A Theory of Favor Exchange between Politicians and Rich Media Owners[*]

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May 2023

Preliminary

Abstract

This paper presents a formal model of a favor exchange system between the president and the rich media owners, who are minority in the society. The president offers favors like bribes, state advertising revenues, and low tax rate to the rich media owners and takes in return skewed media coverage that increases his popularity and assists him in winning the elections. A system like this emerges, on the initiative of the president, when his popularity is low to ensure his political survival. A forward-looking popular president refrains from this decision, since the favor exchange system would constitute a powerful tool in the hands of his political opponent in future elections, when the former will hold the opposition role.

JEL classification: D02; D72; D73; L82

Keywords: Corruption; Media; Voting; Political Economy; Formal Theory

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[*] I thank Toke Aidt, Juho Alasalmi, Rein van Alebeek, Ivo Bischoff, Allan Drazen, Carsten Hefeker, Daria Kharitonova, Maite Laméris, Lars Siemers, and many other participants at the MAGKS PhD colloquium and the internal PhD seminar in Siegen for their useful comments and discussions.

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1. Introduction

Over the last years, a substantial number of economists have studied the effects of mass media on economic and political developments (see (Prat & Strömberg, 2013) and (Strömberg, 2015)). Popular support of candidates within society depends on the information that voters have about them and the way it is dispensed. People often decide on their vote not only based on the political platforms that candidates announce prior to the electoral contests. There are other considerable components that determine citizens' final decision on who to vote for. These components could explain to some extent paradoxical electoral results and vital political economy questions, such as "why people vote against redistributive policies that would benefit them?". Amid rising inequality in the United States since the 1970s, there has been no demand at all for redistribution, even among citizens who claim that their income level is below average (Kuziemko, et al., 2015).

The political life's media coverage of topics as corruption, economic policy and its results, but also the overall path of the country in other dimensions, like foreign policy or national security, is a salient factor that influences the elections across the whole world through the public opinion's formation. Beyond all doubt, the political platform and promises have a decisive impact on every candidate's popularity. In a very similar way, politicians earn or lose points of popularity as a result of past policies and actions and the country's progress during the period

that they exercised power, given that they did. However, it has been proven historically that mass media and the scheme through which they present the information to the citizens have a pivotal role in the voters' development of political opinion.

Traditionally, two alternative opinions on media's effect on the political process exist. In one view, the information that media provide rise the voters' response to the nature of every policy outcome. This, in turn, improves the quality of policy and welfare. Therefore, according to this view, media advance society's political accountability. However, in another view, media have influence via propaganda and capitalize on comprehensible mistakes of voters.

The first mechanism, that improves political accountability, requires independent media that provide objective coverage of the events. Media endeavor in many cases to ensure this independency through increased circulation and advertising revenues (Petrova, 2011). This results a society where the media promote electoral accountability, contribute to the reduction of corruption, and exercise constructive criticism in the executive power.

Howbeit, since the second mechanism is observable in different interest groups and among politicians, media have been often a bone of contention between various political, but also not only, agents. In a wide range of political regimes, the government or other groups can capture media. This results in always distorted information flow, limits political accountability, and ultimately leads to

the rise of autocratic regimes, undermining and weakening democratic institutions (see (Prat, 2015) and (Enikolopov & Petrova, 2015)).

The power holder, government or president, of the country has two different roles in this framework. They can control completely the media space and use it to twist and repress every flow of unfavorable information in order to ensure their political survival (see (Gehlbach & Sonin, 2014) and (Shadmehr & Bernhardt, 2015)), paying always the correspondent price (see (Petrova, 2008) and (Egorov, et al., 2009). Even though this pattern is usually observed in non-democratic, or at least weakly institutionalized countries, no one can limit it to a single category of political regimes. Governments strive for media capture in democracies as well (Besley & Prat, 2006). Examples like those of today's China and Russia and the way that the domestic media serve the regimes have some structural similarity with the ones of Silvio Berlusconi in Italy and Raphael Correa in Ecuador. While Prime Minister of Italy, Berlusconi absorbed effective control of 90% of all national television broadcasting (Lane, 2004). Correa seized television stations with the largest audience in Ecuador, after he took office, driving their owners out of business (Mapstone, 2008).

It is clear that the above described role of the political authority is a leading one. There is no further space for other interest groups, since the media space is dominated by the state itself. It has the active role and, by abusing of power, misshapes and represses the unfavorable information. Nevertheless, there is an

additional path where politicians try to capture the media through a form of favor exchange. This path emerges as a deal between the agent that controls the political power and the owners of media outlets, members of private families with very high income (see (Djankov, et al., 2003) and (Petrova, 2008)) and often other parallel business activities with the state, as will be clear below through some examples.

The most representative case of this scheme is the *Semibankirschina* group of seven powerful Russian oligarchs that worked together to re-elect Boris Yeltsin in 1996 Russian presidential elections, and subsequently to handle him and his political environment from behind the scenes. At that moment, these seven oligarchs controlled most of the economy and media in Russia. Andrey Fadin writes in his, 14 November of 1996, article in *Obschaya Gazeta* newspaper: "They control access to budget money and practically all investment opportunities in the country. In their hands is the public information resource of the largest TV channels. They formulate the will of the president." (Vishnepolsky, et al., 2003). What Boris Yeltsin took in return was his electoral win in the elections and consequently, his political survival. There have been many exhaustive attempts to capture all the details of this political deal (see (Klebnikov, 2001) and (Hoffman, 2011)).

This form of favor exchange has variety in terms of the type of favors that leaders are willing to provide to the media owners in order to take them with their side.

In Peru, Alberto Fujimori's, the president of the country, intelligence director Vladimiro Montesinos was paying millions of dollars to television stations to alter their news coverage in favor of the former (McMillan & Zoido, 2004). In Argentina, there are empirical evidence of negative correlation between reports on government's corruption from the four main newspapers on the front page and the government's advertising towards them for the period 1998-2007 (Di Tella & Franceschelli, 2011). In Recep T. Erdogan's Turkey, major newspapers and television channels are owned by businessmen that operate in sectors like energy, mining, and banking. The businessmen get contracts from the government for these sectors. As an exchange, they use their media to spread propaganda and manipulate facts for the government's benefit (see (Tunç, 2015) and (Yagci & Oyvat, 2020)). In Hungary, Viktor Orbán designed a system where the government provides advertising favors to the media owners and they "pay back" with skewed coverage on the government's corruption acts (Szeidl & Szucs, 2021). In addition, he starved critical radio stations of state advertising (Guriev & Treisman, 2019). For many, Lee Kuan Yew of Singapore considered to be the pioneer of this frame. He managed to create an inconspicuous system of co-opting shareholder in crucial media companies and remain in power, serving as prime minister, for nearly three decades (Guriev & Treisman, 2019). Finally, there have been cases where rich owners of media managed to shake up the political background in favor of the opposition leader via their media, taking as return similar favors with the already discussed ones, after the opposition took office.

Benjamin Netanyahu became in charge in Israel in 2009 with the great assistance and support that received from the billionaire Sheldon Adelson via the, launched in 2007, right-leaning newspaper, *Israel Hayom* (Grossman, et al., 2022). In some of these cases, someone could argue over an additional ideological preference of the rich media owners towards these leaders that incentivizes their support. It may exist, but the exchange of favors channel clearly dominates it.

Most of these examples apply either to weakly institutionalized countries or to cases in which the specific country is characterized by general economic or political instability. Nonetheless, this is not always the case. Apart from the example of Silvio Berlusconi in Italy, there are also events like the political access and influence of Rupert Murdoch, owner of *Fox News*, *Wall Street Journal*, and plenty of British tabloids (Wolff, 2010). In addition, advertising allocations that are classified as favors happen often in many democracies, that comprise over 18% of European Union's population and more than 2 billion citizens worldwide (Szeidl & Szucs, 2021). Therefore, the system that owners of media outlets exchange favors with governments, politicians, and presidents is not only a "privilege" of autocracies or countries with weak democracies. It is a fact that, in extreme cases like the regimes in China and Russia, the state control of the media is absolutely necessary for the political survival of the power-holders. But what is the factor that drives political leaders in the remaining cases to design such systems, undermine the democratic institutions of their countries, and depend so

much on such an influential and powerful minority of the society that is delegated by them with extra power?

This paper presents a probabilistic voting model (Persson & Tabellini, 2000) of electoral competition (see (Baron, 1994) and (Grossman & Helpman, 1996)). In the model, the population is divided in two groups, the rich media owners and the poor masses. Two politicians, the president and the opposition leader, compete in the elections. The time horizon is infinite and both candidates announce their suggested policy platforms before every election contest. The first president decides on the establishment of a favor exchange system between him and the rich media owners, having the knowledge that this institutional decision defines the political competition intertemporarily (Dunning, 2010). In other words, once this favor exchange system is established, no one can break it up. In this system, the implementation of an attractive, to the rich media owners, policy is rewarded with skewed media coverage that increases the president's popularity. Therefore, the president co-opts the media owners (Guriev & Treisman, 2020). He shares favors to them and takes back in return biased media coverage that boosts his popularity and assists in his electoral win. The model results that this system is associated with unpopular presidents. They know that, being unpopular, the priority is to stay in office, since a political return is almost impossible in their case. The option to establish a system of favor exchange with the media owners is one way, even though this decision diminishes their prospect for re-election in

the future, since, as unpopular opposition candidates, they will have to face a president that the media support. For the same reason, the more forward-looking a popular president is, the less likely is to design this system of favor exchange.

The model is related to the literature on media capture in democracy (Besley & Prat, 2006), but it is not limited only there. A new class of non-democratic leaders have emerged around the world. The so called "spin dictators" use to manipulate information and mimic democracy to stay in power, avoiding traditional tools of their "ideological ancestors" like violence and repression (Guriev & Treisman, 2022). Co-opting with the elites as well as the use of mass media play a decisive role in the success of their strategy.

The paper is organized as follows. Section 2 presents the baseline model and proves the results of the paper, Section 3 encloses prospective extensions of the model alongside their implications, and Section 4 concludes.

2. The Model

2.1 Setup

Consider a society inhabited by a continuum of citizens of mass one. Y is a random variable with values in $\mathbb{R}^+ \coloneqq [0, \infty)$. It represents the income in the society and is distributed along a cumulative distribution function Φ. Therefore,

if any citizen is selected at random from the society, $\Phi(y)$ is the probability that the drawn observation, that is their income, will be smaller or equal to y.

For every citizen, the utility function is given by

$u = c + V(g)$,

where c and g represent private consumption and a publicly provided good. V is a concave function with $V' > 0, V'' < 0$, and $V(0) = 0$. Neither the government spending g, nor taxes can be targeted in this framework. Therefore,

$$c(y) = (1 - t)y \quad (1)$$

is the post-tax consumption of every citizen and $t \in [0,1]$ stands for the common tax rate.

The utility function is the same for all citizens, but the actual utility, which a citizen derives from the public good g, depends on their current income y. Thus,

$$u(y, g) = c(y) + V(g) \quad (2).$$

$y^m \coloneqq Median(Y)$ is the median of Y and $\Phi(y^m) = \frac{1}{2}$. The average income of the society is $\bar{y} \coloneqq \mathbb{E}(Y)$, where $\mathbb{E}$ denotes the expected value. The income distribution is positively skewed ($y^m < \bar{y}$).

$g = t\bar{y}$

is the budget constraint of the president and reflects the fact that only one of the parameters g and t is free.

Combining (1) and (2) yields $u(y,g) = (\bar{y} - g)\frac{y}{\bar{y}} + V(g)$. The optimal choice of public good for the citizen with income y is then given via $0 = \frac{\partial u(y,g^*)}{\partial g} = -\frac{y}{\bar{y}} + V'(g^*)$ so that

$$g^*(y) = (V')^{-1}\left(\frac{y}{\bar{y}}\right).$$

Hence, the optimal public good is citizen-specific and g^* is the optimal policy for the citizen with income y. Given that V is concave and increases, V' as well as $(V')^{-1}$ decrease. Therefore, high y imply low g^*.

Proposition 1

Richer citizens prefer smaller g because, due to the proportional tax system, they pay a larger share of the tax burden. ■

Consider also the following welfare function that sums the welfare of all citizens of the society, $\bar{u} \coloneqq \int_0^\infty u(y,g)d\Phi(y)$. Then, $\bar{u}(\bar{y},g) = \bar{y} - g + V(g)$ and the optimal good for the citizen with the average income $\bar{y}$ results via $0 = \frac{\partial \bar{u}(\bar{y},\tilde{g})}{\partial g} = -1 + V'(\tilde{g})$ so that

$$\tilde{g} = (V')^{-1}(1).$$

Proposition 2

$\tilde{g}$ is the socially optimal policy that coincides with the policy desired by the citizen with the average income $\bar{y}$. ■

From now on, the population is strictly divided into two groups j, with $j = p, r$. p and r represent the poor masses and the rich media owners, respectively. The groups differ in size and income. The population share of group j is δ^j with $\sum_j \delta^j = 1$ and $\delta^p > \delta^r$. Thus, the rich group is minority in the society. Every single one in group j has the same income y^j with $y^p < y^r$ and $\bar{y} = \sum_j \delta^j y^j$. Therefore, g^j is the optimal policy for group j with

$$g^r = (V')^{-1}\left(\frac{y^r}{\bar{y}}\right) < \tilde{g} = (V')^{-1}(1) < (V')^{-1}\left(\frac{y^p}{\bar{y}}\right) = g^p.$$

2.2 Political Competition

In the model, there are two politicians, 0 and 1, as well. In every period of the infinite-horizon setup that follows, one politician serves as the president and the other as the opposition. In a typical political competition frame, both candidates always select their suggested policy platforms g^0 and g^1 to maximize their probability of winning the elections. A citizen j votes for candidate 0 if and only if

$$u^j(g^0) > u^j(g^1) + \chi^j + \bar{\zeta} \quad (3).$$

The parameter χ^j can take positive and negative values. It can also be equal to zero and measures the ideological bias that the citizen j has towards candidate 1. A positive (negative) value of it means that the citizen j has a bias in favor of

candidate 1 (0). χ^j follows a uniform distribution with density $\kappa, \chi^j \sim U_{\left[-\frac{1}{2\kappa}, \frac{1}{2\kappa}\right]}$ with $j = p, r$. Hence, χ^p and χ^r are independent and identically distributed variables. Also, $\bar{\zeta}$ is the average relative popularity of candidate 1 and has two components. That is, $\bar{\zeta} = \zeta \pm DC^r$. The parameter ζ takes positive and negative values. Like the ideology, it follows a uniform distribution with density $\lambda, \zeta \sim U_{\left[-\frac{1}{2\lambda}+\mu, \frac{1}{2\lambda}+\mu\right]}$. The electoral contest is symmetrical only when $\mu = 0$.

In regard to the term DC^r, the model allows the politician that serves as a president during the first period of the game to design the political institutions of the society in a way that affects the electoral competition intertemporarily. This means that, in the first period, the president decides on the establishment of the favor exchange system, where the implementation of an attractive, to the rich media owners, policy is rewarded with skewed media coverage that increases the president's popularity. Thus, the politician that serves as the president in the first period takes a decision which persists throughout the infinite-horizon game that follows. In case he decides to implement the favor exchange system in the first period, then in all other periods, the contextual president always announces, before the elections, the policy platform that the rich prefer. In exchange, the latter reward the former with skewed media coverage that increases his popularity. However, if the first period president does not create the favor exchange system, in all future periods, every president can announce any policy platform he prefers and the rich media owners influence the result of the elections solely with their

vote, since their media cover the news in a fully transparent way. The intertemporal character of the first period president's decision captures the fact that in almost all of the examined cases in the introduction, countries continue till today to face problems of powerful media owners' involvement in political life, via non-transparent channels between them and the power holders. It resembles that this kind of damage on the institutions of a country has a rather permanent effect.

The target of this analysis is to investigate how this decision of the first period president depends on the parameters of the model. The decision is modelled here as a dummy variable $D \in \{0,1\}$, where

$$D = \begin{cases} 1, & \text{if the president creates the favor exchange system;} \\ 0, & \text{otherwise.} \end{cases}$$

The distorted information flow of the rich via their media enters the model as a contribution C^r that affects positively (negatively) the popularity of the president (opposition). Given that $\eta \in \{0,1\}$ labels which politician is the president, $\bar{\zeta}$ is defined as

$$\zeta + (-1)^{\eta} DC^r = \begin{cases} \zeta - DC^r, & \text{if politician 0 is the president } (\eta = 1); \\ \zeta + DC^r, & \text{if politician 1 is the president } (\eta = 0). \end{cases}$$

Then, the constraint (3) is rewritten as

$$u^j(g^0) > u^j(g^1) + \chi^j + \zeta + (-1)^{\eta} DC^r \quad (4),$$

with $D, \eta \in \{0,1\}$.

Therefore, when $D = 0$ (no favor exchange system), voters decide based on the announced policy platforms only. However, when $D = 1$, the fact that the media owners contribute is beneficial for a candidate when he is the president, but harmful when he has the opposition's role. The only motivation for both candidates is to win the electoral competition and hold office.

2.3 Timeline of the Events

The timing of the game is the following.

1. The first president decides on $D \in \{0,1\}$. This value of D remains the same for the whole game;
2. Both candidates announce simultaneously their policy platforms g^0 and g^1;
3. If $D = 1$, the rich group contributes C^r;
4. ζ is realized and all uncertainty is resolved;
5. Elections take place;
6. The winner gets his one period payoff π and implements the announced policy.

2.4 Optimization Problem of Politicians

The share of votes for candidate 0 $\left(\Pi_0(\zeta)\right)$ is

$$\Pi_0(\zeta) = \sum_j \delta^j \kappa \left(u^j(g^0) - u^j(g^1) - \zeta + (-1)^\eta DC^r + \frac{1}{2\kappa} \right)$$

$$= \kappa(\delta^p \Delta^p + \delta^r \Delta^r) + \kappa(-1)^\eta DC^r + \tfrac{1}{2} - \kappa\zeta,$$

with $\Delta^j \coloneqq u^j(g^0) - u^j(g^1)$.

Naturally, candidate 0 wins the elections if and only if $\Pi_0(\zeta) > \frac{1}{2}$, discarding the scenario of a draw $\left(\mathbb{P}\left(\Pi_0(\zeta) = \frac{1}{2} \right) = 0 \right)$. Then, the probability (P_0) of candidate 0 winning the elections is

$$P_0 = \mathbb{P}\left(\Pi_0(\zeta) > \frac{1}{2} \right) = \frac{1}{2} + \lambda([(-1)^\eta DC^r - \mu]) + \lambda(\delta^p \Delta^p + \delta^r \Delta^r).$$

The probability P_0 takes two different values which are defined over the dummy D. Therefore,

$$P_0 = \begin{cases} \frac{1}{2} - \lambda\mu, & \text{if D} = 0, \\ \frac{1}{2} + \lambda[(-1)^\eta DC^r - \mu] + \lambda(\delta^p \Delta^p + \delta^r \Delta^r), & \text{if D} = 1 \end{cases} \quad (5).$$

It is noteworthy that the ideology density κ vanishes in (5). The probability P_0 is not influenced by the voters' ideological bias. Still, ideology, that is described formally with the term χ^j in (4), is the only factor that allows for non-homogeneous electoral behaviour within both groups. Without it, every poor or rich citizen would vote for the same candidate, based only on politicians'

popularity, since citizens in both groups have identical preferences. This non-homogeneity is critical for further development.

In both cases, $D = 0$ and $D = 1$, the two candidates select their suggested policy platforms g^0 and g^1 to maximize the probabilities of them winning the elections. Without the favor exchange system $(D = 0)$, the unique equilibrium has both candidates converging to the same socially optimal platform $\tilde{g}$. Convergence is a result from the two candidates' facing the same optimization problem. Formally, this arises as g^0 and g^1 enter the expression in (5) with opposite signs and, while candidate 0 maximizes P_0 subject to g^0, candidate 1 does the same for $P_1 = 1 - P_0$ subject to g^1. Allegedly, both candidates have the same preferences and the same technology of converting tax revenues into votes, so they eventually find the same policy platform optimal.

On the other hand, with the favor exchange system applied $(D = 1)$, the whole frame is a bit more complicated, since the rich group becomes more electorally attractive to the president due to its contribution. In this equilibrium, the candidate that enters the electoral contest as president announces always the most preferable, for the rich group, policy g^r. Being the president allows him to commit credibly to the rich group on the implementation of their optimal policy. This is reinforced by the fact that he has already announced and implemented g^r in the previous period in which he was serving as the president. g^r captures any kind of favor that a president can offer to the rich like bribes, state advertising

revenues, and state contracts, as the various cases in the introduction show, apart from low tax rate. The opposition candidate does not have this option. He can not converge to the president and announce g^r because he does not have the required political access and power to act accordingly. But even if he could, the rich group would not have any incentive to switch sides, since the president himself commits hitherto on g^r. Therefore, it would seem reasonable for the opposition candidate to announce a policy platform that lies very close (if not itself) to the poor's optimal one. However, rich citizens vote as well and the fact that the rich group contributes in favor of the president does not mean, as it will be clear later, that every rich citizen is constrained to vote for him. Consequently, the opposition candidate faces a trade-off and ends up with announcing the socially optimal policy $\tilde{g}$ that satisfies partially, but certainly to a larger extend than g^r, the poor and still does not come in diametric opposites with the rich. Formally, the equilibrium with $D = 1$ is given by $(g^0, g^1) = (\tilde{g}\,, g^r)$ when $\eta = 0$ and $(g^0, g^1) = (g^r, \tilde{g}\,)$ when $\eta = 1$.

Proposition 3

In case the first president has decided not to create the favor exchange system, both candidates always converge to the socially optimal policy platform $\tilde{g}$. Otherwise, before each election, the president announces the policy platform that the rich group prefers, that is g^r, while the opposition insists on $\tilde{g}$. ■

Now, a few more words about parameter μ. Plugging $\mu = 0$ in (5), the probability of candidate 0 winning the elections is $\frac{1}{2}$. That is, $P_{0\{D=0\}} = \frac{1}{2}$. Contrary, when $\mu > 0$, the same probability is $P_{0\{D=0\}} < \frac{1}{2}$. Therefore, μ is associated with popularity of both candidates before the realization of the rich group's contribution effect on their popularity.

Proposition 4

Parameter μ measures the popularity of both candidates without considering the potential intervention of the rich group with their contribution. $\mu = 0$ is translated into symmetrical elections while $\mu > 0$ implies that candidate 0 is relatively unpopular. ■

2.5 Optimization Problem of the Rich Group

Next, the rich group decides on its contribution, after maximizing the expected utility of its members minus the costs. Equation (6) describes the expectation of the rich group.

$$\mathbb{E}\mathrm{U}(C^r) = P_0[(1-\eta)u^r(g^r) + \eta u^r(\tilde{g})] + (1-P_0)[\eta u^r(g^r) + (1-\eta)u^r(\tilde{g})] - (C^r)^2 \quad (6).$$

The convex costs represent the different willingness of the rich group members to contribute. The optimal contribution of the rich group is then given via taking the relative derivative $\frac{d\mathbb{E}\mathrm{U}(C^r)}{dC^r}$ and setting it equal to zero. That is,

$$C^r = \frac{1}{2}(-1)^{\eta}\lambda\big[(1-2\eta)\big(u^r(g^r) - u^r(\tilde{g})\big)\big].$$

Proposition 5

The rich group contributes

$$C^r = \frac{1}{2}\lambda\big(u^r(g^r) - u^r(\tilde{g})\big) > 0 \quad (7). \blacksquare$$

The higher is the average utility gain for the rich with g^r, in comparison with $\tilde{g}$, the more the group is willing to contribute.

The rich can influence the result of the elections with their contribution, apart from their votes. This double effect exists only if the first period president decided to create the favor exchange system. The model assumes that only the rich media owners are able to influence the electoral result via two channels. It is remarkable that ideology does not emerge in the objective function (6). It is assumed that the group maximizes the average utility of rich citizens. The antithetical ideologies within the rich group entirely neutralize. Hence, ideology matters when rich vote, but not when it is about the contribution decision. The fact that ideology, other than that, influences the voting decision of every citizen, including the rich, designates that still there might be some rich citizens that vote for the opposition

candidate, even though the rich contribute as a group in favor of the president. It reflects the different willingness of the rich media owners to contribute and captures any prospective intra-rich conflict of interest. It never occurred in real life that every single media owner showed an identical predilection over a specific candidate, probably due to conflicting interests and partisan preferences.

2.6 Solution of the Model

Without loss of the generality, politician 0 is the first period president. Coming back to the goal of this analysis, W_0^{Pr} describes his value function and

$$W_0^{Pr} = \pi + \theta\left[\{P_0|\eta = 1\}W_0^{Pr} + (1 - \{P_0|\eta = 1\})W_0^{Op}\right].$$

The upper index Pr illustrates the case that politician 0 has the role of the president before the elections. W_0^{Pr} is the infinite-horizon payoff of politician 0. This payoff depends on his decision on D, in the start of the game. π is the one period payoff that politician 0 gets since he is in the office. The expression in parentheses on the right-hand side represents the future payoffs and is discounted over time by θ. The interpretation is that with probability $\{P_0|\eta = 1\}$, the politician 0 (current president) wins again and remains the president. However, with probability $1 - \{P_0|\eta = 1\}$, politician 0 loses the elections and receives the respective infinite future payoff that he gets when he has the opposition role. To

sum up, the previous equation illustrates the infinite-horizon payoff of politician 0, as the president.

In the same way,

$$W_0^{Op} = \theta\left[\{P_0|\eta = 0\}W_0^{Pr} + (1 - \{P_0|\eta = 0\})W_0^{Op}\right]$$

is 0's infinite-horizon payoff, having the opposition's role. The upper index Op here indicates the case that politician 0 is in the opposition before the elections. The first term in parentheses reflects the case that politician 0 wins the elections, as the opposition, and becomes the president. The second term then describes the payoff that he gets if he loses the elections and remains in the opposition. That is why the last payoff is weighted by the probability that he has to lose the elections while he holds the opposition role $(1 - \{P_0|\eta = 0\})$.

Combining the last two equations yields $W_0^{Pr} = \frac{\pi[1-\theta(1-\{P_0|\eta=0\})]}{1-\theta[1+(1-\theta)(\{P_0|\eta=1\}-\{P_0|\eta=0\})]}$.

Therefore, politician 0 decides during the first period to create the favor exchange system if and only if $W_0^{Pr}|D = 1 > W_0^{Pr}|D = 0$. In other words, and using (5) and (7), the last inequality holds if and only if $1 + \theta\left(\frac{1}{2} + \lambda\mu\right) > 0$.

Proposition 6

The first period politician decides to create the favor exchange system if and only if

$$1 + \theta\left(\frac{1}{2} + \lambda\mu\right) > 0 \quad (8). \blacksquare$$

2.7 Results

When $\mu = 0$ (balanced elections or electoral competition between two candidates with the same popularity), inequality (8) holds always, since $1 + \frac{\theta}{2} > 0$. This means that a president who has the same popularity with the opposition establishes always a favor exchange system to secure his political win. The same argument holds for $\mu > 0$, when politician 0 (the president) is unpopular and his opponent popular. Finally, when $\mu < 0$, politician 0 is popular. Larger absolute values of μ imply high popularity for politician 0. Therefore, in this case, the incidence of $D = 1$ (adoption of favor exchange system) increases with μ. Alternatively, the less popular the president 0 is, the more likely is to design a political system in which he (as the president) can exchange the implementation of the most desired, for the rich group, policy with skewed media coverage that increases his popularity.

All in all, the model results that the system of favor exchange is associated with unpopular presidents who take this decision to secure that they will stay in power with the help of the rich media owners. They know that, being unpopular, the top priority is to stay in office, since a political come back is almost impossible in their case. The option to establish a system of favor exchange is one way, even though this decision diminishes their prospect for re-election in the future, since, as unpopular opposition candidates, they will have to face a president that the rich media owners support. To this extend, the results are clear whenever $\mu \geq 0$. It is

interesting that, with $\mu < 0$, (popular president 0), the decision $D = 1$ than $D = 0$ holds as long as the negative μ is larger than $-\frac{1}{\lambda}\left(\frac{1}{2} + \frac{1}{\theta}\right)$. Thus, large values of θ make the decision $D = 1$ less likely. That is, the more looking a popular president is, the less likely is to design a favor exchange system, because probably he will have the role of the opposition in one of the future periods and then, the media owners' group will contribute to his opponent.

The very same results hold, if one assumes, without loss of the generality, that politician 1 serves as the president during the first period and he is the one that decides on the political institutions of the society.

3. Extensions

3.1 A Second Policy Dimension and Targeted Spending

A second policy dimension could be introduced in the suggested policy platforms of both candidates. Bringing in some exogenously given rents R, that reflects the case of a resource rich country, would be translated to an additional incentive or pay-off for both candidates to take office and control the allocation of these rents. In line with the rent-seeking theory and the tendency that leaders of resource rich countries have to accumulate at least a part of these rents, the president in the model could claim always a share α of R, using the remaining $(1 - \alpha)R$ and the tax revenues to finance, in this case, targeted public spending towards both

groups. The targeting of public spending is important because, it creates some extra conditions for the emergence of favor exchange patterns. The president has now more arrows in his quiver and can use them in all directions. Based on the size of α and the subsequent proportion of total spending targeted to the poor and the rich, voters' motivation as well as the deviation between the suggested policy platforms of the candidates may change, having an impact on the political development path of the country.

3.2 "Sticks" Instead of "Carrots"

In the base model, the president uses as carrots any kind of favor to achieve biased media coverage by the rich media owners. This fact obstructs the opposition leader from playing with the same rules, since he does not have the political access and power, and forces him to recommend a policy platform relatively close to the poor masses' optimal one. The opposition leader can not promise carrots when the president of the country actually offers them to the rich. However, the scenario can be twisted. The president can seek for the media support by using sticks instead of carrots. There have been many cases worldwide where power holders pressurized the media with continuous falsified tax controls, violence, imprisonment, and even life threatening. A president that uses sticks against the rich group would allow the opposition leader to promise carrots and that may shift the political equilibrium.

3.3 "Informed" and "Uninformed" Poor Voters

The model separates arbitrarily the population in the informed group of the rich media owners and the uninformed group of the poor masses. The rich use their media to falsify the political reality and increase artificially the president's popularity, especially among the poor majority. That actually leads the poor voters to vote for a policy that, in the reality, is against their own benefits. Therefore, the model assumes that every single poor citizen receives the media propaganda and reacts on it, in the same way. This implies that poor masses have a homogeneous behaviour on the skewed transmitted messages of the media. A variation of this assumption could lead to different results. The population could be divided, under a second dimension, in informed and uninformed citizens using a share parameter β^j with $j = p, r$ (Baron, 1994). That is, $\beta^r = 1$ does not deviate at all from the intuition of the base model but the fact that $\beta^p \in [0,1]$ opens a new horizon, distinguishing between societies with different levels of informativeness and altering the political outcome.

4. Conclusion

Recent economic and political developments have been determined by the mass media and their influence. In an ideal world, media play a productive role by promoting transparency and improving the quality of political democracy. However, they can also play a counter-productive role in the development path.

The flow of information may grow into a useful tool for politicians who seek for consolidation of their power or for specific interest groups that plan to redeem their efficiency in shaping the public opinion. Therefore, mass media are often the main piece of a deal between politicians and their rich owners, initiated by the former, to achieve their political survival through a skewed media coverage of them. That is one of the deal's direction. The media owners get in return, for their assistance, various kinds of materialistic favors. Since this mechanism damages the, already weak in most of the cases, institutions of the involved countries, the question that arises naturally is what the politicians' motivation, behind their decision to put into effect this favor exchange system, is.

This paper tries to investigate this question by using a probabilistic voting model with a president and an opposition leader. The population is divided between the rich media owners and the poor masses. The favor exchange system is a described as a scheme where the president provides favors to the rich media owners to take back biased media coverage that reaches and disorientates the poor majority's voters. This, in turn, increases his popularity and assists in his electoral win.

One factor that drives the results here is the president's level of popularity. The favor exchange system is clearly related to presidents with low popularity. After losing the power, a political come back is usually impossible for them and they are willing to damage the country's institutions, if this is the only way to survive politically. Another factor is the degree that the current president discounts the

future. The more forward-looking he is, the less likely is to take this decision. In one of the future periods, he will serve as the opposition leader and then, the favor exchange system will be a powerful tool in the hands of his opponent.

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