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Real options? Labor contracts in an uncertain world

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Abstract The standard labor contract is increasingly replaced by flexible and diverse alternative work arrangements. We discuss, in the context of firm labor demand when product demand and costs are uncertain, real options, the right but not the obligation to flexibly adjust firm labor input. We investigate when flexible contracting has real option value, interpret the conditions where flexible contracts are preferred and compare theoretically derived to actual labor contracts. We assess the value of flexibility to firms and workers and suggest how sharing the real option value through higher wages and Unemployment Insurance can ensure that real options benefit all.

Keywords Real options · Standard labour contract · Alternative work arrangements · Flexibility

1 Introduction

How many workers does a firm need to operate profitably? When the "firm" is a manufacturer, say General Motors, the answer to that question may have been relatively straightforward. This is not the case in retail. A "firm", here more Starbucks than General Motors, can be open from 5:30 in the morning to midnight, but the number of workers it requires to operate profitably over the course of the day, from day to day, and from outlet to outlet can vary hugely. Optimal staffing requires split shifts, short hours, and on-call arrangements tailored to each outlet's specific needs. This flexible staffing cannot be achieved via a "standard labor contract",[1] the union-negotiated, permanent contract. For the standard contract, the unit of analysis was the worker, but the concern was the wellbeing of the worker's family throughout life, extending to well after the employment relationship had ceased. Such contracts would have been offered to a GM worker although not to the barista at Starbucks. While the institutional and legal legacy of the standard contract remains, the standard labor contract itself is more and more a thing of the past. What is replacing it is a wide array of non-standard contracts, all of which provide the firm with a real option. That real option gives the firm the right, but not the obligation, to flexibly adjust and optimally time the use of its worker's human capital assets. The provision of the social contract component of the standard contract now falls onto the worker or the state.

The demise of the standard contract can be linked, in part, to the short expected lifespans of firms today. At less than two decades, firm longevity is less than a worker's average work life. Even the GMs of the world must be nimble to survive. Now, non-standard employment

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[1] The standard labor contract was a post-WWII social and a labor contract providing continuity of employment in the employer's place of business and under the employer's supervision, with compensated overtime and benefits including health insurance and a company pension. It was institutionalized through collective bargaining, labor law and social welfare systems (Kalleberg 2000).

relationships, the so-called alternative work arrangements, are replacing standard ones (Katz and Krueger 2016). In contrast to the standard contracts, alternative work arrangements are flexible and diverse, with supervision and employment relationships often divorced from the place of work and for whom the work is done. Alternative work arrangements include part-time contracts, temporary agency contracts, short-term contracts, contingent work, such as zero-hour or on-call contracts, self-employment and/or independent contracting. Many of these contracts have real option characteristics since they give the firm the needed flexibility to make contingent decisions about real labor assets (Sick 1989). Standard contracts are desirable to workers because of the social contract under which they were established and the law and custom supporting them. They provide job, income and social security benefits, such as healthcare and pensions. These features make them costly to firms (Kalleberg 2003). Alternative work arrangements, in contrast, provide flexibility (Berg et al. 2014; Drache et al. 2015; Wilthagen and Tros 2004). They allow firms to control costs, to improve efficiency, and to match their just-in-time inventory systems or the peaks and troughs of retail foot traffic with just-in-time labor input (Kalleberg 2003), potentially shifting demand and cost risk onto their workers. They have brought about changes in internal firm structures (Guidetti and Pedrini 2013; Lindbeck and Snower 1988; Piori 1986) and how work is organised (Broschak and Davis-Blake 2006; Davis-Blake, et al. 2003; Kalleberg 2003). Alternative work arrangements, unlike standard contracts, are not governed by a risk-hedging social contract. The worker is on his or her own or dependent on the state for what was once, for some, employer provided.

In this paper, we examine the optimal labor contracting decisions of a firm not obligated by union agreement or custom and tradition to offer a "standard contract". Its goal is to maximize its market value. The firm faces uncertainty over demand for its product or service and its costs of production. Maximizing value requires that it minimizes the cost of this uncertainty.

To set the scene, we begin in Sect. 2 by discussing a firm's labor demand decision when its goal is maximizing owner wealth. We discuss the different types of labor contracts available to the firm, determining when non-standard contracts generate real option value. In Sect. 3, we characterise the firm's problem under a variety of assumptions regarding the demand and cost uncertainty it faces and on the flexibility of the human capital/labor contracts it can offer.[2] We determine when non-standard contracts, the alternative work arrangements, have real option value to the firm and interpret the strike condition, the value at which the non-standard contract dominates the standard contract for new hires. We discuss what this means to the worker offered a non-standard rather than a standard contract. In Sect. 4, we apply our analysis to case studies that mirror our contracting structures. Here we assess the cost and benefits of these contracts to the workers depending on the type of contracts the firm provided and social benefits made available to them. In Sect. 5, we offer some concluding recommendations on how the option value of flexibility can be shared between the firm and the worker to the benefit of both and the economy as a whole.

2 Standard contracts and real options: assessing the firm's employment decision

To achieve the overall firm goal of maximizing shareholder wealth, the firm must identify as many profitable investment projects, including human capital investments, as possible. Having identified a profitable human capital investment, the type of contract the firm chooses to issue can have considerable managerial implications, since different contract types generate different expected net benefits. For example, the decision to issue standard employment contracts could be justified from a stakeholder–agency theory perspective (see Hill and Jones 1992). Here management acts to align the long-term goal of workers with those of the firm, thus alleviating any perceived agency costs. Individuals on standard contracts who see their long-term future with the firm develop skills and work more productively than individuals employed on non-standard contracts where the promise of a long-term employment relationship is absent. This efficiency gain must be set against the higher implied costs in terms of training, long-term job-linked benefits for employees, and reduced ability to react to changing market conditions. Hiring workers on short-term contracts, because of the lack of commitment by the firm to these employees, may result in lower productivity (Wandera 2011; Foote and Folta 2002; Dolado et al. 2016). It need not since employees can signal their value to the firm and other potential employers by being highly productive. While lower productivity can be a potential cost of hiring workers on non-standard contracts, there are potential benefits in terms of lower total labor costs and increased flexibility. Empirical evidence suggests that in some circumstances employing workers on non-standard contracts can be cheaper to the firm, even when they are less productive, because these workers are not entitled to non-wage benefits (Osawa et al. 2013). While containing costs is important, it is this flexibility of non-standard individually crafted employment contracts, which generates real option value to the firm.

[2] The complete technical model is available from the authors.

A "real option" is "the flexibility a manager has for making decisions about real assets" (Myers and Turnbull 1977; Sick 1989). As new information about those assets is revealed, a firm's managers avail real options to adapt and revise their decisions to exploit the new and unexpected developments to maximise the firm's advantage or to minimise disadvantage. Common types of real options include the option to delay an investment, the option to expand, the option to abandon, the option to stage an investment, and production flexibility options. Projects that can be scaled up or down are worth more than similar projects that lack that flexibility. The more uncertainty there is surrounding future cash flows a project will generate, the more value there is to the real option. Thus, managers, responding to changes in costs or demand, expand, contract or abandon production to exploit upside gains while limiting downside losses.

Real options analysis is commonly applied to long-term capital projects and research and development where the up-front cost of capital is high (Boomsma et al. 2012; Fernandes et al. 2011; Lee and Shih 2010; Moel and Tufano 2002; Slade 2000; Krychowski and Quelin 2010). Some studies have also considered the value of real options in human capital (Bhattacharya and Wright 2005; Brady 2017; Foote and Folta 2002; Musselin 2005; Van Emmerik and Sanders 2004) where the specific characteristics of human capital cannot be immediately assessed. We add to this existing body of literature by assessing whether the inherent flexibility of non-standard employment contracts can be specifically targeted by firms to align production and demand and to adapt to more volatile cost environments. This alignment is of strategic and financial importance to the firm as it limits the downside risk of long-term operations while exploiting any upside enhancement to value that flexibility allows. In effect, flexible employment contracts allow firms intent on maximizing shareholder wealth to scale employee numbers up or down quickly in response to changing demand or cost conditions. Hence, the firm can limit the cost of paying wages when demand is low and exploit strong market conditions by immediately increasing production when demand is high. It can, also, replace permanent labor with contract labor to avoid legacy staffing issues when its cost environment changes.

3 Demand for labor when demand and/or costs are uncertain

To analyze the firm's decision, we describe, in the spirit of Lazear and Shaw (2007), a simple model of cost minimization in the face of demand and cost uncertainty. Under a series of assumptions concerning the contracts for human capital services available to the firm, we define which of the alternative arrangements generate real option value. We then interpret the strike condition, which defines the best contractual relationship given the firm's output market and cost conditions, and assess the value of the option to the firm.

Assume labor markets are segmented, so that contracts offered on one market do not affect contracts offered on other markets. Under this assumption, terms and conditions of employment are specific to a market, a firm and a worker. Thus, two workers working side by side in the same firm doing the same job could be hired on different labor markets, with the first hired on the market for permanent workers and the second from an employment agency. Their terms and conditions of employment would reflect this. The first contract would be permanent and pensionable, while the second would be temporary. Under the first contract, line management would be provided by the firm, while under the second, by the agency. The first contract would promise wages and benefits, while the second only wages. These contractual differences may affect worker productivity via implicit and explicit expectations. They may also affect the realizable real option value of the employment relationship to the firm. For example, an on-call contract can provide just-in-time labor services to meet retail demand fluctuations, at the cost of low productivity and weak firm attachment by the on-call worker. In contrast, a project-linked contract can provide specialist labor services specific to project requirements while incentivizing high productivity to ensure future employment in the sector, if not at the firm. The firm interested in increasing the flexibility of its labor input must compare the costs and benefits of the available non-standard contracts to determine which, if any, delivers the best value.

Assume the firm faces certain costs of production but uncertain demand. Before uncertainty is resolved, the firm takes decisions which lead to output being produced. If output differs from demand, the firm incurs losses. Initially, the firm's choice variable is the number of work hours, which implies a fixed human capital input. To produce any output, some workers on standard contracts must be hired. These can be interpreted as the required managerial input, which could be in head office or at individual production locations. Thereafter, the production function exhibits constant or diminishing returns to scale. Given any labor input, the firm knows precisely how much output it can produce.

Demand is random. Ideally the firm wants only to produce enough to meet demand. If the firm is in the retail trade, it wants to have adequate employees on the floor to meet customer needs, neither too few so that customers do not get served quickly, nor too many so that some employees are idle. If the firm is in manufacturing, it wants

to have enough workers to produce the amount of goods demanded without building up or drawing down inventory unduly. Deviations of output from demand, which can be real output or service potential, are costly. For example, overproduction of large ticket items generates high storage costs or losses due to product obsolescence. In contrast, underproduction incurs the opportunity cost of disappointed customers.

A firm, restricted to hiring workers on standard contracts and producing to meet uncertain demand, takes a middle path, always missing target demand, where the extent of the deviation depends on the cost of labor and on the expected loss of under- or overproduction. This well-defined cost of missing target demand, call it D, defines the potential value of a more flexible employment structure.

Now consider the same environment as above, but assume that the firm receives a verifiable signal of demand before production commences but after labor contracts have been negotiated. This allows the firm to adjust its labor input by, for example, requiring current workers to work compulsory overtime or by hiring contingent workers, where the contingency is firm and market specific. The type of non-standard contract issued will also be firm and market specific, where the firm compares the net benefit of alternative contract forms across many markets to determine which yields the highest, if any, option value. For some firms, especially those in retail, these demand deviations occur on a daily or hourly basis leading firms to use predictive scheduling and to consider on-call or zero-hour contracts to optimize labor usage. For other firms, demand deviations are project related. They consider using agency workers or independent contractors whose employment is linked to a specific project to meet their particular requirements. These contracts for contingent labor must be negotiated before the signal of demand has been received.[3] What is critical for firms in their decision to exercise their option to hire contingent labor, that is, what defines the strike, is the cost of missing the demand target, D, relative to the minimum total cost of hiring contingent workers to meet demand peaks or laying off workers in demand troughs, call this C. If $D > C$, flexibility has option value. That value can be allocated in full to the firm, in full to the contingent workers, or shared between the firm and the workers. Contingent labor will not replace labor on standard contracts entirely, rather it offers a flexible just-in-time labor input that anticipates demand.

The model can be generalized further to encompass both cost and demand fluctuations. In this framework, real options contracts can be used to meet changes in the cost and/or the demand environment where these contracts are specific to the source of the fluctuation.

In the above scenarios, the firm's goal was to reduce or eliminate the cost of over- or underproduction via hiring contingent labor. From the firm's perspective, any reduction in costs without a corresponding reduction in revenue that increases market value should be pursued. When a firm pursues cost saving via more aggressive labor contracting, its costs fall, but economic costs overall may not. A reduction in firm cost cannot be equated with an economy-wide efficiency gain. Thus, the allocation of the gains is critical to both the firm and the worker as well as to economic wellbeing. For example, when a firm hires a temporary worker on an alternative work arrangement, rather than a permanent worker on a standard contract, the benefits of permanent employment, such as income security and job-related benefits, are replaced by uncertain hours and no job-related benefits. Insecure jobs can imply higher government social welfare service provision, since workers in temporary and sporadic employment may access government social welfare programs when unemployed. These government services, together with own saving and other own or family resources, can hedge the employment risk the worker on a flexible contract faces. However, since there is value that can be shared between the firm and the worker, the worker on the non-standard contract need not be worse-off than the worker on the permanent contract since the firm can choose to compensate the worker via higher wages. The societal outcome depends on to whom value is allocated. This is addressed in the following two sections.

4 Case studies

Demand and cost uncertainties, which drive changes in firms' demand for labor, depend on the competitive, regulatory and macroeconomic environment in which the firm produces as well as the firm's perceptions of consumer preferences. The market wage differentials depend on regulations governing full-time permanent and pensionable employment and contingent employment—whether full-time, temporary, or part-time employment including non-wage benefits, costs of hiring and firing, union strength, labor market conditions, overall macroeconomic conditions and worker preferences. The firm's optimal decision depends both on the product or service it provides and

[3] The literature cited above suggests that hiring contingent labor can have external effects leading to workers being either more or less productive. These effects can be accommodated by assuming that the firm hires effective units of labor for the effective price of that labor. Hence, if the external effects are positive, the cost of hiring an effective unit of labor is lower, while if the external effects are negative, the cost of hiring an effective unit of labor is higher. The external effects on the permanent staff and the contingent staff need not be the same. Since the main results are not affected by specifying these external effects, because cost considerations will remain at the root of firm decisions, we note but abstract from them in our analysis.

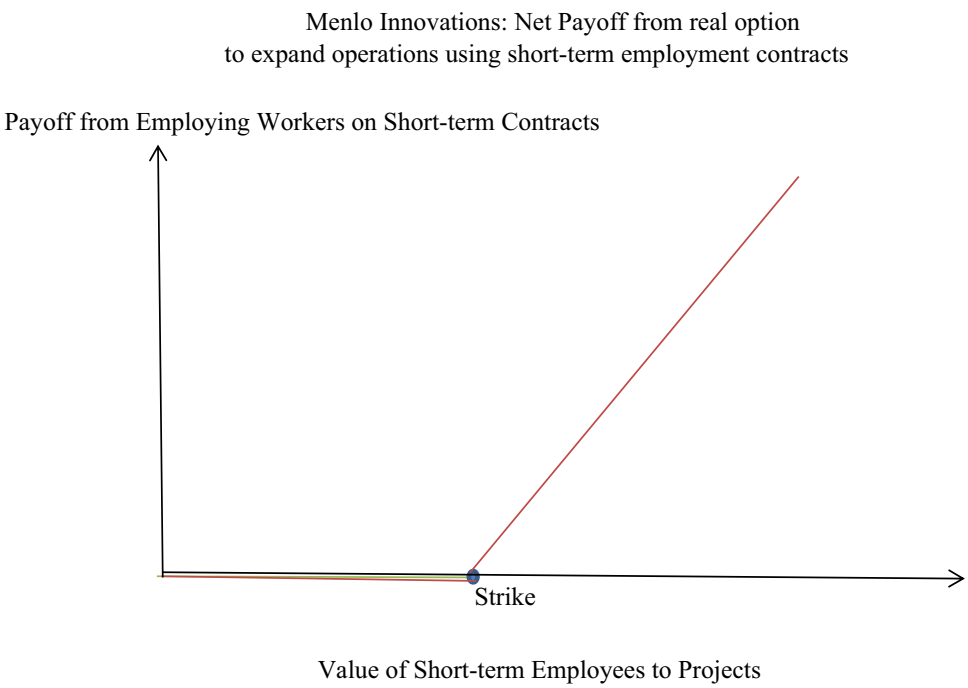

Fig. 1 Payoff to Menlo innovations of real option to expand

supply conditions in the labor markets. We now confront our findings with real-world examples.

4.1 Case study 1: responding to uncertain demand

Menlo Innovations, a software design company, is well recognized for its flexible work practices and benefits for full-time, permanent staff. These practices have led it to be a repeat winner of the Alfred P. Sloan Award for Excellence in Workplace Effectiveness and Flexibility (Galinski and Jackson 2014). To meet increases in demand, contractors are hired. They fully share the work and are integrated into the design teams, but are paid less and are not eligible for the in or out of work benefits, such as sick, maternity and holiday pay, which full-time employees receive. As they are hired explicitly to meet fluctuations in demand, they are let go when demand returns to normal levels (Reynolds Lewis 2011). Menlo Innovations recognizes that these contract positions are less desirable than permanent employment, so they promote these positions as providing good experience that will expand contractors' employment networks and increase their potential for permanent employment at Menlo or elsewhere. Thus, these positions have option value to Menlo Innovations, the ability to meet target demand precisely, and to the contractor, improved employment prospects. The contractors absorb the costs associated with employment uncertainty and lack of benefits which they offset against their improved expected lifetime income.

Menlo Innovations provide software design to the technology industry, a rapidly evolving market. They maintain a very lean organisation to guard against costly over-staffing, instead rely on short-term employment contracts to provide flexibility that has real option value to the firm. From Menlo's perspective, the option can be viewed as an option to expand. The firm will choose to exercise the option, analogous to a call option, in order to exploit the upside opportunities by increasing production. This is illustrated in Fig. 1.

When demand is as anticipated, it will produce using its core standard employment contract workers. When the level of demand increases, the value of the option will increase. If it reaches the strike when the benefit of adding workers on non-standard contracts is greater than the cost of missing its demand target, Menlo issues project-linked contracts to address the increased demand thereby enhancing its bottom line. Menlo continues issuing project-linked contracts until underproduction is eliminated.

Menlo Innovations' policy of issuing project-linked employment contracts to address changing demand means that its operations actually contain a series of real options. Consider the case where the firm has exercised the option to hire additional workers to cope with increasing demand. When demand drops to normal levels management reallocates permanent staff to ongoing projects and cancels the project-linked temporary contracts, the option value of which is now zero. This is analogous to exercising a put option to limit the costs associated with overproduction and align production output with demand. This is illustrated in Fig. 2.

Here Menlo limits downside losses by exercising the real option to contract.

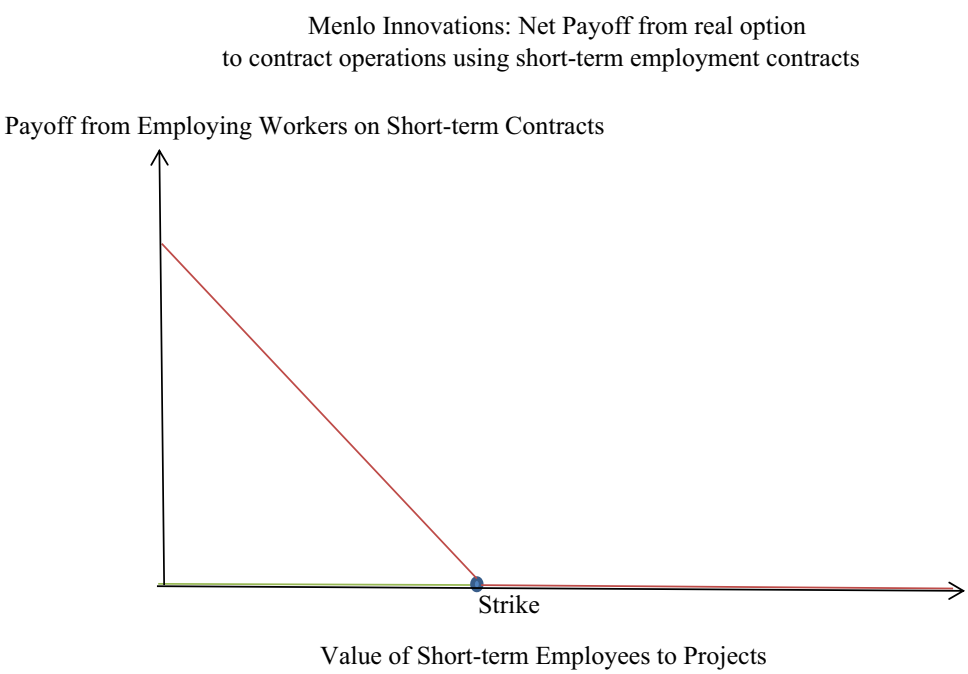

Fig. 2 Payoff to Menlo innovations of real option to contract

Menlo Innovations continues exercising these options to expand and contract operations through issuing or cancelling short-term project-linked contracts, thus limiting the costs associated with under and over production as well as revenue stream volatility and uncertainty that standard contracts cannot. The real option clearly has value to the firm. Each option can be valued as either a call (to expand) or a put (to contract).

An examination of job search web sites, such as Indeed.com, People2People.force.com.au, wallstreetservices.com or movemeon.com reveals that Menlo's strategy is shared by many firms the world over, often requiring very highly skilled staff, such as senior tax accountants, IT engineers or project managers, for short periods of time, often as little as two months, on very short notice. To get the right people at the right time, firms often are required to pay a premium relative to permanent worker wages, but, again, are not obliged to provide benefits. It must be the case that, for profit-maximizing firms, the cost of this premium, which can be interpreted as a sharing of the option value, is less than employing workers with the requisite skills on standard contracts, lending credence to the argument that the flexibility of engaging workers on non-standard contracts has real option value.

4.2 Case study 2: insider–outsider/core–periphery workforce

Because of the very different costs involved in hiring and firing workers granted permanent (CDI, *Contrat à durée indéterminée*) contracts in France, short-term (CDD, *Contrat à durée déterminée*) contracts, contracts that are limited in duration and can only be renewed once before the employee must either be offered a CDI position or let go, are often the preferred way to meet even stable demand (Le Barbanchon and Malherbet 2013) given cost uncertainty, creating an insider–outsider model of employment. In France, in 2015, four out of five new hires were on CDD contracts, including that offered to Marine at a Paris cosmetics firm (Rose 2015), a position which required her to relocate to accept but did not provide the job security required to rent a flat. CDD contracts seldom lead to CDI contracts. In 2010, for example, only 5.6% of workers on CDD contracts transitioned to CDI contracts (Le Barbanchon and Malherbet 2013). Temporary employment contracts can be used by firms to delay an irreversible decision by allowing new information to reveal itself about the employee and hence can have real option value to the firm. In this case, however, with only 5.6% of workers on CDD contracts ultimately being given full-time contracts, more consideration, as to the actions of the firm in issuing so many of these contracts and of the workers willing to accept such contracts, is required.

Firms utilize non-standard labor contracts to maximize gains and minimize losses generated by stochastic demand and costs. Workers, faced with the prospect of non-standard contracts, will seek to minimize the costs of the uncertainty being transferred to them. If the worker can hedge most (or all) of the risk they are much more likely to accept these contracts. Where social welfare benefits are high, workers can transfer much of the unwanted risk temporary employment contracts hold to the social welfare system, in effect

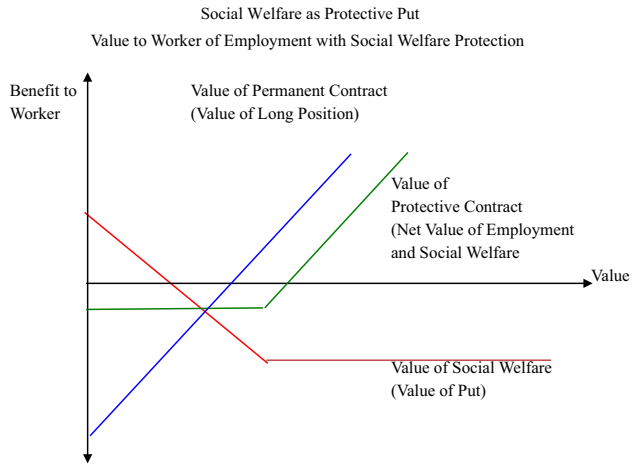

Fig. 3 Social contracts providing employees with protective put

limiting the downside of accepting such contracts. The state-provided, and to some extent employer funded, social welfare contract acts like insurance for the worker. While the employer is shifting risk to workers by using non-standard employment contracts, workers are more willing to accept this risk transfer if they can, at least, partially hedge such risk. Where workers cannot use these social contracts to hedge, flexible contracts are much riskier for individual workers and the losses incurred can be, depending on the allocation of the option value, much larger.

It is possible to view the existence of social welfare programs from the employee's perspective as a protective put social contract. In finance, a protective put is a strategy where an investor purchases (takes a long position in) a share and simultaneously buys a put option to cover the share. Such a strategy establishes a "floor price" below which the investor's stock value cannot fall so the holder of the protective put retains the upside potential of the stock while limiting the losses. We can apply a similar strategy in the case of a worker considering a CDD contract. Consider Marine. After one year, the cosmetics firm has a choice: to issue a CDI contract or let her go. If the CDI contract is offered, Marine will accept and the put option will expire unexercised. If, on the other hand, the CDD contract expires and Marine is let go, she exercises the put and accesses social benefits to mitigate her losses. This is illustrated in Fig. 3. When benefits are tied to employment, as most are in the United States, for example, then the worker cannot limit losses via a protective put when a temporary employment contract ends.

In the UK some industries and public sector employers maintain a minimal core of permanent workers and utilize temporary (peripheral) workers to meet fluctuations in demand and/or costs. Some firms, such as gyms and leisure centers, build up a substantial pool of on-call workers to meet these fluctuations, others, such as child care centers, warehouses, such as Amazon (Cadwaller 2013) and SportsDirect (Business, Innovation and Skills Committee 2016), and schools, rely on agency staff who provide both the staff and the line supervision thereof. This practice allows employers to meet demand as closely as possible while minimizing labor costs (Metcalf and Dudwar 2010). These firms, like Menlo Innovations, exercise the call option to expand or the put option to contract once the cost and/or demand state is realized and the strike is reached. Here there is little evidence of sharing the benefits of flexible labor contracting with the temporary workers. Instead costs are shifted onto workers hired on non-standard contracts and the benefits are allocated to the firm. The firm's efficiency is increased by this practice, but economic costs are not reduced and may be increased as individual workers cannot hedge this risk, or can only partially hedge by accessing social welfare benefits or own saving.

4.3 Case study 3: retail and food service

The retail and food service industries face fluctuating demand on an hourly, daily, and seasonal basis. Demand can spike for a day or a week as a result of a playoff berth for a local sports team, can plummet because of poor weather or temporary road closures as a result of repaving or other maintenance work. To respond to ever-shifting demand, scheduling software programs (Golden 2015) are often used to obtain optimal staffing levels, while managers are required to meet corporate profitability goals via their staffing decisions, while staying within overall staffing limits (Lambert and Henly 2010). Once staffing decisions are made, work schedules are issued to workers with an employment relationship, but possibly without specific guaranteed hours, which reflect this demand variability. These schedules are issued sometimes less than three days prior to the beginning of the workweek, while within week scheduling changes in response to unanticipated demand shifts are possible (Kantor 2014). These zero-hour or on-call contracts, which are more and more common and represent an ever increasing share of all labor contracts issued (Golden 2015) can be considered as a collection of real time call and put real options. By allowing firms to minimize employment costs while providing high level service fulfilment via flexible and targeted utilization of labor, these real options provide value to the firm. There is, however, little evidence that this value is shared. Instead, significant cost is imposed on the worker who has limited ability to hedge income volatility.

5 Value sharing—the real option

In the current economic environment, firms need to deploy their labor input flexibly to produce efficiently and to compete effectively. They can achieve this greater

flexibility by employing workers on non-standard contracts where the contract form mirrors the firms' human capital needs. As these needs can vary from day to day, from outlet to outlet, from project to project, they affect firm demand for the low-wage on-call retail worker employed through an agency to the high-wage, high-skilled independent contractor. The contracts governing these employment relationships allow the firm to respond flexibly to changing conditions by expanding, contracting, or staging their production. They have real option value to the firm. Economic equity demands that firms pay for this valuable flexibility by sharing the real option value of flexibility with their non-standard workers.

Firms can share the real option value of flexibility directly, via higher wages for workers on non-standard contracts, and indirectly, via taxes or required contributions to support social welfare benefits, specifically unemployment insurance. Workers on non-standard contracts use the higher income and unemployment insurance to hedge the income and other employment related risks they face. Paying higher wages follows the Australian model, where firms are required to pay a loading on top of the wage paid to those on standard contracts to workers hired on non-standard contracts. This loading provides compensation for the benefits foregone, such as protection from unfair and arbitrary dismissal, notice of termination, and any service-related benefits such as sick or maternity leave, holiday pay or carers leave (Burgess et al. 2008). These higher wages enable the workers on non-standard contracts to self-insure against employment risk. Firms' provision of funding for social welfare programs enables workers to hedge the costs of periods of unemployment via a protective put contract as described above. The most valuable form of social welfare from an income hedging perspective is Unemployment Insurance (Blanchard and Tirole 2005) which provides replacement income, calculated as a percentage of wage or at a flat rate, when unemployed. Ideally, it is designed to incentivize job search and efficient job matching. However, because eligibility for Unemployment Insurance is generally based on length of service, most workers on non-standard contracts are not eligible. Clearly, changing eligibility requirements so that all workers regardless of length of service are eligible is critical to the equitable distribution of the real option value of flexibility. Also, funding mechanisms (currently the firm and/or the state and/or the worker fund the unemployment insurance system) must be revised. In the revised structure, all would contribute, in recognition of the fact that firms, all workers, those on standard as well as non-standard contracts, and the state, benefit through the improved efficiency that more flexible employment promotes when the value of that benefit is equitably shared. While the moral hazard associated with Unemployment Insurance will remain a problem, it will not worsen as a result of covering those on non-standard contracts. Sharing the value of the real option of flexibility via higher wages and/or Unemployment Insurance will not create a perfect world, but it will promote a better one.

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