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EMPLOYEES VERSUS INDEPENDENT CONTRACTORS FOR THE EXCHANGE OF LABOR SERVICES: A LAW AND ECONOMICS ANALYSIS
(DRAFT)

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1. INTRODUCTION

In this paper, I consider the use of employment contracts versus commercial contracts for the exchange of labour services. Those workers selling their services via an employment contract are employees and those using the commercial contract are independent contractors.
Legally, the distinction between these two types of contracts is important because the whole body of labour law is only applicable on employees. Judges have laid down tests to enable a distinction to be made between employees and independent contractors. In general, an employment relationship is established when the employer has the authority to direct the employee's actions and to control the employee's work. The decision-making authority of the employer over the subordinated employee is an essential aspect of the employment contract. By authority and control it is meant such things as determining the duties, the working time, the pace and the location of the work. Other aspects are also considered by judges, such as the provision of tools, equipment, instruments and the like.

The independent contractor also provides labour services, but has a far greater latitude than the employee in the way he or she performs the tasks, for example in working hours. In a commercial contract for labour services, the job is specified in much greater detail, and the independent contractor has the residual rights of control over non-specified actions.

From an economic point of view, the concern is to map the transaction of exchange of labour services into the most efficient institutional arrangement. Whether the exchange for labour services is governed by an employment contract or a commercial contract depends on which of the two arrangements is most efficient with respect to a certain transaction. The efficient arrangement is then the feasible arrangement that maximises the total value received by the parties involved. The aim of this paper is to determine the conditions under which each contract is used. In essence, the choice is between using the market (commercial contracts) for the transaction of exchange of labour or organising the transaction in the firm (employment contract).

In order to examine the conditions that determine the use of employment contracts versus commercial contracts, I will recapitulate some insights gained from transaction-cost theory (section 2), property–rights theory (section 3), and principal-agent theory (section 4). In sections 5, I will try to combine the insights of the previous sections in order to come to a more comprehensive understanding of the factors determining the allocation of the residual control rights and the residual returns on someone's actions. In section 6, I will determine the factors determining the allocation of property rights of the tools and machines used to perform the labour services.

2. TRANSACTION-COST THEORY

The decision about the use of employment contracts or commercial contracts is central to the theory of the firm. The study of firm boundaries originated with the famous essay by Coase (1937), who raised the question of why we observe so much activity inside formal organisation if, as economists commonly argue, markets are such powerful and effective mechanisms for allocating scarce resources. Coase suggested that transactions will be organised in the firm when the cost of doing so is lower than the cost of using the market. The costs of constant recontracting with an outside independent contractor can be high relative to those of signing a long-term contract with an employee in which the employee agrees to carry out the commands of the employer. The independent contractor enters a sequence of well-specified market contracts with different customers. For each contract he has to search for a customer and to negotiate and specify the terms of the contract. An employee enters a long-term employment contract, which is rather deliberately not made fully specified, but contains clauses which specifically leave it to the employer to fill out the gaps by unilateral, administrative decisions. Transaction costs can be saved by organising interactions in an employment contract.

Modern transaction cost economics originated with Williamson (1979, 1985). Williamson identified key dimensions of individual transactions such that, when described in terms of these dimensions, every transaction can be mapped inside a most efficient institutional arrangement. Williamson (1985) suggests that three characteristics are critical: frequency, uncertainty and asset specificity. Each characteristic is claimed to be positively related to the adoption of internal governance.

The *frequency* of a transaction matters because the more often it takes place, the more widely spread are the fixed costs of establishing a non-market governance system.

The exchange of labour services is an *uncertain*, complex transaction. At the contract formation stage it is impossible to specify with sufficient precision all possible future events and all the actions to be taken in these events. One solution is to postpone the determination of the actions to be taken until the events realise. In that case, buyer and seller of the labour services would have to bargain every time e.g. a new order came in, a shipment was late, or a machine broke down. Bargaining costs will be incurred whenever a situation arises that was not covered explicitly by the contract. An efficient solution is for the authority to rest with a single party. The decision-making mechanism in the employment contract is basically that the boss can order to do everything that is not explicitly forbidden by the contract's terms or by law. In that way, parties do not need to incur large costs to try to specify all contingencies at the moment they sign the contract, and they do not need to bargain with each other each time something happens that was not foreseen in the contract.

Asset specificity of a transaction refers to the degree to which the transaction needs to be supported by transaction-specific assets. When the parties to a transaction make investments which are specific to their relationship, these investments have no value (or considerable less value) outside the relationship. Asset specificity may refer to physical or human capital assets. When relation-specific investments are made, the parties have an interest in continuing the relationship because this is the only way to capture the returns on the investments made. But asset specificity also widens the scope for opportunistic behaviour. One or both parties might try to capture part of the returns on the other party's investments. Williamson has termed this behaviour 'hold-up'. In general when the transaction is characterised by asset specificity, the opportunism problem can be mitigated by integrating the transactions within the organisations. The user of the specific assets becomes then the owner of the assets. As will be shown in the following sections, this solution is only feasible for physical assets, not for specific human capital because workers cannot transfer the ownership of their human capital assets.

The following conclusion can be drawn from transaction-cost theory. Compared to the commercial contract, the authority relation (employment contract) does not require that a complex contract specifying future contingencies be generated in advance. The authority relationship also reduces the frequency with which contracts must be negotiated in comparison to commercial contracts. Assuming, however, that the parties of the employment relation are joined in a long-term association, most of the contracting problems due to opportunism remain.

3. PROPERTY-RIGHTS THEORY

The property rights approach pioneered by Grossman and Hart (1986) emphasises the incentives driven by ownership. Ownership might be identified with the right to exercise residual control and with the right to receive residual returns.

The *residual rights of control* over an asset are the rights to make any decisions concerning the asset's use that are not explicitly controlled by law or assigned to another by contract. When the contract is silent about the decision rights, it is the owner of the asset who may take all decisions. The right to receive the residual returns of an asset make it possible for the owner to receive and to keep the residual returns from the asset after contractual obligations are fulfilled. The residual returns may be current cash flows or changes in the current value of the asset.

Tying together residual returns and residual control is the key to the incentive effects of ownership. These effects are very powerful because the decision maker bears the full financial impact of his or her choices. In the process of maximising his or her personal returns, that person will also generally be led to maximise total value of the asset. If the one who decides on how the asset is actually used (residual control), is not the one who receives the residual returns, then this person is unlikely to take the value-maximising level of care in maintaining its value and even more unlikely to add much to the asset's value.

Although Grossman and Hart (1986) have emphasised residual rights of control over physical assets in order to explain who owns which assets, in their conclusion they point at the fact that their theory can also be used to explain residual rights over actions. In particular an employer-employer relationship differs from an independent contractor-customer relationship in the allocation of residual rights of control over actions. An employee-employer relationship is typically characterised by the fact that many details of the job to be carried out are left to the employer's discretion, that is, the employer has many of the residual rights of control. In an independent contractor-customer relationship, the job is specified in much greater detail, and the independent contract typically has many of the residual rights of control over non-specified actions.

Application: hold-up and the ownership solution

The classic version of the hold-up story is told by Klein, Crawford and Alchian (1978). One party must make an investment to transact with another. For example, firm A invests in the equipment to produce a specific component for the body of a car which is produced is firm B. This investment is relation-specific; that is, its value is zero in any use other than supporting the transaction between the two parties. The investor is then vulnerable to hold-up by the other party. Because contracts are mostly incomplete, it might be necessary to negotiate about certain terms and conditions of the relationship after the specific investments are made. One party might try to change the terms to his advantage thereby capturing the returns on the investment made by the other party. The investing party will have to accept the change proposed by the other party when the alternative is the termination of the contract in which case all investments are lost. The party who anticipates a hold-up may be unwilling to invest in specific assets. Inefficiency results, because the market does not bring about optimal investments. If the supply relationship faces extensive hold-up problems, the best solution may be vertical integration, with all the parts of the body being procured internally rather than outside. The organisation and governance structure of the firm are thus viewed as a mechanism for dealing with hold-up problems. The firm is then an efficient organisational structure which protects the investments of those who would otherwise be deterred from making the most, value-creating investments. Generally, when an asset is specific to a particular use, the hold-up problem for that asset can be avoided by having the user own the asset.

However, this line of reasoning cannot be followed when the concern is not about specific physical assets, but about specific human capital assets. A person's skills and knowledge are assets that can only be owned by the person alone. In the absence of slavery, workers are not free to transfer ownership rights permanently to someone else. It means that a worker can always terminate his employment relationship. Because vertical integration is not a feasible solution for the hold-up problem with respect to specific human capital, parties will have to design contractual arrangements to overcome the problem. When it is too costly for the parties to contract about these arrangements, it might be optimal for the law-maker to intervene. The law or courts could then offer rules that mimic the contractual arrangements which would have been adopted by the parties when there were no impediments to private bargaining.

In the employment relation, the hold-up problem might be mitigated by fixing the contract terms. When the contract terms, such as the wage, the working hours and the nature of the work to be done are fixed, parties no longer need to renegotiate about them, hence there is no possibility for one party to capture the rents on the other party's investments. Another solution is to obligation for the employer to give the employee a severance payment when his contract is terminated. A severance payment is a type of exit barrier. An employee will not be prepared to invest in relationship-specific human capital if he is not certain that he will be able to capture the returns on his investment. In case his employment contract is terminated early, the employee is no longer able to capture the returns. However, if the employer has to pay a severance payment, this payment can compensate the employee for the returns he is no longer able to capture.

Strategic behaviour might also occur in the relation between the independent contractor and his customer. A commercial agent, for example invests resource up-front in the expansion of the principal's business because he expects continuing benefits from the new business. The agent runs the risk that his expected benefits are expropriated by the principal when the latter terminates the contract shortly after the new business has been obtained. This has been the concern of the EC Directive 86/653/EEC on self-employed commercial agents. Under the Directive, the principal is obliged to pay the agent upon termination. The mandatory payment protects the agent against the principal's opportunistic behaviour of expropriation of the goodwill built up by the agent.

4. PRINCIPAL-AGENT THEORY

A transaction in which one party provides labour services to another party is a principal-agent relation. Milgrom and Roberts (1992) provide an excellent overview of the main elements of the principal-agent theory. The main problem of such relations is that the agent's interests commonly differ from the principal's and the principal cannot evaluate how well the agent has worked or whether the agent has been honest. Principal-agent problems are situations in which one party (the principal) relies on another (the agent) to do work or provide services on his or her behalf. When the agent's actions and effort cannot easily be monitored, the agents have a greater scope to pursue their own interests.

One solution to the principal-agent problem would be to closely monitor the effort level of the agent. The agent might have to punch a time clock or can be closely monitored by a supervisor. However, closely monitoring the effort-level might be too costly or might not be a feasible solution. Monitoring effort is e.g. not possible when the job requires mental tasks which do not lend themselves to direct observation of effort.

Then, to provide incentives for the agents to behave in the principal's interest, it is necessary to base (part of) their compensation on their performance. Compensation based on performance or output is called incentive pay. The agent is not paid a fixed wage, but is paid according to his performance.

While providing incentives to work hard, incentive pay has a cost: the agents are subjected to risks in their current or future incomes. According to Milgrom and Roberts (1992), the cost of risk bearing stems from 3 sources of randomness of incentive pay. First performance on which compensation is based is frequently affected by things outside the agent's control that have nothing to do with how honestly and diligently the agent has worked. Second the performance measures include random and subjective elements which make the evaluation imprecise. Third, there is a possibility that outside events beyond the control of the agent may affect his or her ability to perform as contracted.

Consequently, making agents responsible for performance subjects them to risk which decreases the utility-level of risk-averse persons. Efficient contracts balance the cost of risk bearing against the incentive gains that result. Furthermore the gains of the use of performance pay are especially diluted, when the agents should perform several activities as part of their jobs and the performance of these activities cannot equally precisely be measured. The agents are then likely to spend more effort in those activities which generate the results on which the performance compensation is based. At the same time they will not pay attention to those activities if extra effort does not lead to an increase of the returns.

These observations lie behind the 'equal compensation principle' laid down by Milgrom and Roberts (1992, p.228): " If an employee's allocation of time or attention between two different activities cannot be monitored by the employer, then either the marginal rate of return to the employee from time or attention spent in each of the two activities must be equal, or the activity with the lower marginal rate of return receives no time or attention." When the problem of motivating the person to honour his or her other responsibilities is great, the best system may be to avoid offering any formal financial performance incentives. When performance in some activities is hard to measure, it may be best to provide balanced, necessarily lower-powered incentives for all activities.

5. FACTORS DETERMINING THE ALLOCATION OF RESIDUAL CONTROL RIGHTS AND RESIDUAL RETURNS ON A PERSON'S ACTIONS

According to the judges, the power of the employer to control the employee's work is an essential element of the employment contract. The employer can determine the tasks to be performed, the working hours, the pace and the working place, and all other aspects of the relationship on which the employment contract is silent. The independent contractor, on the other hand, has the residual control of his actions. When nothing is specified in his contract with the customer, it is the independent contractor who can take the decisions. What factors determine the allocation of the residual rights to control a person's actions or work?

According to the principal-agent theory, it is necessary to use incentive pay in order to align the interests of the agent with those of the principal. But incentive pay has a cost. The agent will bear some risks. Incentive pay is likely to be used when the costs of it are not too high. The cost of using incentive pay will be lower when e.g. the agent is less risk-averse, when the measurement of the performance can be executed with more precision and when the performance of all activities can be measured with equal precision. When an agent is paid according to his performance, he receives the residual returns from his actions. It was mentioned before in the section about the property-rights theory that optimal incentives are created when the rights to residual returns are combined with the residual control rights. It means it is optimal that a person who receives the residual returns of his actions, also has the rights to control his work or actions. The right to control the work can be referred to as the control of the work routine. By this it is meant such things as determining the duties, time, pace and location of work. When the residual right to control the work or actions is allocated to the agent, he is considered to be an independent contractor.

When no incentive pay is used, it means that the agent is paid a fixed wage and that the principal has the residual returns on the work performed. In that case, it is optimal that the residual rights to control the agent's actions are allocated to the principal (the firm). In that case, the agent can be considered to be an employee.

This is consistent with the model presented by Garen (1999). If the cost of measuring output is low and the cost of monitoring worker effort is high, high incentive pay and worker control of the work routine occur. The worker/agent is then an independent contractor. If the cost of measuring output is high and the cost of monitoring worker effort is low, low incentive pay and firm control of the work routine occur. The worker/agent is then an employee.

6. FACTORS DETERMINING THE ALLOCATION OF RESIDUAL CONTROL RIGHTS AND RESIDUAL RETURNS ON THE ASSETS USED TO PERFORM LABOR SERVICES

Another essential element laid down by the judges to make a distinction between employees and independent contractors is the property of tools and machines used to perform the labour services. When the tools used by the agent are property of the firm, there is likely to be an employment contract. When the agent owns the tools and machine, there is likely to exist a commercial contract and the agent is an independent contractor. What kind of incentives are optimal and what are the conditions which determine the allocation of ownership?

A distinction can be made between the situation in which the agent's actions matter most with respect to the maintenance of the asset and the situation in which the principal's (the firm's) activities are more important. First I consider the situation in which it is important that the agent – while using the asset - devotes effort to maintaining or increasing the asset's value. At the same time, it might be difficult for the firm to measure a person's performance in caring for the asset. The value-maximising allocation of ownership rights would be to make the agent the owner of the asset. When the agent is the owner of the asset, he has the residual control and the residual returns on the asset. In this way, this person will have a proper interest in maximising the residual value of the asset. As the owner, he has a built-in incentive to care for the asset; he or she keeps any value that is created when the asset is well cared for. In order to motivate the agent to pay attention to production, it is necessary to use incentive pay. As we have seen before, it is then optimal to allocate the rights of control of the actions or work to the agent too. A person who receives the residual returns on his actions (incentive pay), and who is able to control his work routine (residual rights of control), will also have the residual control and the residual returns on the tools used to perform the labour services. The agent is then considered to be an independent contractor. Now I consider the situation in which the firm's actions have the greatest effect on the asset's value. When the firm can better take the actions to maintain the tools and machines, ownership should lie with the firm. According to the equal compensation principle, it might then be optimal to avoid offering financial performance incentives when it is difficult to measure the employee's activities in maintaining the asset. Performance pay would induce the worker to provide extra effort in those activities which result in an extra pay. At the same time the employee would neglect the actions which lead to a better maintenance of the asset. In case the firm owns the tools, it has the residual control and receives the residual returns on the assets. It is better not to use financial incentives for the person using the firm's tools.

When no performance pay is used, it is optimal for the firm to possess the residual control on the worker's actions. There will be an employment relationship between the worker and the firm.

7. CONCLUSION

In the employment relationship, the residual rights to control the employee's actions and the residual returns on the employee's actions are allocated to the employer. It means that when the contract is silent about the allocation of rights, it is the employer who can take all decisions concerning the actions to be taken and the employer obtains the residual returns generated by the employee's actions.
In the commercial contract, the residual rights to control the independent contractor's actions and the residual returns on the independent contractor's work is allocated to the independent contractor. It means that when the contract is silent about the allocation of rights, it is the independent contractor who can take all decisions and receive the residual returns on his actions.

The allocation of rights is driven by the incentives to invest and to perform it generates. When the costs of using performance pay is not too high, it is optimal to provide high-powered financial incentives. In that case, the agent can be induced to take value-maximising decisions about his actions and the tools he uses, by allocating to the agent the residual rights of control and the residual returns on his actions and the assets used. The agent is then considered to be an independent contractor.

When the costs of using performance pay is too high, it is optimal to provide no or low-powered financial incentives to the agents. The agents are (mainly) paid a fixed wage and the firm receives the residual returns. It is then optimal to allocate also the residual rights to control the agent's actions to the firm (the principal). The agent is then considered to be an employee.

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