Optimal Rule Enforcement*

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Abstract

Although rules are often seen as rigid, their enforcement can be flexible. We develop a relational contract model between a manager and a worker to characterize how rules are dynamically enforced. We show that rules can improve the manager's payoff if and only if the enforcement cost is below a threshold. When the cost is sufficiently low, the optimal relational contract shows a pattern of cycling between rule enforcement and worker autonomy. When the cost is moderate, rule is only enforced in the beginning of the relationship. Interestingly, when rules can be enforced after the worker's participation, a higher enforcement cost may benefit the manager.

Keywords: rule enforcement, relational contract, managerial discretion, worker autonomy

JEL Codes: C73, D23, D82, D87, M12

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"Knowing when to bend the rules is one of the hallmarks of an experienced decision maker."

— James G March, 1994. *A Primer on Decision Making*.

1 Introduction

The management literature is littered with criticisms of rules. They lead to rigidity, stifle innovation, and create unnecessary bureaucracy. Reed Hastings, the founder of Netflix, went so far as to famously advocate for a no-rule-rule approach, suggesting that abolishing rules unleashes creativity and autonomy within organizations (Hastings and Meyer, 2020).[1] Despite the criticisms, rules persist in most organizations because they fulfill essential functions. Rules provide structure, ensure consistency, and create a framework that aligns actions with organizational goals. Without rules, organizations risk descending into disorder (Turco, 2016).

Although rules are often thought of as rigid and hard constraints, in practice they are often more flexible than they appear. The enforcement of rules is rarely automatic or uniform; rather, it is carried out by managers who exercise discretion in deciding when and how to apply them. Importantly, enforcing rules involves both tangible and intangible costs. Managers must deploy resources to monitor and ensure compliance and often face psychological and relational costs when disciplining employees. Any parent who has enforced a rule with their children can attest to the emotional toll involved.

The dilemma that managers (or any rule enforcers) face is that they prefer not to enforce the rule as long as the workers provide good behavior. But if the rule is not enforced, then the workers have incentive to shirk and lower their performance. The key challenge is to exercise discretion (to lower the enforcement cost) while maintaining a functioning organizational environment.

The classic work of Gouldner (1954) illustrates selective rule enforcement in a mining company. The company's "no-floating around" rule required workers to stay at their workplace except for essential needs. Managers enforced this rule flexibly, allowing workers to socialize when performance was satisfactory but invoking it when productivity declined. As Gouldner notes, "formal rules gave supervisors something with which they could 'bargain' in order to secure informal cooperation from workers" (Gouldner, 1954, p. 173), highlighting how rule enforcement emerges from relational contracts.

[1] An earlier famous example of minimal rules is Nordstrom, which states in its employee handbook that "Rule #1: Use good judgment in all situations. There will be no additional rules" (Spector and McCarthy, 2012).

In this paper, we formally examine rule enforcement through repeated interactions between a middle manager (she) and a worker (he). At the beginning of each period, the manager can enforce a rule requiring worker effort, but doing so incurs a cost to the manager.[2] Without rule enforcement, the worker freely chooses his effort level based on his privately observed effort cost, which fluctuates over time. Notably, in our baseline model, rules can be enforced only before both parties participate.

We first characterize the optimal relational contract under a benchmark case, where rules are not available to the manager. Here, managers maintain order not through rule enforcement but through the threat of termination, or *exit*. This possibility of being fired serves as a disciplinary tool, motivating workers to self-manage without constant oversight.

Under this benchmark case, the worker may initially exerts effort regardless of the state, trying to build up the trust from the manager. After several periods of high effort, the worker may avoid effort when costs are high, knowing there is short-term tolerance. However, after several periods of lower effort, the worker begins to exert effort again, even with high costs, understanding that continued slacking risks termination. The fear of exit thus drives self-regulation and proactive effort.

The benchmark case shows a hands-off dynamic. Workers internalize the consequences of sustained underperformance by incorporating the long-term value of the relationship into their daily decision-making. The relationship operates through an implicit understanding: continued employment depends on maintaining adequate effort, even in challenging circumstances. Workers balance current effort costs against future termination risks, eliminating the need for frequent managerial intervention.

Then we analyze the condition under which the rule can benefit the manager in our main model. Specifically, we show that there exists a cutoff enforcement cost: rule enforcement can improve the manager's payoff from the optimal relational contract if and only if the enforcement cost falls below this threshold, as the benefits of improved worker effort outweigh the enforcement cost.

When the enforcement cost is below this threshold, rule is enforced under the optimal relational contract. Our analysis reveals two distinct categories, depending on the size of the enforcement cost. when the enforcement cost is sufficiently low—below a second, lower threshold—active management through cyclical rule enforcement is involved. That is, the manager relies entirely on rule enforcement to regulate the worker.

Under this category, the manager imposes strict rules when worker performance deteriorates. After several periods of enforcement, rules are relaxed, allowing the worker to

[2] A familiar example for many readers might be that a professor displays a "No Phones Allowed" slide at the start of each class.

exert effort only when his privately observed effort cost is low. Over time, the worker's performance will naturally decline again due to the stochastic nature of the effort cost, causing the manager to enforce the rule. Thus, under this scenario, the relationship cycles between periods of strict rule enforcement, which limits flexibility and adaptability, and periods of relaxed enforcement, during which the worker may slack off. This cyclical pattern reflects the inherent trade-off between maintaining control through rules and allowing for adaptation and discretion.

This cyclical enforcement aligns with organizational observations. In Gouldner (1954)'s mining company study, managers enforced rules only after performance declined, allowing flexibility until intervention became necessary. Similar patterns appear in China's governance model, where scholars document "campaign-style mobilization" - periodic intensification of enforcement followed by relaxation (Zhou, 2022).

Although scholars have long criticized this pattern, described in Chinese as *yi-guan-jiu-si, yi-fang-jiu-luan*, meaning "control leads to stagnation, freedom leads to disorder", these patterns are simply unavoidable. Enforcing rules too rigidly stifles flexibility, while relaxing them too much leads to disorder. The adherence to either strict control or relaxed flexibility is difficult to maintain over the long run, but this cyclical approach may, in fact, be the best that managers or governments can achieve under the constraints they face. The cyclical pattern thus reflects an ongoing negotiation between these two extremes, allowing for a dynamic, if imperfect, equilibrium.

Interestingly, when the enforcement cost lies between the two thresholds, a different category emerges with rules not enforced in the long run. The manager only enforces rules initially for a limited period, even though this enforcement is not necessarily optimal for the overall long-term value of the relationship. This initial use of enforcement reflects the manager's own short-term incentive: she prefers that the worker puts in effort.

This feature of early enforcement relates to deferred rewards in the dynamic game literature. By enforcing rules at the outset, the manager effectively increases the worker's future payoff. Once the initial enforcement period ends, the worker gains more flexibility to withhold effort when costs are high. The initial phase of rule enforcement thus functions as a way to build up the worker's "credit" or trust within the relationship, where high effort early on is effectively "paid" in exchange for later autonomy and flexibility.

In addition to enforcement costs, we show that rule is less likely to be enforced when players are more patient, or equivalently, when there is greater surplus in the relationship. Patience means both parties value future payoffs more highly relative to immediate rewards. For the worker, this creates a stronger incentive to maintain the relationship, making the threat of exit more potent and encouraging self-discipline even when effort is costly.

As a result, the management of the relationship increasingly relies on worker self-regulation rather than direct rule enforcement. Motivated by preserving the long-term relationship, the worker takes responsibility for meeting performance expectations without strict supervision. This shift in responsibility reflects a deeper trust, where workers manage their effort based on the understanding that their future within the organization depends on it.

This finding is consistent with management literature, which shows that rules and strict enforcement are used less in high-performing organizations–those with greater surplus (see Gibbons and Henderson, 2012, for instance, and see Ichniowski and Shaw, 2003 for review). In such organizations, workers receive more autonomy as the focus shifts from rigid rule enforcement to self-management. This cultivates a culture of accountability and self-motivation, where workers maintain the relationship without constant oversight. However, this autonomy has a price: workers must sometimes make short-term sacrifices, exerting effort even when costs are high, to maintain their long-term role in the organization.

Finally, our analysis extends beyond the baseline framework to address real-world complexities, particularly the timing of rule enforcement and its impact on relationship dynamics. In our baseline model, the manager enforces rules before the worker decides to participate. In practice, however, managers may enforce rules after securing the worker's participation. For instance, managers might promise flexibility to attract workers but later impose stricter rules once participation is guaranteed.

To examine this, we analyze a setup where the manager can enforce rules after the worker's participation (but before effort is exerted). Counterintuitively, we find that this discretion reduces the manager's payoff. In the optimal relational contract, the manager motivates the worker to exert effort in earlier periods by promising no rule enforcement and granting autonomy in later periods. However, when the manager has the discretion to enforce rules post-participation, she is tempted to renege on these promises, undermining her credibility. This loss of trust demotivates the worker in earlier periods, ultimately diminishing the value of the relationship.

Beyond this direct effect, the erosion of trust leads to two additional consequences. First, as future promises become less effective for motivating the worker, the manager must rely more on rule enforcement. Therefore, compared to the baseline model, the manager is more likely to regulate the worker using rules. Second, increasing the cost of rule enforcement can help restore credibility. A higher enforcement cost acts as a commitment device, preventing the manager from reneging on promises. Interestingly, this can benefit the manager by improving worker's motivation and preserving trust in the relationship.

Related Literature. Dating back at least to Weber (2009), there has been a large interest in understanding how to maintain the functioning and promote the performance of organizations. Following the terms proposed by Mintzberg (1989), the literature can be broadly divided into two streams: one focusing on "ex-ante action planning" that specifies actions to be carried out and the other on "ex-post performance control" that only imposes general performance standards.

The economics literature on dynamic contracts primarily falls within the stream that studies ex-post performance control, focusing on how to provide incentives to align individual interests with organizational goals. A common approach is to contract on output using monetary transfers (e.g., Spear and Srivastava, 1987, Fuchs, 2007, Sannikov, 2008, and Zhu, 2013). The relational contract literature examines how monetary transfers, subject to self-enforcing constraints, can motivate desired effort from workers (MacLeod and Malcomson, 1989; Baker, Gibbons and Murphy, 1994; Levin, 2003; Rayo, 2007; Li and Matouschek, 2013; Halac, 2012; Yang, 2013; Fong and Li, 2017). In this paper, however, we abstract away from monetary incentives to focus on how the dynamic enforcement of rules can shape worker behavior. This focus connects our study to the literature on non-monetary incentives, including decision rights (Baker, Gibbons and Murphy, 1999; Alonso and Matouschek, 2007; Lipnowski and Ramos, 2020), knowledge transfer (Garicano and Rayo, 2017), managerial attention (Halac and Prat, 2016), ownership (Baker, Gibbons and Murphy, 2002), power (Li, Matouschek and Powell, 2017), routines (Chassang, 2010), and standardized working process (Li, Mukherjee and Vasconcelos, 2023). Unlike these papers, our study belongs to the stream that examines ex-ante action planning.

In the literature on non-monetary incentives, only a few papers have considered ex-ante action planning. Padró i Miquel and Yared (2012) examine a repeated moral hazard model where the principal can prescribe actions with endogenously chosen interventions. They show that occasional inefficient intervention is necessary to incentivize the agent to take efficient actions. Our model differs from theirs in two key aspects. First, in our model, the worker's effort is publicly observable, and the problem is one of adverse selection rather than moral hazard. Second, the rule-based action in our model is more costly to the worker than to the manager. Consequently, unlike their model, the central challenge is not subsidizing the manager to enforce rules but incentivizing the worker to exert more effort. These two differences lead to distinct dynamics in our framework. Meagher, Prasad and Wait (Forthcoming) study instructions in organizations, focusing on how to ensure worker obedience to instructions by selecting appropriate workers and designing effective incentive pay schemes. In contrast, we abstract away from obedience concerns by assuming that rules, once enforced, are coercive.

Our paper is related to a specific branch of the delegation literature that studies optimal delegation through a mechanism design approach (Melumad and Shibano, 1991; Alonso and Matouschek, 2008; Frankel, 2014). These papers allow for interim communication and focus on identifying the optimal "delegation set" from which the agent can make decisions. In contrast, we abstract away from communication and model rules as a tool for uniformly enforcing effort. Furthermore, we incorporate enforcement costs and examine how these costs shape the dynamics of rule enforcement over time.

The remainder of this paper is organized as follows: Section 2 presents our baseline model, where the manager can enforce rules only before the worker decides on participation. In Section 3, we briefly outline how to solve the model. In Section 4, we focus on the benchmark case, where rules are not available for the manager. The characterization of the optimal relational contract when rule can be used is provided in Section 5. Section 6 explores an alternative setup where the manager can enforce rules after the worker's participation and presents the corresponding results. Section 7 concludes. Additional results and all proofs are provided in the Appendix.

2 Model

Consider a long-term relationship between a manager and a worker. Time is discrete and denoted as $t \in \{1, 2, \ldots, \infty\}$. In each period, the manager and the worker play a stage game characterized by three components: *technology*, *actions* and *payoffs*.

Technology: The worker chooses an effort level $e_t \in \{0, 1\}$. If $e_t = 1$, he generates an output of $Y_t = y$. If $e_t = 0$, the output is zero. Both effort and output are publicly observable. However, the cost of effort is private information. It depends on an underlying state $\theta_t \in \{G, B\}$, known only by the worker, and is given by $c(e_t = 1) = c\mathbf{1}_{\theta_t = G} + C\mathbf{1}_{\theta_t = B}$. Assume that $c < C$ so that the effort cost is lower in the good state (G) than in the bad state (B).[3] The state is independently drawn in each period with $\mathbf{P}(\theta_t = G) = p \in (0, 1)$.

Actions: At the beginning of each period, the manager decides whether to enforce a rule, which requires the worker to exert effort. Denote the announcement on rule enforcement as $\gamma_t \in \{0, 1\}$. If $\gamma_t = 1$, the worker is forced to make $e_t = 1$, regardless of the state θ_t.[4] In contrast, if $\gamma_t = 0$, the worker is free to choose the effort level conditional on the state.

[3]In terms of social surplus, a natural assumption would be $c < y < C$, so that production is efficient only in the good state. However, none of our results rely on this assumption.

[4]While this assumption makes the rule appear coercive, it is fundamentally different from Acemoglu and Wolitzky (2011). In our model, the worker is protected by a fixed outside option. This outside option can be thought of as specific to the manager-worker relationship but still within the organization, with an additional fallback option outside the organization. Because the option outside the organization is sufficiently low, the worker never breaks the rule once it is enforced.

To enforce the rule, the manager incurs a cost $D \geq 0$, which can represent either the physical expense of close monitoring or the mental cost arising from the tension between the manager and the worker.[5] After the announcement, both the manager and the worker decide whether to participate in production. Denote their decisions as $d_t^m, d_t^w \in \{0, 1\}$, where 0 indicates no participation and 1 indicates participation.

Given that both parties participate ($d_t^m d_t^w = 1$), there are four pure actions that the manager and the worker can choose in the stage game:

1. Forced Effort (F): The manager enforces the rule, compelling the worker to exert effort regardless of the state.
2. Proactive Effort (P): The manager does not enforce the rule, but the worker still exerts effort in all states.
3. Adaptive Effort (A): The manager does not enforce the rule, and the worker exerts effort only in the good state.
4. Shirking (S): The manager does not enforce rule, and the worker makes no effort.

Alternatively, either party can opt out ($d^m = 0$ or $d^w = 0$), which is referred to as Outside Option and denoted as O. Note that we exclude the case in which the manager does not enforce the rule and the worker exerts effort only in the bad state, as this is not incentive-compatible for the worker.

Payoffs: In each period, if the players do not engage in the stage game, this period ends with both parties receiving their outside option payoffs $(\underline{u}, \underline{\pi})$. We normalize $\underline{u}$ to zero for simplicity. Instead, if they enter the stage game, production occurs according to the previously specified technology. The worker receives a fixed wage w, while the manager obtains the output. To focus on the dynamics of rule enforcement, we abstract from monetary incentives by assuming that the wage is exogenous and not paid by the manager. This setup reflects scenarios where middle managers have limited control over wage-setting. Taking production, the worker's effort cost, and the manager's enforcement cost into account, we express their stage payoffs as follows:

$$\hat{u}_t = d_t^m d_t^w \mathbf{E}_{\theta_t}[w - c(e_t)], \text{ and } \hat{\pi}_t = d_t^m d_t^w \mathbf{E}_{\theta_t}[Y_t - \gamma_t D].$$

At the end of each period, the manager and the worker observe the realization $x_t \in [0, 1]$ of a public randomization device. Assume that at the beginning of the first period, they can also observe a realization of the randomization device, which is denoted as x_0. The

[5] See Falk and Kosfeld (2006) for experimental evidence on the hidden costs of control, and Sliwka (2007), Ellingsen and Johannesson (2008), and Von Siemens (2013) for follow-up theoretical studies that further explore and unpack these costs.

randomization device guarantees that the set of equilibrium payoffs is convex, which is commonly used in the literature. The timing of the stage game is summarized in Figure 1.

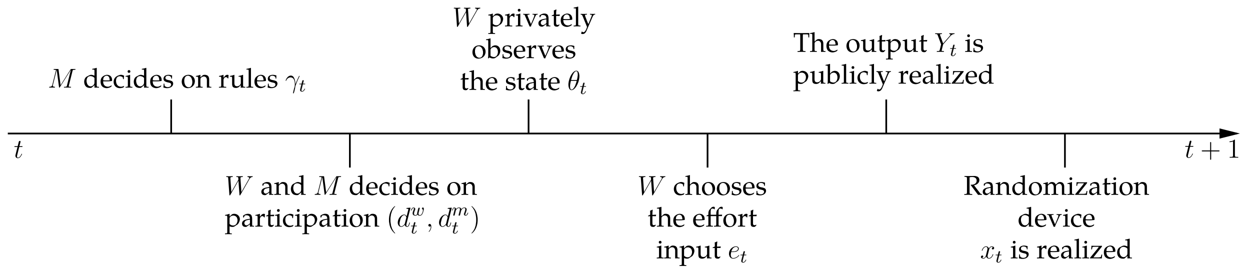

Figure 1: Timeline of the Stage Game

The stage game repeats in each period, with the manager and the worker sharing a common discount factor $\delta \in (0,1)$. Thus, at the beginning of any period t, the expected payoffs for the worker (u_t) and the manager (π_t) are given by

$$u_t = (1-\delta)\sum_{\tau=t}^{\infty} \delta^{\tau-t}\hat{u}_\tau, \text{ and } \pi_t = (1-\delta)\sum_{\tau=t}^{\infty} \delta^{\tau-t}\hat{\pi}_\tau.$$

These payoffs are normalized to per-period average values through multiplication by $1-\delta$.

Following Levin (2003), we define a relational contract as a pure strategy Perfect Public Equilibrium (henceforth PPE). This restriction is without loss of generality because our game has only one-sided private information, and is therefore a game with product monitoring structure. In this case, every sequential equilibrium outcome is also a PPE outcome (see Mailath and Samuelson, 2006, p. 330).

Formally, denote the public history at the beginning of period t as h_t, where $h_t := \{d_\tau^m, \gamma_\tau, d_\tau^w, e_t, x_t\}_{\tau=1}^{t-1}$. For each t, let $\mathcal{H}_t$ be the set of all such histories. Note that $\mathcal{H}_1 = \phi$. A public strategy of the manager is a sequence of functions $\{D_t^m, \Gamma_t\}_{t=1}^{\infty}$, where $D_t^m : \mathcal{H}_t \to \{0,1\}$ and $\Gamma_t : \mathcal{H}_t \to \{0,1\}$. Similarly, a public strategy of the worker is a sequence of functions $\{D_t^w, E_t\}_{t=1}^{\infty}$, where $D_t^w : \mathcal{H}_t \cup \{d_t^m, \gamma_t\} \to \{0,1\}$, and $E_t : \mathcal{H}_t \cup \{d_t^m, d_t^w, \gamma_t, \theta_t\} \to \{0,1\}$. These strategies form a PPE if they compose a Nash Equilibrium given any public history $h_t \in \mathcal{H}_t$.

Among all possible relational contracts, one is called *optimal* if it maximizes the manager's expected payoff π_1 at the beginning of the relationship. Our goal is to characterize the set of optimal relational contracts.

3 Preliminaries

This section outlines how we characterize the set of PPE payoffs, denoted as $\mathcal{E}$. Following Abreu, Pearce and Stacchetti (1990), any equilibrium payoff pair $(u, \pi) \in \mathcal{E}$ can be supported either by pure actions or by randomization among equilibrium payoff pairs generated by pure actions. When a pure action is used, the players receive the flow payoffs from that action in the current period and the corresponding continuation payoffs in the future. Alternatively, when an equilibrium payoff pair is supported by randomization, the players select a pure action after observing the realization of the randomization device at the end of the previous period. We begin by introducing the constraints required for a pure action to support an equilibrium payoff, and then formulate the maximization problem that characterizes the frontier of $\mathcal{E}$.

Constraints. Any action $j \in \{O, F, P, A, S\}$ supporting an equilibrium payoff must satisfy three constraints:

1. Promise-keeping constraint: The equilibrium payoff pair decomposes into a pair of flow payoffs and a pair of continuation payoffs. The continuation payoffs represent the discounted value of future actions.
2. No-deviation constraint: The worker is willing to exert effort in line with the action.
3. Self-enforcing constraint: The pair of continuation payoffs must belong to the PPE payoff set. Combined with the no-deviation constraint, this ensures that the supported payoff is indeed an equilibrium payoff.

The details of these constraints can be found in Appendix A.

The Maximization Problem. Now we formulate our maximization problem that characterizes the frontier of $\mathcal{E}$. Define the PPE payoff frontier as

$$\pi(u) := \max\{\pi' : (u, \pi') \in \mathcal{E}\}.$$

This frontier is well defined as $\mathcal{E}$ is compact (Abreu, Pearce and Stacchetti, 1990). In addition, since the players can randomize their behavior with the randomization device $\{x_t\}$, $\mathcal{E}$ is convex. This implies that $\pi(u)$ is a concave function.

Suppose that a payoff pair $(u, \pi(u))$ on the PPE frontier is supported by a pure action. To identify this specific action, we need to know the highest equilibrium payoff the manager can achieve with each action. For each pure action $j \in \{F, P, A, S, O\}$, let $f_j(u)$ denote the manager's highest equilibrium payoff. The worker's promise-keeping constraint indicates that

$$u = (1 - \delta)u_j + \delta\mathbf{E}[u_j(u)],$$

where u_j denotes the worker's flow payoff from action j, and $u_j(u)$ denotes the realization of the worker's continuation payoff. The following lemma establishes a key property that facilitates the characterization of the manager's continuation payoff.

Lemma 1. *For any $(u, \pi(u))$ on the PPE payoff frontier, the continuation payoffs of the worker and the manager are also on the PPE payoff frontier. If $(u, \pi(u))$ is supported by a pure action $j \in \{F, P, A, S, O\}$, then the manager's continuation payoff is realized as $\pi(u_j(u))$.*

Lemma 1 shows that for any payoffs on the PPE payoff frontier, the associated continuation payoffs also stay on the frontier. This is because the manager's actions are publicly observable, and there is no need to punish her by moving below the frontier (see, e.g., Spear and Srivastava, 1987; Levin, 2003). We can therefore trace out the entire equilibrium action sequences on the frontier without worrying about payoffs below the frontier. In particular, we can decompose $f_j(u)$ as

$$f_j(u) = (1-\delta)\pi_j + \delta\mathbf{E}[\pi(u_j(u))],$$

where π_j denotes the manager's flow payoff from action j.

Now, observe that the PPE payoff frontier is the highest payoff the manager can achieve by using a pure action or randomizing between different pure actions. Thus, it can be characterized by the following constrained maximization problem:

$$\pi(u) = \max_{\alpha_j \geq 0, u_j \in [0,\overline{u}]} \sum_{j \in \{F,P,A,S,O\}} \alpha_j f_j(u_j)$$

$$s.t. \sum_{j \in \{F,P,A,S,O\}} \alpha_j = 1, \text{ and } \sum_{j \in \{F,P,A,S,O\}} \alpha_j u_j = u.$$

If any of the weight α_j equals one, the manager's payoff $\pi(u)$ is supported by action j. Otherwise, $\pi(u)$ is generated by randomization. We will characterize the PPE payoff frontier by choosing these weights. For our analysis, we make the following assumptions.

Assumption 1. $c < w < pc + (1-p)C$.

Assumption 2. $\delta > C/(w+C)$.

Assumption 3. (i) $p < 1 - \frac{c}{w}(\frac{w}{C}+1)^2$; (ii) $p < \min\{\frac{w}{2C}, \frac{1}{2} - \frac{w}{2C}\}$.

Assumption 4. $\underline{\pi}/y < \min\{\frac{pc}{3C}, \delta(\frac{w}{C}+1) - 1\}$.

Assumption 1 indicates that the worker's payoff from adaptive effort is greater than the outside option. In contrast, the worker's payoff from forced effort is lower than his outside option. Therefore, the manager cannot simply repeat enforcing rules.

Lemma 2. *There exists no equilibrium in which the manager enforces rules in every period.*

Assumption 2 is a necessary condition for proactive effort to be chosen within a relational contract. Assumption 4 simplifies our analysis on the part of the PPE payoff frontier supported by shirking. Finally, Assumption 3 guarantees that there exist a range of enforcement costs under which the PPE payoff frontier is maximized and supported by proactive effort at some point.

4 Optimal Relational Contract without Rules

To set the stage for our main results, we first provide a benchmark. Specifically, we consider the scenario where the manager operates without rules or, equivalently, incurs an infinitely large enforcement cost ($D = +\infty$). In this case, the following proposition characterizes the PPE payoff frontier and the optimal relational contract by solving the maximization problem outlined in the previous section.

Proposition 1. *Suppose that there are no rules. There exist four cutoffs, $\overline{u} \in (w-c, w)$, $\underline{u}^P := (1-\delta)[w+p(C-c)]$, $\underline{u}^A := w-c$, and $\overline{u}^A := (1-\delta)(w-c)+\delta\overline{u}$ such that $0 < \underline{u}^P < \underline{u}^A < \overline{u}^A < \overline{u}$ and:*

- (*i*) *For $u \in [0, \underline{u}^P)$, the PPE payoff frontier is supported by randomization between the payoff pairs $(0, \pi(0))$ and $(\underline{u}^P, \pi(\underline{u}^P))$. When $(0, \pi(0))$ is realized, the players engage in the outside option, and the worker's continuation payoff satisfies $u_O(0) = 0$.*
- (*ii*) *For $u \in [\underline{u}^P, \underline{u}^A)$, the PPE payoff frontier is supported by randomization between the payoff pairs $(\underline{u}^P, \pi(\underline{u}^P))$ and $(\underline{u}^A, \pi(\underline{u}^A))$. When $(\underline{u}^P, \pi(\underline{u}^P))$ is realized, the players engage in proactive effort, and the worker's continuation payoff satisfies $u_P(\underline{u}^P) > \underline{u}^P$.*
- (*iii*) *For $u \in [\underline{u}^A, \overline{u}^A]$, the PPE payoff frontier is supported by adaptive effort. The worker's continuation payoff satisfies $u_A(u) \geq u$ if he exerts effort (the inequality only binds at $u = \underline{u}^A$), and $u_A(u) < u$ if he does not exert effort.*
- (*iv*) *For $u \in (\overline{u}^A, \overline{u}]$, the PPE payoff frontier is supported by randomization between the payoff pairs $(\overline{u}^A, \pi(\overline{u}^A))$ and $(\overline{u}, \underline{\pi})$. When $(\overline{u}, \underline{\pi})$ is realized, the worker shirks, and his continuation payoff satisfies $u_S(\overline{u}) \in (\overline{u}^A, \overline{u})$.*

The optimal relational contract starts with the equilibrium payoff pair $(\underline{u}^P, \pi(\underline{u}^P))$, where the players engage in proactive effort. In subsequent periods, their actions and payoffs are determined by what region the worker's continuation payoff is in. The relationship never terminates as the worker's continuation payoff is always weakly above $\underline{u}^P$.

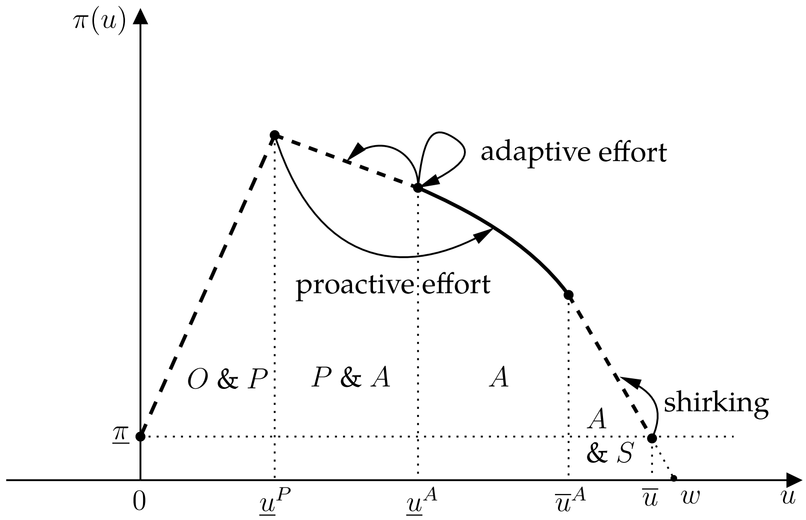

Figure 2: PPE Payoff Frontier without Rules

Proposition 1 shows that when the manager is not equipped with rules, the PPE payoff frontier consists of four regions: a terminating region $[0, \underline{u}^P)$, a proactive region $[\underline{u}^P, \underline{u}^A)$, an adaptive region $[\underline{u}^A, \overline{u}^A]$, and a rewarding region $(\overline{u}^A, \overline{u}]$. In the terminating region, the manager and the worker randomize between the outside option and proactive effort; once the outside option is realized, the relationship ends. The optimal relational contract, however, results in a never-terminating relationship, meaning that the worker's continuation payoff never enters the terminating region.

Initially, the continuation payoff starts in the proactive region, where the worker exerts effort regardless of the effort cost. Since proactive effort imposes a negative payoff on the worker, his continuation payoff must increase over time. The continuation play then depends on the location of the continuation payoff. If it transitions into the adaptive region, the worker exerts effort only in the good state (i.e., when the effort cost is low). In this region, encountering many good states and exerting effort increases the worker's continuation payoff, eventually moving it into the rewarding region, where the worker is compensated with the opportunity to receive wages without exerting effort. In contrast, if the worker faces many bad states and refrains from exerting effort, his continuation payoff decreases as a form of punishment. These rewards and punishments incentivize the worker to make adaptive effort in the adaptive region. Since the worker's continuation payoff never falls below $\underline{u}^P$, even under punishments, it remains outside the terminating region in every period.

It is worth noting that when the worker is called to make proactive effort, his long-run payoff is strictly positive (i.e., $\underline{u}^P > 0$). Without rules, the manager relies on the threat of exit to motivate the worker. Since the worker can choose to shirk and still receive the fixed wage for the current period, the manager must offer a strictly positive long-run payoff to ensure worker effort in both good and bad states.

5 Optimal Relational Contract with Rules

This section presents our main results on the optimal relational contract with rules. We first identify the condition under which rule enforcement becomes part of the optimal relational contract. Next, we analyze how rules shape the optimal relational contract by comparing the PPE payoff frontier with and without rules and by outlining the dynamics of the relationship between the manager and the worker. Finally, we examine how the discount factor influences the optimal relational contract.

5.1 Equilibrium Characterization

Proposition 2. *There exists $\overline{D}(\delta) \in [0, y)$ such that the availability of rules improves the manager's payoff from the optimal relational contract if and only if $D < \overline{D}(\delta)$. In particular, when $D < \overline{D}(\delta)$, the PPE payoff frontier is maximized at $(0, \pi(0))$, which is supported by forced effort.*

Proposition 2 shows that there exists a threshold $\overline{D}(\delta)$ such that, if the cost of rule enforcement is below this threshold, the manager can improve her payoff from the optimal relational contract by enforcing rules. Specifically, unlike the case without rules, the PPE payoff frontier is not maximized at $u = \underline{u}^P$ (even though this point may still be supported by proactive effort). Instead, the frontier is maximized at $u = 0$, where the manager enforces rules and compels the worker to exert effort regardless of his effort cost. As a result, the optimal relational contract begins with forced effort when $D < \overline{D}(\delta)$.

The result stems from the fact that rules greatly enhance the manager's ability to exploit the worker. By enforcing rules, the manager can compel the worker to exert effort without being constrained by the worker's incentive compatibility. This allows her to extract more rents from the relationship, with her payoff from rule enforcement maximized when the worker's payoff equals his outside option (i.e., zero). If the enforcement cost of rules is sufficiently low ($D < \overline{D}(\delta)$), the additional rent exceeds the cost, making it optimal for the manager to initiate the relationship with forced effort.

That said, Proposition 2 does not imply that the manager can enforce rules and require forced effort from the worker indefinitely. In our model, any further exploitation of the worker is constrained by his participation constraint (as established in Lemma 2). Since forced effort imposes a negative flow payoff on the worker, it cannot, on its own, sustain the PPE payoff frontier. The part of the frontier that can be supported by forced effort, or by randomization involving forced effort, is characterized in the next proposition.

Proposition 3. *There exists $\underline{D}(\delta) \in [0, \overline{D}(\delta))$ such that:*

(i) *When $D \leq \underline{D}(\delta)$, the PPE payoff frontier differs from that without rules on $[0, \underline{u}^A)$. In this region, the frontier is supported by randomization between the payoff pairs $(0, \pi(0))$ and $(\underline{u}^A, \pi(\underline{u}^A))$.*

(ii) *When $\underline{D}(\delta) < D < \overline{D}(\delta)$, the PPE payoff frontier differs from that without rules on $[0, \underline{u}^P)$. In this region, the frontier is supported by randomization between the payoff pairs $(0, \pi(0))$ and $(\underline{u}^P, \pi(\underline{u}^P))$.*

In both cases, the optimal relational contract starts with the equilibrium payoff pair $(0, \pi(0))$, where the players engage in forced effort, and the worker's continuation payoff satisfies $u_F(0) > 0$. In subsequent periods, their actions and payoffs are determined by what region the worker's continuation payoff is in.

Proposition 3 shows how rules influence the optimal relational contract by characterizing the differences in the PPE payoff frontier between the cases with and without rules, under the condition that $D \leq \overline{D}(\delta)$, so the manager enforces rules at $u = 0$. Specifically, the extent of this difference depends on the cost of rule enforcement. When the enforcement cost is sufficiently low ($D < \underline{D}(\delta)$), the frontier is no longer supported by proactive effort at any point. Instead, the previous preemptive region is replaced by a preventive region $[0, \underline{u}^A)$, where the players effectively randomize between forced effort and adaptive effort. In contrast, when the enforcement cost is moderate ($\underline{D}(\delta) < D \leq \overline{D}(\delta)$), the frontier remains largely unchanged from the case without rules, except for a preventive region $[0, \underline{u}^P)$ that lies to the left of the preemptive region. Figures 3 and 4 illustrate our result.

To see the logic, recall from Proposition 2 that when the cost of rule enforcement is weakly below $\overline{D}(\delta)$, it is optimal for the manager to initiate the relationship with rule enforcement and reduce the worker's equilibrium payoff to zero. In this case, whether proactive effort continues to support the PPE payoff frontier at $u = \underline{u}^P$ depends on a comparison of the manager's payoffs: one from proactive effort and the other from a randomization between $\pi(0)$ and $\pi(\underline{u}^A)$. In the proof of Proposition 2, we show that randomization dominates if the enforcement cost D is sufficiently close to zero. In particular, when $D = 0$, the manager can replicate proactive effort with forced effort, which makes proactive effort redundant.

Proposition 3 presents two distinct scenarios in which rule enforcement is incorporated into the optimal relational contract. Naturally, the dynamics of the relationship between the manager and the worker differ in each case. The following corollaries characterize these dynamics in details.

Corollary 1. *Suppose $D \leq \underline{D}(\delta)$. There exists $\delta^F \in (\frac{C}{w+C}, 1)$ such that if $\delta < \delta^F$, the optimal relational contract alternates among forced effort, shirking, and adaptive effort, with the worker's continuation payoff $u \in [0, \overline{u}]$; and if $\delta \geq \delta^F$, the optimal relational contract alternates only between forced effort and adaptive effort, with the worker's continuation payoff $u \in [0, \underline{u}^A]$.*

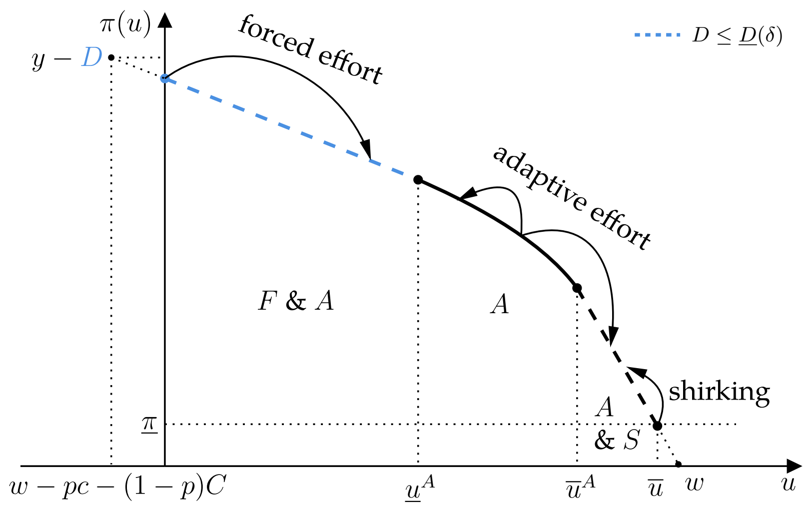

Figure 3: PPE Payoff Frontier with Rules: $D \leq \underline{D}(\delta)$

Corollary 1 demonstrates that when $D < \underline{D}(\delta)$, the dynamics follow a cyclical pattern of rule enforcement and no enforcement. Formally, this cycle implies that whenever the two parties engage in rule enforcement, there exists a stopping time in the future when the manager ceases enforcing rules. Conversely, whenever the two parties operate without rule enforcement, there exists a stopping time in the future when the manager resumes enforcing rules. This cyclical behavior stems from the participation constraints of both players and the back-loaded incentives for the worker.

Suppose $D \leq \underline{D}(\delta)$. Specifically, the optimal relational contract begins in the preventive region $[0, \underline{u}^A)$, where the worker's payoff is zero and the two parties engage in forced effort. Since forced effort imposes a negative flow payoff on the worker, the manager must promise future "rewards" to incentivize the worker to participate in the relationship and exert effort in both good and bad states during the initial period. Consequently, although the worker's continuation payoff may temporarily remain in the preventive region, supported by randomization, it must eventually transition into regions where the manager no longer enforces rules. How the continuation game unfolds is dependent on the specific region, which in turn hinges on the discount factor.

Corollary 1 shows that if the discount factor is sufficiently large ($\delta \geq \delta^F$), the worker's continuation payoff, outside the preventive region, can only enter the adaptive region $[\underline{u}^A, \overline{u}^A]$ at $u = \underline{u}^A$. Following rule enforcement in the first period, the action in the second period is determined by the randomization device: if $u = 0$ is realized, the two parties engage in forced effort again, resetting the relationship as in the first period; if $u = \underline{u}^A$ is realized, the two parties engage in adaptive effort. In both cases, the worker's continuation payoff remains weakly smaller than $\underline{u}^A$. Consequently, the dynamics cycle exclusively between forced effort and adaptive effort.

In contrast, if the discount factor is sufficiently small ($\delta < \delta^F$), the worker's continuation payoff starting from the second period exceeds $\underline{u}^A$. In this case, the action in the second period may involve adaptive effort if $u \in (\underline{u}^A, \overline{u}^A]$ or shirking if $u \in (\overline{u}^A, \overline{u}]$. Suppose the worker's continuation payoff enters the rewarding region $(\overline{u}^A, \overline{u}]$. In this region, the two parties essentially randomize between adaptive effort and shirking. When the worker's continuation payoff reaches $u = \overline{u}$, the worker receives a fixed wage without exerting any effort. However, this action yields the manager a payoff below her outside option and is therefore not self-enforcing. As a result, the worker's continuation payoff must decrease after shirking, eventually transitioning into the adaptive region.

In the adaptive region $[\underline{u}^A, \overline{u}^A]$, the worker's continuation payoff evolves based on his actions and the states he encounters. If the worker experiences consecutive good states and exerts effort, his continuation payoff increases and transitions into the rewarding region. In contrast, if the worker experiences consecutive bad states and fails to exert effort, his continuation payoff decreases, leading to organizational decline. Over time, these declines bring the relationship back to the preventive region, where the dynamics repeat as if starting anew.

Corollary 2. *Suppose that $\underline{D}(\delta) < D < \overline{D}(\delta)$. Then, there exists a random variable τ with $\mathbf{P}[\tau < \infty] = 1$ such that the optimal relational contract does not involve rule enforcement for all $t > \tau$.*

Corollary 2 demonstrates a pattern of dynamics that significantly differs from that of Corollary 1. Specifically, when $\underline{D}(\delta) < D \leq \overline{D}(\delta)$, the manager initially enforces rules as part of the relational contract but avoids rule enforcement in the long run. Recall that the manager back-loads the workers incentives by promising future periods without rule enforcement. When the enforcement cost is moderate, such promises are further strengthened: eventually, the manager ceases rule enforcement altogether.

Under moderate enforcement costs, the PPE payoff frontier retains most of the fundamental features of the case without rules. It is structured into three primary regions: the

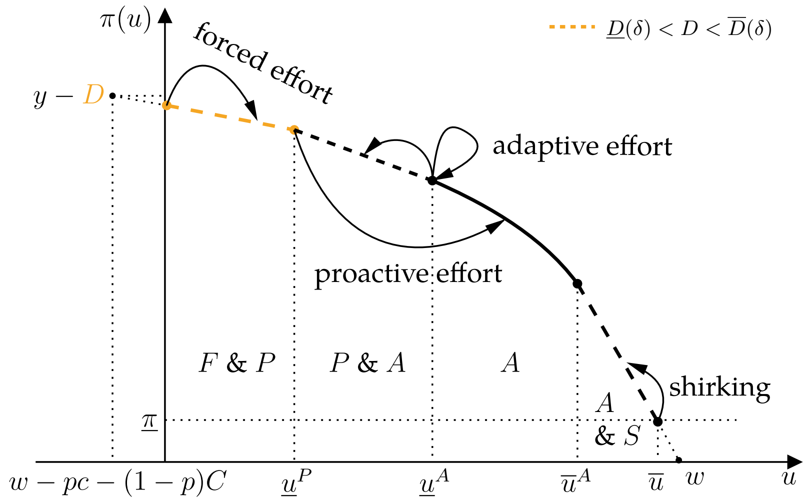

Figure 4: PPE Payoff Frontier with Rules: $\underline{D}(\delta) < D \leq \overline{D}(\delta)$

preemptive region $[\underline{u}^P, \underline{u}^A)$, the adaptive region $[\underline{u}^A, \overline{u}^A]$, and the rewarding region $(\overline{u}^A, \overline{u}]$. In the preemptive region, the manager refrains from enforcing rules, yet the worker exerts effort regardless of his effort cost. This is because the worker assumes the responsibility of countering organizational declines, allowing the manager to avoid enforcing rules altogether.

These dynamics achieve a delicate balance in selective rule enforcement, where rule enforcement serves as a tool for rent extraction, while its absence acts as an incentive device. Initially, the manager may enforce rules to extract higher rents, but this phase remains temporary; prolonged enforcement would reduce the workers payoff below his outside option, risking the breakdown of the relationship. Instead, the manager offers future autonomy in exchange for initial compliance. By trading off future leniency to build the relationship, the manager secures the workers cooperation, while the worker trades initial compliance for the promise of future autonomy.

The equilibria we characterize and the dynamics they induce are relevant to many empirical patterns. First, Corollaries 1 and 2 demonstrate that, under the optimal relational contract, the enforcement of rules is neither constant nor nonexistent. Instead, the managers intertemporal trade-off implies that rule enforcement is selective and depends on the stage of the relationship between the manager and the worker. This result provides potential explanations for the selective rule enforcement observed in various types of organizations, such as mining companies (Gouldner, 1954), manufacturing firms (Anteby, 2008), casinos (Sallaz, 2009), and tech companies (Hastings and Meyer, 2020). It may also sheds lights on environmental inspections and enforcement, where "facilities are typically notified by authorities in advance of impending inspections, so on-site inspections are often not a surprise to facilities" (Shimshack, 2014).

Second, Corollary 1 highlights that rule enforcement is not only selective but also cyclical. Specifically, while the manager refrains from enforcing rules shortly after the initial periods of enforcement, she may return to enforcement once the worker's performance is observed to deteriorate for a sufficiently long period. This cyclical pattern aligns closely with findings from sociological and management studies on rule enforcement. For instance, both Gouldner (1954) and Sallaz (2009) document that managers tend to enforce rigid rules following noticeable declines in worker performance. This management approach, where rules are imposed to address lapses in productivity or behavior, reflects the cyclical pattern we describe. As summarized by Martin et al. (2013), "Management is content to allow it [rule-breaking] as long as it does not get out of hand ..." Organizations typically maintain flexibility until performance declines below acceptable levels, at which point stricter rule enforcement becomes necessary to restore productivity.

The cyclical pattern extends beyond individual organizations to broader governance systems, particularly in China's economic management. In the example of "campaign-style mobilization" in China, the state periodically mobilizes resources and intensifies enforcement (Zhou, 2022). These mobilization periods can roughly be understood as periods of strict rule enforcement, followed by phases of relaxation. Brandt and Zhu (2000) presents an empirical study on the "boom-bust" feature of Chinese economy since 1978, showing how government's cyclical control on credit allocation shapes economic outcomes. Much like in organizational settings, the ebb and flow of enforcement in governance reflects an adaptation to fluctuating circumstances.

Third, and in contrast to Corollary 1, Corollary 2 highlights that the slack in rule enforcement, once established, can become permanent. This result, which requires enforcement costs to be moderate, is particularly applicable to less standard forms of production that are difficult to inspect and discipline. For example, economics PhD programs are typically known for their rigorous coursework in the first year, followed by a subsequent period during which students are largely self-disciplined, driven by the implicit threat of leaving academia. Similarly, the literature on CEOs documents that they gradually gain more discretion and face less regulation as they build trust with their boards (Shleifer and Vishny, 1989; Finkelstein, 2009). Our result aligns well with these observations and demonstrates how they emerge as an equilibrium in the optimal management of the employment relationship by the department and the board.

5.2 Comparative Statics

Proposition 2, Proposition 3, and their corollaries have demonstrated how rules shape the structure of the optimal relational contract. Building on these results, the next proposition explores the comparative statics with respect to the discount factor.

Proposition 4. *Suppose $\delta \geq \delta^F$. Then, both $\underline{D}(\delta)$ and $\overline{D}(\delta)$ (weakly) decrease in δ. In particular, $\underline{D}(\delta) = 0$ when $\delta \geq C/(w + C - c)$.*

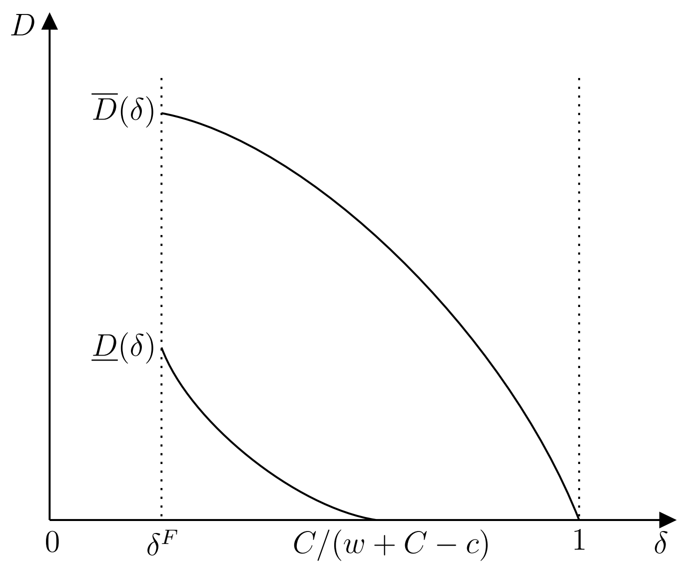

Figure 5: $\underline{D}(\delta)$ and $\overline{D}(\delta)$

Proposition 4 shows that a higher discount factor makes rule enforcement less attractive under the optimal relational contract.[6] Specifically, as $\overline{D}(\delta)$ decreases with δ, the manager becomes less inclined to enforce rules to extract rents from the relationship or to compel the worker to exert greater effort. Moreover, even if the manager initially enforces rules at the start of the relationship, the decreasing monotonicity of $\underline{D}(\delta)$ implies that, as δ increases, rule enforcement becomes less likely in the long run. Consequently, greater patience by both players results in the worker enjoying greater autonomy.

The logic is as follows. According to Corollary 1, the optimal relational contract under $D \leq \underline{D}(\delta)$ alternates solely between forced effort and adaptive effort when $\delta \geq \delta^F$. In this case, the manager's optimal payoff is achieved through a convex combination of forced effort and adaptive effort, which reduces the worker's payoff to zero. More importantly, this payoff is independent of the discount factor. Therefore, to analyze the impact of the

[6] Figure 5 is only an illustration and the concavity of the curve may be different.

discount factor, we need only examine how it affects the optimal relational contract when rules are never enforced (i.e., when $D > \overline{D}(\delta)$).

When both players become more patient, the surplus from continuing the relationship increases, thereby strengthening the threat of exit as a mechanism to motivate the worker's effort. In this case, the worker can be incentivized to exert proactive effort with a lower continuation payoff. This adjustment allows the relational contract without rule enforcement to deliver higher equilibrium payoffs for the manager. Consequently, rule enforcement becomes less attractive and is optimal only when enforcement costs are extremely low. If the discount factor is sufficiently large ($\delta > C/(w + C - c)$), it is no longer optimal for the manager to enforce rules at any level of enforcement cost.

6 Ex-post Rule Enforcement

Our model assumes that managers can enforce rules only before workers decide to participate, which allows the manager to commit to rule enforcement decisions. In practice, however, managers often lack such commitment power. They may initially promise a workplace with minimal rules to attract workers but later reverse course and impose stricter rules after the employment relationship has begun.

To better capture this possibility, we modify our model by altering the timing of rule enforcement decisions. Specifically, the manager's rule enforcement decision (γ_t) now occurs after the worker's participation decision (d_t^w), as shown in Figure 6. We refer to this revised setup as *ex-post rule enforcement*, in contrast to the original *ex-ante rule enforcement*. The following lemma demonstrates how this seemingly minor change in timing has a significant impact on the manager's payoff.

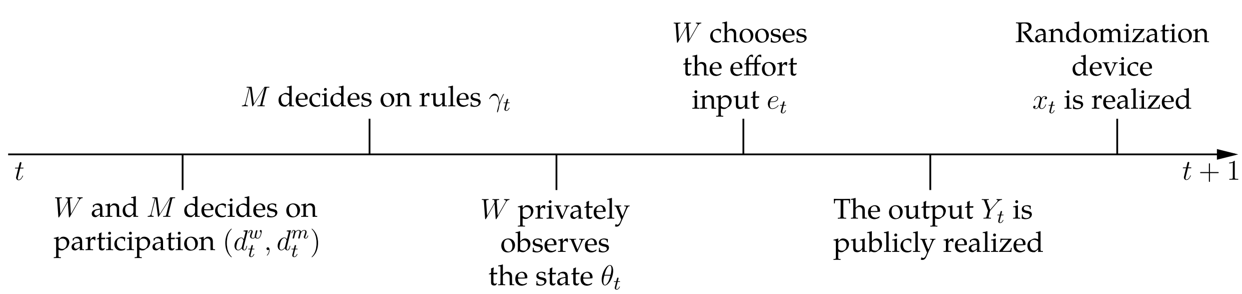

Figure 6: Timeline of the Stage Game with Ex-post Rule Enforcement

Lemma 3. *Under ex-post rule enforcement, the manager's payoff on the PPE payoff frontier satisfies* $\pi(u) \geq (1-\delta)(y - D)$ *whenever it is supported by a pure action other than the outside option.*

Lemma 3 demonstrates that ex-post rule enforcement guarantees the manager a minimum payoff of $(1-\delta)(y-D)$ whenever the two parties engage in a pure action other than the outside option. This is because, after the worker participates, the manager retains the option to enforce the rule. By enforcing the rule, the manager incurs a cost of D but secures y from the worker's forced effort. This enforcement option establishes a lower bound on the manager's payoff.

In the following, we examine how ex-post rule enforcement affects the optimal relational contract. To guarantee the existence of a parameter range where parts of the PPE payoff frontier are supported by proactive effort, we introduce an additional assumption:

Assumption 5. $w \geq \max\{\frac{1-\delta}{\delta}C + (1-\delta)[pc + (1-p)C], \frac{1-\delta}{\delta}[\frac{1-\delta}{\delta}pc + (p - \frac{1-p}{\delta})C]\}$.

Proposition 5. *Suppose that Assumption 5 holds. Under ex-post rule enforcement, there exists a threshold $D'(\delta)$ such that the optimal relational contract involves rule enforcement in some periods if and only if $D \leq D'(\delta)$. In particular, the following hold:*

- (i) *Compared with ex-ante rule enforcement, ex-post rule enforcement weakly decreases the manager's payoff from the optimal relational contract.*
- (ii) *If $\delta \geq \delta^F$, then $D'(\delta) \geq \overline{D}(\delta)$.*

Proposition 5 establishes a threshold structure similar to the ex-ante case: under ex-post rule enforcement, the manager enforces rules in some periods if and only if $D \leq D'(\delta)$. Moreover, this threshold is higher than its ex-ante counterpart. In other words, the lack of commitment increases the manager's inclination toward rule enforcement, thereby diminishing worker autonomy.

To understand the intuition, we must first consider Part (i) of the proposition, which shows that ex-post rule enforcement harms the manager. Recall from Corollarys 1 and 2 that, under ex-ante rule enforcement, the optimal relational contract alternate between actions imposing negative flow payoffs on the worker, such as forced or proactive effort, and actions yielding positive flow payoffs to the worker, such as adaptive effort or shirking. Crucially, the worker agrees to endure discipline—whether imposed by rules or self-discipline—during the initial periods only because the manager credibly promises future rewards in later periods.

However, ex-post rule enforcement disrupts these promised future rewards, which is expected to erode the overall value of the relationship. Specifically, in the adaptive region, promising higher continuation payoffs to the worker necessarily reduces the manager's payoffs (as indicated by $[\underline{u}^A, \overline{u}^A]$ in Figure 7). Since the manager's payoff is bounded below by $(1-\delta)(y-D)$, ex-post rule enforcement restricts the range of continuation payoffs that can be credibly offered to the worker. Consequently, a payoff that was previously supported by adaptive effort may now require support through shirking or randomization involving shirking. This restriction diminishes the manager's payoff along the PPE payoff frontier.

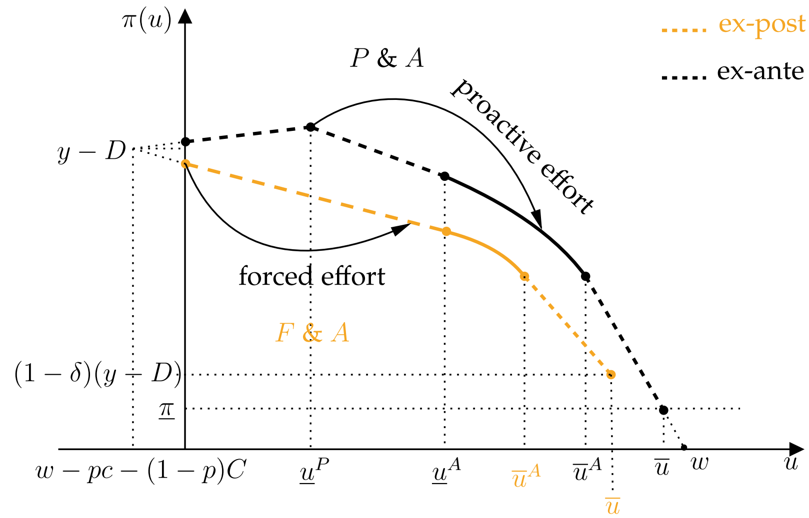

Figure 7: Comparison of the PPE payoff frontiers between ex-ante and ex-post rule enforcement

Part (ii) naturally follows from Part (i): the manager is more likely to enforce rules under ex-post rule enforcement than under ex-ante rule enforcement. Because ex-post rule enforcement limits the managers ability to credibly promise future rewards, the worker becomes less motivated to exert effort when the organization is in decline. Ironically, this compels the manager to rely more heavily on rules to discipline the worker, resulting in rule enforcement occurring infinitely often, even when the enforcement cost exceeds $\underline{D}(\delta)$.

In summary, Proposition 5 highlights how the absence of rule enforcement in the future is critical for incentivizing worker effort in the current periods. When the manager lacks credibility in honoring these future promises, the organization suffers. In the next proposition, we show how this problem can be remedied.

Proposition 6. *Suppose that Assumption 5 holds and $\delta \geq \delta^F$. Under ex-post rule enforcement, when $D \geq D'(\delta)$, the manager's payoff from the optimal relational contract weakly increases in D.*

Proposition 6 shows that under ex-post rule enforcement, the manager can actually benefit from a higher enforcement cost of rules. A sufficiently high enforcement cost can act as a commitment device, discouraging the manager from enforcing rules. As the manager regains commitment power over rule enforcement decisions, her credibility in honoring future rewards is restored, enabling the value of the relationship to recover closer to the level observed under ex-ante rule enforcement.

An important takeaway from the discussion on ex-post rule enforcement is that constraints on the manager's discretion can ultimately benefit the manager herself. This insight complements our analysis of the relationship between selective rule enforcement and organizational performance. While our main results in Section 5 demonstrate that selective rule enforcement fosters a more effective organization than blind rule enforcement, Propositions 5 and 6 suggest that managerial discretion should still be limited to prevent the manager from reneging on rule-related commitments.

7 Conclusion

This paper investigates optimal rule enforcement in employment relationships. We find that rule enforcement can improve the manager's payoff if and only if the enforcement cost falls below a specific threshold. When the cost is sufficiently low, the manager plays an active role in maintaining worker performance by enforcing rules as needed, creating a distinctive pattern where the relationship cycles between periods of rule enforcement and worker autonomy.

For moderate enforcement costs, however, we identify a different pattern of dynamics: rules are only enforced at the beginning of the relationship. This temporary enforcement helps establish a foundation for future flexibility. Our findings align with empirical studies showing that high-performing organizations, which typically generate greater surplus, rely less on rigid rules and more on worker autonomy.

Additionally, we show that while the manager generally benefits from selective rule enforcement, she can actually be disadvantaged if allowed to make rule enforcement decision after the worker joins the production process. This occurs because managers cannot credibly commit to future worker autonomy, which undermines worker motivation in the relationship's early stages. In such scenarios, a higher enforcement cost can serve as a commitment device, enabling the manager to rebuild credibility and improve her payoff from the employment relationship.

For future research, it would be valuable to explore how managerial characteristics, which influence enforcement costs, interact with the production environment and the surplus of the relationship. This could provide further insight into when and how organizations transition between different enforcement strategies, potentially linking management styles to specific industry or market conditions.

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