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Why Take on the Tobacco Industry: the Political Economy of  
Government Anti-smoking Campaign

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**Abstract**

A political-economy model is developed to show that government anti-smoking campaigns can benefit the government in the political bargaining with the tobacco industry by reducing the latter's alternative welfare. Although the equilibrium regulation on the tobacco industry increases as a result of government anti-smoking campaign, the political contribution from the tobacco industry will not necessarily be reduced. Anti-smoking campaigns reduce welfare of the tobacco industry but its potential loss of not lobbying increases. An incumbent government/politician will increase its effort in anti-smoking campaigns when it becomes more hungry for political contribution, and this could indeed bring more political contributions from the tobacco industry under plausible conditions.

*Key Words:* Political Contribution, Special Interests, Mass Media, Bargaining Position, Government Anti-smoking Campaign

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## 1. INTRODUCTION

The tobacco industry in the U.S. spends millions of dollars each year for political donations and some of its firms are the major donors in the agri-business sector. For instance, Philip Morris gave more than \$3.4 million in the 1999-2000 election cycle, making it the largest contributor in the agri-business sector and the 14th largest contributor overall.<sup>1</sup> During the last few decades, however, governments at all levels have significantly increased regulations on the tobacco industry (e.g. increases in sales taxes, restrictions on tobacco advertising, and law suits against tobacco companies, etc.) This is not difficult to explain since, according to the theories on political economy of government policy, government regulations and policies are chosen to balance the needs of the general public and different special interests. Thus, the increases in tobacco regulations could be due to the relatively strong impact of the growing political pressure from anti-tobacco activists, and the increases in public awareness of the health hazard of smoking in the society.

However, the governments themselves spend millions of dollars each year to launch mass-media anti-smoking campaigns to raise public awareness of the health hazard of smoking. For instance, in the late 1960s the U.S. Federal Communications Commission (FCC) launched a major anti-smoking message broadcast under the so-called Fairness Doctrine. In 1995 California spent \$12 million on anti-smoking advertising (Pechmann and Reibling, 2000).<sup>2</sup> Why would governments (or self-interested politicians) launch anti-smoking campaigns to attack the tobacco industry? From the political-economy point of view, it appears this would not make much sense because, if it is in response to the increase in the political pressure from anti-tobacco interests and public awareness of health hazard of smoking, governments should just directly increase the regulations on the tobacco industry. Although it is not difficult to understand why anti-tobacco NGOs launch anti-smoking campaigns to raise public demand for tougher tobacco regulations<sup>3</sup>, the incentive for governments

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<sup>1</sup>Source: [www.openscrets.org](http://www.openscrets.org) (date visited: 20 May 2003).

<sup>2</sup>Several other states also launched similar anti-smoking campaigns. See Hu, Sung, and Keeier (1995).

<sup>3</sup>Yu (forthcoming) provides a more sophisticated view on a similar issue.

themselves to launch anti-smoking campaigns to raise the public awareness is not clear.<sup>4</sup> Why would an incumbent government want to change public preference if its best strategy is to just adopt the public/median-voter's preference (i.e., according to the 'median-voter theorem')?

The purpose of this paper is to develop an alternative theory of political economy to suggest a rationale for the government anti-smoking campaign. Specifically, It asks the following questions. Will government anti-smoking campaign lead to a reduction of political contributions from the tobacco industry? How would government anti-smoking campaigns affect the incumbent government's bargaining position *vis a vis* the tobacco industry? What is the political motive to launch anti-smoking campaigns?

I use the Nash bargaining approach as a basic framework to model the political interaction between an incumbent government/politician and the tobacco industry. The incumbent government cares about both the public/median-voter's preference and the political contributions from the tobacco industry. Political contributions from the industry are used as a transfer payment to compensate the government for its policy that deviates from the median-voter's preference. In the model government anti-smoking campaign changes the public/median-voter's demand for the government regulation on the tobacco industry.

The paper derives three main results that yield new insights on the political interaction between an incumbent government and a special interest group. First, anti-smoking campaigns have two effects. On one hand, it raises public demand for tougher regulations on tobacco industry and this will increase the political cost of the government policy on the tobacco industry. On the other hand, it will also reduce welfare for the tobacco industry at the 'threat point'. As long as the second effect is greater than the first, the government will improve its bargaining position. Second, although government anti-smoking campaigns will lead to a more stringent regulation on the tobacco industry, political contributions from the tobacco industry will not necessarily be reduced. Under plausible conditions, govern-

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<sup>4</sup>It could be the case that governments are simply trying to correct the negative externality of smoking and doing the best for the whole society. However, such normative arguments are not shared by all. See further discussion in Section 5.

ment anti-smoking campaigns will actually increase the equilibrium political contributions from the tobacco industry. A key to understand this result is that although anti-smoking campaigns reduce the tobacco industry's welfare, its potential loss of not/less lobbying increases as a result of government anti-smoking campaigns. Third, the paper has uncovered a *pure* political motive for government anti-smoking campaigns. It is shown that when the incumbent government/politician becomes more hungry for political contributions, it will increase the level of anti-smoking campaign and this could indeed bring more political contributions from the tobacco industry under plausible conditions.

Despite the fact that over the years governments at different levels in the U.S. have significantly increased regulations on the tobacco industry and have launched many anti-smoking campaigns, there is no sign that the tobacco industry has reduced the level of its political contributions to both political parties. According to a recent article by Robert Weissman on political contributions, a rule in politics is *money follows the power* but the general trend is *both parties get rich*. There is no exception for the tobacco industry and the agribusiness sector as a whole. "Despite the overall tilt to the Republicans, every major industrial sector contributes large sums to the Democrats as well. Agribusiness and energy/natural resources, two of the most pro-Republican industries, gave the Democrats \$69 million and \$64 million, respectively, in the election cycles from 1990 to 2000" (Weissman, 2000).<sup>5</sup>

Recently there is growing research interest in the effects of mass media on public policies (e.g., Besley and Burgess, 2001, 2002; Strömberg, 2001, 2003). For instance, Besley and Burgess examine the effects of mass media on the government responsiveness to the public needs in India. Strömberg investigates the role of mass media on public policy with the media being a profit-maximizing agent in providing information to the public. While these studies show that how the presence/role of mass media could affect government policy, the focus of the current paper is on how governments could engage in public persuasion

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<sup>5</sup>According to the data collected by the Center for Responsive Politics ([www.crp.org](http://www.crp.org)), the political donations from the tobacco industry to the Democrats in every election cycle between 1990 to 2002 are: \$1.1 million in 1990-92, \$2.6 million in 1992-94, \$1.75 million in 1994-96, \$1.98 million in 1996-98, \$1.4 million in 1998-2000, and \$1.95 million in 2000-2002.

(through mass media) to benefit themselves in the political interaction with special interests groups. Grossman and Helpman (2001) also investigate the issue of ‘educating voters’ in an electoral-competition model with active special interest groups. Their focus, however, is on the timing of communication of interest groups with voters, namely, ‘early communication’ will allow the parties to react to any changes in the political climate that result from the group’s communication with the voters, which otherwise would not be possible with ‘late communication’.<sup>6</sup>

This paper is more closely related to Yu (forthcoming), which extends the work of Grossman and Helpman (1994) to study how opposing interest groups could engage in both ‘direct’ (lobbying the government) and ‘indirect’ (persuading the public) competition for political influence. The focus of that paper, however, is on the role of public persuasion by special interest groups, and in particular, on the relationship between the direct and indirect competition for political influence. In addition, the methodology is also not the same. Yu (forthcoming) uses a common-agency framework (i.e., Bernheim and Whinston, 1986) but the current paper uses a Nash bargaining approach.

Among many different approaches in the political-economy literature,<sup>7</sup> the Nash bargaining approach has proven to be very useful to analyze the political interaction between a special-interest group and a government. For example, Maggi and Rodriguez-Clare (1998) and Qiu (2001) use this approach to study Free Trade Agreements when governments are subject to lobbying from domestic industries. Shleifer and Vishny (1994) use it to model the interaction between a government and a firm to study privatization in Russia. The spirit of the Nash bargaining approach is actually similar to that of the common-agency approach since the equilibrium government policy in both approaches maximizes the joint welfare between the special interest group(s) and the government.<sup>8</sup>

The rest of the paper is organized as follows. Section 2 characterizes the political-

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<sup>6</sup>‘Early communication’ (*resp.* ‘late communication’) means releasing information to voters before (*resp.* after) political parties have committed to their positions on pliable policy issues.

<sup>7</sup>See Hillman (1989) and Rodrik (1995) for surveys in political-economy models, and Persson and Tabellini (2000) for an excellent textbook on political economy.

<sup>8</sup>See more discussion about this in Yu (2000, pp.1077).

equilibrium of the Nash bargaining solution between the tobacco industry and the incumbent government. Section 3 analyzes the effects of government anti-smoking campaign on the above political equilibrium. Section 4 identify a possible political motivation behind the anti-smoking campaign. Section 5 provides some concluding remarks.

## 2. INDUSTRY REGULATION AND POLITICAL CAPTURE

Suppose the production technology in the tobacco industry exhibits constant-return-to-scale (CRS) and it uses labor and a specific factor to produce a good,  $x$ , called ‘tobacco’ (including all tobacco related products). The wage rate is determined by a numeraire sector, which uses a CRS technology with labor as the only input. All individuals in the population supply one unit of labor and have an equal share of government tax revenue from the tobacco industry. The profit of the tobacco industry (i.e., the return to the specific factor) is shared by the owners of the specific factor. They are the only individuals in the population who are organized as a special-interest group, representing the tobacco industry.

Suppose  $r$  is an overall index of the level of government regulation on the tobacco industry (including sales taxes, and other restrictions on tobacco sales and consumption). The industry profit is a function of  $r$  with  $\pi'(\cdot) < 0$  and  $\pi''(\cdot) < 0$ , which could be derived in a similar way to Yu (forthcoming). The tobacco industry can provide political contribution,  $C$ , to an incumbent government in exchange for a lenient regulation. Therefore, the net welfare of the tobacco industry is  $W_I = \pi(r) - C$ .

Suppose non-smokers account for the majority of the population (i.e., including the median voter) and are assumed to be identical for the sake of simplicity. They consume only the numeraire good but face a potential health hazard from tobacco consumption in the society (e.g, diseases related to second-hand smoking). Therefore, the median-voter (or a representative individual in the ‘public’) has the following welfare function,

$$V = R(r) + 1 - \mu_p D(r) \tag{1}$$

where  $\mu_p D(r)$  is the *perceived* health hazard with  $D'(\cdot) < 0$ ,  $D''(\cdot) > 0$ , and parameter  $\mu_p$  capturing the her/public perception about the scale of the health hazard.  $R(r)$  is her

individual share of the total tax revenue, which is a function of the government regulations on tobacco industry, with  $R'(\cdot) < 0$  and  $R''(\cdot) < 0$ .<sup>9</sup> Therefore, the optimal level of tobacco regulation for the median-voter/public is

$$r_p(\mu_p) = \arg \max_r R(r) + 1 - \mu_p D(r) \quad (2)$$

which is increasing in  $\mu_p$ .

An incumbent government cares about political contribution and the ‘political cost’ of its policy that deviates from public preference. Following Yu (forthcoming), the objective function of the incumbent government is assumed to take the following form:

$$G = C - aM(r - r_p), a > 0 \quad (3)$$

where parameter  $a$  is the relative weight attached to the political cost,  $M(\cdot)$ , which is defined as a symmetric U-shape function with  $M(0) = M'(0) = 0$  and  $M''(\cdot) > 0$ . When there is no political contribution, the incumbent government chooses  $r$  equal to the optimal level for the median-voter/public,  $r_p$ .

The political-equilibrium level of government regulation on the tobacco industry is determined through a Nash bargaining process between the tobacco industry and the incumbent government. When the tobacco industry does not provide political contribution (or the bargaining breaks down), the government optimally chooses  $r = r_p$ , and hence  $G = 0$  and  $\pi = \pi(r_p)$ . These values serve as the threat-point level of ‘welfare’ for the government and the tobacco industry: i.e.  $\underline{G} = 0$  and  $\underline{W}_I = \pi(r_p)$ .

The net gain from participating (or the potential loss of not participating) in the Nash bargaining process is  $W_I - \underline{W}_I$  for the tobacco industry, and  $G - \underline{G}$  for the government. The Nash bargaining solution solves the following maximization problem:

$$\max_{r, C} (G - \underline{G})^\beta (W_I - \underline{W}_I)^{1-\beta} \quad \text{or,} \quad \max_{r, C} [C - aM(r - r_p)]^\beta [\pi(r) - C - \pi(r_p)]^{1-\beta} \quad (4)$$

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<sup>9</sup>In principle,  $R(r)$ , or the total tax revenue -  $R(r)$  multiplied by the total population, would be an inverse U-shape function (e.g., when taxes start from a low level). It will be clear, however, the equilibrium will be along the part where  $R'(r) < 0$ .

where  $\beta \in (0, 1)$  represents the bargaining power of the incumbent government relative to the tobacco industry and is assumed to be a constant.

Following the standard Nash bargaining solution to solve (2), it is straightforward to obtain the next proposition, which characterizes the equilibrium level of government regulation and political contribution.

**Lemma 1** (i) *The equilibrium level of government regulation is given by*

$$r^o = \arg \max J = \pi(r) - aM(r - r_p) \quad (5)$$

where  $J$  is the ‘joint welfare’ between the tobacco industry and the government ( $J \equiv W_I + G$ );

(ii) *The equilibrium level of political contribution is*

$$\begin{aligned} C^o &= \beta[\pi(r^o) - \pi(r_p)] + (1 - \beta)aM(r^o - r_p) \\ &= \beta(J^o - \underline{J}) + aM(r^o - r_p) \end{aligned} \quad (6)$$

That is, the equilibrium level of regulation on the tobacco industry is chosen to maximize their joint welfare. The equilibrium level of political contribution first covers the government’s political loss (since  $r^o < r_p$ ) and then gives the government  $\beta$  share of the increase in the joint welfare. Therefore, the equilibrium level of welfare for the tobacco industry becomes  $W_I^o = \pi(r^o) - C^o$  and for the government,  $G^o = C^o - aM(r^o - r_p)$ .

### 3. THE GAME OF GOVERNMENT ANTI-SMOKING CAMPAIGN

Now suppose that public perception about the health hazard of smoking,  $\mu_p$ , can be influenced/shifted by government anti-smoking campaigns. Specifically, assume that  $\mu_p$  is a function of  $T$  with  $\mu_p'(T) > 0$ , where  $T$  is the tax money from the government Treasury to fund the anti-smoking campaign. The political cost of using tax money from the Treasury is  $\gamma(T)$  with  $\gamma(0), \gamma'(\cdot) > 0, \gamma''(\cdot) > 0$ . Note that  $\gamma(T)$  is generally smaller than  $T$  since the incumbent government/politician is spending the tax money rather than his/her own political contribution. Suppose that prior to the above Nash bargaining process, there is another stage of the game in which the government choose  $T$  to maximize the following



objective function,

$$\max_T G^o - \gamma(T) \quad (7)$$

**Proposition 1** *Although a government anti-smoking campaign reduces the joint welfare, it can raise welfare for the government. Specifically, (i)  $dJ^o/dT < 0$ ; (ii)  $dG^o/dT > 0$  if and only if*

$$aM'(r^o - r_p) - \pi'(r_p) > 0. \quad (8)$$

**Proof:** (i) Using (5) and the envelope theorem, we have

$$dJ^o/dT = aM'(r^o - r_p)r'_p\mu'_p < 0 \quad (9)$$

where  $M'(r^o - r_p) < 0$  since  $r^o < r_p$ .

(ii) Using (3) and (6), we have

$$\begin{aligned} G^o &= C^o - aM(r^o - r_p) \\ &= \beta(J^o - \underline{J}) \\ &= \beta[J^o - \pi(r_p)] \end{aligned} \quad (10)$$

since  $\underline{J} = \underline{W}_I + \underline{G} = \pi(r_p)$ . Then, using (5) and the envelope theorem, we obtain

$$\begin{aligned} \frac{dG^o}{dT} &= \frac{dG^o}{dr_p} r'_p \mu'_p \\ &= \beta[aM'(r^o - r_p) - \pi'(r_p)] r'_p \mu'_p \quad \blacksquare \end{aligned} \quad (11)$$

From (10), the intuition for the results are as follows. Government anti-smoking campaign raises  $\mu_p$  and hence  $r_p$ . This increases the government's political cost at the margin and hence reduces the equilibrium joint welfare. However, a higher level of  $r_p$  also lowers the tobacco industry's welfare and hence the joint welfare at the threat-point. As long as the effect on the political cost of the government (the first term in the bracket in eq. 11) is less than that on the profit of the tobacco industry (the second term in the bracket), the government is better off. Notice that here what the government essentially does is to reduce

the tobacco industry's alternative welfare (or welfare of the outside option). By doing so, the government can improve its equilibrium welfare even though the relative bargaining power,  $\beta$ , remains the same.<sup>10</sup> For the rest of our analysis, we assume (8) holds.

The effect of anti-smoking campaign on the equilibrium level of regulation is straightforward.

**Lemma 2** *Anti-smoking campaign increases the equilibrium level of regulation on the tobacco industry, i.e.  $dr^o/dT > 0$ .*

**Proof:** The first-order condition for (5) is

$$\pi'(r^o) - aM'(r^o - r_p) = 0 \quad (12)$$

Total differentiation of (12) yields

$$\begin{aligned} \frac{dr^o}{dT} &= \frac{dr^o}{dr_p} \frac{dr_p}{dT} \\ &= -\frac{aM''}{\Delta_J} r'_p \mu'_p > 0, \end{aligned} \quad (13)$$

where  $\Delta_J$  is the second-order condition for (5). ■

Anti-smoking campaign raises  $r_p$  and hence increases the government's political cost at the margin. Consequently, the equilibrium  $r^o$  will have to be adjusted upwards.

How this is going to affect the level of political contribution? From (3) and (11), we have

$$\begin{aligned} \frac{dC^o}{dT} &= \frac{dG^o}{dT} + aM' \left( \frac{dr^o}{dr_p} - 1 \right) r'_p \mu'_p \\ &= \beta [aM'(r^o - r_p) - \pi'(r_p)] r'_p \mu'_p + aM' \left( \frac{dr^o}{dr_p} - 1 \right) r'_p \mu'_p \end{aligned} \quad (14)$$

Therefore, we obtain the following result.

**Proposition 2** *Government anti-smoking campaign will not necessarily reduce the political*

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<sup>10</sup>As will become clear, unlike the current analysis, the effects of a change in the bargaining power are much simpler. For instance, an increase in  $\beta$  will not affect  $r^o$  and  $J^o$ , but it will increase  $C^o$  and consequently,  $G^o$  will be higher but  $W_I^o$  and  $W_I^o - \underline{W_I^o}$  will be lower.

contribution from the tobacco industry. Specifically,

$$\begin{aligned} \frac{dC^o}{dT} &\geq 0 \text{ if } \frac{dr^o}{dr_p} \leq 1 + \beta\left(\frac{\pi'(r_p)}{aM'} - 1\right), \text{ where } \frac{\pi'(r_p)}{aM'} > 1; \\ \frac{dC^o}{dT} &< 0 \text{ otherwise.} \end{aligned} \quad (15)$$

From (13) notice that  $dr^o/dr_p$  is positive and it measures the adjustment of the level of government regulation on tobacco industry in response to a change in the public demand. A rise in  $r_p$  will increase the political cost for the government as long as  $r^o$  does not increase more than proportionately. In that case, the government has to be compensated by more political contribution. Therefore, we have the following corollary.

**Corollary 1** *As long as the equilibrium level of regulation on the tobacco industry is not ‘over-adjusted’ to the change in the public demand (i.e.  $dr^o/dr_p \leq 1$ ), government anti-smoking campaign will increase political contribution from the tobacco industry.*

The next proposition demonstrate that regardless of whether the tobacco industry reduces or increases its political contribution, its welfare becomes lower as a result of government anti-smoking campaign. However, since its welfare at the threat-point is reduced by government anti-smoking campaign, the net gain from participating (or the potential loss of not participating) in the Nash bargaining process becomes higher for the tobacco industry.

**Proposition 3** *Anti-smoking campaign reduces the welfare of the tobacco industry but its potential loss of not lobbying increases. That is,  $dW_I^o/dT < 0$  and  $d(W_I^o - \underline{W}_I)/dT > 0$ .*

**Proof:** (i) Since  $W_I^o = \pi(r^o) - C^o$ , using (14) and (12) we obtain

$$\begin{aligned} \frac{dW_I^o}{dT} &= \pi'(r^o)\frac{dr^o}{dT} - \frac{dC^o}{dT} \\ &= \pi'(r^o)\frac{dr^o}{dr_p}r'_p\mu'_p - \beta[aM'(r^o - r_p) - \pi'(r_p)]r'_p\mu'_p - aM'\left(\frac{dr^o}{dr_p} - 1\right)r'_p\mu'_p \\ &= r'_p\mu'_p[\pi'(r^o) - aM']\frac{dr^o}{dr_p} - \beta[aM' - \pi'(r_p)]r'_p\mu'_p + aM'r'_p\mu'_p \\ &= aM'r'_p\mu'_p - \beta[aM' - \pi'(r_p)]r'_p\mu'_p < 0 \end{aligned}$$

(ii). Since  $\underline{W}_I = \pi(r_p)$ , following part (i) we have

$$\begin{aligned}
\frac{d(W_I^o - \underline{W}_I)}{dT} &= aM'r'_p\mu'_p - \beta[aM' - \pi'(r_p)]r'_p\mu'_p - \pi'(r_p)r'_p\mu'_p \\
&= r'_p\mu'_p(1 - \beta)[aM' - \pi'(r_p)] \\
&= r'_p\mu'_p(1 - \beta)\{[\pi'(r^o) - \pi'(r_p)] - [\pi'(r^o) - aM']\} \\
&= r'_p\mu'_p(1 - \beta)[\pi'(r^o) - \pi'(r_p)] > 0 \quad (\text{since } r^o < r_p \text{ and } \pi''(\cdot) < 0) \blacksquare
\end{aligned}$$

The intuitions for the results are straightforward. Anti-smoking campaign reduces the tobacco industry's alternative welfare (at the threat-point), which increases its net gain in the Nash bargaining process, *ceteris paribus*. This increase in the net gain of the tobacco industry will be shared by the government. Therefore, accordingly  $W_I^o$  will be reduced but by a less-than-proportionate change.

So far we have only examined the effects of anti-smoking campaign. In the next section we will identify a possible political motive for government anti-smoking campaigns

#### 4. A POLITICAL MOTIVE BEHIND?

As shown in Section 3, when Condition (8) is satisfied, the incumbent government will benefit from anti-smoking campaign. For this condition (i.e,  $aM'(r^o - r_p) - \pi'(r_p) > 0$ ) to hold,  $a$  cannot be very large. Since  $G = C - aM(r - r_p)$ , a low value of  $a$  means that the incumbent government cares even less about public opposition relative to its policy over the political contribution from the tobacco industry. This also indicates that the incumbent government is more hungry for political contribution.<sup>11</sup>

From (7), the optimal level of anti-smoking campaign is determined as follows,

$$T^* = \arg \max C^o - aM(r^o - r_p) - \gamma(T) \quad (16)$$

The next proposition shows that a reduction in  $a$  would increase government's effort in anti-smoking campaign.

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<sup>11</sup>Lahiri and Raimondos-Moller (2000) interpret the relative weight between political contribution and social welfare [as in Grossman-Helpman (1994) and Dixit-Grossman-Helpman (1997)] as the degree of government corruption.

**Proposition 4**  $dT^*/da < 0$ .

**Proof:** From (11), the first-order condition of (16) becomes

$$\beta[aM'(r^o - r_p) - \pi'(r_p)]r'_p\mu'_p - \gamma'(T^*) = 0 \quad (17)$$

Total differentiation of (17) yields

$$\frac{dT^*}{da} = -\frac{\beta M'(r^o - r_p)r'_p\mu'_p}{\Delta_G} < 0 \quad (18)$$

where  $\Delta_G$  is the second-order condition for (16). ■

The intuition is clear. A reduction of  $a$  raises the government's marginal gain from anti-smoking campaign since the political cost becomes lower. This leads to a further increase in the equilibrium effort of anti-smoking campaign.

Finally, such an increase in government anti-smoking campaign induced by money-hungry politicians could indeed bring in more political contributions if the relevant condition in Proposition 2 (i.e.,  $dC^o/dT > 0$ ) is satisfied.

**Proposition 5**  $dC^o/da < 0$  if and only if  $\frac{dr^o}{dr_p} < 1 + \beta(\frac{\pi'(r_p)}{aM'} - 1)$ , where  $\frac{\pi'(r_p)}{aM'} > 1$ . A sufficient condition, for example, is  $dr^o/dr_p \leq 1$ .

**Proof:** Use Propositions 2 and 4, and notice that  $dC^o/da = (dC^o/dT)(dT/da)$ . ■

Therefore, here we have uncovered a possible political motive behind government anti-smoking campaigns. When the incumbent politicians become more hungry for political contributions, they will increase the level of anti-smoking campaign, and as long as the equilibrium level of regulation on the tobacco industry is not 'over-adjusted' (i.e.,  $dr^o/dr_p \leq 1$ ), the tobacco industry will have to provide more political contributions.

## 5. CONCLUDING REMARKS

Government anti-smoking campaigns will lead to a tougher regulation on the tobacco industry but political contributions from the tobacco industry will not necessarily be reduced. The key reason for this is that anti-smoking campaigns increase the public demand for a

tougher regulation on the tobacco industry and hence reduces the industry's alternative welfare (if not lobbying) in the political bargaining with the government. Anti-smoking campaign reduces the welfare of the tobacco industry but raise the industry's potential loss of not lobbying. Furthermore, the paper has uncovered a *pure* political motive for government anti-smoking campaigns. When the incumbent government/politician becomes more hungry for political contributions, they will increase the level of anti-smoking campaign, and as long as the equilibrium level of regulation on the tobacco industry is not 'over-adjusted', the tobacco industry will have to provide more political contributions.

Of course, it could well be the case that governments may simply want to correct externality and save lives by launching anti-smoking campaigns. The normative argument for government anti-smoking campaigns is certainly important but is not within the scope of the present model of political economy. However, the normative argument is not entirely shared by all, especially when the efficacy of government anti-smoking campaigns sometimes is not always clear.<sup>12</sup> For example, Kevin McCormack asks, "Who will decides if these efforts [government anti-smoking campaign] support positive causes or take on the trapping of propaganda and social programming?" (10/27/1997, *Adweek Eastern Edition*, pp.12).<sup>13</sup>

Although we use government anti-smoking campaigns as an example, more generally, this paper focuses on the government's strategy of engaging in public persuasion in order to benefit from the political interaction with special interest groups. As long as public preferences are, to some extent, taken into account by the government in the political process, the government (and special interest groups) can explore how public persuasion could benefit themselves in their political interactions.

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<sup>12</sup>See Chaloupka and Warner (2000) for a recent review on the economics of smoking, and Bulow and Klemperer (1998) for the recent issues on the tobacco settlement.

<sup>13</sup>Also see similar views by Kevin Dowd (1991) and Pierre Lemieux (2000).

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