

How much should you own? Cross-ownership and privatization

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September 2010**

<http://www.igidr.ac.in/pdf/publication/WP-2010-015.pdf>

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Abstract

This paper examines the interdependence of cross-ownership and level of privatization in case of differentiated products mixed duopoly. It shows that it is optimal for the private firm not to own any (own the entire) portion of the privatized share of its rival firm, if the level of privatization is very low (very high). In equilibrium, the government makes sure that cross-ownership is not attracted. However, in most of the situations, the possibility of cross-ownership adversely affects the prospect of privatization. Results of this paper have strong implications to antitrust regulations and divestment policies.

Keywords:

Cross-ownership, mixed duopoly, partial privatization, product differentiation

JEL Code:

D43, L13, H42, L32

Acknowledgements:

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1 Introduction

Cross-ownership is a common phenomena in many industries across the globe.¹ One reason for firms to own their rivals' stock, which give them a share in the rivals' profit but not necessarily in the rivals' decision making, may be to dampen the intensity of product market competition and facilitate collusion (Reynolds and Snapp, 1986; Gilo et al., 2006). Other reasons may be to gain access to rivals' know-how, create synergy and diversify portfolio (Macho-Stadler and Verdier, 1991; Alley, 1997).

Ownership structure and the resultant objective function of rival firm likely to have significant impact on a firm's decision to own share of its rival. Existing theoretical literature on cross-ownership generally assumes oligopolistic market structure with profit maximizing firms and disregards mixed oligopoly market structure. However, empirical evidence shows that many developing and transition economies are privatizing state-owned enterprises across several sectors and these (partially) privatized firms compete with other private firms in the product market (Megginson and Netter, 2001; Maw, 2002). On the other hand, existing models on (partial) privatization neglects the issue of cross-ownership. This paper aims to bridge these gaps by analysing the interdependence of private firm's decision to own stocks of its (partially) privatized rival firm and the government's decision to privatize. In particular, this paper attempts to answer the following questions. Is it optimal for a private firm to own any share of (partially) privatized firm? If yes, how much? What is the socially optimal level of privatization when the possibility of cross-ownership exists?

It is easy to observe that, in case of Cournot duopoly with symmetric profit maximizing firms, a firm has unilateral incentive to own its rival's share as much as possible. The

¹See, for example, Kester (1992); Hansen and Lott (1996); Alley (1997); Dietzenbacher et al. (2000); Gilo et al. (2006); Bhaumik and Piesse (2008); Khanna and Thomas (2009), to name a few.

reason is higher cross-ownership makes the participating firm less aggressive in the product market and, thus, softens the product market competition, which results in higher profit of the rival firm and the share of the rival's profit that accrues to the participating firm overcompensates for reduction in its own profit for being less aggressive. However, it is not clear whether it is incentive compatible for a profit maximizing firm to own any share of partially privatized firm, because the latter is not totally profit oriented.

Considering a sequential move game in the context of a differentiated products mixed duopoly, this paper demonstrates that the level of privatization of a public firm has important consequences on cross-ownership. Unlike as in case of private duopoly, it is optimal for the private firm to own any portion of the privatized share of the public firm only if the level of privatization is more than a threshold level. Moreover, the level of privatization needs to be very high to induce the private firm to fully own the privatized share of the public firm. It also shows that the possibility of cross-ownership in post-privatization regime calls for a lower level of privatization, compared to that in case the possibility of cross-ownership is effectively ruled out by legal and/or institutional mechanisms of the country, unless the degree of product differentiation is low. These results have strong implications to antitrust regulations and divestment policies.

The rest of the paper is organised as follows. The next section explains the model. It also contains the results of the analysis. Section 3 concludes.

2 The model

We consider a duopolistic industry in which firms produce differentiated products and engage in Cournot type quantity competition. The market demand faced by firm i ($= 1, 2$) is given by $p_i = A - q_i - \gamma q_j$, $i, j = 1, 2, i \neq j$; where q_i (p_i) is the quantity (price) of the product of firm i and γ ($0 < \gamma < 1$) is the product differentiation parameter.² Lower value

²The underlying utility function of the representative consumer is $U = Aq_1 + Aq_2 - \frac{1}{2}(q_1^2 + q_2^2 + 2\gamma q_1 q_2) + m$, where m is the quantity of the numeraire good. This specification of the representative consumer's utility function is similar to that of Singh and Vives (1984).

of γ denotes higher degree of product differentiation, i.e., lower degree of substitutability between products. Each firm has a constant marginal cost of production c .³

Firm 2 is a profit maximizing private firm, whereas firm 1 is (partially) owned by the government. The objective of the government is to maximize social welfare $SW = CS + \pi_1 + \pi_2$, where $CS = \frac{1}{2}(q_1^2 + q_2^2 + 2\gamma q_1 q_2)$ and $\pi_i = (p_i - c)q_i$ represent, respectively, consumer surplus and profit of firm i .⁴

The model is formulated as a three-stage game with the following timing. In the first stage, the government chooses the share $\theta \in [0, 1]$ of firm 1 to privatize. Higher value of θ denotes higher level of privatization and $\theta = 1$ ($\theta = 0$) corresponds to the case of full privatization (full nationalization) of firm 1. In the second stage, owner of firm 2 decides the proportion $s \in [0, 1]$, of the privatized fraction of firm 1, to own. Clearly, higher value of s indicates higher cross-ownership, i.e., higher participation of firm 2's shareholders in firm 1. $s = 0$ corresponds to the case of no cross-participation of shareholders and $s = 1$ implies that all privatized stocks of firm 1 is owned by firm 2 only. Finally, in stage 3, firms are engaged in Cournot type quantity competition.⁵ We solve the game by backward induction method, considering the objective functions of firms as discussed below.

We consider that a fully privatized firm maximizes own profits, whereas a fully nationalised firm maximizes social welfare. The level of privatization (θ) determines the bargaining power of the private partner(s) in bargaining over the payoff with the public sector, as in Matsumura (1998).⁶ Note that existing institutional factors of the economy play crucial roles in determining objective functions of fully nationalised firms as well as

³Qualitative results of this paper go through, if we consider increasing marginal costs of production.

⁴ $CS = [Aq_1 + Aq_2 - \frac{1}{2}(q_1^2 + q_2^2 + 2\gamma q_1 q_2)] - (A - q_1 - \gamma q_2)q_1 - (A - q_2 - \gamma q_1)q_2 = \frac{1}{2}(q_1^2 + q_2^2 + 2\gamma q_1 q_2)$.

⁵We assume, for simplicity, that the price of share of firm 1 is exogenously determined and we normalize that to be zero.

⁶Alternatively, following Fershtman (1990), if we consider that the private partner(s) and the public sector bargain over the quantity of output to be produced, where bargaining powers are determined by respective share holdings, qualitative results of this analysis go through. The reason is the formulations of Fershtman (1990) and Matsumura (1998) lead to comparable objective functions of the partially privatized firm (Kumar and Saha, 2008; Saha, 2009)

of partially privatised firms. Without any loss of generality, the objective function of firm 1 can be considered as the weighted average of its own profit and the sum of consumer surplus and producer surplus, $O_1 = \theta\pi_1 + (1 - \theta)[SW]$.⁷ Therefore, the decision problem of firm 1 in stage 3 can be written as follows.

$$Max_{q_1} O_1 = \pi_1 + (1 - \theta) \left[\frac{1}{2} (q_1^2 + q_2^2 + 2\gamma q_1 q_2) + \pi_2 \right]$$

On the other hand, shareholders of firm 2 are supposed to maximize their total profit; thus the decision problem of firm 2 in stage 3 can be written as follows.

$$Max_{q_2} O_2 = \pi_2 + s\theta\pi_1,$$

since $s\theta$ ($0 \leq s\theta \leq 1$) is the proportion of firm 1 owned by firm 2.

Now, solving the above problems of firms we get the equilibrium outputs, prices, profits, consumer surplus and social welfare as follows.

$$\begin{aligned} q_1 &= \frac{(A - c) (2 - \gamma)}{2 (1 + \theta) - \gamma^2 (1 + s\theta)}, \\ q_2 &= \frac{(A - c) (1 - \gamma + \theta - s\gamma\theta)}{2 (1 + \theta) - \gamma^2 (1 + s\theta)}, \\ p_1 &= \frac{A (2 - \gamma) \theta + c (2 - \gamma^2 + \gamma (1 - s\gamma) \theta)}{2 (1 + \theta) - \gamma^2 (1 + s\theta)}, \\ p_2 &= \frac{A (1 - \gamma + (1 + s (1 - \gamma) \gamma) \theta) + c (1 + \theta + \gamma (1 - \gamma - s\theta))}{2 (1 + \theta) - \gamma^2 (1 + s\theta)}, \\ \pi_1 &= \frac{(A - c)^2 (2 - \gamma)^2 \theta}{(2 (1 + \theta) - \gamma^2 (1 + s\theta))^2}, \\ \pi_2 &= \frac{(A - c)^2 (1 - \gamma + \theta - s\gamma\theta) (1 - \gamma + (1 + s (1 - \gamma) \gamma) \theta)}{(2 (1 + \theta) - \gamma^2 (1 + s\theta))^2}, \\ CS &= \frac{(A - c)^2 \left((2 - \gamma)^2 + 2 (2 - \gamma) \gamma (1 - \gamma + \theta - s\gamma\theta) + (1 - \gamma + \theta - s\gamma\theta)^2 \right)}{2 (2 (1 + \theta) - \gamma^2 (1 + s\theta))^2}, \\ SW &= \frac{(A - c)^2 \left(7 + \theta (14 + 3\theta) + 2\gamma^3 (1 + s\theta)^2 - 2\gamma (3 + \theta (5 + s + s\theta)) - \gamma^2 (2 + s\theta (4 + (2 + s) \theta)) \right)}{2 (2 (1 + \theta) - \gamma^2 (1 + s\theta))^2}. \end{aligned}$$

⁷The specified objective function of the (partially) privatized firm is in line with the existing mixed oligopoly literature. It is also likely to be plausible in many real life situations, even if there is cross-ownership. This is because, in case of cross-ownership, legal framework and institutional factors are likely to restrict the rival private firm to manipulate the objective function of the partially privatized firm further.

It is easy to observe that $\frac{\partial q_1}{\partial s} > 0$, but $\frac{\partial q_2}{\partial s} < 0$. That is, due to an increase in cross-ownership, the output of the partially privatized firm increases whereas the output of the private firm decreases. The reason is higher participation of firm 2 in firm 1 induces firm 2 to be less aggressive in the product market, which, in turn, leads to lower output of firm 2 and higher output of firm 1. Moreover, decrease in quantity of firm 2's output, due to an increase in cross-ownership, outweighs the associated increase in quantity of firm 1's output ($\frac{\partial(q_1+q_2)}{\partial s} < 0$). As a result, consumer surplus as well as firm 2's profit decreases, while firm 1's profit increases, with the increase in cross-ownership: $\frac{\partial CS}{\partial s} < 0$, $\frac{\partial \pi_2}{\partial s} < 0$ and $\frac{\partial \pi_1}{\partial s} > 0$. The net effect of cross-ownership on industry profit is ambiguous. It turns out that the negative impacts of cross-ownership on consumer surplus and firm 2's profit together dominate its positive impact on firm 1's profit. Therefore, social welfare decreases with the increase in cross-ownership.

Let us now turn to the comparative statics effects of privatization. Note that higher level of privatization (θ) induces firm 1 to be less aggressive in the product market, since privatization turns the focus of the public firm away from social welfare maximization towards profit maximization. This in turn leads to increased production in the private firm. Therefore, output of firm 2 increases at the cost of firm 1's production with the increase in level of privatization: $\frac{\partial q_1}{\partial \theta} < 0$ and $\frac{\partial q_2}{\partial \theta} > 0$. Clearly, the level of privatization and the extent of cross-ownership have opposite affects on firms' output decisions. However, total production in the industry decreases with the increase in level of privatization ($\frac{\partial(q_1+q_2)}{\partial \theta} < 0$) and, thus, higher level of privatization leads to lower consumer surplus ($\frac{\partial CS}{\partial \theta} < 0$), as was the case with respect to the extent of cross-ownership. However, unlike cross-ownership, privatization enhances the profit of firm 2 ($\frac{\partial \pi_2}{\partial \theta} > 0$). It is easy to check that industry profit also increases with the increase in level of privatization ($\frac{\partial(\pi_1+\pi_2)}{\partial \theta} > 0$), because privatization lessens the intensity of competition in the product market. As expected, we find that whether higher level of privatization leads to higher social welfare or not that depends on the level of privatization, extent of cross-ownership and the degree of product differentiation: $\frac{\partial SW}{\partial \theta} > 0$, if $0 \leq \theta < \frac{(1-s)(1-\gamma)\gamma}{4-\gamma(3-s(1-\gamma)(1-(2-s)\gamma))}$. Clearly, higher is the extent of cross-ownership, lower is the possibility to have positive impact of privatization

on social welfare. In other words, it appears that the increased market concentration due to cross-ownership might restrict the scope for privatization.

Now, we analyse the cross-ownership decision of firm 2, in stage 2 of the game. It is straightforward to check that, in case of private duopoly, a firm always prefers to increase its ownership in the rival firm and it is optimal for a firm to own the rival firm fully ($s = 1$, if $\theta = 1$). The reason is, increased cross-ownership strengthens the collusive behaviour of firms, which enables them to exploit the monopoly power more. However, mixed duopoly adds some twists to these. Output orientation of the public firm, since it cares about consumer surplus also, may potentially hurt the prospect of gain of the private firm through cross-ownership. To illustrate it further, note that, given the level of privatization (θ), total payoff of firm 2 is $O_2 = \pi_2 + s\theta\pi_1$. Therefore, marginal effect of cross-ownership on firm 2's payoff can be expressed as follows.

$$\frac{\partial O_2}{\partial s} = \frac{\partial \pi_2}{\partial s} + s\theta \frac{\partial \pi_1}{\partial s} + \theta\pi_1$$

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The first term is the marginal effect of cross-ownership on its own profit, which is negative. The second and the third term together constitute the marginal effect of cross-ownership on the gain of firm 2 via firm 1's profit. It is straightforward to check that, if $\theta = 1$, $s\theta \frac{\partial \pi_1}{\partial s} + \theta\pi_1 > | \frac{\partial \pi_2}{\partial s} | \Rightarrow \frac{\partial O_2}{\partial s} > 0$. However, for $\theta < 1$, $\frac{\partial O_2}{\partial s}$ may or may not be positive. In other words, whether cross-ownership is profitable or not that depends on the relative magnitudes of the two opposing effects of cross-ownership on firm 2's payoff.

Substituting the firms' optimal choices of outputs of stage 3 in the payoff function of firm 2, we can write the cross-ownership decision problem of firm 2 as follows.

$$Max_s O_2(s; \theta) = \frac{(A-c)^2 [(1-\gamma)^2 + (1-\gamma)(2-s\gamma^2)\theta + \{1+s(1-\gamma)(4-s\gamma^2)\}\theta^2]}{[2(1+\theta) - \gamma^2(1+s\theta)]^2}$$

subject to $0 \leq s \leq 1$

From the first order condition of the unconstrained problem, we get $s = \frac{2}{\gamma^2} + \frac{2(2-\gamma)\theta}{\gamma^2(2-\gamma-\gamma^2)} - \frac{\gamma}{(2+\gamma)\theta} = \hat{s}$, say. It is easy to check that (a) $\hat{s} > 0$, if $\theta > \theta_s$ and (b) $\hat{s} < 1$, if $\theta < \bar{\theta}$; where $\theta_s = \frac{4 + \sqrt{(1-\gamma)(2-\gamma+\gamma^2)(2+\gamma-2\gamma^2)}}{2(2-\gamma)} - \frac{3+\gamma}{2}$ and $\bar{\theta} = \frac{2 - \frac{8}{2-\gamma} + \gamma(1+\gamma)(2+\gamma) + \sqrt{\frac{(1-\gamma)(4-6\gamma+2\gamma^2+\gamma^3)(4+6\gamma-\gamma^3-\gamma^4)}{(2-\gamma)^2}}}{4}$,

$0 < \theta_s < \bar{\theta} < 1$ since $0 < \gamma < 1$.⁸ Therefore, in equilibrium, the extent of cross-ownership is as follows.

$$s^* = \begin{cases} 0, & \text{if } 0 \leq \theta \leq \theta_s = \frac{4 + \sqrt{(1-\gamma)(2-\gamma+\gamma^2)(2+\gamma-2\gamma^2)}}{2(2-\gamma)} - \frac{3+\gamma}{2} \\ \hat{s} = \frac{2}{\gamma^2} + \frac{2(2-\gamma)\theta}{\gamma^2(2-\gamma-\gamma^2)} - \frac{\gamma}{(2+\gamma)\theta}, & \text{if } \theta_s < \theta < \bar{\theta}, \\ \text{where } \bar{\theta} = \frac{2 - \frac{s}{2-\gamma} + \gamma(1+\gamma)(2+\gamma) + \sqrt{\frac{(1-\gamma)(4-6\gamma+2\gamma^2+\gamma^3)(4+6\gamma-\gamma^3-\gamma^4)}{(2-\gamma)^2}}}{4} \\ 1, & \text{if } \bar{\theta} \leq \theta \leq 1 \end{cases} \quad (1)$$

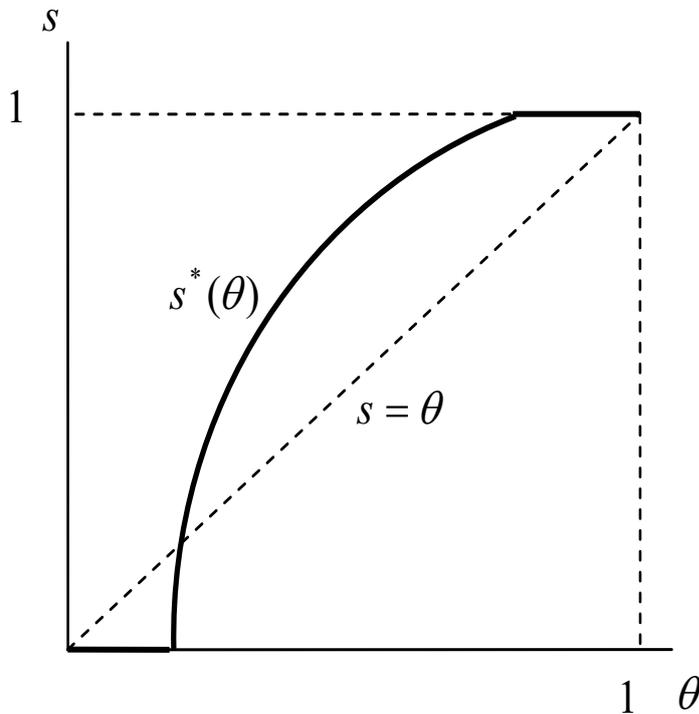


Figure 1: level of privatization and optimal cross-ownership

Figure 1 plots the optimal level of cross-ownership ($s^*(\theta)$) for any given level of privatization (θ). Clearly, unless the level of privatization (θ) is greater than a threshold level (θ_s), it is optimal for firm 2 not to own any portion of the privatized share of firm 1.

⁸The second order condition for maximization is satisfied in the relevant ranges of parametric values.

Moreover, even if the level of privatization is greater than the threshold level ($\theta > \theta_s$) but not sufficiently high, it is optimal for firm 2 to own only a fraction of the privatized share of firm 1. The level of privatization needs to be sufficiently high ($\theta > \bar{\theta}$) in order to induce firm 2 to own the entire privatized-portion of firm 1. These results are in sharp contrast to that in case of private duopoly. The reason is, larger share of the government in firm 1 ensures greater weight to consumer surplus in firm 1's objective function, which results in lower profit of firm 1 and makes cross-ownership less attractive.

Proposition 1: (a) *In case of mixed duopoly, it is not necessarily optimal for the private firm to own the privatized share of the public firm as much as possible, unlike as in case of private duopoly.*

(b) *If the level of privatization is low ($\theta < \theta_s$), it is optimal for the private firm to refrain itself from owning any share of the partially privatized firm. For moderate level of privatization ($\theta_s < \theta < \bar{\theta}$), in equilibrium, the private firm owns only a fraction of the privatized share of the public firm. The private firm owns the privatized share of the public firm entirely only if the level of privatization is sufficiently high ($\theta > \bar{\theta}$). The values of θ_s and $\bar{\theta}$ are as given in (1).*

Proposition 1 indicates that the prospect of cross-ownership is much lower in case of mixed duopoly than that in case of private duopoly. This result has implications to antitrust regulations/competition laws that aims to prevent collusive behaviour of firms and promote competition.

Now, in stage 1 of the game, the government decides the level of privatization by anticipating the optimal behaviour of firms in subsequent stages correctly. Therefore, the problem of the government can be written as follows.

$$\begin{aligned} & \underset{\theta}{Max} SW(\theta) \\ & \text{subject to } 0 \leq \theta \leq 1 \end{aligned}$$

Upon inspection, we find that $\frac{\partial SW}{\partial \theta} < 0$, if $s^* > 0$. That is, if firm 2 (the private firm) owns any share of firm 1 (the public firm) in case firm 1 is (partially) privatized,

full nationalization is optimal from the government's point of view. This is because cross-ownership dampens the intensity of product market competition and that in turn adversely affects social welfare. In other words, the purpose of privatization is defeated if the private firm finds it optimal to own any share of the (partially) privatized firm.

On the other hand, if $s^* = 0$, i.e., if firm 2 does not own any part of firm 1 following its privatization, the optimal level of privatization is $\theta = \frac{(1-\gamma)\gamma}{4-3\gamma} = \theta_0$, say, $0 < \theta_0 < 1$.

Note that, $s^* > 0$ if $\theta > \theta_s = \frac{4+\sqrt{(1-\gamma)(2-\gamma+\gamma^2)(2+\gamma-2\gamma^2)}}{2(2-\gamma)} - \frac{3+\gamma}{2}$, from (1). Comparing the values of θ_s and θ_0 , we find that $\theta_0 \leq \theta_s$, if $0.851464 \leq \gamma < 1$; otherwise, $\theta_0 > \theta_s$ ($0 < \theta_s, \theta_0 < 1$). Therefore, if the degree of product differentiation is very low (i.e., if $0.851464 \leq \gamma$), the optimal level of privatization is θ_0 . Alternatively, if products are sufficiently differentiated (i.e., if $\gamma < 0.851464$), it is optimal for the government to privatize only up to the level $\theta = \theta_s$ ($< \theta_0$). Clearly, if $\theta = \text{Min} \{\theta_s, \theta_0\}$, $s^* = 0$. In other words, at the optimal level of privatization the private firm does not find it profitable to own any portion of the partially privatized firm. However, the possibility of cross-ownership restricts the scope for privatization unless the degree of product differentiation is low. Figure 2 depicts the socially optimal level of privatization, denoted by the thick curve segments, for any given degree of product differentiation.

Proposition 2: (a) *Partial privatization is socially optimal and the social welfare maximizing level of privatization (θ^*) is as follows.*

1. *If $0.851464 \leq \gamma$, $\theta^* = \frac{(1-\gamma)\gamma}{4-3\gamma} = \theta_0$.*
2. *If $0 < \gamma < 0.851464$, $\theta^* = \frac{4+\sqrt{(1-\gamma)(2-\gamma+\gamma^2)(2+\gamma-2\gamma^2)}}{2(2-\gamma)} - \frac{3+\gamma}{2} = \theta_s$ ($< \theta_0$).*

(b) *In equilibrium, the private firm does not own any share of the partially privatized firm. But, the possibility of cross-ownership reduces the level of privatization unless the degree of product differentiation is low.*

Note that the second firm would like to have a stake in the first firm, only if the size of the stake is sufficiently large. However, in equilibrium, the government makes sure that the stake is never large enough to attract cross-ownership. This is true over the entire range of

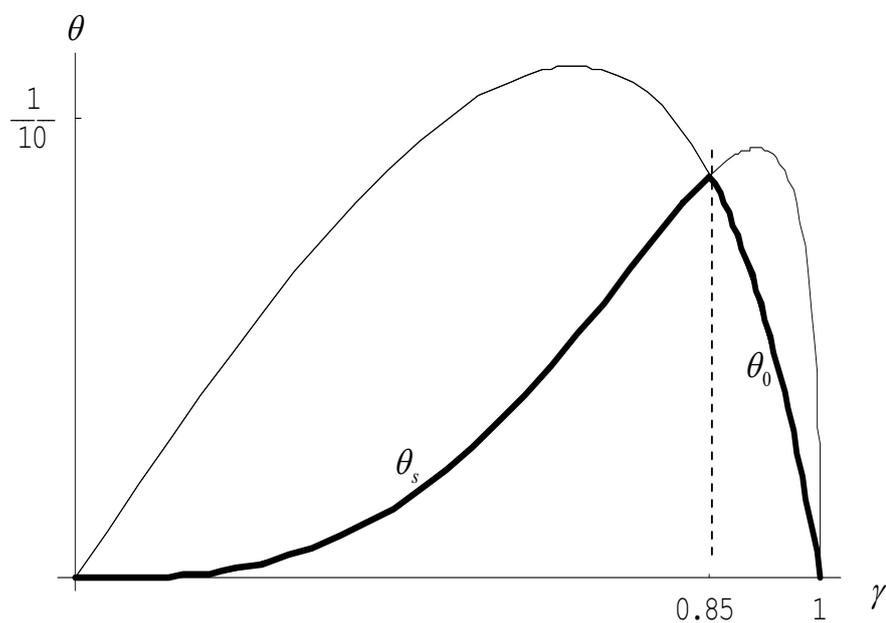


Figure 2: Optimal level of privatization

the substitutability parameter, γ . Effectively, this is a negative result on cross-ownership, and as a negative result, this is an interesting finding.

The above proposition also indicates that the government should take into account the possibility of cross-ownership while deciding the level of privatization, unless the products are close substitutes. It also implies that the government can effectively rule out the possibility of cross-ownership, in case of mixed duopoly, by choosing the level of privatization appropriately. Nonetheless, whether that is socially optimal device to restrict cross-ownership or not that depends on institutional and legal framework under which firms are operating. It seems to be interesting to extend the present analysis to compare alternative mechanisms to restrict cross-ownership. However, that is beyond the scope of the present paper.

3 Conclusion

This paper analyses the cross-ownership decision of a private firm and the privatization decision of the government by considering a sequential move game in the context of a differentiated products mixed duopoly. It demonstrates that the level of privatization of a public firm has important consequences on cross-ownership. To be more specific, the analysis of the paper reveals that, unlike as in case of private duopoly, it is optimal for the private firm to own any portion of the privatized share of the public firm only if the level of privatization is more than a threshold level. Moreover, the level of privatization needs to be very high to induce the private firm to fully own the privatized share of the public firm fully. This paper also shows that, unless the degree of product differentiation is low, the possibility of cross-ownership adversely affects the prospect of privatization of the public firm. Nonetheless, partial privatization remains socially optimal. Clearly, the results of this paper has strong implications to antitrust regulations and divestment policies.

We note here that in many cases the government privatises the public firm in phases. If the private firm can anticipate such move of the government a priori, it may find it profitable to own stocks of partially privatized firm as much as possible even if the initial level of privatization is lower than the required minimum level in static game. Clearly, in such cases, announcement of divestment policy and credibility of the government are likely to play important roles. It seems to be interesting to model these aspects explicitly, by extending the present analysis to a dynamic setup. However, that is beyond the scope of this paper and we leave it for future research. Also, note that in many cases relative inefficiency of public firms has been the cause for restructuring and privatization. If that is the case, though cross-ownership reduces the intensity of product market competition, participation of rival private firm in the partially privatized firm, through cross-ownership, may help to improve the efficiency of the partially privatized firm. It implies that efficiency gap between the public and private firm and the extent of knowledge transfer via cross-ownership are likely to affect the level of privatization as well as the extent of cross-ownership. However, it is easy to observe that as long as the efficiency gap between the

public firm and the private firm is not too large, qualitative results of this paper will remain valid. The underlying reason is social gain due to possibly improved efficiency due to cross-ownership must be large enough to compensate for the loss due to competition dampening effect of cross-ownership for cross-ownership to be socially beneficial. Nonetheless, it might be interesting to examine the roles of relative inefficiency of public firm and efficiency enhancing effects of cross-ownership explicitly. It might also be interesting to examine the impact of entry deregulation on level of privatization in the present context.

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