# LABOR MARKET FRICTIONS AND FIRMS' BUILD-BORROW-BUY CHOICES

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## ABSTRACT

This paper uses transaction cost economics and property rights theory to explain how different kinds of labor market frictions may affect firms' choices among different governance modes of resource acquisition. This paper considers two important dimensions of labor market frictions: the breadth of control rights over employees and the legal enforceability of those control rights. These two different dimensions give rise to 4 different scenarios where firms may prefer to use alliances or acquisitions (or both). Firm choices depend on whether labor market frictions secure firms' rights over employees, whether human capital has greater strategic value, and whether labor market frictions promote successful acquisitions or alliance formation. Our research provides additional considerations surrounding labor market conditions to enrich the original Build-Borrow-Buy framework.

**Keywords**: labor market frictions, transaction cost economics, property rights theory, alliance, acquisition

## INTRODUCTION

Valuable resources and capabilities are crucial to a firm's competitive advantage during market entry (Helfat and Lieberman, 2002; Mitchell, 1989) or for commercializing external technology (Pisano, 2006; Teece, 1986). A valuable resource can be tangible or intangible assets that firms own, control, or temporarily have access to (*e.g.*, human capital) (Balachandran, 2024; Helfat and Peteraf, 2003). Human capital is especially important and valuable to firms' competitive advantage, due to its role in capability development and the capability lifecycles (Helfat and Peteraf, 2003; Hoopes and Madsen, 2022) . To develop new resources and capabilities, scholars have identified different governance modes that firms can rely on. The Build-Borrow-Buy framework identifies the possibility of developing resources and capabilities internally or externally through alliances or acquisitions. It suggests that firms must have the selection capability to choose the mode of sourcing that better fits their existing capability stocks (and their internal social contexts) (Capron and Mitchell, 2009, 2012; Chi, 1994; Dierickx and Cool, 1989). However, the Build-Borrow-Buy framework scarcely discusses the role of hiring and employee mobility in different organizational choices that firms make.

Human capital is central to a firm's superior economic performance (Campbell *et al.*, 2012a; Chadwick and Dabu, 2009; Coff, 1997) due to the tacit knowledge and relational assets they carry. However, compared to other strategic assets, human capital is a special category of capital due to the limited organizational control and the managerial dilemmas that limit their strategic value (Amit and Schoemaker, 1993; Coff, 1997). Firms face serious information problems and the threat of voluntary turnover of employees (Cascio, 1991; Chiang and Chiang, 1990; Steffy and Maurer, 1988), which dissipates the strategic value of human capital. Being able to retain employees is key to maintaining the strategic value of human capital. Thus, hiring new

employees or losing existing employees has strong implications for resource acquisition and competition (*e.g.*, Mawdsley and Somaya, 2016). Furthermore, employee mobility has been shown to interfere with various corporate strategies, such as alliances or acquisitions (Devarakonda *et al.*, 2022; Felin *et al.*, 2015; Younge *et al.*, 2015). Various shocks in labor market friction have also been shown to affect the likelihood of acquisition or alliance formation (Bei *et al.*, 2022; Seo and Somaya, 2023; Younge *et al.*, 2015). The important role of employee mobility in all choices in the Build-Borrow-Buy framework calls for an enriched framework incorporating labor market considerations. We focus here on shocks in labor market frictions to understand firms' choices among the three governance modes of resource acquisition – internal development through hiring, external sourcing through alliances or acquisition.

While there are many forms of labor market frictions (Mawdsley and Somaya, 2016; Starr *et al.*, 2018b), we focus on two representative types of legal mechanisms that result in increased labor market frictions, the past use of noncompete clauses embedded in an employment contract or the inevitable disclosure doctrine (IDD), which originated from trade secrecy protection laws (Contigiani *et al.*, 2018; Younge *et al.*, 2015). These two legal mechanisms are exemplars because they help us investigate two important dimensions of labor market frictions—the breadth of control rights that firms have over their employees and the legal enforceability of legal rights.

The theory development here in this paper is based on transaction cost economics (TCE) (Williamson, 1985, 1991) and property rights theory (Grossman and Hart, 1986; Hart and Moore, 1990) to understand firm choices among the different governance modes of resource acquisition under different labor market friction conditions. Property rights theory is an important theory of the firm within organizational economics (Gibbons, 2005; Hart, 1995; Mahoney, 2005). In recent years, it has gained increasing interest among strategy scholars due to its deep connection with the

resource-based approach and firms' competitive advantage (Argyres, 2011; Foss and Foss, 2005; Kim and Mahoney, 2010). Property rights theory emphasizes contract incompleteness due to the inability to fully specify all (residual) control rights in a contract and proposes that ownership (residual control) rights should be attributed to the contractual party whose investment is more critical to economic value creation (Grossman and Hart, 1986; Hart and Moore, 1990). The current article takes a step in this direction by examining employment contracts (Liebeskind, 1996; Simon, 1951) in the context of employee mobility. By default, employees are free to leave their employer and start working for another employer (Coff, 1997; Younge *et al.*, 2015). Thus, the employer's residual rights toward "owning" the employee do not include what they do after the termination of the employment contract. We build a two-by-two model that considers a high or low breadth of control rights and a high or low level of legal enforceability. Our analysis focuses on whether legal rights are secured, whether owning human capital provides strategic value, and whether labor market conditions promote or constrain alliance/acquisition formation to discuss firm choices between alliances and acquisitions.

We propose that firms are likely to rely more on acquisitions and less on alliances when facing increasing labor market frictions in which both the breadth of control rights and legal enforceability are high. When labor market frictions result in limited control rights and when enforceability is high, firms are likely to use both acquisitions and alliances for resource acquisition. When legal enforceability is lower, firms are more likely to rely on alliances rather than acquisitions.

This reasoning has further implications for enriching the original Build-Borrow-Buy framework. We propose that when firms choose between different governance modes, they should consider labor market conditions. Considering questions related to labor market conditions, firms

are better informed about their rights over their employees, the strategic value of human capital, and the likelihood of having successful outcomes for choices such as alliances or acquisitions.

We contribute to the literature by linking human capital research to the Build-Borrow-Buy framework (Capron and Mitchell, 2009, 2012) to explain and predict how labor market frictions may trigger substitution between different governance modes of resource or capability sourcing. Using TCE (Williamson, 1985, 1991) and property rights theory (Grossman and Hart, 1986; Hart and Moore, 1990), we suggest that rather than having an optimal choice of sourcing mode, firms may prefer different modes when facing labor market frictions. The current article also deepens our understanding of the relationship between the microfoundations of strategy (Devarakonda *et al.*, 2022; Felin *et al.*, 2015; Younge *et al.*, 2015) and firms' corporate-level strategic decisions.

## LITERATURE BACKGROUND

### The Build-Borrow-Buy framework and firms' choices for resource acquisition

Firms can rely on multiple routes to obtain new resources and achieve growth, and it is a critical selection capability for firms to choose the right pathways to gain and sustain a competitive advantage. Capron and Mitchell (2012) developed the Resource Pathways Framework (also called the Build-Borrow-Buy Framework) to guide firms to choose the right growth path. The intellectual root of the Build-Borrow-Buy framework integrates the capability-based perspective with transaction cost economics (TCE) (Wu, 2014) and offers a set of powerful questions that help firms choose among internal development, external contracting or alliances, and acquisitions.

According to the framework, firms should start by identifying a strategic resource gap, focusing on valuable, rare, and difficult-to-imitate resources that can potentially help the firm obtain a competitive advantage. Once the resource gap is identified, the firm should first consider whether its existing resources are relevant by examining both the knowledge fit and the

organizational fit. If internal resources are relevant, then the firm should build new resources internally. If they are not relevant, then the firm should consider external options. The second question the firm should consider is how tradeable the targeted resources are – in terms of both resource clarity and how efficiently they can be protected. If they are easily traded, then the firm could consider borrowing the resources via a licensing or other contractual agreement. If they are not tradeable, then the firm should turn to other options through alliances or acquisitions. The third question the firm should consider is how close they need to be to their resources partner, considering both the scope of collaboration and the compatibility with the partner's goals. If extreme closeness is not needed, then the firm should consider borrowing the necessary resources though alliances. Otherwise, the acquisition option would be a proper choice. The last question firms should ask is how well a potential target firm can be integrated. The feasibility of integration also depends on knowledge and organizational-level factors (*e.g.*, employee motivation). When integration is possible, then acquisition is a property choice.

This series of questions should be addressed in sequence, and it helps firms choose among the build, borrow and buy options in a sequential manner. Firms should prioritize build or buy options when they are available. When all three prior conditions (low resource relevance, low tradability, and high need for closeness) are met, acquisition becomes a proper choice (Capron and Mitchell, 2012; Rothaermel, 2018).

The original Build-Borrow-Buy framework only briefly touched on hiring new employees as one option during internal development. However, human capital warrants more attention in the framework. Due to their tacit knowledge and social value, human capital can be an important source of superior economic performance. Yet, unlike other resources, the strategic value of human capital is not guaranteed due to information problems and the threat of voluntary turnover (Cascio,

1991; Chiang and Chiang, 1990; Steffy and Maurer, 1988). Human capital is acquired through the labor market. Unlike tangible assets, employees are free to quit at will, and once they leave the firm, they carry all the tacit knowledge and network resources with them. Proper management of human capital involves managerial efforts to satisfy, motivate, and retain employees. If firms fail to retain employees, the strategic value of human capital is elusive. Thus, firms face a significant managerial dilemma for human capital that involves employee motivation, principal-agent problems, and the ability to control employee turnover/mobility (Coff, 1997; Stern *et al.*, 2021). Consequently, employee mobility is a critical feature of human capital that significantly affects its acquisition and management.

Given the increasing awareness of the importance of employee mobility (Coff, 1997; Mawdsley and Somaya, 2016) and the microfoundations of corporate strategy (Carnahan and Somaya, 2013; Devarakonda *et al.*, 2022; Wagner and Goossen, 2018), hiring external employees is becoming increasingly important for firms' resource acquisition. Here, we consider how hiring or labor market frictions may alter the existing Build-Borrow-Buy framework and affect firm choices in terms of alliances and acquisitions.

**Employee mobility and organizational outcomes**

The research literature on employee mobility frequently discusses organizational outcomes of the interorganizational movement of personnel. Employee movement benefits the receiving firms in various ways, such as innovation (Rao and Drazin, 2002; Song *et al.*, 2003), learning (Rosenkopf and Almeida, 2003; Singh and Agrawal, 2011), and capability acquisition (Agarwal *et al.*, 2004; Villalonga and McGahan, 2005). One of the most prominent benefits of employee mobility arises from innovation and spillovers of technological knowledge, where diverse types of valuable assets are transferred during the process. These valuable assets include tacit knowledge

that underpins the technologies invented by the source firm (Nelson and Winter, 1982; Tzabbar *et al.*, 2013), essential routines that enable recipient firms to develop new technology trajectories (Song *et al.*, 2003; Tzabbar, 2009), and external information sources that help enhance absorptive capacity (Cohen and Levinthal, 1990; Zahra and George, 2002). The benefit for the recipient firms' subsequent innovation has been documented by patent citation patterns (Rosenkopf and Almeida, 2003; Song *et al.*, 2003).

By default, employees have free will and are free to quit their employers (Coff, 1997; Liebeskind, 1996), and firms can hire whomever they want. However, various constraining factors from either the demand side or the supply side can impede this process (*e.g.*, Mawdsley and Somaya, 2016). For example, information asymmetry (Chadwick and Dabu, 2009; Coff, 1999) often occurs in various labor market settings and prevents firms from identifying and assessing the quality of potential employees. Firms may also create firm specificity or implement various benefits to retain employees (Campbell *et al.*, 2012a; Coff, 1997) and increase the strategic value of their employees. Employee mobility constraints can also come from normative pressures such as professional network conventions or geographic separation (Mawdsley and Somaya, 2016).

In addition, various environmental and institutional factors may further create labor market frictions that further constrain employee mobility. One prevailing form of legal constraint on employee mobility is associated with employment contracts, including the past use of noncompete clauses that prevent employees from joining potential competitors (Marx *et al.*, 2009) and non-solicitation clauses that prevent former employees from retaining resources and relationships from the previous employer (Campbell *et al.*, 2012b; Groysberg and Lee, 2008). Even though the FTC has announced a new rule banning noncompete clauses recently (Federal Trade Commission Office of Public Affairs, 2024), the mechanism and impact of earlier

noncompete clauses have received much scholarly attention, which makes it one of the most well-understood types of external labor market frictions. Another type of legal mechanism, trade secrecy protection, can prevent mobile employees from disclosing critical technology or other knowledge (Godfrey, 2004; Liebeskind, 1996). The enforcement of trade secret laws is subject to the interpretation of specific scenarios. The standard for misappropriation does not require illegal means of disclosure. The inevitable disclosure doctrine (IDD) is a legal doctrine based on the state court's interpretation of trade secrecy laws, and it does not require employees to sign nondisclosure or noncompete agreements. However, even if employees do not intend to disclose trade secrets, as long as there is a chance of "inevitably disclosure" resulting in a potential loss for the original employer, the employer may challenge the employee in court (Klasa *et al.*, 2018). Thus, the IDD is more restrictive and distinct from other laws in that merely threatening the misappropriation of trade secrets is sufficient for it to apply (Klasa *et al.*, 2018). Other legal or policy mechanisms such as employment protection legislation (Belenzon and Tsolmon, 2016) and state-level unemployment insurance benefits (Tsolmon and Ariely, 2022) can also affect the level of labor market frictions – although their role would be to increase the attractiveness of leaving the current position, thus reducing labor market frictions (Acemoglu and Shimer, 2000; Flammer and Luo, 2017). In addition to these external labor market frictions, firms can often implement internal labor market frictions, such as firms' internal health insurance provision (Tsolmon and Ariely, 2022), firm specific training and retention strategies, sharing economic rents, or through other organizational design mechanisms (Coff, 1997; Mahoney and Qian, 2013; Riley *et al.*, 2017). Thus, the actual labor market friction for a specific firm needs to consider various internal and external factors and their interactions with each other.

While there are many factors that contribute to labor market frictions, two important dimensions emerge in determining their influence on firm strategies: the breadth of firms' control rights over employees and the enforceability of control rights. We focus on two of the legal mechanisms that vary in these two dimensions: the IDD and noncompete clauses. Both legal mechanisms have been reported to constrain employee mobility (Garmaise, 2011; Marx *et al.*, 2009; Png and Samila, 2015) and show consistent patterns regarding career development (Contigiani *et al.*, 2018; Marx, 2011; Starr *et al.*, 2018b), firm finances (Klasa *et al.*, 2018; Younge and Marx, 2016), innovation properties (Conti, 2014; Contigiani *et al.*, 2018), and entrepreneurship activities (Castellaneta *et al.*, 2016; Gu *et al.*, 2017; Samila and Sorenson, 2011). There is also evidence related to corporate social responsibility based on IDD rejections (Flammer and Kacperczyk, 2019; Jia *et al.*, 2023) and acquisition likelihood based on noncompete clauses (*e.g.*, Younge *et al.*, 2015). Table 1 provides a literature review and comparison of the two legal mechanisms.

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Insert Table 1 about here

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**How labor market frictions affect firm choices in resource acquisition**

In addition to hiring external employees, firms can use alternative routes to achieve benefits without hiring new talent, including network and geographic knowledge spillovers, acquisitions, and alliances (Hitt, *et al.*, 1991; Sampson, 2007; Steensma and Corley, 2000). When facing an increase in labor market frictions, firms may rely on other governance modes to compensate for the lack of new hires. However, given the multiple routes available, as exemplified in the Build-Borrow-Buy framework, we have less understanding of how firms should choose between different alternatives when facing increasing labor market frictions. We focus on alliances and acquisitions as the main alternative choices to understand how firms should respond with their

external sourcing strategy when facing shocks in labor market frictions. We seek to provide a deeper understanding of the following questions: (1) Following changes in labor market frictions, under what conditions are firms more likely to rely on acquisitions, alliances, or both? (2) Under what conditions do firms prefer acquisitions over alliances, or vice versa? A deeper understanding of these questions helps enrich the Build-Borrow-Buy framework to consider firm choices of resource acquisition modes under changing labor market frictions.

## THEORY AND PROPOSITIONS

This section applies TCE (Williamson, 1985, 1991) and property rights theory (Grossman and Hart, 1986; Hart and Moore, 1990) to the Build-Borrow-Buy framework (Capron and Mitchell, 2009, 2012) to explain and predict firms' choices in hiring, alliances, or acquisitions to obtain human capital. Firms are posited to try to obtain certain human capital to help achieve their economic goals. During this process, they would seek lower cost (including transaction costs) to access human capital. When considering the different approaches to obtaining human capital in the TCE framework (Williamson, 1985, 1991), hiring is considered to be the market mechanism, where one firm hires employees (away from another firm) through an employment contract. Acquisition is considered a mechanism of hierarchy, where one firm gains control of a whole other organization and obtains all its human capital. Alliance is considered a hybrid mechanism in which one firm involves another firm and utilizes its human capital to carry out joint work. Thus, the choices between hiring, alliances, and acquisitions essentially map to the organizational choices depicted in the TCE framework (Williamson, 1985, 1991).

While the ultimate goal is to access human capital to achieve a firm's economic goals (the benefit side is the same for all three approaches), the costs associated with each approach varies considerably. The costs of hiring new employees typically include candidate search costs,

employee salaries and benefits, and potential relocation and family accommodations. These costs are much lower than those of acquiring a whole other firm. An acquisition requires a large investment in financial and managerial resources, and the acquirer firm must obtain a bundle of resources—some of the duplicate or nonstrategic resources need to be restructured or divested later—which are costly and disruptive to the acquirer (Capron and Mitchell, 2012; Karim and Capron, 2016). In addition, acquisitions carry a high risk of successful integration, and employees need to be motivated to work for the new firm. Due to their high risk and high costs, acquisitions are often a last resort for firms (Capron and Mitchell, 2012; Rothaermel, 2018). The costs of alliances are less than those of acquisitions but are also more substantial than those of hiring individual employees. Alliance formation is an organizational process that starts with identifying potential partners with complementary resources, followed by a two-sided voluntary agreement between the alliance partners (Das and Teng, 2002; Mindruta *et al.*, 2016). During this process, firms face potential uncertainty and information asymmetry issues in identifying potentially suitable partners— *e.g.*, challenges surrounding uncertainty about potential partners' technical competencies and expertise (Li *et al.*, 2008), and their resource commitments after alliance formation (Beckman *et al.*, 2004; Lavie, 2006), etc. The situation is exacerbated by informational uncertainty due to the inability to identify all contingencies and write complete contracts arising from environmental uncertainties (Reuer and Ariño, 2007; Weber and Mayer, 2014). Thus, given the lower cost of hiring, firms prefer to hire new employees to fill the resource gap internally if it is a viable option.

However, the low cost of hiring is based on the presumption that employees are free to quit their employers (Coff, 1997; Liebeskind, 1996). When facing additional labor market frictions, such as noncompete clauses or the IDD (Contigiani *et al.*, 2018; Klasa *et al.*, 2018; Younge *et al.*,

2015), the cost of hiring can potentially be much greater when considering potential lawsuits involving employees' previous employers. This increase in the (transaction) cost of hiring will potentially encourage firms to use alternative governance modes to access these human capital. Since both alliances and acquisitions enable firms to access external human capital, they are both likely to be plausible substitutes for hiring under increased labor market frictions.

*Proposition 1(a): When employee mobility is lower due to increased labor market frictions, firms are more likely to substitute hiring with acquisitions to access human capital.*

*Proposition 1(b): When employee mobility is lower due to increased labor market frictions, firms are more likely to substitute hiring with alliances to access human capital.*

These propositions support the substitution between hiring and acquisitions/alliances, which is largely consistent with the literature (Mawdsley and Somaya, 2016). They serve as the baseline condition for our analysis. However, looking at each of them separately and acknowledging their substitutive role when facing increasing labor market frictions offers very limited instruction on a firm's resource acquisition strategy. In the following section, we consider variations in labor market frictions and how firms should choose between acquisitions or alliances when facing different types of labor market frictions.

**Dimensions of labor market frictions: breadth of control rights and legal enforceability**

Different types of labor market frictions vary in their breadth of control rights and legal enforceability. These two factors can potentially affect firms' alliance or acquisition choices when facing increasing labor market frictions. We focus on the IDD and noncompete clauses (Garmaise, 2011; Marx *et al.*, 2009; Png and Samila, 2015) as two representative labor market conditions to discuss firms' choices of acquisitions and alliances when facing increasing labor market frictions.

Employment contracts drawn between a firm and its employees are a fundamental element in incomplete contract and property rights theory (Grossman and Hart, 1986; Hart and Moore,

1990; Simon, 1951). Incomplete contract theory suggests that there are two distinct types of rights of control: the contractable and the noncontractable. It is not possible to specify all possible contingencies in contracts – especially for contingencies in the distant future. Thus, all contracts are unavoidably incomplete (Simon, 1951; Williamson, 1985). Further, it is often the case that contractual parties are not able to engage in renegotiation later on, or it is costly to do so. The unspecifiable portion of a contract, also called the residual rights of control, belongs to the owner of the resource. To achieve maximum economic value creation, Grossman and Hart (1986) developed a model indicating that the ownership of the resource should be held by the contractual party whose investment is more critical to the value creation potential. Without ownership, the contractual party can only appropriate a fraction of the total value created by the resource (Hart, 1988, 1995); thus, it will not exert enough effort in value creation. Property rights theory suggests that firms should integrate and gain (residual) rights of control toward key resources to build a solid foundation for their competitive advantage (Bel, 2018; Grossman and Hart, 1986).

The employment contract is one unique example of an incomplete contract (Coase, 1937; Simon, 1951) where only broad terms of the employee's duties are defined under the employer's authority. It represents a different governance mode of transaction compared to the common market transaction (or sales contract). A firm’s decision rights to employees are the foundation of the firm’s human capital resources, including education, experience, intelligence, knowledge, network relationships, and training (Barney, 1991; Coff, 1997). human capital continue to increase after employees are hired on the job, as the firms invest in their employees.

One thing that distinguishes a traditional employment contract from a sales contract is what employees do after the termination of the contract. After leaving a job, employees are free to move to another position in another company, which threatens the old employer’s competitive advantage

if they work for a potential competitor of the old employer (Coff, 1997; Somaya *et al.*, 2008). Even if the previous owner has the property rights toward its employees, this portion of the "residual value" is not captured or controlled by the previous owner.

The IDD and noncompete clauses have different influences on employers' right to control their employees (Contigiani *et al.*, 2018; Klasa *et al.*, 2018; Younge *et al.*, 2015). Noncompete clauses were signed together with the employment contract, and they expressly prohibited employees from working for a competitor after leaving the firm (Garmaise, 2011; Gilson, 1999). It was signed by many knowledge workers and management team members in the United States (Kaplan and Stromberg, 2003; Marx, 2011). Noncompete clauses granted employers contractable rights that must be specified in the employment contract. In contrast, the IDD does not require employees to sign any contract ex ante. However, even if employees do not intend to disclose trade secrets, as long as there is a chance of "inevitably disclosure" resulting in a potential loss for the original employer, the employer may challenge the employee in court (Contigiani *et al.*, 2018; Klasa *et al.*, 2018). Thus, the IDD grants employers residual rights of control over their employees.

As a result, these legislative procedures that constrain employee mobility help firms gain additional control over employee activity after the employment contract is over. Noncompete clauses expanded the contractable terms as limited by the employment contract; thus, they offered more limited control rights to employers. The IDD expands the set of residual control rights over employees; thus, it grants firms more extensive control rights over their employees. Although both noncompete clauses and the IDD resulted in decreased employee mobility (Garmaise, 2011; Marx *et al.*, 2009; Png and Samila, 2015), we maintain that due to differences in the breadth of control rights firms obtain, noncompete clauses and the IDD have different impacts on firms' alternative resource acquisition strategies.

In addition to the breadth of control rights, the enforceability of legal rights is another critical dimension that influences firms' alternative resource acquisition strategies. Recent thoughts in property rights theory suggest that property rights enforcement costs and enforceability are important factors in establishing asset ownership (Foss and Foss, 2001, 2015). Foss and Foss (2001) suggested that current property rights theory assumes that all residual rights of control can be perfectly enforced, which imposes limitations on its explanatory power by omitting the costs of enforcement. In reality, institutional and governance issues need to be considered to fully assess the property rights granted (Foss and Foss, 2015). In our setting, this means that the noncompete clauses and IDD themselves have not fully established a firm's property rights over previous employees – it also depends on whether and how efficiently they can be enforced. With greater enforceability, firms are guaranteed the new expanded property rights brought about by these legal mechanisms. With lower enforceability, there is no guarantee that firms can retain their rights and protect their trade secrets in the event of employee movement to a competitor firm. The enforceability of control rights also affects firms' decisions regarding whether they should substitute with acquisitions or alliances (or both) when facing increasing labor market frictions.

Combining these two dimensions of labor market frictions leads to four different states that we consider separately (see the two-by-two diagram in Figure 1). In what follows, we will discuss each of the quadrants in detail, explain how the specific condition alters the original Build-Borrow-Buy framework, and analyze firm choices on resource acquisition under each scenario.

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***High control rights (residual rights of control) and high enforceability***

The first scenario we consider is when labor market frictions grant firms greater breadth of control rights, and the rights are highly enforceable. The high control rights situation corresponds to the IDD under trade secrecy law, which provides firms with residual rights of control over departing employees. The IDD enables the employer to stop a former employee from being hired by competitor firm as long as there is a threat of inevitable disclosure (Contigiani *et al.*, 2018; Klasa *et al.*, 2018), which means that actual disclosure of trade secrets does not need to occur and that employers do not need to show evidence of violation. This specific feature of the IDD is different from noncompete clauses that must be specified in an employment contract. Instead, it expands the employer's residual rights of control over its employees.

These residual control rights are protected by the state court through legal mechanisms and are subject to the enforceability of protection by the states. Therefore, whether control rights are enforceable is another important factor when considering their benefits (Barzel, 1997; Eggertsson, 1990; Foss and Foss, 1999). If the enforceability is low, which means that the states are ineffective at protecting the firms under the IDD, then the expanded residual control rights are not fully secured. If the enforceability is high, the firms are secured with expanded control rights.

When labor market frictions provide high control rights and are highly enforceable, acquisition is a better route for resource acquisition. First, residual control rights cover broader scenarios of potential leakage of trade secrets. As a result, firms have more control rights toward employees, which gives them a greater incentive to acquire another firm for their human capital to maintain those rights. Second, under high enforceability of residual control rights such as the IDD (Klasa *et al.*, 2018; Png and Samila, 2015), employee mobility is constrained. These ex-post mobility limits (Peteraf, 1993) increase the strategic value of human capital and encourage firms

to invest in developing firm-specific human capital (Campbell *et al.*, 2012a; Chadwick and Dabu, 2009). Thus, firms are more likely to own human capital for its strategic value compared to alternative routes such as alliances. Finally, tying back to the original Build-Borrow-Buy framework, high control rights and high enforceability increase the feasibility of integration by helping firms retain and motivate employees in the target company. Because employees have fewer outside choices, they are more likely to cooperate and streamline the post-acquisition integration process, increasing the likelihood for acquisitions (Larsson and Finkelstein, 1999; Ranft and Lord, 2002). Therefore, labor market frictions that offer high control rights and high enforceability greatly increase the value of acquisition in the Build-Borrow-Buy spectrum.

However, strategic alliances are a less favorable choice under labor market frictions that offer high control rights and high enforceability. Employees carry both human capital and relational capital (Byun *et al.*, 2019; Mawdsley and Somaya, 2016). Relational capital is important for identifying alliance partners and forming strategic alliances. Recent research studies on the microfoundations of alliances have shown that employee or inventor mobility is positively correlated with subsequent alliance formation (Devarakonda *et al.*, 2022; Wagner and Goossen, 2018). Past employees often carry first-hand information on technological capabilities, R&D resources, and the strategies of their previous employers, thereby reducing information costs in alliance markets (Palomeras and Melero, 2010; Singh and Agrawal, 2011; Wezel *et al.*, 2006). Thus, employee mobility is an important information transmission mechanism between firms (Almeida and Kogut, 1999; Arrow, 1962; Singh, 2005) and thereby helps them identify new business opportunities (Casper, 2007; Rosenkopf and Almeida, 2003). This special feature of employee movement in information transmission helps reduce adverse selection risks (Akerlof, 1970; McCann *et al.*, 2016) during alliance formation. It can facilitate alliance formation among

firms that are not collocated and do not share a collaborative history together (*e.g.*, Devarakonda *et al.*, 2022). When employee mobility is constrained due to labor market frictions with high control rights and high enforceability, firms may experience a temporary need to substitute for alliances but will eventually face greater difficulty in forming strategic alliances due to a lack of moving employees.

In conclusion, when firms face increasing labor market frictions that offer high control rights and high enforceability, these firms are likely to obtain external resources through alliances only temporarily but will face difficulties in forming alliances in the long run. Acquisitions are a more favorable choice for resource procurement than alliances.

*Proposition 2(a). When employee mobility is lower due to increased labor market frictions with high control rights and high enforceability, firms are more likely to obtain external resources through acquisitions.*

*Proposition 2(b). When employee mobility is lower due to increased labor market frictions with high control rights and high enforceability, firms are likely to obtain external resources through alliances only temporarily but will face difficulties in forming alliances in the long run.*

*Proposition 2(c). When employee mobility is lower due to increased labor market frictions with high control rights and high enforceability, acquisitions are a more favorable choice compared to alliances.*

***High control rights (residual rights of control) and low enforceability***

The second scenario considers when labor market frictions grant firms a greater breadth of control rights, but these rights are not fully enforceable. The high control rights situation again corresponds to the IDD under trade secrecy law, which provides firms with residual rights of control over departing employees. However, the enforceability is lower, which suggests that these residual control rights are not fully secured.

In this situation, the incentive for acquisitions is much lower. First, residual control rights over employees are no longer secured. If an employee joins a competitor firm and there is potential

for trade secrecy leakage, the previous employer can still choose to go to court, but the chance of winning is not high. Thus, the previous employer is less likely to want to go through the trouble. Second, now that employees are more mobile, their strategic value will significantly decrease (Campbell *et al.*, 2012a; Chadwick and Dabu, 2009; Peteraf, 1993), giving firms less incentive to pursue that value. Finally, with lower enforceability, employees in the target company are less likely to stay after the acquisition, thus increasing the likelihood of acquisition failure (Larsson and Finkelstein, 1999; Ranft and Lord, 2002). As a result, firms are not expected to have higher incentives for acquisitions under labor market frictions with high control rights that are not enforceable.

However, due to loss aversion (Kahneman *et al.*, 1991; Kahneman and Tversky, 1979), even though the residual rights of control are not fully secured, firms still have an incentive to substitute with external resource acquisition when possible. We propose that they will instead rely more on strategic alliances. Due to low enforceability, vaguely defined residual rights of control are not fully secured. Thus, we still expect to see employees moving between companies, and the constraint on alliance formation in the previous section is largely alleviated. In addition, with less stringent trade secrecy protection overall, firms will encounter more opportunities for potential alliance formation.

In conclusion, when firms face increasing labor market frictions that offer high control rights, but these rights are not fully enforceable, they are less likely to substitute with acquisitions and are more likely to rely on alliances.

*Proposition 3(a). When employee mobility is lower due to increased labor market frictions with high control rights and low enforceability, firms are less likely to obtain external resources through acquisitions.*

*Proposition 3(b). When employee mobility is lower due to increased labor market frictions with high control rights and low enforceability, firms are more likely to obtain external resources through alliances.*

*Proposition 3(c). When employee mobility is lower due to increased labor market frictions with high control rights and low enforceability, acquisitions are a less favorable choice compared to alliances.*

***Low control rights (contractable rights) and high enforceability***

Employment contracts often contain certain clauses that constrain employee mobility, deter potential competition, and, accordingly, alter firms' rights toward their employees. A prominent example is noncompete clauses (Garmaise, 2011; Gilson, 1999). With the adoption of noncompete clauses, the employment contract becomes more economically valuable because of the expansion of contractable rights over an employee's future career choices and the protection of the original employer's competitive advantage. This expansion increases employers' incentive to obtain employees via an employment contract. However, adopting noncompete clauses makes it more difficult for employees to leave their existing employer and work for a competitor firm. As a result, employees tend to stay with their employers for a longer time, and firms are more likely to hire new employees with less experience (Starr *et al.*, 2018b).

Noncompete enforceability varies substantially across different states (Starr *et al.*, 2018a). Recent studies on noncompete clauses have attempted to develop noncompete enforceability indices to assess enforceability in different states (Bishara, 2011; Garmaise, 2011; Starr, 2019). The enforceability of noncompete clauses is also an important factor in determining firms' alternative resource acquisition strategies.

When labor market frictions present limited contractable rights (as in the example of noncompete clauses) and are highly enforceable, firms are more likely to rely on both acquisition and alliances as alternative resource acquisition approaches.

For acquisitions, contractable rights with high enforceability grant the employer additional rights, even though the extent of the rights is less than that in the IDD scenario. These additional contractable rights also give firms a greater incentive to acquire another firm to own the employees they cannot hire otherwise. In addition, additional contractable rights also increase the strategic value of acquired human capital (Campbell *et al.*, 2012a; Chadwick and Dabu, 2009). Finally, it also limits employees' ability to leave the firm after the acquisition (Younge *et al.*, 2015). Given these considerations, firms indeed have increased incentives for acquisitions when facing increasing labor market frictions that offer contractable rights that are highly enforceable.

For alliances, our previous concern for the case of residual rights of control is that when employees are not able to move between employers, firms lack the necessary relational capital from newly hired employees for alliance formation (Devarakonda *et al.*, 2022; Wagner and Goossen, 2018). While residual rights of control limit all potential employee movement that may result in trade secrecy leakage, this is not the case for contractable rights. Even if a state adopted noncompete clauses, not all firms required their employees to sign them; not all employees were required to sign them—only for certain job functions—and not all noncompete clauses presented the same requirements. These limited rights of control plus the heterogeneity in employee mobility constraints determine that firms have ample opportunities to access the necessary relational capital to facilitate alliance formation through various channels. Thus, with increasing labor market frictions that offer contractable rights and high enforceability, firms are equally likely to form strategic alliances as an alternative resource acquisition approach.

*Proposition 4(a). When employee mobility is lower due to increased labor market frictions with low control rights and high enforceability, firms are more likely to obtain external resources through acquisitions.*

*Proposition 4(b). When employee mobility is lower due to increased labor market frictions with low control rights and high enforceability, firms are more likely to obtain external resources through alliances.*

*Proposition 4(c). When employee mobility is lower due to increased labor market frictions with low control rights and high enforceability, firms are equally likely to use acquisitions or alliances as alternative resource acquisition strategies.*

***Low control rights (contractable rights) and low enforceability***

When contractable rights have low enforceability, even limited control rights over employees cannot be guaranteed. Thus, firms would have a lower incentive for acquisitions. This is because with low enforceability, contractable rights do not truly give the firm additional rights to employees, human capital has lower strategic value, and firms are also not guaranteed to retain employees after an acquisition.

In states with low noncompete enforceability, although employee mobility may still be lower due to contractual obligations and the fear of potential legal complications (*e.g.*, Blake, 1960), such mobility did not truly generate severe legal consequences. Thus, employee movement was still possible, especially when firms are actively seeking to hire new employees. With the help of relationship assets, mobile employees can still support alliance activities as needed.

*Proposition 5(a). When employee mobility is lower due to increased labor market frictions with low control rights and low enforceability, firms are less likely to obtain external resources through acquisitions.*

*Proposition 5(b). When employee mobility is lower due to increased labor market frictions with low control rights and low enforceability, firms are more likely to obtain external resources through alliances.*

*Proposition 5(c). When employee mobility is lower due to increased labor market frictions with low control rights and low enforceability, acquisitions are a less favorable choice compared to alliances.*

**An enriched Build-Borrow-Buy framework under labor market frictions**

Thus far, we have examined IDD and noncompete clauses as two examples of labor market frictions to analyze the impact of the breadth of control rights and legal enforceability on firms' alternative resource acquisition strategies. Figure 1 uses a two-by-two diagram to summarize firms' choices along the two dimensions. When facing labor market frictions, firms may alter their resource acquisition strategies and substitute hiring with other Borrow-Buy options. However, knowing that firms may substitute with different options offers little instructional value – firms would also want to know which option (alliances or acquisitions) would be the best choice, complementing their selection capabilities (Capron and Mitchell, 2009). Our framework provides insights into the conditions under which firms may choose between alliances or acquisitions, depending on the additional control rights firms obtain from labor market frictions and the legal enforceability of those rights. When firms gain many control rights with high enforceability, they are likely to prefer acquisitions to alliances. When firms gain limited control rights with high enforceability, they are equally likely to use either acquisitions or alliances. When enforceability is low, firms are likely to prefer alliances, regardless of whether the control rights are broad or narrow. We hope that the insights from these two examples of labor market frictions will provide guidance for a more general setting in which firms face various labor market frictions.

Our framework helps enrich the Build-Borrow-Buy framework by adding labor market frictions and the resulting changes in employee mobility as important considerations. We focus on TCE-PRT-based logic regarding firms' rights toward their employees and discuss how they affect firm choices over different alternatives. Our theoretical development also brings additional questions into the Build-Borrow-Buy framework (Figure 2) related to increasing labor market frictions. For acquisitions, firms want to consider whether labor market frictions offer additional

control rights to employees. Is there an increase in the strategic value of human capital? In addition, are employees likely to stay with the target firm after an acquisition? For alliances, firms also need to be aware of the possibility of finding alliance partners and determine whether labor market frictions and the resulting lower employee mobility impede alliance formation. These considerations can guide firms' choices of the best resource acquisition strategies when facing increasing labor market frictions.

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Insert Figure 2 about here
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## CONCLUSIONS AND DISCUSSION

We build upon the Build-Borrow-Buy framework (Capron and Mitchell, 2012) and examines the substitution among different organizational choices (internal development through hiring vs. external sourcing through alliances or acquisitions) when facing increasing labor market frictions. We propose that labor market frictions increase the transaction costs of hiring new employees from the labor market. Thus, firms may seek alternative governance modes to access external human capital through either alliances or acquisitions. Which governance mode to rely on depends on two important factors: the level of control rights from labor market frictions and the legal enforceability of those rights. Focusing on these two factors for labor market frictions, we identify the conditions under which firms may favor acquisitions, alliances, or both, thus enriching the Build-Borrow-Buy framework by adding labor market frictions to the firms' selection model.

We use property rights theory and incomplete contract theory (Grossman and Hart, 1986; Hart and Moore, 1990; Simon, 1951) to analyze firms' strategies in response to different legal mechanisms that increase labor market frictions. To facilitate theory development, we consider the past use of noncompete clauses and the IDD as representative examples of labor market frictions, both of which prevent employees from moving to a competitor firm (Contigiani *et al.*, 2018; Marx

*et al.*, 2009; Younge *et al.*, 2015), and seeks to explain and predict firms' strategic responses with alternative resource acquisition modes. Noncompete clauses expanded firms' contractable rights over their employees. In contrast, the IDD expands firms' residual rights of control. This difference in the breadth of control rights helps us identify the first dimension of labor market frictions. In addition, both the IDD and noncompete clauses need legal enforceability to be fully functional. Thus, the enforceability of legal rights is the second dimension of labor market frictions. We further construct a two-by-two diagram and identify the strategic choices of firms regarding acquisitions and alliances under each scenario.

The recent FTC rule banning noncompete (Federal Trade Commission Office of Public Affairs, 2024) calls for further consideration of our prior discussion of the relationship between labor market frictions and corporate-level strategy for external sourcing. We propose two ways to interpret the impact of the noncompete banning. First, the FTC rule to ban noncompete clauses effectively puts the enforceability of noncompete at a minimal level. So firms could go to our two-by-two framework and focus on the quadrant with low enforceability when evaluating firm choices under this new condition. Second, we can also consider the noncompete ban as resulting in reduced labor market frictions. A reduction in labor market frictions is not uncommon as examined by previous literature, but the focus was on how firms would strengthen internal labor market frictions to retain human capital and keep their strategic value. For example, Flammer and Kacperszyk (2019) examined the state rejection of IDD, which lowers labor market frictions, and how firms increasing their engagement in corporate social responsibility as a coping strategy. Tsolmon and Ariely (2022) showed that in response to high state-level unemployment insurance benefits, which reduces labor market frictions, firms will offer their employees health insurance benefits. A foreseeable prediction is that with noncompete being banned by the FTC, firms may strengthen

their internal labor market through various means as well. The implication is that firms should take a comprehensive evaluation of the level of labor market friction when choosing their strategy of external sourcing. With lower levels of labor market frictions, hiring is a favorable choices to access external knowledge and capabilities (*e.g.*, Mawdsley and Somaya, 2016) due to its high flexibility and lower cost. But it also depends on the firm's needs. However, a noncompete clause as only one factor itself is not the determining factor for the actual level of labor market frictions the firms face. When considering the option of poaching employees away from a competitor, firms need to consider both internal and external labor market frictions to determine their best strategy.

We join recent literature to explain the relationship between microfoundations and corporate-level strategy and the potential substitution between different governance modes available to firms during resource and capability sourcing (Capron and Mitchell, 2012; Devarakonda *et al.*, 2022; Younge *et al.*, 2015). We consider hiring as the internal development approach and examine employment contracts from TCE (Williamson, 1985, 1991) and property rights theory (Grossman and Hart, 1986; Hart and Moore, 1990) to explain and predict the substitution between different sourcing modes under labor market frictions.

We also provide insight into the different legal mechanisms that give rise to labor market frictions. While both noncomplete clauses and the IDD increase labor market frictions (Contigiani *et al.*, 2018; Klasa *et al.*, 2018; Marx *et al.*, 2009), the different rights they grant employers can result in differences in the substitution between hiring and other approaches.

Finally, even though scholars have started to explore how employee mobility may be related to corporate strategic choices such as alliances or acquisitions (Bei *et al.*, 2022; Devarakonda *et al.*, 2022; Younge *et al.*, 2015), they usually focus on only one of them. We provide a more comprehensive picture of the different choices available to a firm, including both

acquisitions and alliances. The developed theory suggests that alliances represent a transient change in firms' sourcing choices, and acquisitions may be more favorable under high labor market frictions and high legal enforceability.

However, there are limitations to this article that provide avenues for future research. Alliances and acquisitions represent the most prominent approach for external sourcing of resources and capabilities, including human capital and knowledge assets (Capron and Mitchell, 2012; Mowery *et al.*, 1996; Younge *et al.*, 2015), but there are many other approaches, such as interfirm networks, informal ties, and contracts (Almeida, 1996; Jaffe *et al.*, 1993). An increase in labor market frictions may encourage firms to adopt different approaches for external sourcing, which may interact/interfere with each other. Thus, future research should give more attention to these various scenarios.

Further, while data on labor market frictions and enforceability measures are available in various settings (Conti, 2015; Kang and Fleming, 2020; Marx, 2022), much variation and inconsistencies exist in the extant research literature. A better assessment of the adoption of these legal mechanisms and a better measure of the enforceability of each mechanism may help us better explain and predict the relationship between labor market frictions and corporate strategy.

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TABLES

Table 1. A Comparison of the Findings Based on Non-compete Clauses and the Inevitable Disclosure Doctrine

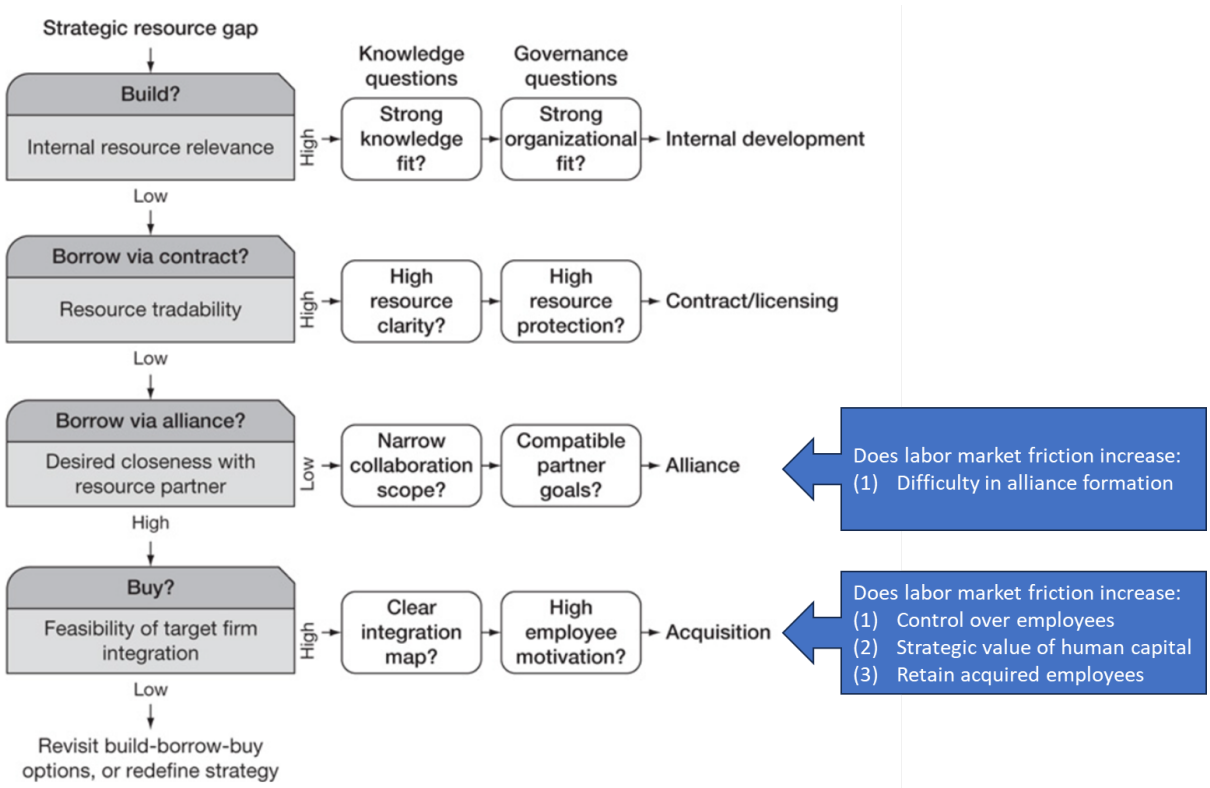
| | **Non-compete clauses** | **Inevitable Disclosure Doctrine** |
|---|---|---|
| Employee mobility | Lower mobility, especially for specialized knowledge workers (Marx *et al.*, 2009)<br>Executive stability (Garmaise, 2011) | Adopting IDD is associated with lower mobility for both university-educated workers and other workers. Rejection of IDD is associated with higher mobility of university-educated workers and lower mobility of less educated workers (Png and Samila, 2015). |
| Career development | Increased level of firm-sponsored training, but no strong correlation with self-sponsored training (Starr, 2019)<br>Longer tenures, firms hire workers with less initial experience, firms change the amount and nature of training provided (Starr *et al.*, 2018b)<br>Ex-employees subject to non-competes are more likely to take career detours (Marx, 2011)<br>Reduced executive compensation and greater use of salary. Firms have higher incentive to invest in their managers human capital, but managers are discouraged from investing in their own human capital (Garmaise, 2011) | IDD causes lower individual-level incentives to signaling quality to the external labor market (Contigiani *et al.*, 2018) |
| Financial aspects | Boosted the short-term value of publicly traded companies. (Younge and Marx, 2016) | Increased leverage (Klasa *et al.*, 2018) |
| Innovation | Companies undertake riskier R&D paths (Conti, 2014) | Lower innovation, due to lower individual-level incentives to signaling quality to the external labor market (Contigiani *et al.*, 2018) |
| Corporate social responsibility | | Increased CSR following rejection of IDD (Flammer and Kacperczyk, 2019) |
| Startups | Fewer within-industry spinouts. But those are created tend to start and stay longer, founded by higher-earners, and more likely to survive their initial years. These are not seen in non-within-industry spinouts. (Starr *et al.*, 2018a)<br>Significantly impedes entrepreneurship and employment growth. (Samila and Sorenson, 2011) | Reduces V.C.s' investment propensity and successful exits. (Gu *et al.*, 2017)<br>Increases the amount of V.C. investment (Castellaneta *et al.*, 2016) |
| Acquisition | Constraints on employee mobility raise the likelihood of a firm becoming an acquisition target. (Younge *et al.*, 2015) | |

## FIGURES

**Figure 1. Two-by-two illustrating governance choices of resource acquisition along the two dimensions.**

| | | Legal enforceability | |
|---|---|---|---|
| | | High | Low |
| Level of control rights | High | More acquisition<br>Less alliances | Less acquisition<br>More alliances |
| | Low | More acquisition<br>More alliances | Less acquisition<br>More alliances |

**Figure 2. Modified Build-Borrow-Buy framework with additional questions related to labor market frictions.**



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