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COOPERATIVES, TRANSFERABLE SHARES, AND A UNIFIED BUSINESS LAW

by

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ABSTRACT: *This paper explores the implications of transferable shares in a cooperative firm as compared with shares in a capitalist firm. We argue that a cooperative firm issuing transferable shares is isomorphic to a capitalist firm as a business organization, while maintaining its essential characteristic of being owned not by capitalists but by members as input providers or output receivers. Based on this observation, we explore the possibility of developing a unified business law that regulates both capitalist and cooperative firms within a single legal framework.*

Keywords: cooperative, transferable share, business law

JEL classification: K22, P13

1 Introduction

1.1 Purpose of the paper

Shares of stock in companies are traded daily on stock exchanges worldwide. Shares of membership in cooperatives, by contrast, are rarely traded in an open market. What would happen, then, if membership shares in a cooperative were transferable and could be traded in the market just like shares in a company?

This paper considers this question in three stages.

First, we examine why membership shares in cooperatives have been rarely traded in the market. One possible answer is that the trade of membership shares has been considered to be inappropriate in light of cooperative philosophy and thus has been

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prohibited or restricted by cooperative law. This hypothesis is persuasive per se considering the history of the development of cooperatives, which has been heavily influenced by ideology. However, as we discuss in this paper, cooperatives seem to benefit much from issuing transferable membership shares in the market, which leaves the question of why the prohibition of or restriction on the transfer of membership shares has remained over an extended period of time under the pressure of market forces. We hence explore possible functional factors that may obstruct the transfer of membership shares in cooperative firms. We then conclude that, if only ideological and legal constraints were lifted, shares of membership in a cooperative firm could in principle be made transferable and tradable in an open market just like shares of stock in a capitalist firm.

Second, on the basis of this conclusion, we explore the economic consequences of transferable shares in a cooperative firm. We argue that transferable shares are expected to bring cooperative firms a great deal of efficiency improvement. At the same time, we confirm that a cooperative firm issuing transferable shares has more similarities to than differences from a capitalist firm as a business organization. Nevertheless, even if it issues transferable shares, a cooperative firm maintains its fundamental characteristic of being owned not by 'capitalists' (who only provide financial capital to a firm without transacting in real goods and services with it) but by members as input providers or output receivers. Owing to this feature, a cooperative firm preserves the essential part of the conventional cooperative philosophy.

Third, on the basis of these economic considerations, we examine the legal aspects of transferable shares in a cooperative firm. In particular, we explore the possibility of developing a unified business law that regulates both capitalist and cooperative firms within a single legal framework.

1.2 Companies and cooperatives: how do they differ?

This subsection argues that, with transferable shares, a cooperative's organizational structure per se is quite similar to that of a company.

Business corporation

According to Kraakman et al. (2009), a business corporation, which roughly corresponds to a 'company' in general terminology and the concept of a capitalist firm in this paper, is referred to as an enterprise that has the following five attributes: (1) legal personality, (2) limited liability, (3) transferable shares, (4) delegated management with a board structure, and (5) investor ownership.

While the meaning of the first four attributes is clear, the last attribute needs some clarification. In the present context, we interpret investor ownership as a governance structure in which the formal owners of the firm consist of those who provide financial capital to the firm.

Cooperative

According to the International Co-operative Alliance (ICA), a cooperative is defined as 'an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned

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and democratically-controlled enterprise' and is based on 'the values of self-help, self-responsibility, democracy, equality and solidarity.'[1] To realize these values, the ICA provides seven principles as guidelines, which are: (1) voluntary and open membership, (2) democratic member control, (3) member economic participation, (4) autonomy and independence, (5) education, training, and information, (6) co-operation among co-operatives, and (7) concern for community.

Although the legal boundaries of cooperatives are often ambiguous and vary by country, cooperatives are commonly recognized as business organizations that abide by the ICA principles.

Legal personality

Cooperative law usually bestows legal personality on cooperatives. Therefore, a cooperative that is incorporated under cooperative law normally has legal personality.[2]

Limited liability and delegated management

Among the five aforementioned attributes of a business corporation, limited liability and delegated management seem to be the features present in most incorporated cooperatives. Cooperative law usually stipulates that the members of a cooperative are not liable for the firm's debt. In addition, a cooperative today has a governance structure that is similar to, if not exactly the same as, that of an ordinary business corporation. Typically, the highest governing body of a cooperative is the general assembly, which is the counterpart of the general meeting of shareholders of a company. The general assembly chooses the board members, and the board chooses the manager.

Investor ownership

It is generally believed that a cooperative is not owned by 'investors' in any sense. However, the truth of this belief depends on how investors are defined.

In a cooperative, those who apply for membership are usually required to provide the firm with share capital at the outset. They are also often asked to increase their share capital at a later stage. Therefore, if the term 'investor' is interpreted as one who provides financial capital to the firm, then members are already investors in a cooperative. Given that members are the formal owners of the firm, a cooperative satisfies the attribute of investor ownership. Indeed, the share capital provided by members constitutes the firm's equity, not debt, in the balance sheet.

Despite this fact, it should be noted that the rule for allocating ownership share concerning voting rights is different between cooperatives and companies. In a cooperative, the vote share of members is typically based on the one member-one vote rule, and hence is independent of the value of the share capital they have paid in. This is in stark contrast to the vote share of stockholders in a company, which is typically proportional to the capital they have paid in to the firm. Evidently, this feature in a company is a consequence of the sale of shares in the market. That is, if each share bears one vote

1 The ICA's website: http://ica.coop.

2 It should be noted, however, that not all cooperatives are incorporated and thus have legal personality. This is particularly true for small worker cooperatives.

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and the price of shares sold in the market is equal for all shares, then vote shares will be proportional to the financial capital that shareholders pay in to the firm.

Transferable shares

The attribute of transferable shares is missing, wholly or partially, in most cooperatives and cooperative-like organizations today. In fact, according to cooperative laws in major countries – such as those in European countries, the United States, and Japan – the membership shares of a cooperative are supposed to be non-transferable or transferable only under limited circumstances such as inheritance within a family or under the permission of a management body such as the board of directors. We will come back to this issue in detail in Subsection 5.1.

Cooperative as a business corporation

We understand from the arguments presented thus far in this subsection that if its membership shares were engineered to be transferable, a cooperative would satisfy all five attributes of a business corporation mentioned above and could thus be identified as a form of business corporation. We should note, however, that even in this case a cooperative would maintain its fundamental characteristic of being owned by its members rather than by capitalists.

On the basis of this observation, we inquire in Section 3 if it is actually possible to make membership shares in a cooperative transferable.

1.3 Related literature

There is limited literature available on the economic analysis of transferable shares in cooperative enterprises.

Theoretical study

Early studies of this topic considered transferable shares of membership in a labor-managed firm (which is a kind of worker cooperative) as a tool to eliminate the so-called perversities that are inherent in this type of firm (Dow 1986, 1996, Fehr 1993, Sertel 1982, 1987, 1991). The essence of this argument is that, in the absence of a labor market, a membership market aligns the incentives of outgoing and incoming members, thus ensuring that an efficient level of employment is achieved.

The study that is closest in spirit to ours is Dow (2001, 2003), who considers the characteristics of a market for membership in a worker cooperative as compared with that of the stock market. His main conclusion is that the functions of a membership market are necessarily limited as compared with those of the stock market because of the inalienability of labor, i.e., the feature that labor cannot be physically separated from workers as persons.

In contrast, Mikami (2010, 2013, 2015) studies the role of transferable membership in cooperative enterprises from the perspective of capital procurement. This question is examined in further detail in Subsection 4.1.

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Empirical study

A rare example of worker cooperatives whose shares are traded in an open market is the plywood worker cooperatives in the Pacific Northwest of the United States. Craig and Pencavel (1992) conduct an elaborate empirical study on the shares of these worker cooperatives. They build data on the price of shares in these worker cooperatives over a period of two decades based on advertised share prices. Comparing the earnings of a cooperative member with those of a conventional company employee, they show that shares in these worker cooperatives had been underpriced over the period.

1.4 Structure of the paper

The rest of the paper is organized as follows. Section 2 defines capitalist and cooperative firms based on the features of the shares they issue. Section 3 examines the ideological and functional factors that may obstruct the trade of membership shares in cooperative firms in an open market. It confirms that there is no reason why membership shares in cooperative firms cannot be made tradable in the market. Section 4 then studies the advantages that transferable shares would bring to a cooperative firm in the market system. On the basis of these economic considerations, Section 5 explores how to develop a business law that can regulate both capitalist and cooperative firms in a single legal framework. Section 6 concludes the paper.

2 Classification of private firms

It may be a common practice to define a capitalist firm as a firm that is owned by those who provide *capital* to the firm. However, when considering transferable shares in various types of private firms and assuming the trade of these shares in the market, this ordinary characterization of a capitalist firm needs to be reconsidered.

If a private firm of any type issues shares and sells them in the market, it means that those who buy the shares provide financial capital to the firm. For example, if a conventional for-profit enterprise issues shares and sells them in the market, the buyers of the shares have provided financial capital to the enterprise. Similarly, if a cooperative enterprise issues transferable shares and sells them in the market, then the buyers of those shares have also provided financial capital to the enterprise.[3] Thus, when assuming transferable shares not only in a capitalist firm but also in a cooperative firm, the provision of financial capital by shareholders to the firm is no longer a feature inherent in a capitalist firm, and hence private firms cannot be classified according to whether their shares involve the provision of financial capital to the firm.

Having this feature in mind, we distinguish physical and financial capital, and define a capitalist firm as follows. A firm is a capitalist firm if owning shares of the

3 In these examples, the provision of financial capital to the enterprise is nothing but a result of the payment for the ownership shares of the enterprise in a share market. Essentially, this transaction is not different from payment for, for instance, (the ownership of) an apple in a grocery market.

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firm *only* involves the provision of financial capital to the firm and does not involve any transaction of real goods or services with the firm. Correspondingly, we refer to those who only provide financial capital to the firm, and neither provide an input to nor receive the output from the firm, as capitalists. Note that 'capitalist' here is a term relative to a specific firm and not one to designate an individual in a certain social class.[4]

In line with this characterization of a capitalist firm, a firm is defined to be a cooperative firm if owning shares of the firm involves some transactions of an input or the output with the firm, possibly but not necessarily in addition to the provision of financial capital to the firm.

We then classify cooperative firms into two major categories.

First, a firm is a producer cooperative if owning shares of the firm involves the provision of an input to the firm. Specifically, if the input is labor, the firm is a worker cooperative. If the input is a factor of production other than labor – such as buildings, machines and equipment, consumables, natural resources, energy, and raw materials – the firm is a supplier cooperative. (Thus, according to this characterization, a firm whose shares are owned by those who provide physical capital to the firm is identified as a kind of supplier cooperative rather than a capitalist firm. We will discuss this issue in detail in Remark 1 later in this section.) Note that this definition does not exclude the possibility that the shareholders of a producer cooperative provide financial capital as well as a real input to the firm.

Second, a firm is a consumer cooperative if owning shares of the firm involves the reception of the output from the firm. Note, again, that this definition of a consumer cooperative does not exclude the possibility that its shareholders provide financial capital to the firm in addition to receiving the output from the firm.

Private firms are thus classified into three basic categories according to the attributes of their shares: capitalist firms, producer cooperatives, and consumer cooperatives (Figure 1).

There are three remarks concerning the definition of a cooperative firm.

Remark 1. *Firm owned by the providers of physical capital*

In the definitions of types of firms, we identified a firm that is owned by those who provide nothing but financial capital to the firm as the typical form of the company and referred to it as a capitalist firm. By contrast, we identified a firm that is owned by those who provide physical capital to the firm as a kind of producer cooperative. This classification might be debatable.

Traditionally, in economics, factors of production are classified into the three categories of land, (physical) capital, and labor (Ricardo 1817), although more recently land is often included in the category of capital. In either context, capital is broadly identified as durable goods that are used to produce other goods and services (Samuelson and Nordhaus 2010, Mankiw 2012).

4 In this context, it may be more common to use the term 'investors' rather than 'capitalists'. However, we use the former term to imply all those who provide financial capital to the firm, which can include workers, suppliers, and consumers.

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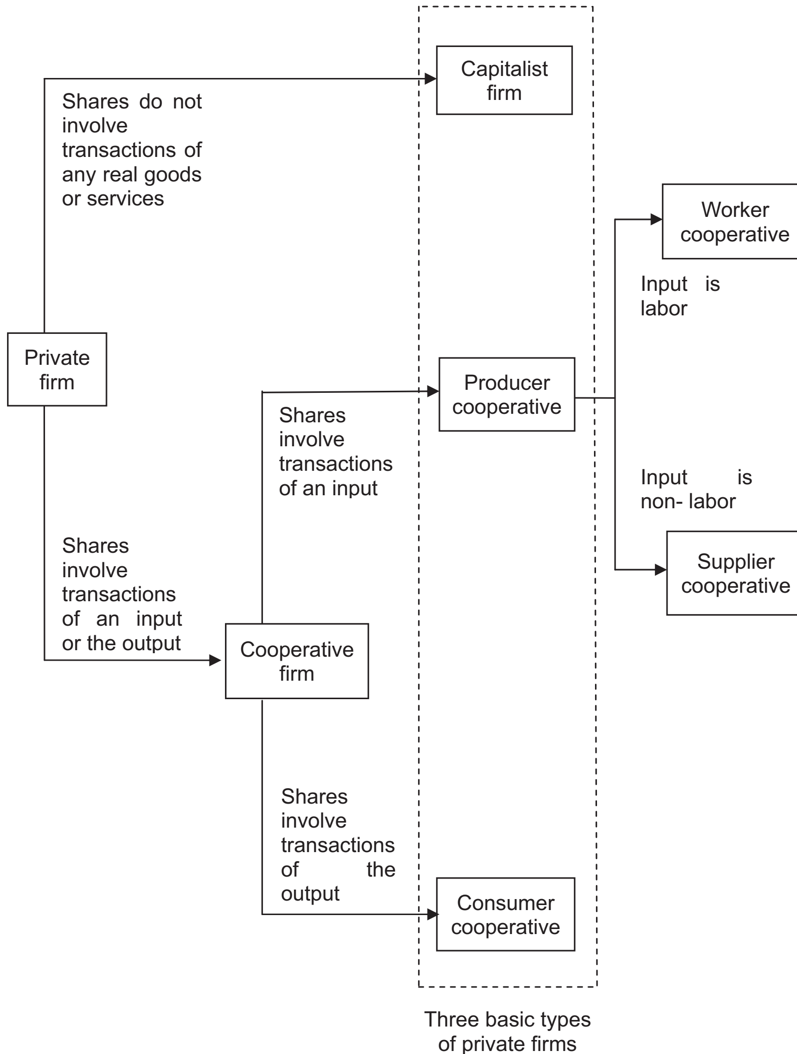

Figure 1 – Classification of private firms.

In theory, we can distinguish tangible inputs with some durability and those without it, referring to the former as durable or physical capital inputs while the latter as non-durable or consumable inputs. In practice, however, the distinction between the two is not necessarily clear. For example, many office appliances – from personal computers, monitors, and printers to stationeries – can be recognized as either durable or non-durable inputs. For another example, prefabricated temporary office buildings or used trucks can be seen more as non-durable inputs than as durable inputs. Indeed, in accounting, tangible assets, which roughly correspond to physical capital in economics, include non-durable items such as inventories, work in process, and consumables. In light of these considerations, it is not necessarily relevant to qualitatively distinguish a firm owned by those who provide durable tangible inputs and one owned by those who

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provide non-durable tangible inputs, at least to the same degree as to distinguish a firm owned by those who provide some tangible inputs and one owned by those who provide nothing but money. For these reasons, we classify both a firm owned by the providers of durable tangible inputs and one owned by the providers of non-durable tangible inputs in the same category of producer cooperative, and contrast them with the archetypal form of a company.

To begin with, however, such a distinction between durable and non-durable tangible inputs may not be of practical importance in the present context because in reality we seldom find firms that are owned by the providers of tangible inputs outside agriculture, forestry, and fishery industries. That is, most such firms are owned by either farmers providing agricultural products, fishermen providing marine products, or foresters providing timber as raw materials for processing (Hansmann 1996, Chapter 7). Still, outside these industries, we find some cases where small, individually-run manufacturing or road transportation businesses form a joint enterprise. Even in these cases, however, member businesses usually does not provide their physical assets – such as factories, machines and equipment, and trucks – to the joint enterprise; they rather keep their physical assets under their own ownership, and instead contribute share capital in cash to the joint enterprise. Moreover, looking back to the early stage of capitalism, including the Industrial Revolution era, manufacturing businesses usually did not receive physical capital from shareholders but used to gather financial capital from them. Thus, today and in history, we can hardly find a firm that is wholly owned by those who provide durable tangible inputs to it.

Remark 2. *'Cooperative firm' and 'cooperative'*

A 'cooperative firm' defined above in this section is modeled upon the commonly held view of a 'cooperative' based on the ICA principles, as presented in Subsection 1.2, in the sense that this type of enterprise is owned and managed by members as input providers/output receivers rather than capitalists. Apparently, however, they are not exactly the same; the concept of a cooperative firm is more technical, and presumably broader, than that of a cooperative. In what follows, where necessary, we distinguish the two terms to clarify the argument.

Remark 3. *Proportionality between capital contribution and usage in a cooperative firm*

Concerning the previous remark, there is one notable difference between a cooperative firm in our model and a cooperative in the real world. That is, shareholders' capital contribution and usage (i.e., input provision or output reception) are proportional in the former but not in the latter. In fact, such proportionality is a necessary consequence of transferable shares in a cooperative firm. That is, in a cooperative firm, financial capital contribution is a result of the sale of shares in the market and usage is determined by ownership shares. As a result, the proportion of financial capital contribution becomes equal to the proportion of usage. By contrast, in a conventional cooperative, typically financial capital contribution is independent of usage.

To illustrate how such proportionality is achieved in a cooperative firm, we present two examples.

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(Example 1) Consider a worker cooperative that issues 10 shares, where 1 share guarantees a full-time job position in the firm. The firm sells the shares to 10 individuals at $10,000 per share and raises equity of $100,000. In this case, each member employee has a 1/10 ownership share in the firm, has contributed 1/10 of the firm's equity, and keeps providing 1/10 of the total labor input to the firm's production process. Note that the contribution to the firm's equity is the concept of stock while the provision of labor to the firm's production process is the concept of flow, but both of them are tied proportionally to the ownership share.

(Example 2) Consider a housing consumer cooperative that issues 10 shares, where one share entitles its holder to use $100m^2$ floor space in the firm's residential building. The residential building has three apartments with areas of $500m^2$, $300m^2$, and $200m^2$. The firm sells the 10 shares at $100,000 per share to three individuals, A, B, and C. Suppose that A purchases five shares to occupy the $500m^2$ apartment at the cost of $500,000, B purchases three shares to occupy the $300m^2$ apartment at the cost of $300,000, and C purchases two shares to occupy the $200m^2$ apartment at the cost of $200,000. The firm thus raises equity of $1,000,000. In this case, A, B, and C have ownership shares of 5/10, 3/10, and 2/10, respectively, in the firm, have contributed 5/10, 3/10, and 2/10, respectively, of the firm's equity, and will keep using 5/10, 3/10, and 2/10, respectively, of the total floor space of the firm's residential building. Note, again, that the contribution to the firm's equity is the concept of stock while the use of the firm's apartment is the concept of flow, but both of them are tied proportionally to the ownership share.

3 Impediments to the transfer of shares

This section examines possible factors that can limit the transferability of shares in a cooperative firm compared to shares in a capitalist firm.

For this purpose, we first need to examine the influence of traditional cooperative ideology, for ideology has had an extraordinarily strong influence on the development of cooperatives.

Cooperatives were born in the early period of capitalism, when the adverse effects of capitalist industrialism – poor working conditions, exploitatively low wages, low quality products, and more generally the widening inequality between rich and poor – became increasingly conspicuous (Thornley, 1981). In this social environment, the world of cooperatives nurtured ideology that placed a great deal of importance on anti-capitalist and anti-market values such as democracy, equality, equity, and solidarity. These ideological thoughts have consequently been reflected and embodied in cooperative law.

Despite their noble spirit, these ideological thoughts, and the resulting cooperative law that reflects them, have conflicted with the pursuit of the efficient operation of cooperatives in the free market system. Indeed, the history of the development of cooperatives has been the history of their struggle to maintain traditional cooperative ideology and improve business efficiency in a compatible manner (Laidlaw 1987, Böök 1992). This is in stark contrast to ordinary companies, which from the early days of the East India Company have developed simply and merely in pursuit of profit (Steensgaard 1982). Subsection 3.1 discusses how cooperative ideology has influenced the transferability of membership shares in cooperatives.

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Aside from the restrictions of ideology and the cooperative law it nurtured, the transferability of shares in a cooperative firm can be restricted by the fact that shares are tied to the transaction of input and output with the firm, which is not the feature of shares in a capitalist firm. We examine such a functional issue in Subsections 3.2 through 3.4.

3.1 Open membership

In order to put cooperative values into practice, academics and practitioners in the world of cooperatives have developed several principles as guidelines (see Subsection 1.2), one of which is open membership. This principle, formally adopted and documented at the 15th ICA meeting held in Paris in 1937, insists that cooperatives should be 'open to all persons without gender, social, racial, political, and religious discriminations' (Excerpt from the website of the ICA: http://ica.coop).

The principle of open membership is considered to have resulted, presumably unintentionally, in obstructing the evolution of a secondary market for membership shares in cooperatives. More specifically, the practice of free entry by paying in new share capital, combined with free exit by redeeming it, is inconsistent with the trade of membership shares in an open market.

To see this, let us reconsider why in the first place shares of stock in a company are traded in a secondary market. If a company issues shares and sells them in the market, the amount of the company's shares that exist and circulate in the market is held constant unless the company changes the capitalization or buys back its own shares. In this circumstance, the only way for existing shareholders to liquidate their shares is to sell them in the market, whereas the only way for non-shareholders to become shareholders is to buy the company's shares in the market. Thus, naturally, shares of stock in a company come to be traded in a secondary market.

By contrast, open membership allows the size of membership in a cooperative to vary over time. Under this rule, people can enter a cooperative anytime by paying in a certain amount of share capital, and leave it anytime by redeeming the share capital and getting back the same amount of money as what they paid in at the outset (plus return on share capital, if any). Therefore, from an intertemporal point of view, membership shares are obtained actually free of charge (if we ignore the discrepancies between the rate of return on share capital and the market interest rate). Obviously, under this circumstance, membership shares are not traded in an open market.

This argument explains why secondary markets have evolved for membership shares in the US plywood producer cooperatives (see Subsection 1.3) or Nordic housing consumer cooperatives (see Subsection 5.1). In these cooperatives, the size of membership has an upper limit because of the production scale of a factory or the floor space of a residential building. In these circumstances, membership shares are naturally to be traded in a secondary market.

Essentially, open membership is an ideological product and is not a necessary requirement of market forces. Therefore, if it wishes, a cooperative firm can hold the size of its membership constant without causing fundamental problems, just like the US plywood producer cooperatives and Nordic housing consumer cooperatives.

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Furthermore, it should be stressed that a fixed membership size and transferable shares in themselves neither contradict nor deny the original spirit of open membership. That is, even if membership size is held constant, members who want to exit a cooperative firm can do so anytime by selling their shares in the market (instead of having their shares redeemed by the firm), whereas non-members who want to enter a cooperative firm can do so anytime by buying shares in the market (instead of paying in new share capital directly to the firm). Evidently, they can do so regardless of their gender, social class, race, political thought, and religious beliefs.

3.2 Production and consumption externalities

The rest of the present section is devoted to examining the functional factors that may limit the transferability of membership shares.

In general, the degree of freedom in transferring shares in a firm depends on the extent of production and consumption externalities that accompany the transfer of shares.

Shares in a capitalist firm are separated from transactions of input/output. Therefore, the transfer of shares has no direct impact on the procurement of input or the distribution of output. Consequently, the transfer of shares causes neither production nor consumption externalities. Therefore, from this perspective, there is no rationale for a capitalist firm to restrict the transfer of its shares.

Worker cooperative

Shares in a worker cooperative involve the provision of labor to the firm. In general, as a factor of production, labor is heterogeneous in nature. For example, labor is heterogeneous in form, such as the difference between white-collar jobs and blue-collar jobs, and in quality, such as skilled labor and unskilled labor. Furthermore, because labor is inseparable from the worker as a person (Dow 2003), the productivity of a team of workers often heavily depends on the workers' personalities. As a result of such heterogeneity and inalienability, considerable production externalities can occur when a number of employees work together in a team. For this reason, in various situations, it would be reasonable for a worker cooperative to screen new applicants before permitting them to obtain its shares. Presumably, the transfer of shares would have to be more restrictive in complex, specialist jobs than in simple, repetitive jobs.

In any event, the fact that the market for shares in plywood worker cooperatives does work, as suggested by Craig and Pencavel (1992), seems to imply that the screening process of new members in worker cooperatives is not necessarily so costly that a market for their shares fails to emerge.

Supplier cooperative

Shares in a supplier cooperative involve the provision of a factor of production other than labor to the firm. In many occasions, non-labor factors of production seem to be less heterogeneous than labor, and therefore the transfer of shares should be less restrictive for a supplier cooperative than for a worker cooperative. For example, wheat harvested in a certain area can be considered to be relatively homogeneous. In this

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case, it seems unnecessary for a supplier cooperative that processes wheat into flour to restrict the transfer of shares among local wheat farmers. Similarly, the wood produced from trees grown in the same area is considered to be homogeneous. Hence, there is no need for a wood products supplier cooperative to restrict the transfer of shares among foresters in the region.

This is not always the case, however. For instance, vegetables grown by organic methods and those grown by regular methods are not considered to be homogeneous, especially by health-conscious consumers. Therefore, a supplier cooperative that distributes or processes organic vegetables has to prohibit the transfer of shares from organic farmers to non-organic farmers. Evidently, this is because inviting non-organic farmers to membership causes negative externalities on the value of the firm's product.

Consumer cooperative

Shares in a consumer cooperative involve the receipt of the output from the firm. Owing to this feature, shares in a consumer cooperative are intrinsically connected to the customership of the firm. Usually, the consumption of an output by a shareholder generates no consumption externality on another shareholder. For example, if a shareholder consumes food delivered by a food consumer cooperative, it does not reduce the utility of another shareholder from consuming food delivered by this consumer cooperative. Similarly, if a shareholder receives treatment at a medical consumer cooperative, it does not affect the effectiveness of the treatment received by another shareholder at the same consumer cooperative. In these situations, a consumer cooperative has no reason to restrict the transfer of its shares from the perspective of consumption externalities.

This does not apply to all cases, however. The consumption of an apartment (or more precisely, the consumption of the benefits that are produced by an apartment) in a collective housing complex often generates consumption externalities; for example, problems arising from the arrears of monthly fees by a resident or the disutility to neighbors arising from loud music generated by a resident. If such consumption externalities are likely to occur, then the transfer of shares should reasonably be restricted. Indeed, in some housing consumer cooperatives in the Nordic countries, the transfer of shares is supposed to require approval by the board of directors or the general assembly (Lilleholt 1998).

3.3 Risk diversification

If transferable, shares in a cooperative firm are a type of security and thus they expose their owners to financial risk. In general, the level of financial risk associated with owning shares in a firm is affected by (i) how finely the firm ownership can technically be divided into small shares, and (ii) the amount of shares usually held by shareholders. In addition, if the firm ownership is not technically highly divisible or, for some reason, a large bunch of shares has to be held together by a shareholder, then the level of risk is also influenced by (iii) the share price.

Shares in a capitalist firm are disconnected from the transactions of real goods and services with the firm, and therefore can theoretically be divided into as small units as possible. As a result, as long as the shares of one specific capitalist firm make up only

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a small proportion of a shareholder's total assets, these shares expose the shareholder to relatively low financial risk.

Worker cooperative

Shares in a worker cooperative are connected to the provision of labor to the firm. Labor can be physically divided into small portions, typically by the measure of time. Therefore, technically speaking, shares in a worker cooperative can be divided into as small units as possible and used in several different enterprises. In this scenario, shares in a worker cooperative would bring as low financial risk to their owner as those in a capitalist firm.

In reality, however, a regular (vis-à-vis a part-time) employee often works for a single firm at a time, presumably for reasons such as the accumulation of firm-specific human capital and the opportunity cost of moving from one workplace to another. In a society where an employee customarily works for a single firm at a time, an individual who wants to work for a worker cooperative as a full-time employee may need to purchase a significant amount of shares in the firm.

Meanwhile, the price of shares in a worker cooperative is determined by the present value of the stream of the benefits shareholders expect to receive from the worker cooperative relative to what they would earn in alternative employment opportunities, which are typically wages in the labor market. Therefore, the market value of the block of shares that is necessary to secure a full-time employment position will be high for a worker cooperative that pays high remuneration and provides an attractive workplace to employees. By contrast, the market value of the block of shares is low or can be nearly free for a worker cooperative that pays remuneration that barely exceeds the market wage and provides a mediocre workplace.

Thus, if an individual becomes a shareholder of a worker cooperative that is attractive to employees, then the shares of the worker cooperative he/she owns will make up a substantial proportion of his/her total assets, exposing him/her to high financial risk (Craig and Pencavel 1992, 1995).

Supplier cooperative

Shares in a supplier cooperative are connected to the provision of a non-labor factor of production to the firm. Many non-labor inputs – such as raw agricultural products that are used as ingredients in producing processed foods – are highly divisible. Therefore, if it wishes, a supplier can divide the total quantity of the raw material it possesses into small portions and provide them to several different enterprises. This is indeed what many suppliers are doing in practice. Hence, a supplier can keep down the expenses on shares in one supplier cooperative relative to its total assets by purchasing them in small units.

Thus, generally speaking, shares in a supplier cooperative seem to expose their holder to lower financial risk than those in a worker cooperative.

Consumer cooperative

Shares in a consumer cooperative are connected to the receipt of the output from the firm. In a consumer cooperative owned by households (i.e., not by businesses), such

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output is typically a final consumption good. Many consumption goods and services – ranging from food, clothing, and energy to childcare and medical treatment – are more or less divisible. In addition, a household is usually the customer of various firms. Therefore, the output delivered by one consumer cooperative of which the household is a shareholder would constitute only a small part of its total consumption of goods and services. Accordingly, the market value of shares in one specific consumer cooperative held by a household would be typically low relative to its total assets. Under these circumstances, shares in a consumer cooperative would expose their owner to relatively low financial risk.

One exception to this is housing. Because individual houses are not divisible, shares of a housing consumer cooperative are only limitedly divisible. Consequently, the market value of shares in a housing consumer cooperative would be as high as the price of an apartment itself, and would thus comprise a large proportion of the shareholder's total assets. On this occasion, shares of a housing consumer cooperative would expose their owner to substantial financial risk.

3.4 Wealth constraints

It is often argued in the literature that a cooperative's members are prone to be financially disadvantaged as compared with a company's stockholders (e.g., Euricse 2013). If this is true, the shares of a cooperative firm may not be traded as easily and frequently as those of a capitalist firm because of the wealth constraints of existing and potential shareholders.

There is a different view on this. Standard economics regards a household as simultaneously both the provider of inputs and the receiver of outputs. This view is typical in the circular flow model, which portrays households as economic entities that provide land, capital, and labor, and receive products (Mankiw 2012). From this standpoint, it makes little sense to compare the wealth of the providers of financial capital with that of the providers of labor or other factors of production and the receivers of products.

Rather, the affordability of shares depends on the three factors that were introduced in the previous subsection in the context of risk diversification: (i) the divisibility of shares, (ii) the quantity of shares that are usually held by shareholders, and (iii) the share price. That is, if an individual or a household needs to own a large quantity of shares for technological or institutional reasons and these shares are expensive, then wealth constraints may obstruct the trade of shares in the market.

In these respects, shares in a capitalist firm are finely divisible and can be purchased in small units depending on the buyers' budget. Therefore, contrary to the common perception, wealth constraints should not be a major obstacle for the trade of shares in a capitalist firm.

Worker cooperative

Shares in a worker cooperative are tied to the provision of labor to the firm. As we discussed in the previous subsection, on the one hand, an individual who intends to work for a worker cooperative as a regular full-time employee will be required to own a

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large block of shares that matches the quantity of his/her labor supply to the firm. On the other hand, the more attractive the worker cooperative is to employees, the higher the market value of its shares will be. Wealth constraints can thus obstruct the trade of shares in high-performing worker cooperatives.

When the influence of wealth constraints is significant, there are some methods by which the trade of shares can be facilitated. First, an individual may buy shares in a worker cooperative on loan and have installments deducted from his/her payroll. This is the method used in the US plywood worker cooperatives (Berman 1967, Craig and Pencavel 1992, 1995). Note that because a worker cooperative whose shares are expensive tends to pay high remuneration to its shareholders, the shareholders of such a worker cooperative are more likely to be able to afford expensive shares by installments from their payroll. Second, an individual may buy shares in a worker cooperative by mortgaging them. This is basically the same method as buying a house by mortgaging the property. Note again that because the market value of the shares of an attractive worker cooperative tends to be high, the shareholders of such a worker cooperative are more likely to be able to afford expensive shares by mortgaging them.

Supplier cooperative

Shares in a supplier cooperative are tied to the provision of a non-labor input to the firm. As discussed in the previous subsection, many non-labor inputs are highly divisible. Therefore, if the price of shares in a supplier cooperative is high, a supplier can limit the expenditure on these shares by purchasing them in small units and accordingly providing a small amount of input to the firm. In this case, the trade of shares is not likely to be obstructed by wealth constraints.

Thus, generally speaking, the wealth constraints faced by the members of a supplier cooperative may be tighter than those faced by the stockholders of a capitalist firm but looser than those faced by the members of a worker cooperative.

Consumer cooperative

Shares in a consumer cooperative are tied to the receipt of the output from the firm. As discussed in the previous subsection, many consumption goods – with a few exceptions such as houses and automobiles – are more or less divisible. In addition, a household usually consumes a wide variety of goods and services produced by different firms. Therefore, a household will typically purchase a relatively small amount of shares in each specific consumer cooperative, and accordingly the market value of these shares will not be very high. In this case, wealth constraints are unlikely to hinder the trade of shares in a consumer cooperative.

4 Functions of transferable shares

The previous section argued that, despite the common practice and albeit with some impediment factors, shares in cooperative firms can be made transferable and tradable in an open market just like shares in capitalist firms. Following this conclusion, we next examine the possible role that transferable shares might play for the management of a cooperative firm in a market economy.

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4.1 Raising capital

The principal reason for a capitalist firm to issue shares is to raise capital. A capitalist firm raises capital by issuing shares in the primary market. Shareholders, in turn, liquidate the shares by selling them in the secondary market. Through this mechanism, a capitalist firm raises equity that is invariable and constitutes a stable source of funds for investment purposes. Such a mechanism of raising capital is, in principle, available exclusively to capitalist firms at present.

In theory, we can build a fund-raising mechanism for a cooperative firm that is isomorphic to that of a capitalist firm by making its membership shares tradable in a secondary market. A cooperative firm raises capital by issuing shares in the primary market, and shareholders liquidate the shares by selling them in the secondary market. A cooperative firm is thus able to secure equity that is invariable in nature. Theoretical studies have shown that a cooperative firm can raise as much equity as a capitalist firm by using this method (Mikami 2010, 2013, 2015).

In practice, despite this theoretical result, the capability of a cooperative firm to raise capital through the issuance of transferable shares can be affected by two factors.

First, the amount of capital that a cooperative firm can raise in the primary market will depend on the degree of the transferability of shares in the secondary market, as discussed in Subsection 3.2. If the transfer of shares is restricted, the shares may be undervalued in the primary market because of their limited liquidity in the secondary market. As a result, the amount of capital that a cooperative firm can raise in the primary market will be smaller than that when the shares are transferable with no restrictions in the secondary market.

Second, the capability of a cooperative firm to raise capital will depend on shareholders' ability to diversify the financial risk associated with owning shares, as discussed in Subsection 3.3. The shares whose owners cannot effectively diversify financial risk tend to be undervalued in the primary market. Thus, the more difficult it is to diversify financial risk, the smaller is the amount of capital that a cooperative firm can raise in the primary market.

In light of the arguments given in Subsections 3.2 and 3.3, we predict that these two factors have non-negligible effects on the capability of a worker cooperative to raise capital in the share market. By contrast, such effects do not seem to be significant for consumer cooperatives.

There is an important remark about the capital of a cooperative firm. It has been argued in the literature that a cooperative is vulnerable to the moral hazard problem that cooperative members may exercise their voting rights to appropriate the firm's capital (Alchian and Demsetz 1972, Hansmann 1996, Chapter 4, pp. 54–55). For example, in a worker cooperative, member employees may vote in favor of the plan to use the firm's capital to pay high remunerations to members. Alternatively, in a consumer cooperative, member customers may vote in favor of the plan to use the capital to offer low supply prices to members.

These concerns, however, do not apply to a cooperative firm that raises capital by issuing transferable shares. If a cooperative firm raises capital by issuing transferable shares, members are not only the users of the firm (i.e., the providers of an input to

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or the receivers of the output from the firm) but also the providers of financial capital to the firm. Therefore, members of a cooperative firm will have no incentive to exercise their voting rights to appropriate the firm's equity capital they have provided for the same reason that stockholders of a capitalist firm have no incentive to waste their firm's equity capital.

4.2 Underinvestment problems

In a capitalist firm, shareholders who intend to sell their shares in the near future are not necessarily opposed to reinvesting profits in a new project rather than distributing them to shareholders as dividends. The reason is that although returns on new investment materialize only in the future, these returns are reflected in the share price today, and thus shareholders can reap the fruits of investment in advance when selling the shares on the stock market.

This mechanism does not work in a conventional cooperative because of the absence of a market for outstanding membership shares. In fact, this drawback is referred to as the underinvestment problem in the literature on labor-managed firms. The literature suggests that a labor-managed firm tends to be myopic in its investment decisions because senior members who are close to their retirement age are reluctant to make new investments for the future at the expense of the distribution of surplus to existing members today (Furubotn 1976).

The underinvestment problem can in principle be resolved if a cooperative firm issues transferable shares and allows them to be traded in the market. By doing so, the returns on investment that materialize in the future are reflected in the share price today.

4.3 Agency costs

Under the separation of ownership and control, the so-called principal–agent problem arises between shareholders and management. This problem is not confined to capitalist firms; it also affects cooperative firms. This subsection considers three mechanisms through which transferable shares may help mitigate conflicts between shareholders and management, thus reducing agency costs in a cooperative firm.

Managerial compensation

The price of shares in a capitalist firm reflects the firm's expected future earnings. Good prospects for the future drive up the share price, whereas bad ones pull it down. By tying the compensation of managers to the share price, shareholders can align the incentives of managers with their own goal of maximizing profits. Real-world examples include bonuses based on performance.

A similar mechanism could be built for a cooperative firm if its shares were traded in an open market. For example, if a worker cooperative offers high remuneration and provides a safe and healthy workplace to employees, its shares will be priced high. Similarly, if a consumer cooperative delivers quality products at low costs, the share price

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will be high. Thus, by tying managerial compensation to the share price, shareholders of a cooperative firm (who are employees in a worker cooperative or customers in a consumer cooperative) can align the interests of managers with their own (which are, typically, high salaries and a good working environment for employees, or products of good quality and reasonable supply prices for customers).

Managerial position

In a capitalist firm, managers are under constant surveillance by shareholders through the board system, and the poor performance of the firm puts managers at risk of replacement. Indeed, it is empirically observed that the poor performance of a firm on the stock market significantly increases executive turnover (Coughlan and Schmidt 1985, Warner et al. 1988). Moreover, from the standpoint of raising capital, a low share price decreases the firm's capability to acquire new equity and thus engenders the firm to have a highly leveraged capital structure. As a result, the firm faces a high probability of bankruptcy, in which case managers can lose their jobs. To reduce such risk and to secure their jobs, managers have an incentive to make efforts to constantly improve the firm's performance and increase the share price.

These mechanisms are absent, wholly or partially, in a conventional cooperative but would be available there if its shares were to be traded in the securities market. That is, under pressure from shareholders and at the risk of losing their positions, the managers of a cooperative firm would be motivated to improve the firm's performance and increase the share price.

Monitoring

The shareholders of a capitalist firm have incentives to monitor managers for good performance. This practice is expected to increase profits, which leads to a high share price and a high dividend yield. Although such incentives are diluted in a large capitalist firm because of free-riding (Berle and Means 1932), shareholders can still entrust their power to discipline management to the board of directors.

Shareholders of a cooperative firm have similar incentives to monitor managers in order to induce them to work hard on behalf of their own interests (i.e., the interests of shareholders as input providers or output receivers). Such incentives work even in the absence of a share market. However, by introducing a share market, shareholders' incentive to monitor management is reinforced, because with this market their shares as financial securities are also at stake. Thus, if their shares were transferable and traded in the market, shareholders would intensify the monitoring of managers, which is expected to improve the efficiency of the management of a cooperative firm.

5 Institutional design

We have discussed so far that, by issuing transferable shares, a cooperative firm comes to resemble a capitalist firm in form and acquires functions that only capitalist firms have enjoyed until now, while maintaining its fundamental characteristic of being owned by its members as input providers or output receivers. On the basis of

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these observations and considerations, the present section examines how a cooperative firm with transferable shares could be institutionalized in business law along with a capitalist firm.

5.1 Existing laws for cooperatives and cooperative-like organizations

This subsection reviews existing law that regulates cooperatives, commonly recognized as such, and that which regulates cooperative-like organizations, focusing on the transferability of membership shares.

In most countries, capitalist and cooperative firms are regulated by different statutes. For example, in Germany, capitalist firms are regulated by the Stock Corporation Act (1965), whereas cooperative firms are regulated by the Cooperative Societies Act (1973). Similarly, in Japan, capitalist firms are regulated by the Companies Act (2005), whereas cooperative firms are regulated by several laws such as the Agricultural Cooperatives Act (1947), the Consumer Cooperatives Act (1948), and the Small and Medium-Sized Enterprise Cooperatives Act (1949).

Generally speaking, cooperative law does not regard shares of membership in a cooperative firm as objects to be traded in an open market, at least to a degree that is comparable to shares of stock in a capitalist firm (Cracogna et al. 2013). In Europe, for example, German and Italian cooperative law stipulates that membership of a cooperative firm is not transferable in principle, and is transferable only in special circumstances such as inheritance between family members. By contrast, according to cooperative law in Spain, Sweden, and the United Kingdom, membership is transferable subject to authorization by the board of directors or other administrative bodies. At the same time, however, because of its limited transferability, membership is stipulated to be redeemable at the firm upon the exit of a member.

Meanwhile, the statute that most closely encapsulates the concept of transferable shares in a cooperative firm as discussed in the last three sections can be found not in cooperative law but in the law for a type of housing association in the Nordic countries. This type of housing association is characterized by the indirect ownership of housing units. That is, the housing complex as a whole is owned by the association as a legal person, and the association is formally owned by the residents.

Among others, the Finnish housing company (*asunto-osakeyhtiö*) is the most market-oriented system of the indirect ownership of a multi-family residential building. A housing company is incorporated under the Finnish Limited Liability Housing Companies Act (2009). Although it is formally called a ‘company,’ a housing company can essentially be identified as a kind of consumer cooperative for the following reasons. First, shares in a housing company involve the right to possess and use the flats in the firm’s building (or, more precisely, the right to receive the benefits that are produced by the flats in the firm’s building), which is the output of the firm. Second, the shareholders of a housing company do not receive cash dividends from the firm. Hence, according to the classification presented in Section 2 and Figure 1, the Finnish housing company is a de facto housing consumer cooperative.

According to this law, shares in a housing company are stipulated to be transferable without restriction (the Act, Part 1, Chapter 1, Section 8). Obviously, the

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transferability of shares is a natural consequence of having a fixed number of membership slots in a housing company. That is, because the number of the blocks of shares is determined by the physical number of flats in the building, those who wish to join the firm and live in the firm's building need to buy shares from those who are leaving the firm and moving out of the building. Evidently, the traditional cooperative principle of free entry cannot be consistent with the system of housing consumer cooperatives.

A housing company has a formal governance structure that is identical to a conventional company, with the general meeting of shareholders, board of directors, and manager (the Act, Part 3, Chapters 6 and 7).

In a typical housing company, 90 percent of the cost of constructing a residential building is financed by revenue from the issuance of shares, whereas the remaining 10 percent is covered by the loan of the company (Karlberg and Victorin 2004). Housing companies are estimated to own nearly all multi-story residential buildings and non-detached small houses in Finland, which comprise 55.6 percent of all dwellings in the country (Lilleholt 1998).

5.2 Incorporating cooperative firms as business corporations

The similarity of a cooperative firm issuing transferable shares to a capitalist firm, along with the prevalence of cooperative-type housing associations in the Nordic countries, prompts us to contemplate the possibility of incorporating and operating cooperative firms as business corporations.

To realize this goal, there are practically two possibilities. The first option is to modify existing cooperative law by allowing cooperatives to issue transferable shares and introducing elements from company law that are necessary to regulate cooperatives as business corporations. The second option is to modify company law by introducing elements from cooperative law that are necessary to regulate cooperative firms within its framework.

Although the two procedures would lead to the similar configuration of rules and regulations for cooperative firms in the end, it seems more straightforward to use company law rather than cooperative law as the basis for legislating a statute governing cooperative firms as business corporations. The principal reason for this is that allowing the transferability of membership shares is such a big departure from existing cooperative law that it would require significant amendments and additions to the current statute. By contrast, as we will discuss in the next two sub-subsections, existing company law can be applied to a cooperative firm almost as it is or with just minor modifications, since the only essential difference between a cooperative firm issuing transferable shares and a capitalist firm is that the shares in the former are tied to transactions of real goods or services while those in the latter are not. Thus, with some minor modifications, we can extend existing company law into a unified business law that regulates both capitalist and cooperative firms under a single legal framework.

The rest of this subsection is devoted to examining how company law in its current form can be applied to cooperative firms. Sub-subsection 5.2.1 discusses issues concerning cooperative firms in general, while Sub-subsection 5.2.2 explores issues concerning specific types of cooperative firms.

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5.2.1 *General issues*

We here take up the problems of the voting rule and the restriction on the transfer of shares.

Voting rule

Conventionally, cooperatives have used the one member-one vote rather than the one share-one vote rule in decision making. We here examine how company law can allow firms to adopt a decision rule other than the one share-one vote rule in its current framework.

As a matter of fact, existing company law already allows deviation from the one share-one vote rule in effect by enabling companies to issue restricted-voting or non-voting shares. Preferred stock is a common example. In addition, despite the general rule, company law allows firms to stipulate a decision rule other than the one share-one vote in their articles of association. For example, Japanese company law allows companies that are not public companies (i.e., companies whose stock is not traded in an open market) to provide in their articles of association that shareholders are treated differently with respect to the right to cast a vote at the general meeting of shareholders (the Companies Act, Article 109 (2)). Thus, technically speaking, existing company law seems to be able to encompass cooperative firms that use the one member-one vote rule. Of course, alternatively, company law can include a new provision that positively admits voting rules other than the one share-one vote rule.

Besides these arguments, it should be noted that the one member-one vote rule is an ideological product, and that there is no evidence that this rule contributes to the prosperity of cooperatives and improves the well-being of their members. Rather, there can be circumstances where a cooperative firm gains by switching from the one member-one vote to the one share-one vote rule. It is an open question whether the one member-one vote rule is advantageous to cooperative firms compared to one share-one vote rule, which needs more research.

Restrictions on the transfer of shares

As discussed in Subsection 3.2, the transfer of shares in a cooperative firm may have to be restricted on some occasions. To address this situation, it is necessary that company law, which in principle assumes free transfer of shares, allow firms to restrict the transfer of their shares.

Indeed existing company law already permits companies to include a clause in their articles of association to restrict the transfer of shares. In Japan, for example, company law allows firms to issue shares that require the approval of the firm upon their transfer (the Companies Act, Article 107 (1) (i) and (2) (i)). This provision is used in such circumstances as where the founder of a small or medium-sized enterprise wants to prevent his/her company's shares from being transferred to an unknown person. Existing company law is thus considered to have some capability and flexibility to deal with the requirement of cooperative firms to restrict the transfer of their shares.

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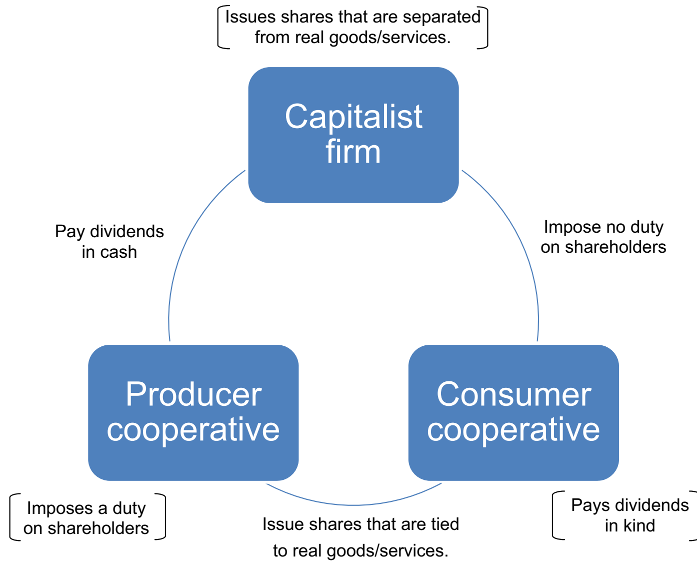

Figure 2 – Symmetries and asymmetries among the three basic types of private firms.

5.2.2 *Specific issues*

We next examine two issues that are concerned with the feature of a cooperative firm that their shares involve direct, non-market transactions in input and output between the firm and its shareholders.

Owing to the differences in the attributes of shares, the three basic types of private firms – capitalist firm, producer cooperative, and consumer cooperative – exhibit certain patterns of symmetry and asymmetry. First, by definition, producer and consumer cooperatives issue shares that are tied to transactions in real goods and services with the firm, whereas a capitalist firm issues shares that are separated from transactions in real goods and services. Second, a capitalist firm and a producer cooperative pay dividends in cash, whereas a consumer cooperative delivers the output to its shareholders, which is identified as dividends in kind.[5] Third, a capitalist firm and a consumer cooperative impose no duty upon shareholders, whereas a producer cooperative imposes upon shareholders a duty to provide an input to the firm. These three-way relationships among the trio are illustrated in Figure 2.

From these observations, we find that producer and consumer cooperatives each have one characteristic that a capitalist firm does not have. That is, a producer cooperative imposes upon shareholders a duty to provide an input to the firm, whereas a consumer cooperative pays dividends in kind in the form of the firm's output. Hence,

5 The term *dividend* is usually defined as a sum of the money paid by a company to its shareholders out of its profits. By contrast, money paid by a cooperative to its members is referred to as the *refund* or *distribution of surplus*. Because this paper attempts to regard both capitalist and cooperative firms as business corporations, we use the term *dividend* for both types of firms.

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in order to extend its application to cooperative firms, company law needs to deal with these two issues.

Shareholders' duty to provide an input

The issuance of shares in a producer cooperative is premised on the assumption that the holders of these shares provide an assigned quantity of an input to the firm, where typically the assigned quantity is determined in proportion to the number of shares held. Therefore, the provision of an input should be interpreted as an obligation of shareholders in a producer cooperative. Evidently, existing company law does not assume a situation where a firm imposes such an obligation on shareholders. Hence, in order to encompass producer cooperatives within its framework, company law needs to include a clause that enables firms to effectively impose an obligation on shareholders to provide an input to the firm.

To tackle this problem, let us think of the consequence of when a shareholder does not meet his/her quota obligation in a producer cooperative. Such a situation takes place if, for example, a worker needs to take a leave of absence from the workplace for a certain period of time for personal reasons such as illness, or a farmer is unable to provide the entire quantity of a crop that he/she is assigned to provide because of a poor harvest. In these occasions, shareholders may be able to supplement the shortage of input by procuring it in the market. That is, in the previous examples, a worker who takes a leave of absence can hire another worker to replace him/her for a certain period. Similarly, a farmer whose agricultural crop falls short of the quota can make up for the shortfall by buying it in the market and deliver it to the firm. Alternatively, with or without the consent of the shareholder, the producer cooperative may supplement the shortfall by buying the input in the market and deduct the cost from the dividend to be paid to the shareholder. If these supplementary purchases of input in the market work, the non-fulfillment problem in a producer cooperative can be solved without a legal procedure.

There is no guarantee, however, that such supplementary market transactions of input work properly in all circumstances. For instance, the market price for the input may be extraordinarily high due to monopoly power, or there may be uncertainty about the quality of the input traded in the market. In these occasions, the transaction cost of procuring an input in the market is high. Hence, if a shareholder regularly fails to meet his/her quota obligation, the producer cooperative should have the legal power to sell the shares held by that shareholder in the market solely at its discretion (i.e., without the consent of the shareholder), paying him/her the proceeds from the sale of the shares after adjusting for liabilities to the firm, if any.

Indeed, it seems that company law is able to deal with this matter as it is. For example, Japanese company law allows a firm to stipulate in its articles of association that it can issue a class of shares named *shares subject to call*, which the firm can acquire from its holders without their consent provided that certain grounds arise (the Companies Act, Article 107 (1) (iii), Article 108 (1) (vi), and Article 108 (2) (vi)). By including in the list of such grounds the non-fulfillment of the obligation to provide an assigned amount of an input, the firm will have real power to unilaterally acquire and resell the shares held by those shareholders who do not fulfill their quota obligations.

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Dividends in kind

As observed in the introduction of the present sub-subsection, shares in a consumer cooperative involve dividends in kind in the form of the firm's output. In practice, dividends in kind may take the form of coupons that can be exchanged for – or used to 'purchase' – the goods and services provided by the consumer cooperative. For example, a food consumer cooperative may issue coupons to shareholders periodically, such as annually, according to the extent of their shareholding, and shareholders can acquire food with the coupons at the consumer cooperative. Apart from the choice of the procedure actually to be implemented, company law needs to allow firms to pay dividends not only in cash but also in kind in order to include consumer cooperatives under its umbrella.

In fact, company law in some countries – such as the United States, the United Kingdom, and Japan – already allows firms to pay dividends in kind in the form of securities, products, and services (e.g., the Japanese Companies Act, Article 454 (4)). Although these forms of payment are rare in practice, it seems that dividends in kind in the form of the firm's output are legally permissible in current company law.

6 Conclusion

This paper argued that, despite common beliefs, cooperative firms issuing transferable shares are similar in organizational structure and function in the market to capitalist firms. Although there are some restrictions from ideology and market forces, shares in a cooperative firm can be made transferable and tradable in the market. Transferable shares are expected to bestow on cooperative firms various functions – from raising capital to overcoming underinvestment problems and mitigating agency costs – that have thus far been enjoyed exclusively by capitalist firms. Nevertheless, the transferability of shares does not destroy the essential characteristic of cooperative firms of being owned by, and hence managed on behalf of, their members as input providers or output receivers. On the basis of these observations, we considered how to extend company law, which regulates capitalist firms, to encompass cooperative firms, thus revealing that in theory existing company law can be applied to cooperative firms almost as it is or with only minor amendments.

Extended company law would serve as a unified business law that governs both capitalist and cooperative firms within a single legal framework. It would allow entrepreneurs to choose the organizational forms that best suit their enterprises depending on the features of the inputs they use, production technology they employ, outputs they produce, and market environment they face.

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