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Short-Term Leases, Long-Term Investments, and Tradable Goodwill[1]

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Tenants of commercial premises often make long-term investments on the rented space to maximize profit. Although the tenant's investments may not be legally protected, goodwill can be formed on them, and, at the end of the lease, sold to the next tenant for the rights to take over the investments. This is a standard business practice in Korea and some other countries. A natural question arises as to why the profit-maximizing landlord does not try to capture the value of goodwill created by the tenant, even if he or she has the power to do so. Using a simple model we demonstrate that there is a market-based discipline to contain such opportunistic behavior. Specifically, it is shown that, for some types of business, the market rent and thus the landlord's profit will be higher when the landlord allows the tenants to trade goodwill. This positive correlation between the level of rent and the value of goodwill is confirmed by Korean data. It is also shown that goodwill is more likely to be formed on those businesses on which the investments made by one tenant are sufficiently valuable to another tenant. Again this pattern is shown to be consistent with data.

Key Words: tenant's investments; tradable goodwill; rents; residual claimant.

I. INTRODUCTION

Commercial premises are rented on relatively short-term leases in some countries, typically lasting for one year and renewable on a yearly basis. Oftentimes, however, the tenant might want to make investments on the rented premises in order to maximize his or her profits on a longer-term basis. These investments

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could take the form of physical facilities or some intangible asset such as reputation and customer relations. Since there is no legal protection for such investments, the tenant is faced with the risk of not being able to recover the value of the investments at the termination of the lease.[2] The landlord could find a new tenant and allow him or her to occupy the premise without any extra payment for the investments made by the previous tenant or set the rent so high as to make such extra payment unprofitable. Such uncertainty might discourage the tenant from making profitable investments and hence produce inefficiency.

An interesting question arises as to whether the landlord would actually try to take advantage of the tenant and whether the tenant would be discouraged from making economically justifiable investments because of the uncertainty. A standard business practice observed in such countries as Kenya, Korea, and the Philippines[3] provides an answer to this question. Goodwill is formed as a result of the current tenant's investments on the rented premise and sold by him or her to the new tenant at the expiration of the lease, without the intervention of the landlord.[4,5]

The presence of goodwill suggests that market forces operate so as to prevent the undesirable outcome described above by regulating the behavior of the landlord. Given the choice of whether or not to allow the tenant to make investments and sell the resulting goodwill at the termination of the lease contract, the profit-maximizing landlord will not try to appropriate the value of investments made by the tenant. The reason is that the tenant is willing to pay the landlord a higher rent when he or she is allowed to trade goodwill.

Our discussion of goodwill is somewhat related to the literature on shared tenancy (Cheung, 1969; Barzel, 1989; Stiglitz, 1987) and that on incomplete contracts (Hart, 1987). Shared tenancy relies on a contract to deal with the problem that arises because it is costly for the landlord to monitor the behavior of the tenant due to informational asymmetry. The result that both the landlord and the tenant become residual claimants is similar to ours. In our model, the tenant becomes the residual claimant of his or her investments in a legal sense, but the landlord also benefits from the tenant's investments in the form of higher rent. Our conclusion is also similar to that of the incomplete contract literature

[2]A recent verdict in Korea has it that the tenant cannot claim goodwill from the landlord and therefore leaves the door open for the landlord to find the new tenant without paying any compensation to the outgoing tenant for goodwill. The verdict also says that the tenant is entitled to claim goodwill only if its amount has been specified in the lease contract.

[3]There appear to be some such cases in the United States as well, such as commercial laundries in Atlanta, Georgia. We thank Dr. Yong Duk Park for the information.

[4]It is the responsibility of the outgoing tenant to find an incoming tenant who is willing to pay the negotiated amount in goodwill as well as acceptable rent to the landlord.

[5]One might wonder why the landlord would not make long-term investments and collect rents on the premise. The answer would be that investments in goodwill are labor-intensive and are difficult to standardize, and hence the tenant who knows the business is in a better position than the landlord to make the investment.

that market disciplines can control opportunistic behavior of parties involved in implicit contracts, the landlord in our model. However, neither of the two strands of literature is able to explain the formation of goodwill and the operation of its market analyzed in this paper. We model the formation of tradable goodwill as a variant of profit-sharing institutions, using the standard bid rent approach, unlike the above-mentioned literature that is based on a transactions cost approach.

This paper consists of five sections including the Introduction. Section II describes observed facts about goodwill in Korea. Section III provides a simple model explaining the formation of goodwill. Section IV interprets the observed facts presented in Section II using the results derived in Section III. Section V is the conclusion.

II. SOME OBSERVED FACTS ABOUT GOODWILL: THE CASE OF KOREA

Let us start with two sets of facts observed in Korea, one concerning the existence of transferable goodwill and the other concerning the relationship between the level of rent and the value of goodwill.

1. Types of Business with Goodwill

First, goodwill is formed on rental premises used for some but not all types of business. Casual observation reveals that goodwill is not found in offices and manufacturing plants, but in those businesses that directly serve the public. In order to see which types of business are more likely to have goodwill, we looked at some data on commercial lease listings posted in a major real estate business magazine.[6] Table I presents the total number of listings and the number of listings on which goodwill is requested by the current tenant, classified by types of business. One should note that the cases collected are not large in numbers, that the reported cases may not necessarily represent the whole population of respective business type, and that the information is based on asking price rather than the actual transaction price.

Nevertheless, the pattern that emerges from the table confirms what one would expect about the types of business for which goodwill is likely to be formed and traded. For example, most premises being used for restaurants and real estate agencies have goodwill, whereas office premises have no cases of goodwill posted, and only a small fraction of medical clinics has advertised goodwill. In the case of restaurants, consumers' recognition, the interior design, and the setting of the premises are crucial for sales. In the case of real estate agents, consumers'

[6]*Bu-Dong-San-Bank*, **290** (April 18, 2000), **296** (July 11, 2000), **303** (October 24, 2000).

TABLE I
Proportion of Rental Premises with Transferable Goodwill

Types of Business	Total listings (*A*)	Listings with goodwill (*B*)	*B*/*A* (%)
Game room/PC cafes	14	14	100.0
Study rooms	2	2	100.0
Convenience stores	17	13	76.5
Offices	240	5	2.1
Karaokes	18	16	88.9
Multi-purpose stores	156	90	57.7
Bars	33	31	93.9
Billiard parlors	6	5	83.3
Restaurants/pubs	149	134	89.9
Stationers	4	4	100.0
Beauty parlors/barber shops	18	12	66.7
Hospitals/clinics	12	4	33.3
Realtors	195	192	98.5
Video/book rental	22	21	95.5
Laundries	8	7	87.5
Pharmacies	4	2	50.0
Butcher shops	6	5	83.3
Bakeries	22	21	95.5
Auto repair shops	3	3	100.0
Learning institutes	18	4	22.2
Coffee shops	8	8	100.0
Inns/motels	6	2	33.3

recognition is very important for business. And to a great extent, these businesses can be taken over by other operators without a substantial loss in revenue. This is not true of medical clinics, because the quality of the doctors is the most crucial determinant of their operating revenue and because the doctor leaves when the lease expires.

2. Relationships between Goodwill and Rent

One of the points we highlighted in the introductory discussion of goodwill was that the profit of the landlord increases when he or she allows the tenant to create goodwill and sell it to the next tenant. This happens because the tenant is willing to pay a higher rent when allowed to trade goodwill. In order to see whether this is indeed the case, we calculated the correlation coefficient between the level of rent per unit of rented space and the value of the goodwill per unit of space using the data taken from asking rent and goodwill on the lease listings described above. The correlation coefficient was 0.47, confirming a positive relationship between the two variables.

III. THE MODEL

In this section, we present a simple model capable of explaining the formation of goodwill. Our model has two tenants. The first one occupies the premise from period zero to T, an exogenous expiration date, during which time he or she is free to make investments on the rented premise so as to increase revenue. The second tenant takes over the premise at time T and occupies it until eternity. We assume that the profit-maximizing landlord has a choice of whether to allow the tenant to make investments on the premise and later sell the resulting goodwill to the next tenant. We will show that the landlord will always make larger profit by allowing tradable goodwill if no direct cost is involved in doing so. We will then introduce the cost that the landlord incurs by allowing tradable goodwill and show that the above conclusion holds only if the investments made by the first tenant are sufficiently valuable to the next.

1. Landlord's Profit When Tradable Goodwill Is Not Allowed

Let us first consider the case in which the landlord does not allow the first tenant to sell goodwill. In this case, the first tenant benefits from his or her investments only during his or her occupancy and will not be able to recoup any further return once the lease expires. Nevertheless, the first tenant will make investments as long as the present value of marginal revenue from the investments exceeds that of marginal cost. As we will see later, the optimal level of investments will differ from that when he or she is allowed to sell the goodwill to the next tenant.

We will denote the instantaneous revenue accruing to the tenant by $R(..)$, the instantaneous cost of investment as c, and the rents paid by the first tenant and the next tenant as $\omega_{N,1}$ and $\omega_{N,2}$, respectively. The subscript N represents the case in which no tradable goodwill exists. The tenant's revenue R is determined jointly by the quantity of the rented space ($\bar{L}$) and his or her own investment on the premise (I_N).

Thus the profit of the first tenant, $\Pi_{N,1}$, can be written as

$$\Pi_{N,1} = \int_0^T R(I_N,\bar{L})e^{-rt}\,dt - \int_0^\infty cI_N e^{-rt}\,dt - \int_0^T \omega_{N,1}\bar{L}e^{-rt}\,dt\,. \qquad (1)$$

The first term on the right-hand side represents the present value of the tenant's revenue stream, the second one being the present value of the cost of capital investments, while the last term refers to the present value of the rent stream paid to the landlord. Note that the first term is integrated from zero to period T, whereas the second term is integrated from zero to infinity. The difference reflects the fact that the landlord does not allow the tenant to trade goodwill.

The tenant chooses the level of I_N so as to maximize his or her profit. We

assume that $R(..)$ consists of the sum of $R(0,\bar{L})$ and $\hat{R}(I_N;\bar{L})$, where $R(0,\bar{L})$ refers to the revenue from the rented space without additional investment by the tenant whereas $\hat{R}(I_N;\bar{L})$ represents incremental revenue resulting from the tenant's investment. For notational convenience, we will denote $R(0,\bar{L}) \equiv \bar{R}$, $\hat{R}(I_N;\bar{L}) \equiv \hat{R}(I_N)$. We assume $\hat{R}' > 0$ and $\hat{R}'' < 0$ to ensure that the second-order condition for profit maximization is satisfied.

Equation (1) can be rewritten as

$$\Pi_{N,1} = \int_0^T \{\bar{R} + \hat{R}(I_N)\}e^{-rt}\,dt - \int_0^\infty cI_N e^{-rt}\,dt - \int_0^T \omega_{N,1}\bar{L}e^{-rt}\,dt\,. \qquad (1')$$

Assuming that the tenant operates in a competitive market and hence makes a zero profit, we get

$$\int_0^T \{\bar{R} + \hat{R}(I_N^*)\}e^{-rt}\,dt - \int_0^\infty cI_N^* e^{-rt}\,dt - \int_0^T \omega_{N,1}\bar{L}e^{-rt}\,dt = 0\,, \qquad (2)$$

where I_N^* satisfies the following first-order condition

$$\frac{d\Pi_{N,1}}{dI_N} = \int_0^T \frac{d\hat{R}(I_N^*)}{dI_N}e^{-rt}\,dt - \int_0^\infty ce^{-rt}\,dt = 0\,. \qquad (3)$$

The present value of the rent stream payable to the landlord by the first tenant, which is equal to the third term on the left-hand side of Eq. (2), can be derived as

$$\int_0^T \omega_{N,1}\bar{L}e^{-rt}\,dt = \int_0^T \{\bar{R} + \hat{R}(I_N^*)\}e^{-rt}\,dt - \int_0^\infty cI_N^* e^{-rt}\,dt\,. \qquad (4)$$

At time T, the second tenant takes over the premise together with the investment made by the first tenant. We assume for simplicity that the second tenant will not make further investment. The second tenant will also make zero profit, i.e.,

$$\Pi_{N,2} = \int_0^\infty \{\bar{R} + \beta\hat{R}(I_N^*)\}e^{-rt}\,dt - \int_0^\infty \omega_{N,2}\bar{L}e^{-rt}\,dt = 0\,. \qquad (5)$$

$\omega_{N,2}$ refers to the rent payable to the landlord by the second tenant. β is a measure of the degree to which the investment made by the first tenant is valued by the next. It takes a value between zero and one, and a larger value of β implies that the original investment is more palatable to the new tenant; $\beta = 1$ if the investment

is fully valued by the incoming tenant, whereas $\beta = 0$ if it is completely useless for the new tenant.

The present value of revenue that the landlord receives from the second tenant from T on can be derived from Eq. (5) as

$$\int_T^\infty \omega_{N,2}\overline{L}e^{-rt}\,dt = \int_T^\infty \{\overline{R} + \beta\hat{R}(I_N^*)\}e^{-rt}\,dt\,. \tag{6}$$

The second term in the bracket on the right-hand side indicates that, when goodwill is not tradable, the landlord collects the value of investments made by the first tenant by charging the next tenant a higher rent.

The profit of the landlord (φ_N) equals the present value of the rents collected from the two tenants; i.e., the sum of (4) and (6).

$$\begin{aligned}\varphi_N &= \int_0^T \omega_{N,1}\overline{L}e^{-rt}\,dt + \int_T^\infty \omega_{N,2}\overline{L}e^{-rt}\,dt \\ &= \int_0^T \{\overline{R} + \hat{R}(I_N^*)\}e^{-rt}\,dt - \int_0^\infty cI_N^*e^{-rt}\,dt + \int_T^\infty \{\overline{R} + \beta\hat{R}(I_N^*)\}e^{-rt}\,dt \qquad (7)\\ &= \int_0^\infty \overline{R}\cdot e^{-rt}\,dt + \int_0^T \hat{R}(I_N^*)e^{-rt}\,dt + \int_T^\infty \beta\hat{R}(I_N^*)e^{-rt}\,dt - \int_0^\infty cI_N^*e^{-rt}\,dt\,.\end{aligned}$$

The landlord will compare this profit in the absence of tradable goodwill to the other profit (φ_G) that can be obtained if he or she allows tradable goodwill.

2. Landlord's Profit When Tradable Goodwill Is Allowed

Now suppose that the first tenant is allowed to sell the goodwill generated by his or her investment at the end of the lease. Then the first tenant's profit can be expressed as

$$\Pi_{G,1} = \int_0^T \{\overline{R} + \hat{R}(I_G)\}e^{-rt}\,dt + De^{-rT} - \int_0^\infty cI_Ge^{-rt}\,dt - \int_0^T \omega_G\overline{L}e^{-rt}\,dt\,. \tag{8}$$

$\Pi_{G,1}$ refers to the profit of the first tenant in the presence of tradable goodwill and D is the price of goodwill the first tenant receives from the next tenant. The second subscript for ω_G is deliberately omitted because the tradability of goodwill implies that the landlord promises not to act opportunistically, charging the same rent to the second tenant despite the improvement in the value of the rental premise ($\omega_{G,1} = \omega_{G,2} = \omega_G$).

Again, we assume that the next tenant who takes over the rental premise makes no further investment, and operates on the premise forever, making a zero profit. Then, the following condition must hold at the time of lease takeover.

$$\Pi_{G,2} = \int_0^\infty \{\overline{R} + \beta\hat{R}(I_G)\}e^{-rt}\,dt - \int_0^\infty \omega_G \overline{L} e^{-rt}\,dt - D = 0 \tag{9}$$

Equation (9) can be solved for the present value of the goodwill.

$$De^{-rT} = \int_T^\infty \{\overline{R} + \beta\hat{R}(I_G)\}e^{-rt}\,dt - \int_T^\infty \omega_G \overline{L} e^{-rt}\,dt\,. \tag{9'}$$

Equation (9′) shows that the value of goodwill the new tenant pays to the current one equals the difference between the value of the investment to the former and the rent he or she pays to the landlord in return for the use of the rental premise. The value of goodwill D collapses to zero if the landlord breaks his or her promise and appropriates all the value created by the first tenant in the form of higher rent, given by the right-hand side expression in Eq. (6). Since ω_G is constant throughout the whole period, however, the first tenant becomes the sole residual claimant of his or her investment on the rented premise.

Substituting Eq. (9′) back to Eq. (8) above, we obtain an expression for the profit of the current tenant.

$$\begin{aligned}\Pi_{G,1} = &\int_0^\infty \overline{R}\, e^{-rt}\,dt + \int_0^T \hat{R}(I_G)e^{-rt}\,dt + \int_T^\infty \beta\hat{R}(I_G)e^{-rt}\,dt \\ &- \int_0^\infty cI_G e^{-rt}\,dt - \int_0^\infty \omega_G \overline{L} e^{-rt}\,dt\end{aligned} \tag{8'}$$

The landlord's profit when goodwill is tradable, φ_G, can be derived from Eq. (8′) since it equals the present value of the rent stream, the last term of the equation. Again, assuming that the tenant cannot earn supernormal profit ($\Pi_{G,1} = 0$), one can solve for the rent payable to the landlord when the tenant is allowed to sell the goodwill to the next tenant,

$$\varphi_G \equiv \int_0^\infty \omega_G \bar{L} e^{-rt}\, dt \tag{10}$$

$$= \int_0^\infty \bar{R}\, e^{-rt}\, dt + \int_0^T \hat{R}(I_G^*) e^{-rt}\, dt + \int_T^\infty \beta \hat{R}(I_G^*) e^{-rt}\, dt - \int_0^\infty cI_G^*\, e^{-rt}\, dt\,,$$

where I_G^* satisfies the first-order condition for maximizing profit in Eq. (8); i.e.,

$$\frac{d\Pi_{G,1}}{dI_G} = \int_0^T \frac{d\hat{R}(I_G^*)}{dI_G} e^{-rt}\, dt + \int_T^\infty \beta \frac{d\hat{R}(I_G^*)}{dI_G} e^{-rt}\, dt - \int_0^\infty ce^{-rt}\, dt = 0\,. \tag{11}$$

3. *Comparison of the Profits under Two Regimes of Goodwill*

The landlord will compare φ_N with φ_G in order to decide whether or not to allow the tenant to trade goodwill. From Eqs. (7) and (10), one can see that the two profit expressions look the same except that I_G^* in φ_G replaces I_N^* in φ_N. Therefore, the landlords' profit equation can be expressed as a function of the level of investment made by the first tenant I, i.e.,

$$\varphi \equiv \int_0^\infty \bar{R}\, e^{-rt}\, dt + \int_0^T \hat{R}(I) e^{-rt}\, dt + \int_T^\infty \beta \hat{R}(I) e^{-rt}\, dt - \int_0^\infty cIe^{-rt}\, dt\,. \tag{12}$$

Notice that φ is equal to $\Pi_{G,1}$ in Eq. (8′), the first tenant's profit, plus a constant term $\int_0^\infty \omega_G \bar{L} e^{-rt} dt$. Therefore, I_G^* which maximixes $\Pi_{G,1}$ maximizes φ at the same time. In other words, the landlord's profit is the largest at the optimal level of investment determined by the first tenant when the tenant is allowed to sell goodwill to the next tenant. On the other hand, $\Pi_{N,1}$ is equal to $\Pi_{G,1}$ less $\int_T^\infty \beta \hat{R}(I) e^{-rt} dt$ and two constant terms. Since I_N^* maximizes $\Pi_{N,1}$, it is smaller than I_G^*. Therefore, the inequality $\varphi_N < \varphi_G$ holds. In summary, the landlord is unambiguously better off when he or she allows the tenant to trade goodwill.

This result can be illustrated using Fig. 1. The height of the upper curve equals the sum of the first three terms in Eq. (12), and hence it may be interpreted as the total present value of revenue. The curve starts from the intercept $\int_0^\infty \bar{R}\, e^{-rt} dt$ and rises at a decreasing rate because the two other terms are definite integrals involving the function $\hat{R}(I)$ with a positive first derivative and a negative second derivative; i.e., $\hat{R}' > 0$, $\hat{R}'' < 0$. The landlord's profit φ is equal to the vertical

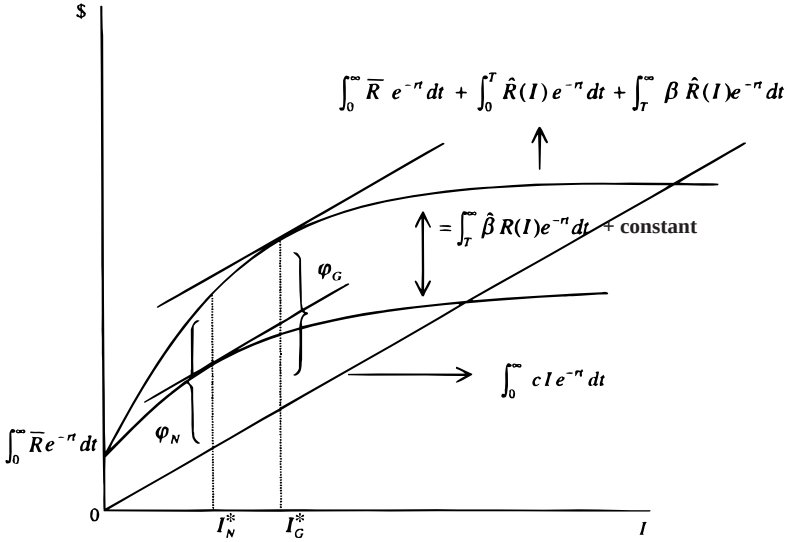

FIG. 1. Landlord's profit with and without tradable goodwill.

distance between the upper curve and the straight line emanating from the origin, where the height of the latter equals the last term in Eq. (12), or the present value of the cost of investment.

In order to find the profit of the landlord, we need to find the level of investment I chosen by the first tenant. First, suppose the landlord allows the tenant to trade goodwill. As was explained above, the landlord's profit is maximized when the profit of the first tenant is maximized. This takes place at I_G^* at which the slope of the upper curve is the same as that of the straight line. This maximum profit in the presence of the tradable goodwill is denoted as φ_G. The landlord's profit when tradable goodwill is not allowed is also measured by the same distance between the upper curve and the straight line representing the cost of investment, except that the height is measured at I_N^*. Since I_N^* maximizes $\Pi_{N,1}$, which equals $\Pi_{G,1}$ less $\int_T^\infty \beta\hat{R}(I)e^{-rt}dt$, it is the level of I at which the vertical difference between the lower curve and the straight line is the greatest. Therefore, the landlord's profit in the absence of tradable goodwill is denoted as φ_N in the figure. As long as $\hat{R}' > 0$ and $\hat{R}'' < 0$ hold, $I_G^* > I_N^*$ and hence $\varphi_N < \varphi_G$.

So far we have proved that the landlord makes a larger profit when he or she allows the tenant to sell goodwill.

If this were true, all lease contracts would be arranged with tradable goodwill, contrary to the observed fact that goodwill exists only in certain types of businesses. This discrepancy can be resolved if the cost associated with tradable

goodwill is incorporated into our model. The most obvious cost the tenant incurs when he or she allows the tenant to trade goodwill arises because he or she cannot find the next tenant as he or she wishes. Let δ be such a cost. Then, allowing tradable goodwill may or may not be more profitable to the landlord depending upon the size of parameter β. In order to show this, let us define the differential profit under the two regimes, inclusive of cost., i.e.,

$$\Delta \equiv (\varphi_G - \delta) - \varphi_N \,. \tag{13}$$

Differentiating Eq. (13) with respect to β gives the following.

$$\begin{aligned}\frac{\partial \Delta}{\partial \beta} = &\int_0^T \frac{d\hat{R}(I_G^*)}{dI_G}\frac{\partial I_G}{\partial \beta}e^{-rt}\,dt + \beta\int_T^\infty \frac{d\hat{R}(I_G^*)}{dI_G}\frac{\partial I_G}{\partial \beta}e^{-rt}\,dt \\ &+ \int_T^\infty \hat{R}(I_G^*)e^{-rt}\,dt - \int_0^\infty c\,\frac{\partial I_G}{\partial \beta}e^{-rt}\,dt - \int_T^\infty \hat{R}(I_N^*)e^{-rt}\,dt\end{aligned} \tag{14}$$

The first, second, and fourth terms add up to zero by the first order condition of Eq. (11), while the sum of the third term and the last term is positive because $I_G^* > I_N^*$. Thus, Δ is a monotone increasing function of β. One can also see that $\Delta < 0$ if $\beta = 0$ since $\varphi_G = \varphi_N$ at that value of β. This can be seen from Fig. 2. Therefore, there exists some β^* such that $\Delta < 0$ for all $\beta < \beta^*$ and $\Delta > 0$ for all $\beta > \beta^*$. And the landlord will allow the goodwill to be traded between the tenants only if β is large enough.

IV. INTERPRETATION OF THE OBSERVED FACTS

In Section II, we looked to some Korean data to identify the types of business on whose premises goodwill was traded among the tenants. We found that goodwill existed for restaurants and some other types of business on whose premises investments made by one tenant could be easily transferred to the next. We also noticed a positive relationship between the amount of goodwill and the level of rent on the commercial premise from a simple regression equation. We can now explain the facts using the model we developed in Section III.

Let us first consider the characteristics of the businesses on which goodwill was found to exist from the data analyzed in Section II. The model developed in Section III suggests that goodwill is more likely to be formed in those businesses with larger values of β, the parameter indicating the degree in which investments made by one tenant are valued by another tenant. Is the observed pattern consistent with the prediction of the theoretical model? Do those businesses with goodwill have larger value of β?

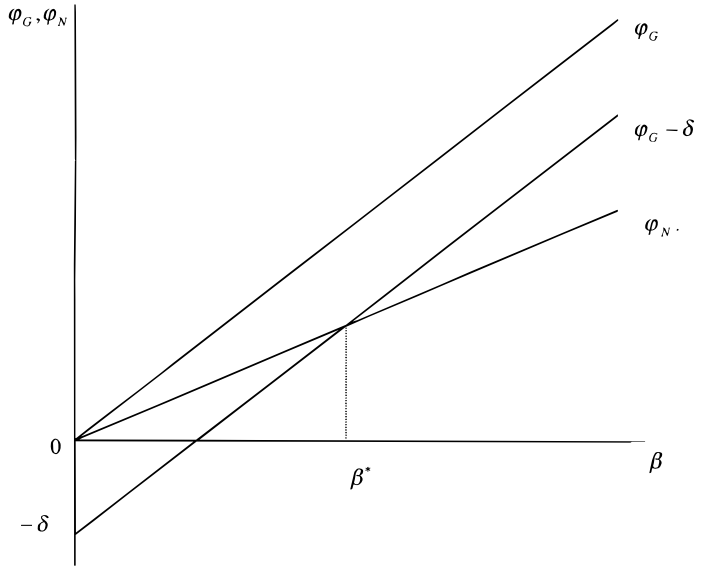

FIG. 2. The size of β and the formation of tradable goodwill.

One can compare various types of businesses in terms of the associated values of β. First, take (rental) housing. Suppose that the tenant is allowed to make investments on the rented house. Since different people have different preferences about the interior design and the floor plan of a house, one tenant's investments on the house are not likely to be appreciated by the next tenant. For this reason, houses with special design features tend to sell at discounts or the landlord demands the tenant to return the rental property in the same condition that it was in at occupancy. In other words, β should be very small in the case of housing, and no goodwill is formed on housing.

Similarly, investments made by the current tenant on office space or factories are not likely to be valuable to the next potential tenant. Hence, β should be small, and goodwill is not observed in these premises. Next, consider medical clinics or learning institutions. The customers of these businesses are attracted not so much by the physical facilities but by the providers of services, i.e., doctors and instructors. Hence, investments on the facilities or consumer recognition of the location of such premises might not prove helpful in maintaining the customers when the people renting and running the premises go. Thus, β is likely to be small, and there are only small chances that goodwill is formed and traded on such businesses.

On the other hand, retail stores and restaurants appear to have a large value of β. Customers are drawn to these businesses because the premises are easy to

locate or because they offer quality services or good food. Although the change of salespersons or chefs can make a difference to some extent, consumer recognition of the physical location is crucial in maintaining good business. In fact, when a restaurant is transferred from the current operator to a new tenant, typically the recipes and other operational know-how are handed over in return for the payment of goodwill. Moreover, the outgoing tenant agrees not to open a new restaurant in a nearby location. Similarly, the transfer of a realtor's office is accompanied by the transfer of detailed data on customers and past transactions. In sum, β for these businesses is large or can be made large through some contractual arrangements. And goodwill is commonly found in such businesses.

Finally, let us revisit the positive correlation between the value of goodwill and the level of rent that was reported in Section II. Although we did not delve into the relationship between the two variables in Section III, such a relationship can be inferred indirectly from the model. From Eq. (9'), one can see that the value of goodwill D increases with β, and Eq. (12) suggests that rent gets larger as β becomes larger. Taken together, the two equations imply a positive correlation between the value of goodwill and the level of rent, which is consistent with our empirical evidence presented in Section II.

V. CONCLUDING REMARKS

In this paper, we analyzed a standard business practice of some countries, including Korea, governing commercial leases. Using a simple model, we showed first that it is in the landlord's best interest not to expropriate the value created by the tenant's investment by charging higher rent but to allow the tenant to sell the goodwill if doing so imposes no cost upon the landlord. We then introduced cost to the landlord and showed that the goodwill tended to be found among such businesses where investments made by the current tenant are highly valued by the next potential tenant. This prediction proved consistent with the observed facts in Korea.

There is room for improving our analysis. First, our model is based on the assumption of competitive behavior of the tenant and the landlord. A game-theoretic approach might be more appropriate. Second, the model could be modified so that one can analyze the consequences of providing legal protection for tenants' investments or tenants' right to long-term occupancy. An interesting feature of tradable goodwill is that it operates in the absence of such protection. One can speculate that legal protection will increase the cost to the landlord so that the landlord may try to ban tradable goodwill by contract. But our current model is not appropriate for a formal analysis.

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