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ENTRY BARRIERS, EXIT OPTION AND A THEORY OF OPTIMAL OBFUSCATION

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In this paper, a typical gainers-losers influence competition model is modified to introduce uninformed losers who share the loss but are subject to political rhetorics of indirect policies. Under symmetric treatment of tax and subsidy in deadweight loss increase caused by indirect policies, an increase in the degree of policy obfuscation is found to lead to a decrease in the equilibrium amount of migration under the condition that the average subsidy is greater than the average tax. Whether migration effect (multiplied by the factor) is more likely to provide a negative incentive for policy obfuscation depends on the specification of the optimal solution of entry barriers to gainers group. It is also found that the degree of transfer tends to be negatively related with the degree of policy obfuscation. This simple experiment generated an interesting and important observation ; in assessing the political rationales of indirect policies, we should look at at least two more aspects of them, migration and private political response effects, in addition to their direct political economic cost and benefit.

I. INTRODUCTION

In trade literature, it is well known that economically efficient policies are rejected due to political reasons ; inefficient trade policies such as quotas, nontariff barriers and voluntary export restraints (VER) which are clearly dominated by other policies in economic terms have been pursued by many countries. A theory which may explain this widely quoted puzzle may be termed as the theory of optimal obfuscation following Magee-Brock-Young (MBY)[1]. MBY put forward an idea of politically efficient policy which equilibrates the political markets surrounding economic markets. A theory of optimal obfuscation becomes then a theory of optimal choice of politically efficient policy. Unfortunately, however,

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[1] See Magee et al(1989).

their treatment of the subject is largely unsatisfactory and is poorly represented. They argue that the optimal level of obfuscation will be decided at the point where the marginal political cost (through economic efficiency loss) is equated with the marginal political benefit (through mitigated political opposition). This obviously makes sense, but few implications could be derived from this kind of crude analysis. Intuitively, deliberate masking will be implemented in order to induce desired political and economic responses from the concerned groups. The responses may be in the form of raising or reducing 'voice' or of taking the 'exit' option. The object of this paper is to discuss the issue in this perspective.

The choice of indirect transfer policies may be present due to two possible reasons. First, the policymakers in a typical rent seeking policy atmosphere (losers vs. gainers paradigm) may deliberately use indirect methods of transfer to manipulate the dynamics of political investment of concerned interest groups (non-masking case). Second, more generally, the government may deliberately exploit the situation that private agents (in particular, losers) are with incomplete information (masking case). We will discuss the second case in the following model.

This paper is designed as follows. The next section provides a brief discussion on the related literature mainly concerning the efficient redistribution hypothesis and outlines our model. The following section discusses the model and some implications. Lastly, conclusions will be provided.

Ⅱ. LITERATURE AND MODEL OUTLINE

Before introducing the model, a related literature which asserts in the opposite direction should be mentioned. Becker's influence competition model (1983) generates a striking result that redistribution will be undertaken in a most efficient manner. Efficient redistribution hypothesis may be interpreted with a simple extension of the Pareto principle; under the given wealth transfer, every interest group will agree on the least cost way of transfer since it will be a Pareto improvement. Gardner (1983) in turn, proposes an empirical guideline of minimum deadweight loss per dollar in evaluating the redistributional efficiency of governmental policies in agriculture. He invented a concept of surplus transformation curve which shows the frontier of all the politically feasible redistribution of welfare combinations of two opposing groups in interest.

In analogy to economic markets, the supply of and demand for government intervention in the political market may be conceptualized. In the demand side, group size and organization cost play a key role in generating a desired amount of group pressure (Olson-Stigler-Becker). On the other side of the market, politicians in congress and the executive branch supply political goods and services after calculating costs and benefits (presumably from electoral process)[2]. Becker's

[2] See de Gorter(1983).

model does not discuss the choice problem of instruments in the supply side explicitly, and efficient redistribution is resulted via competition for political influence in the demand side. In his model, the efficient redistribution hypothesis is derived by imposing a condition that the political process generates a well defined reduced form of reactions in the supply side; under the given degree of transfer, competition among interest groups will generate the most efficient method of transfer. In reality, of course, the political process is not that simple and the supply side largely remains as a black box in theory. The optimal theory of policy obfuscation is to reflect the need to introduce the supply side. In this hypothesis, an explicit optimization problem in the part of policy makers should be derived and analysed. This recognition tells us that the subject matter is a sophiscated problem; competition in the demand side will impose the case for the efficiency of transfer on political process, while the politicians or policymakers may manipulate the competition via controlling policy choices for their optimization (e.g., vote maximization). Hence the degree of transfer and the method of transfer are determined through these bilateral interactions. Methodological importance of assigning the leadership in this complicated game situation will be critically important. In this paper, emphasis will fall on the supply side analysis.

By deliberately obfuscating a transfer policy, a government may mitigate political resistence of losers given a target of bribes and/or political supports from gainers or given a task of the fulfillment of societal needs (e.g., compensation for the losers) shouldered on the incumbent government. But this cannot be done without an increase in the political cost generated from economic burdens due to its inefficiency. A difficulty arises since the problem of an optimal choice of a politically efficient policy cannot be separated from that of an optimal choice of the degree of transfer. In concept, we may introduce two separate stages in an implementation of a particular redistributive policy. First, optimal levels of alternative policies should be calculated which may fulfill the necessity of transferring wealth from a group to another group(s). Second, given these calculations, a policy will be selected which may minimize political costs. Realistically, we may not separate these two problems since the government objective itself in these choices may not be separated. A model of simultaneous decisions (optimal degree of transfer and optimal choice of a policy to fulfill that transfer) is analytically very sophiscated since it contains both discrete and continuous choice problems.

We exploit a model developed in the previous papers (e.g., Yoo (1994,1995)) to address the issue at hand in a heuristic sense. Our model (and Becker-Cairns models) hinges upon an implicit assumption that the government is implementing a transfer policy representing the relative strength of gainers over losers. This corresponds to the first stage. In the second stage, we assume that the government tries to choose a policy (or the degree of obfuscation) which would maximize its objective given this nature of transfer. To simplify mathematical manipulations, assume that policy choices can be continuously arranged in a line from the least

efficient ones to the most efficient ones in economic terms (see MBY (1989)). Variable α will be used for the representation; a larger α corresponds to a more inefficient policy. Assume also that the most direct policies are also the most economically efficient and vice versa (MBY). This implies that a policy denoted by a large α is less direct (i.e. the degree of obfuscation is large).

Ⅲ. MODEL

There are some voters in the economy who are rationally ignorant about the transfer politics. They are subject to informational manipulations of the organized groups and act as the target of political propagenda. Even if they are inactive in transfer issues, they still remain with enormous potential voting power in the coming election.

There may be several explanations on the reason why there is a room for masking (or exploiting indirect ways of transfer). First, some people may have less stake absolutely and/or relatively and it may be sometimes very costly for them to get information due to the large opportunity cost of time and energy. Second, some others may have strong ideological orientation or different behavioral attitudes and may be more susceptible to masking; for instance, people who have farm background and/or went through a real threat of famine (and hence more risk averse) may be inclined to support transfer policies toward farmers in the name of food security argument. In this case, the marginal political return to masking is higher and masking may exaggerate their inclination at a lower cost. Supply side explanations may also be provided; why are policy makers inclined to adopt masking or indirect strategies ? A common sense will answer that maskings or indirect transfer policies are prevalent since they reduce the political cost of transfer; lost votes from losers will be smaller, ceteris paribus. This may be possible by resorting to the public sentiment that (masked) transfer policies would serve to augment a public goods provision. Another explanation may be that indirect policies sometimes create new coalitions supporting for the transfer; for instance, input suppliers for agricultural production will have a high interest in keeping farm prices high. It may be also possible that the incumbent government may deliberately exploit a policy which may be used to distort policy preferences of the future generation in a desirable way.

In this paper, we hypothesize that the incumbent government is simply maximizing the 'majority' as is introduced in Peltzman (1976). With this simple objective of the government, however, we may derive some interesting implications arising from the simultaneity of decisions on both the degree and the instrument of transfer. Let's denote the population of uninformed losers, informed losers and gainers by $\hat{M}$, $\tilde{M}$, M respectively. Total population is N. Define

$$(1)\quad S(R)=kz,\ z=\left(I-\frac{M}{N}\right),\ T(\tilde{R})=k\tilde{z},\quad \tilde{z}=\frac{N-M}{N}-\tilde{I},\quad k>0$$

where R ($\tilde{R}$)represents the total transfer to gainers (total tax shouldered on losers), I represents the political influence, S(T) is a function representing a transformation curve of transferred resources into the actual cost of that transfer, k is a policy choice variable defined over $[k_L, k_H]$ of the government representing the significance of the influence competition in question (the larger the value of k, the larger the subjective significance of the political economy to the incumbent government). z ($\tilde{z}$) is the influence of the gainers (losers) group exceeding (in short of) its normal level of influence. Influence function is defined as(subscripts denote time)

$$(2)\quad I_2=I_2(m_1, M_2, \tilde{I}(\tilde{m}_1, \tilde{M}_2)),\quad \tilde{I}_2=\tilde{I}_2(\tilde{m}_1, \tilde{M}_2, I(m_1, M_2))$$

where m represents the political expenditure and $\partial I/\partial\tilde{I}=-1$. Assume that[3]

$$(3)\quad R=(kz)^{\frac{1}{\alpha}},\ \tilde{R}=(k\tilde{z})^{\alpha}\Rightarrow \tilde{R}=R^{\alpha^2},\ \alpha=\varepsilon-(\bar{\alpha}-1),\ \varepsilon>1$$

where $\alpha(\varepsilon)$ is a choice variable for the government defined over $[\alpha_L, \alpha_H]$ and $\bar{\alpha}\in(1, \alpha_H)$ where $\bar{\alpha}$ is the (given) reference point. In fact, the policy maker may be constrained in a choice of α due to various political and administrative realities and many values of α are not feasible. But for analytical tractability, we assume that α is continuous over some range and the values of α corresponds to the differing levels of policy obfuscation (large α means large policy masking or more indirect policies). Note that total net tax (subsidy) is increasing (decreasing) with α and $a=\alpha^2$ can be interpreted as the elasticity of total net tax with respect to total net subsidy representing the degree of deadweight loss involved in wealth transfer.

Migration happens until net benefit is equalized to net cost. Denoting the adjustment cost of migration by C^h and the (fixed) cost of entry to gainers group

[3] In this formulation, we are implicitly assuming that the degree of deadweight loss caused by wealth transfer will fall symmetrically on tax imposition and subsidy transfer. This assumption is not necessary but is introduced for reducing the number of policy variables for the government.

by t,[4] we get

$$(4)\quad \frac{R}{M} - C^{h^*} - t = \frac{-\tilde{R}}{\tilde{M}+\hat{M}}$$

where we implicitly assumed that uninformed losers do not migrate and losers share average tax and expect average subsidy after migration.

The policy maker tries to maximize the majority (Peltzman(1976)) by manipulating the values of k, t and α.

$$(5)\quad \max_{k,\alpha,t} G=M\delta(A)-\tilde{M}\gamma(\tilde{A})-\hat{M}\lambda(\tilde{A};\alpha),\ A=\frac{R}{M},\ \tilde{A}=\frac{\tilde{R}}{\tilde{M}+\hat{M}}$$

where $\lambda=\gamma$ if $\alpha=\alpha_0$ and δ is net probability of gainers to support, γ and λ represent net probabilities to oppose of informed and uninformed losers respectively. We assume that the signs of the derivatives are

$$(6)\quad \delta_A>0,\ \delta_{AA}<0,\ \gamma_{\tilde{A}}>0,\ \gamma_{\tilde{A}\tilde{A}}<0,\ \lambda_{\tilde{A}}>0,\ \lambda_{\tilde{A}\tilde{A}}<0,\ \lambda_\alpha<0,\ \lambda_{\alpha\alpha}<0$$

Before analysing the model, we specify the time sequence of the model. Individuals in the losing group decide on whether to migrate under given policy parameters and political investments of each interest group. Each interest group, knowing this response, decide on its optimal political investment given policy parameters. The government in turn calculates the responses from migrants and each interest group organization to its action and decides on its policy variables. Since we are looking at the intertemporal aspects involving migration, the first period problem is deliberately omitted.

To focus on the intertemporal optimization problem of the government in the simplest way, we assume that the government announces binding committments in the first period and hence there is no such thing as time consistency problem.

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[4] For instance, the government may provide some public goods which can be enjoyed only by a certain type of people. In development literature, urban jovs are sometimes categorized as those in the formal sector and those in the informal sector. The formal sector provides some fringe benefits such as job security and good working environment, in addition to relatively high wages which informal sector doesn't provide. Most of new migrants from the rural sector can only find jobs in the informal sector. In food pricing policy context, rural farmers(potential migrants) are losers of low food prices. The government may deliberately induce higher entry barriers to suppress migration by providing public goods only available to urban formal workers. An example is government-sponsored health or unemployment insurance benefit for workers in the urban formal (protected) sector.

By imposing linear adjustment cost[5], we derive (evaluated at $\alpha=1$ or $\varepsilon=\bar{\alpha}$)

$$(7)\quad \frac{dh^*}{d\alpha}=\frac{1}{H}\left(\frac{\widetilde{R}}{\widetilde{M}+\hat{M}}-\frac{R}{M}\right)\log R \lessgtr 0,\ \text{if}\ \frac{\widetilde{R}}{\widetilde{M}+\hat{M}} \lessgtr \frac{R}{M}$$

where

$$(8)\quad H=kGD+U,\ G=\left[\frac{1}{\alpha M_2}+\frac{1}{\widetilde{M}_2+\hat{M}_2}\right]>0,$$

$$D=-\frac{\partial I_2}{\partial M_2}-\frac{\partial \widetilde{I}_2}{\partial \widetilde{M}_2}+\frac{1}{N}>0\ ,\ U=\beta+\frac{R_2}{M_2^2}-\frac{\widetilde{R}_2}{(\widetilde{M}_2+\hat{M}_2)^2}$$

from (4). Hence, we propose

Proposition 1. The number of migrants will decrease with the level of entry barriers to the gainers' group, increase with the level of transfer. It will increase (decrease) with the degree of policy obfuscation if the average tax is greater (smaller) than the average subsidy.

The first order conditions for (5) will yield[6]

$$(9)\quad J\frac{\partial h^*}{\partial k}+J_A\left\{z+k\frac{U}{H}\left(\frac{\partial m_1}{\partial k}\frac{\partial I_2}{\partial m_2}-\frac{\partial \widetilde{m}_1}{\partial k}\frac{\partial \widetilde{I}_1}{\partial \widetilde{m}_1}\right)\right\}=0$$

$$(10)\quad J\frac{\partial h^*}{\partial \alpha}+J_A k\frac{U}{H}\left(\frac{\partial m_1}{\partial \alpha}\frac{\partial I_2}{\partial m_1}-\frac{\partial \widetilde{m}_1}{\partial \alpha}\frac{\partial \widetilde{I}_2}{\partial \widetilde{m}_1}\right)-\hat{M}_2\lambda_\alpha$$

$$-\left(\delta_A\frac{R}{\alpha}+\gamma_{\pi}\alpha\widetilde{R}\right)\log R=0$$

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[5] Note that $dR=\frac{1}{\alpha}R^{1-\alpha}d(kz)-\left(\frac{1}{\alpha}R\log R\right)d\alpha$, $d\widetilde{R}=\alpha\widetilde{R}^{\left(1-\frac{1}{\alpha}\right)}d(kz)+(\alpha\widetilde{R}\log R)d\alpha$,

$d(kz)=\left[zdk+k\left\{\frac{\partial I_2}{\partial m_1}dm_1-\frac{\partial \widetilde{I}_2}{\partial \widetilde{m}_1}d\widetilde{m}_1-Ddh\right\}\right]$

[6] We exploit the fact that $\frac{dh^*}{dj}=\frac{\partial h^*}{\partial j}+\frac{\partial m_1}{\partial j}\frac{\partial h^*}{\partial j}+\frac{\partial m_1}{\partial j}\frac{\partial h^*}{\partial m_1}$,

$\frac{dz}{dj}=\frac{\partial m_1}{\partial j}\frac{\partial I_2}{\partial m_1}\frac{\partial \widetilde{m}_1}{\partial j}\frac{\partial \widetilde{I}_2}{\partial \widetilde{m}_1}-D\frac{dh^*}{dj}$, $j=k,\alpha$

$$(11)\quad J\frac{\partial h^*}{\partial t}+J_A k\frac{U}{H}\left(\frac{\partial m_1}{\partial t}\frac{\partial I_2}{\partial m_1}-\frac{\partial \widetilde{m}_1}{\partial t}\frac{\partial \widetilde{I}_2}{\partial \widetilde{m}_1}\right)=0$$

where

$$(12)\quad J=(\delta-\delta_A A)+(\gamma-\gamma_{\bar{A}}\widetilde{A})-kDJ_A,\qquad J_A=(\delta_A-\gamma_{\bar{A}})$$

Under given responses of individual migrants, each political organization will optimize its level of political investment. We derive that the effects of k on political responses are symmetrical to gainers and losers while the effects of α are different ; losers face more incentive (or less disincentive) to positively respond than gainers do[7]. This latter fact is due to the asymmetric effect of an increase in α on subsidy and tax ; subsidy will decrease while tax will increase as α increases given the level of political influence.

From (12), we find that J = 0 for an interior solution of t. Under this situation, we require

$$(13)\quad J_A=0\Rightarrow \delta_A=\gamma_{\bar{A}}$$

$$(14)\quad \lambda_\alpha=-\frac{1}{\hat{M}_2}\left(\gamma_{\bar{A}}\frac{\partial \widetilde{R}}{\partial \alpha}-\delta_A\frac{\partial R}{\partial \alpha}\right),\ \frac{\partial \widetilde{R}}{\partial \alpha}=\widetilde{R}\log R>0,\ \frac{\partial R}{\partial \alpha}=-R\log R<0$$

under (13) for an interior solution of k and α, respectively[8]. (13) shows that for an optimal solution of the degree of transfer, the policy maker would choose to equate the relative marginal probability gain (increased support from gainers) over the marginal probability loss (increased opposition from organized losers) with the relative marginal efficiency loss in tax collection over the marginal efficiency loss in subsidy transfer. Under the condition of an interior solution of t and k, (14) represents the optimality condition for choosing the degree of obfus-

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[7] For an interior solution, we assume that U is positive. Hence, unless the number of gainers is dominantly large, gainers will decrease the level of political investment with α, depending on the relative strength of marginal population reallocation effect of influence over the initial incentive level of political investment. Note that population reallocation effect will provide negative political incentive for both gainers and losers with respect to an increase in α.

[8] These conditions are defined on the relevant range which is preimposed; locally, we may evaluate them at the initial point, or alternatively we may interprt them as values corresponding to possible values of policy variables in a relevant range. Note that $J=J(t, k, \alpha; h^*)$, and $J_A=J_A(t, k, \alpha; h^*)$. If we find that $J(t^*, k^*)=0$, $J_A(t^*, k^*)=0$ for $t^*\in(t_L, t_H)$, $k^*\in(k_L, k_H)$, given α, (13) and (14) describe conditions for interior solutions for t and k. If the above equations do not hold for any t and k in the relevant range, we may have corner solutions. Howevr, it is easier and meaningful to interpret them as values evaluated at the initial point.

cation. Note also that under (13)

$$(15)\quad \delta(1-\eta_\delta)+\gamma(1-\eta_\gamma)=0,\ \eta_\delta=\frac{\delta_A}{\delta}A,\ \eta_\gamma=\frac{\gamma_{\tilde{A}}}{\gamma}\tilde{A}$$

and (13) can be rearranged as

$$(13')\quad \eta_\delta=\eta_\gamma\frac{A}{\tilde{A}}\frac{\gamma}{\delta}$$

where η_δ and η_γ represent the elasticity of the probability of support and opposition respectively. From these two conditions, we get

$$(16)\quad \eta_\delta=\frac{1+\frac{\gamma}{\delta}}{\left(1+\frac{\tilde{A}}{A}\right)},\quad \eta_\gamma=\frac{1+\frac{\delta}{\gamma}}{\left(1+\frac{A}{\tilde{A}}\right)}$$

i.e. given the (current) ratio of the opposition probability over support probability, the larger the support elasticity (the smaller the opposition elasticity), the ratio of the average subsidy over the average tax should become larger. Note that this condition is derived without referring to the optimal choice of the degree of policy obfuscation. In this interior solution case, triggered migration and political responses from interest groups by a change in α would not change the optimal schedule of α. This is because the conditions for interior solutions of t and k suppress the migration and political response effects.

One interesting observation in this simple experiment is that the optimal decisions on these three variables (the entry cost to gainers group, the level of transfer, the degree of policy obfuscation) are critically dependent on the solutions of each other in a recursive way. This happens since the optimal decision on setting the degree of the entry barrier will solely rely on the migration effect caused by that decision, while the optimal decisions on the degree of transfer and the level of policy obfuscation depends upon other more direct effects. In this exercise, we find that the degree of transfer decision will impose a condition for the choice of policy instrument but not vice versa. In sum,

Proposition 2. Under the conditons of (14) and (16), the optimal degree of policy obfuscation is determined solely by direct political cost and benefit comparison as is predicted by MBY. If these conditions are not satisfied, however, the level of entry barriers to gainers' group, the level of transfer and the degree of policy obfuscation will be recursively determined.

[Table 1] Migration and Political Response Effects on the Optimal Choice of Policy Obfuscation
(If $z+\partial I/\partial k > \partial \widetilde{I}/\partial k$, $\partial I/\partial \alpha < \partial \widetilde{I}/\partial \alpha$)

k \ t	Interior solution ($t=\bar{t}$)	Lowerbound ($t < \bar{t}$)	Upperbound# ($t > \bar{t}$)
Interior solution ($k=\bar{k}$)	J=0, Ja=0 (0, 0)*	J>0, Ja<0 (−, +)	J<0, Ja=0 (0, 0)
(Examples)	$\eta_\delta = \frac{1+\gamma/\delta}{1+\widetilde{A}/A}$ $\eta_\gamma = \frac{1+\delta/\gamma}{1+A/\widetilde{A}}$	$\delta_A < \gamma_{\bar{A}}$ $\eta_\delta \ll 1, \eta_\gamma \ll 1$	$\delta_A = \gamma_{\bar{A}}$ $\eta_\delta > 1, \eta_\gamma > 1$
Lowerbound ($k < \bar{k}$)	J=0, Ja<0 (0, +)	J>0, Ja<0 (−, +)	J<0, Ja<0 (0, +)
(Examples)	$\delta_A < \gamma_{\bar{A}}$ $\eta_\delta > 1, \eta_\gamma > 1$	$\delta_A \ll \gamma_{\bar{A}}$ $\eta_\delta < 1, \eta_\gamma < 1$	$\delta_A < \gamma_{\bar{A}}$ $\eta_\delta \gg 1, \eta_\gamma \gg 1$
Upperbound ($k > \bar{k}$)	J=0, Ja>0 (0, −)	J>0, Ja ? (−, ?)	J<0, Ja>0 (0, −)
(Examples)	$\delta_A > \gamma_{\bar{A}}$ $\eta_\delta \gg 1, \eta_\gamma \gg 1$		$\delta_A \gg \gamma_{\bar{A}}$ $\eta_\delta < 1, \eta_\gamma < 1$

Assuming that $h^*=0$ (i.e. the upperbound value is high enough to prohibit migration)
*(migration effect, political response effect)
*0 = No effect
*+ = Positive incentive for policy obfuscation
*− = Negative incentive for policy obfuscation

For an illustration, let the optimal choice of t be high enough and hence migration be not prompted. Interestingly, the conditions described in (13)-(14) will be still valid even in this case. Hence the upperbound corner solution of t will not change the equilibrium interior solutions of k and α(see Table 1). For anot-

her case, let $J > 0$ and the optimal solution of $t = 0$. In this case, ceteris paribus, the optimal degree of transfer will become larger since migration effect will be positive. Judging from migration effect only, the optimal degree of policy obfuscation will be smaller, if the average tax is smaller than the average subsidy, as is generally the case.

The cases illustrated above highlight the importance of considering the simultaneity of policy decisions in transfer politics. As a summary, we find ; i) unless the optimal choice on t is the lower bound value (e.g., zero), the optimality condition for the choice of t imposes some recursive conditions on the determination of k and α ; ii) if optimal $t = 0$ and $J > 0$, migration effect will provide a positive incentive for the choice of k and a negative incentive for the choice of α, ceteris paribus ; iii) if $J > 0$ and $J_A < 0$ ($t = 0$, interior solution for k), the negative reponse of gainers and the positive response of losers to an increase in α will provide an augmented incentive for the government to raise the optimal level of policy obfuscation ; iv) if $J < 0$ and $J_A > 0 (t=\bar{t}, k=\bar{k})$, no migration will be prompted and the negative reponse of gainers and the positive response of losers to an increase in α will provide an augmented incentive for the government to lower the optimal level of policy obfuscation. These results are summarized in Table 1.

The choice of the optimal policy instrument cannot be singled out without considering the choice of the optimal degree of transfer which in turn is affected by the choice of the policy control on the feasibility of migration of incumbent losers. This recognition leads us to build a model of simultaneous decisions. With an example of a simple majority maximizing government, we find a conceptual recursive procedure of governmental choices ; i) migration effect will decide the optimal choice of setting entry barrier to losers ii) political responses from interest groups in addition to migration effect will determine the optimal choice on the degree of transfer iii) direct effect of policy obfuscation (benefit in terms of reduced opposition by masking, cost in terms of increased deadweight loss) in addition to migration and political response effect will be considered in a decision of the optimal instrument of transfer. Note that Table 1 may be read as local comparative static results around the initial value of policy variables. In this interpretation, interior solution, the lowerbound solution and the upperbound solution mean that the slope is zero, minus and plus at the initial point, respectively.

(12) tells us it is more likely that $J < 0$ ($J > 0$) with $J_A > 0$ ($J_A < 0$). In Table 1, we cannot find a definite result of migration and political response effects on the choice of optimal instrument in general. One interesting observation is that when the optimal degree of transfer is minimal (i.e. the equilibrium value of k is the lowerbound) or the slope evaluated at the initial point is less than zero, the political response effect from interest groups always acts in favor of an indirect transfer instrument regardless of the choice of t. On the contrary, we also find that if the optimal degree of transfer is maximal (i.e. the equilibrium value of k is the upperbound) or the slope evaluated at the initial point is greater than zero, the

political response effect from interest groups tends to act against adopting indirect transfer instrument. Roughly speaking, this observation implies that the degree of obfuscation go against the degree of transfer within a relevant range. Each of these cases requires some conditions on the elasticities of the probability of support and opposition. Examples of the specific conditions corresponding to each case are also summarized in the table.

Ⅳ. CONCLUSION

For an explanation of the existence of indirect and more costly ways of transfer, it is needed to have a model of simultaneous decisions on both the degree of transfer and the method of transfer. To introduce the minimal sophistication in the supply side, we assume that the government simply tries to maximize a majority defined a la Peltzman (1976). Under interest group mobility, the task requires to incorporate the various aspects of the effects of these choices. First, these choices cannot be independent of the strategic policy manipulations of the profitability of migration of the members of the losing group. For instance, the government may choose to set the entry barriers to gainers group. This choice will determine the significance and the level of migration of losers. Second, political responses from the interest groups should be evaluated ; it is not a simple task to determine the responses from losers and gainers to a change in the level of transfer and the method of transfer, but it should be an important consideration in calculating political cost and benefit. Note that the decisions in this model work in a recursive way. The factor which governs the effect of migration will be evaluated first and will generate the optimal choice on the degree of setting entry barriers to the gainers group. This in turn will impose a condition on the factor which governs the effect of political responses of interest groups for an interior solution of the choice on the degree of transfer. Lastly, in addition to the direct effect of policy confusion (benefit of mitigating opposition + cost of increased deadweight loss), migration and political response effects will eventually determine the optimal level of policy obfuscation.

In this paper, a typical gainers-losers influence competition model is modified to introduce uninformed losers who share the loss but are subject to political rhetorics of indirect policies. Under symmetric treatment of tax and subsidy in deadweight loss increase caused by indirect policies, an increase in the degree of policy obfuscation is found to lead to a decrease in the equilibrium amount of migration under the condition that the average subsidy is greater than the average tax. Whether migration effect (multiplied by the factor) is more likely to provide a negative incentive for policy obfuscation depends on the specification of the optimal solution of entry barriers to gainers group (t). It is also found that the degree of transfer tends to be negatively related with the degree of policy obfuscation. This simple experiment generated an interesting and important obser-

vation ; in assessing the political rationales of indirect policies, we should look at at least two more aspects of them, migration and private political response effects, in addition to their direct political economic cost and benefit. By providing more degree of freedom in governmental choice variables, we may derive some conditions on these effects.

In most tranfer politics, it is hard to find homogenously uninformed losers who share the average tax. Our scenario explained in the above represents a heuristic case exaggerating the difference in information enjoyed by losers with same stake. This may be subject to a criticism that it may not explain why there exist uninformed losers. A model of endogenous group size of uninformed losers requires the explicit dynamic recognition represented by a learning mechanism. This should be a task of the future research.

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