \theta$ (motivated, mission on); $\hat{\psi}_s = \beta p$ (selfish)
- Average effort: $\lambda = \mu F(\beta p + \theta) + (1 - \mu) F(\beta p)$
- Firm profit per worker: $[y - \beta]\lambda p - \sigma c - \omega$
- **Fitness advantage** of motivated type: $\Delta = Y^m(\beta, \omega, \sigma) - Y^s(\beta, \omega, \sigma)$

$$Y^\tau(\beta, \omega, \sigma) = F(p\beta + v_\tau(\sigma))[p\beta + v_\tau(\sigma)] + \omega$$

- **Law of motion**:

$$\frac{\mu_{t+1} - \mu_t}{\mu_t} = \rho\kappa(1 - \mu_t)\Delta$$

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Appendix L (cont.): Steady States and Mission Choice

Besley–Ghatak–Xu (2025)

- When firm adopts $\sigma = 1$: motivated workers earn fitness advantage $\Delta(\sigma = 1, \beta, \mu)$; this can be positive (mission is valuable) or negative (cost is too high relative to bonus)
- **Steady state:** μ^* solves $\Delta(\sigma^*, \beta^*, \mu^*) = 0$ or $\mu^* \in \{0, 1\}$
- **Two stable equilibria** when mission is beneficial: $\mu^L \approx 0$ (no mission, low motivation) and μ^H (mission adopted, high fraction motivated)
- **Profit comparison:** firm at μ^H earns more than at μ^L iff $\theta\mu^H F'(\beta p + \theta)p[y - \beta] > c$ – mission must be cheap enough relative to motivational benefit
- **Hysteresis:** initial conditions matter – a firm that starts without a mission may be trapped at μ^L even if the long-run high-mission equilibrium would be more profitable
- **Regulation:** mandating a pro-social mission (e.g. DEI/ESG requirements) can shift the firm to the high-mission equilibrium if it changes initial conditions and ownership

Appendix M: Ghatak–Wahhaj (2025) – Full Model

- Principal chooses financial bonus $b \geq 0$ and motivational investment $m \geq 0$ at cost $\kappa(m)$ (convex)
- Agent's mission preference: $\theta(m)$, increasing and concave ($\theta' > 0$, $\theta'' < 0$)
- Agent exerts effort $e = b + \theta(m)$ (normalised cost $= 1/2$); output $y = e$ with certainty
- Principal's payoff: $y - be - \kappa(m) = (1-b)(b+\theta(m)) - \kappa(m)$
- Substituting: principal maximises $\Pi(b, m) = (1-b)(b+\theta(m)) - \kappa(m)$ subject to $b \geq 0$
- FOC for b: $(1-b) - (b+\theta) = 0 \Rightarrow b^*(m) = \frac{1-\theta(m)}{2}$
- Interior solution requires $\theta(m) < 1$; when $\theta(m) \geq 1$, $b^* = 0$ (motivation is sufficient)
- FOC for m: $(1-b^*)\theta'(m) = \kappa'(m) \Rightarrow \frac{1+\theta(m)}{2}\theta'(m) = \kappa'(m)$
- Total effort: $e^* = b^*(m^*) + \theta(m^*) = \frac{1+\theta(m^*)}{2}$ – increases with m^*

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Appendix M (cont.): Comparative Statics and Extensions

Ghatak–Wahhaj (2025)

- **Complementarity case:** if $e = (b+1)\cdot\theta(m)$, then $\frac{\partial^2 e}{\partial b \partial m} = \theta'(m) > 0$ – financial incentives and motivational investment are *complements*; optimal to use both simultaneously
- **Two organisational failure modes:**
  1. *Under-investment in motivation:* if m is unobservable, principal under-provides it (moral hazard)
  2. *Hold-up:* if principal cannot commit, will raise b ex post once m is sunk – anticipating this, organisation under-invests in m
- **Policy:** in public sector, cutting mission investment while raising performance pay is doubly harmful under complementarity
- **Professional services:** partnership stakes + culture investment is optimal when tasks are high-dimensional and motivation and incentives are complementary

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- Besley, T. & Ghatak, M. (2026): *Moral Sentiments in Market Economies*, Working Paper
- Besley, T., Ghatak, M. & Xu, L. (2025): *Organizational Purpose and the Dynamics of Motivation*, Working Paper
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