The Role of Authoritative Media in Economics

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Abstract

The paper explores the link between authoritative media, which is called the public court in the paper, and economic prosperity. Three types of evidence are used. First, arguments of the superiority of the public court over traditional media are provided. Second, a formal model shows a causal effect from more authoritative media viewers to greater political efficiency. Finally, the paper presents an overview of empirical literature on the link between political efficiency and economic prosperity. The finding of the paper is that the public court facilitates economic prosperity regardless of whether the traditional media are politically biased or not.

I. Introduction

The standard economic theory does not view media as a separate player in the economy. In reality, however, the media play an important role in society. The existence of media and its importance in our everyday life is apparent. Still, the papers that analyze the role of media in economics have appeared very recently and their number is limited. The fact that media has a great influence on economy is appreciated by the World Bank that perceives media as a mechanism in reducing corruption, explaining economic processes and shaping the public's opinions in pre-election periods (World Bank Institute Programs, 2007). As regards published papers, a few noticeable ones follow.

Ahrend (2002) uses international panel data and finds that more press freedom causes less corruption and suggests that strengthening press freedom should be among priorities in the fight against corruption. Djankov et al. (2003) examine the patterns of media ownership in 97 countries and find that usually the largest media firms are owned by the government or by private families. Empirically they also find that greater state media ownership is associated with a greater number of journalists jailed and media outlets closed by the government. Mullainathan and Shleifer (2005) build a model that shows that competition between newspapers does not necessarily lead newspapers to deliver unbiased news, and only a reader with access to all news sources is guaranteed to get unbiased information given that there is sufficient reader heterogeneity. Baron (2006) presents a theory of media bias that originates with private information obtained by journalists who have career interests and are willing to sacrifice current wages for future opportunities. Finally, Besley and Prat (2006) develop a model of democratic politics in which media capture is endogenous. The model offers insights into the features of media market that determine the ability of the government to exercise such capture and hence to influence political outcomes.

However, if there are several papers available that link media and economics, then to the best of my knowledge there is none that would attempt to show the link between authoritative media and economic prosperity[1]. Therefore, I try to fill the gap with this paper.

My hypothesis is that an authoritative media is critical in bringing politicians and the public together. It is not enough for journalists simply to mirror the news to the public. In the age of information, the public may overlook important issues occurring in their country. Therefore, the media needs to weed out important issues and tell the public why and how those issues may influence them. For example, there is a journalist who runs a live broadcast debate on specific issues in Latvia (Tv.lv, 2007). In the broadcast, there are opposing parties and some neutral experts. The journalist also expresses his views but tries to be neutral. The journalist asks from the responsible parties their actions and if the issue is not solved in that debate, he organizes another debate later and asks what the responsible parties have done to solve the issue. The journalist has gained the public's trust and the public expresses its views through online voting during the debate. Furthermore, the responsible parties also respect him because the debate is popular among the public and because the mediator critically expresses about the persons who have not come to the debate for doubtful reasons. Thus, the invited parties are forced to come to the debate and be well prepared because otherwise they lose the public's trust. As a result, the debate has raised the public's interest in politics, revealed several corruption cases and forced the responsible parties to act according their best intents.

In this thesis I argue that a particular type of authoritative media that I call a "public court" is reasonable enough to exist and might be good for economic prosperity. In order to achieve the goal, I come up with three types of evidence showing that:

1. the "public court" set up is superior over traditional media;
2. media can have influence on the effort exerted by politicians;

[1] I define authoritative media as media whom the public trusts and politicians respect.

3. political effectiveness yields higher economic growth.

The thesis is organized as follows. Section II shows that there are a number of reasons to think of authoritative media as a better means to influence a politician's effort than the traditional media. Section III comes up with a simple model illustrating how media can increase political efficiency. Section IV provides a short review of the literature of the relationship of the political efficiency and economic prosperity. Section V concludes.

II. Authoritative vs. traditional media

In this section, I call for a need for the public court and argue that there are a number of reasons to think of the public court as at least as good or even better than the traditional media, where with the latter I call newspapers, traditional news on the television and radio, and the part of the Internet that can be attributed to traditional news, including electronic newspapers.

It is widely known that in fifth century Athens, which was inhabited by approximately 250,000 people, five thousand of them (on average, one sixth of fully paid-up citizens - adult males of Athenian birth and full status) might have regularly attended one or more meetings of the popular Assembly, of which there were at least 40 per year in Aristotle's day (Athens Think Twice, 2007; The Democratic Experiment, 2007). That political system was an antecedent to modern political systems that we encounter in democratic countries. Modern political systems which anticipate an active role from the public in politics only once in, say, four years, seems to be an appropriate one, given that it is too costly or even impossible to give political decision-making rights to each individual. However, during the past few decades the velocity of information has changed dramatically. In the age of information, when in many countries the majority of voters has access to the Internet and could

theoretically participate in political decision-making more frequently without much extra costs, the current political system is likely be inefficient[2]. I expect that the first best would be if the public redeemed its rights for political decision-making on daily basis via the Internet, given that all citizens had their unique electronic signature and access to the Internet. While the first best is a challenge for modern societies, the model which I present in this paper, is already successfully existent in many countries. Though, it seems that it is not yet spotted by economists.

I argue that there is a need for an institution which I call "the public court" that would play a role of an effective medium between the politicians and the public. The name of the institution is due to the similarity of its structure to courts. The public court can be in the form of weekly online television debate between opponents. There should be also neutral experts and the moderator-journalist (judge) who would have to be an authority to the public. The public (jury) expresses its opinion by online voting. This public court in a form of public debate would ask the *political* responsibility from the politicians and would give incentives to politicians to work harder, and be paid back by shifts in public support. I claim that such an institution performs better as an important news provider than the traditional media in several aspects.

First, it gives incentives for politicians to work harder. There is a reason to believe that the more politics is *discussed* in the public, the greater incentives are for politicians to work hard because there is a greater probability that the actual effort of the politician will be revealed. I italicize the word 'discussed' because that is what debates do better compared to

[2] Note that not only the frequency of interactions between the public and politicians, but also the representation has changed since Ancient Athens. For example, the coefficient of representation in Ancient Athens was about 2 percent (5,000 over 250,000); today in Latvia it is about $1/229$ percent, or 100 deputies over the population, and in Poland it is about $1/688$ percent, or 460 deputies plus 100 senators over the population (authors calculations).

news given by the traditional media. Similarly, politicians are less eager to shirk or engage in bribing or other hidden activities because public discussions increase the probability of those activities to be detected. Second, it decreases time allocated for political intrigues, populism and other inefficient activities because there is a higher probability that the mediator and the public will detect such behavior through discussions between opponents. Therefore, the allocation of the time of politicians improves.

Third, one can think that a general public is not interested in politics. On the contrary, I think that the public is interested in politics very much. The problem is that many people do not believe that they can influence the political process, and, therefore, they simply give up following the politics. To my mind, that is the result mainly from long time periods between elections, and the nature of the traditional media. While the former was discussed at the beginning of the section and is not directly related to media, the latter involves two main features. First, the traditional media is constructed in such a way that there is hardly any feedback from the public, i.e., the traditional media is mainly one-way information flow from politicians to media to the public. The reader of the newspaper reads an article, thinks about it, and continues her daily activities. There is no sufficient way how a reader (or, similarly, viewer on listener) can give a quick and substantial feedback that would be taken into account[3]. The public court deals with this problem at least in two ways. First, it involves online public voting during the debates. In this regard, by voting, a person instantaneously sees that her opinion is visible to politicians and other public members. Therefore, the person feels better by being aware that she can participate in making the public's voice. Second, since the public court is run once in a week, the mediator can choose his own topic of discussions. This is a crucial distinction between the public court and the traditional news because usually the traditional news does not have many options to choose from; it is just the

[3] This problem is less severe in the Internet, where it is allowed to write comments.

main news of the day. The mediator of the public court has much wider option to choose the topic of a discussion, and the public can help him a lot, by giving suggestions and comments. Like an ombudsman, the authoritative mediator has a close relationship with the public, and he translates the concerns of the public to the topic of a discussion. Thus, this is another way how the public court encourages and facilitates the public's active monitoring and discussion of political events. The second feature of the public court is that it is more interesting to watch than the traditional news. A short article in a newspaper or a similar report on television in many cases do not cause a great interest in the public and passes by without many comments. On the contrary, a hot discussion involving top politicians may attract the public like a TV show. A member of the public might find it attractive to watch the public court instead of a football game or a soap opera. Therefore, given the above mentioned features of the public court, the public might change its preferences from pure entertainment towards politics just because the public court offers more interesting form of translation of news.

Fourth, the public court increases the public's memory by maintaining and repeating issues. The traditional media usually states the current news without much thorough analysis. It can repeat issues (say, high inflation rate) time after time but still traditional news usually never offers a solid analysis of the situation. This is acceptable because the main function of the traditional news is informing the public about current events. If politicians are ignorant about the issue, or just lazy, they can repeatedly declare that they work hard on the issue (and the traditional news will transfer that announcement to the public). On the contrary, an authoritative mediator would invite opposing parties as well as experts to the discussion and dig to the ground of the problem. Moreover, a mediator would repeatedly organize discussions about the same issue until the dispute is solved. The public would know the true cause of the problem, and would follow the progress of its solution. In the election day, there

is a higher probability that the public will remember the true actions of politicians and will react accordingly.

Fifth, and related to the above, the public court decreases the public's uncertainty about the future because the public gets a better picture about what politicians think and do and what their reasons are. Further, it increases the efficiency of politics due to the fact that the public and politicians work together[4], say in tax payments, when combating inflation, on salary issues in the public sector, on policy priorities and many other issues where joint effort of both politicians and the public is required for a successful result. Finally, the public court leads to less biased news compared to the traditional media. For example, Mullainathan and Shleifer (2005) say that in order to lessen the information bias, one needs to read many different newspapers because any single newspaper might be politically biased. By reading several different newspapers, a reader gets a broader picture of different views. I argue that the public court in the form of online discussions is obviously less biased as a source of information than any single traditional media outlet because it usually has discussants with different opinions. This can be illustrated mathematically as follows.

Let x_i be a realization of a random variable $x \sim F$, where x is a political stance with a distribution function F. Assume the expected value $E(x)$ is the 'true' or unbiased value of news and assume the expected value exists[5]. Assume that a single newspaper has an article with $x_i \in \mathrm{X} = [a,b]$ and can be far from the objective political view $E(x)$. In order to get less biased news, a reader may read more than one paper. Or, she can watch the public court, in which there are n participants and therefore we have a set of realizations

[4] This is true in long run, and also in short run if politicians are opportunistic. The public court is a mechanism that helps the public not to reelect selfish politicians (see more about opportunistic and selfish politicians in the next section).

[5] It does not exist, for example, for the Cauchy distribution.

$A = \{x_1, x_2, \ldots, x_n\} \subset \mathrm{X}$. If the participants have equally supportive evidence for their political stances, then $\bar{x} = \frac{1}{n}\sum_i x_i$ is the estimator of $E(x)$. The authoritative mediator may help the public to put weights on each argument, in which case we get $\tilde{x} = \sum_i \rho_i x_i$, where $\sum_i \rho_i = 1$, ρ_i - weight for the persuasiveness of the politician i's argument and here it proxies for the probability of x_i. It is straightforward to prove that both $\bar{x}$ and $\tilde{x}$ are better estimators of $E(x)$ than x_i. This example clearly shows that the public court provides less biased information than a single newspaper. Moreover, the public court may be better than reading n different newspapers because the former is run by a mediator who wisely chooses the participants and helps the public to put weights on different arguments.

Given all the former, the economy is more efficient when there is the public court because the time/money of both politicians and the public is allocated more efficiently. Thus, these are the reasons to think that such a public court is good for economic prosperity.

Obviously, the efficiency of the public court is in hands of the public itself. Here I present the approximate conditions such that the public court can be set up.

1. the host medium of the public court is benevolent/non-profit (at least in short run; after the debate gets popular, this institution might get profitable) and independent from politicians;
2. the public can find an authoritative journalist whom to trust and who would run the debate;
3. some politicians have private interests that are not always in line with the public's interest but they have incentives to work harder given that they are afraid of (or have a disutility from) the public's anger and/or they like the public's support;

4. the public has some interest in politics and has a memory long enough so that it can punish/award the politicians at the day of the election.

While the second to fourth conditions can be fulfilled easily in almost every country, the first condition is crucial since the private television stations care mostly about the profit and, therefore, are less likely to allocate their time to the public court at its infancy. So, the independence of state media is important for establishing the public court.

The next section is to come up with a simple model that integrates the idea developed in this section to show that the public court is desirable in order to increase the effort extracted by a politician.

III. Media, the public court and political efficiency

In the previous section I argued that the public court is in several ways a better news provider than the traditional media. Surely, not all the news can be discussed thoroughly due to, say, time limits. Therefore, in reality most probably there will be both traditional media and the public court, and the most politically debatable news left to the latter.

Given that the above conditions for the public court setup are satisfied, the role of both traditional media and the public court in shaping political efficiency is formally represented by the following simple model which is based on Besley & Burgess (2002). They use their original model to show that state governments in India are more responsive to falls in food production and crop flood damage via public food distribution and calamity relief expenditure where newspaper circulation is higher and electoral accountability greater. I generalize the model so that it can be used for any country and stress the role of the media more clearly by changing the definitions of variables and incorporating the effect of the

public court. Further, I study the effect of biased traditional media on the capability of the public court to shift the incumbent's effort level.

Consider a two-period model in which at the beginning of period 1 a politician has been voted into office. Citizens are of two kinds: those who use the media to get news from politicians (fraction γ, "media users") and those who do not (fraction $1-\gamma$, "the ignorant ones")[6]. In period 1, a fraction β of media users watch online political discussions ("the public court"), and a fraction $1-\beta$ use only "passive" traditional media. [7] Assume for now that the traditional media are overall unbiased. Later on I will relax this assumption.

The politician can extract effort $e \in [0, E]$ during the period of stay in the office. There are three types of politicians: a: "altruistic" who always put in the maximal effort E, s: "selfish" who never put in effort, and o: "opportunistic" who put in effort if it enhances their reelection. Let Ω_i be the utility for holding the office for type $i \in \{a, s, o\}$.

The politician's effort is not directly observable. However, the size of the effort that has been put in can be learned from the media. The extent of media activity (e.g., a number of media outlets) is denoted by m. Let $q(e, m)$ be the fraction of the traditional media users who learn about the incumbent's effort and are going to vote for her. Similarly, let $p(e, m)$ be the fraction of the public court viewers who learn about the incumbent's effort and are going to vote for her. Given the arguments in the previous section, assume that the public court increases the reaction of the public to the incumbent's extracted effort compared to the

[6] Not endogenized since it depends on many things, like traditions, income, education, the amount of spare time, and the quality and availability of media. See later in the section about one way how to endogenize it.

[7] I assume the public court already exists and the main precondition for its establishment is independent state media. If the state media are dependent from politicians, the public court is not established, and $\beta = 0$. However, if the state media are free, the creation of the public court itself can be quite spontaneous. For example, in Latvia it was established by the initiative from a small group of intelligentsia.

traditional media, i.e., assume $p_e(e,m) > q_e(e,m)$. Additionally, let $q(0,m) = 0$, $p(0,m) = 0$, $q_m(e,m) > 0$, $p_m(e,m) > 0$, $q_e(e,m) > 0$, $p_e(e,m) > 0$, $q_{em}(e,m) > 0$, $p_{em}(e,m) > 0$, $q_{ee}(e,m) < 0$, and $p_{ee}(e,m) < 0$. Thus, the fraction of media users who learn about the incumbent's effort is an increasing function of the incumbent's effort, and a greater media activity is assumed to increase the marginal impact of effort. Since both functions $q(e,m)$ and $p(e,m)$ represent the reaction of the public to the incumbent's effort, I call them the reaction functions. They are depicted in Figure 1.

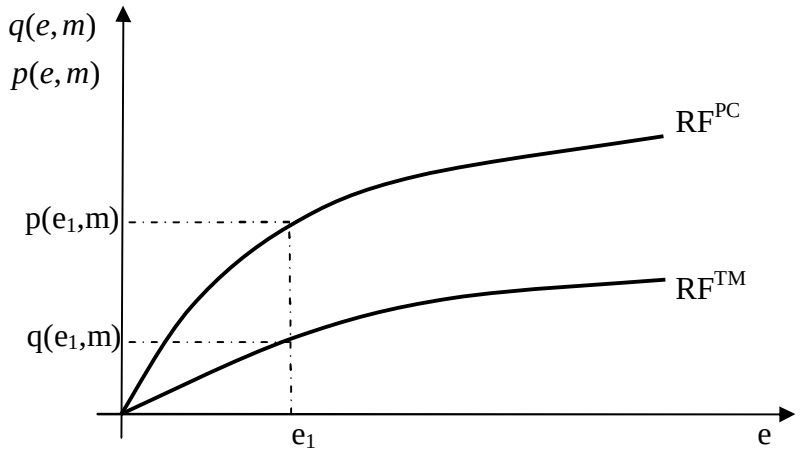

Figure 1. Reaction functions of the traditional media users and the public court viewers given the incumbent's exerted effort.

Figure 1 shows that the popularity of the incumbent in both media populations is an increasing function of the incumbent's effort. If no effort is put in, the public is neutral to the politician. If a positive effort level is exerted then the public learns about it through media, and is ready to vote for the politician to some extent. The discussion in section II is helpful to understand why the reaction function for the public that watch the public court (RF^{PC}) has a higher slope than the reaction function for the population that users traditional media (RF^{TM}). Once again, the idea is that the public court has a comparatively higher ability to assess the effort extracted by the incumbent. So, there is a higher share of the particular population that

learns about the incumbent's effort level. Moreover, since the public court viewers have a better notion about the politician's effort, they can react to these efforts more clearly. This relates further to higher reaction of the public's support to the incumbent. Note that the result is that a positive effort is learned better by the public court viewers compared to the traditional media users. Intuitively, the presence of more public court viewers will facilitate the incumbent's will to raise effort level.

After the information about the effort is realized, there is an election in which an incumbent is faced by a randomly selected challenger. In this model[8], an election is the only instrument in the public's hands in order to punish or award the incumbent. Since the opportunistic incumbent has no further reelection concerns, only the altruistic one will extract effort in period two. For this reason, the media viewers will prefer to vote for the politician who has been shown to have put in effort in period one, since such a politician is definitely not selfish.

The fraction of the media users (both of the traditional media and the public court) who learn about the incumbent's effort level and are willing to vote for her is

$$s(e,m,\beta) = \beta\, p(e,m) + (1-\beta) q(e,m). \qquad (1)$$

All of these citizens vote for the incumbent[9]. A fraction $1-s$ are those who do not learn from the media about the incumbent's effort level, and, therefore, they do not vote since they are tired of watching news and not learning about the politician's effort level[10]. They could

[8] More or less, it is also in reality.

[9] Note that the public will vote for the incumbent as long as there will be a positive probability of selfish challenger to appear.

[10] This assumption is quite realistic because if this fraction voted, then the model would have 100 percent activity. In a real world, however, there is always a fraction of electorate that does not participate in elections. It is reasonable to think that exactly those people who expect to but do not see the politician's effort refrain from voting. Nonetheless, the fundamental result also holds if I assumed that those who do not learn voted randomly.

also vote for the challenger. Since this model deals only with the incumbent's problem and it does not involve the votes for the challenger in her problem, then from the incumbent's point of view, it does not matter whether a fraction of the public votes for the challenger or does not vote at all.

All the ignorant ones vote for ether the incumbent or the challenger randomly since they have no clue which politician is better and they usually do not even care. Let $\upsilon \sim U(0,1)$ be the fraction of the ignorant ones that will end up voting for the incumbent[11].

The incumbent wins the elections if

$$\gamma s + (1-\gamma)\upsilon > \frac{1}{2}. \tag{2}$$

The probability that the incumbent wins if she extracts effort e is easily computed as

$$P(win \mid e, m, \beta, \gamma) = \begin{cases} 1 & if \ \ \gamma s > \frac{1}{2} \\ \frac{1-2\gamma(1-s)}{2(1-\gamma)} & if \ \ \gamma s \in \left[\frac{1}{2} - (1-\gamma), \frac{1}{2}\right] \\ 0 & if \ \ \gamma s < \frac{1}{2} - (1-\gamma). \end{cases} \tag{3}$$

An opportunistic incumbent chooses her effort level by solving

$$\max_{e} \{P(win \mid e, m, \beta, \gamma)\Omega_o - e\}, \tag{4}$$

where I assume for simplicity that the cost for the politician from extracting effort e is equal to e.

[11] Note that this model does not allow for political advertising that would influence the outcome υ which would then be less uncertain. Political advertisement would positively correlate with $E(\upsilon)$ and/or $Var(\upsilon)$. Thus a political advertisement would be used as a substitute for effort, i.e., more political ad would require less effort. Thus, as we will see later, political ad generally is bad for political efficiency and economic prosperity, except for the cases when political ad could be used as a complement for effort (e.g., for newly established parties).

Both γ and s are assumed to be known to the incumbent. Although I admit that there is some uncertainty in those variables, they still can be estimable if the incumbent tries hard. For example, γ can be estimated by summing up the average circulation of all newspapers per day and the audience of Internet portals, radio and television programs that involve related news. Variable s is more difficult to estimate because it involves three quantities to evaluate but still one can have a rough grasp of its size. Although, as regards to practical computation, the incumbent does not need to know γ and s separately and still can have a notion of the size of their product.

If the estimated product is greater than $\frac{1}{2}$, the incumbent will surely be elected in the next period and, therefore, she has no need to extract effort. This situation can be characterized by the lack of political competition. Further, if $\gamma s < \frac{1}{2} - (1-\gamma)$ then the incumbent has no chances to be elected and, therefore, again has no incentives to extract any effort. This is when the incumbent is unpopular due to some reasons, and/or there is too severe political competition. The incentives for the incumbent to extract effort are for moderate political competition where γ and s, for example, are $\gamma = \frac{3}{4}$, $s = \frac{5}{8}$. Nonetheless, the existence of an interior solution can be extended by complicating the model.

Assuming the interior solution, the first order condition for the optimal effort level $\tilde{e}$ is

$$\frac{\gamma}{1-\gamma}\left[\beta p_e(\tilde{e}, m) + (1-\beta) q_e(\tilde{e}, m)\right]\Omega_o = 1. \qquad (5)$$

From the FOC, we have the following results:

Equilibrium effort $\tilde{e}$ extracted by the politician is higher the greater is the

(i) media activity (greater m);

(ii) fraction of media users (greater γ);

(iii)fraction of the public court viewers (greater β).

The results of the model are intuitive. Greater media activity allows a politician to think that her effort will be broadcasted more thoroughly, be it in one medium or another. Further, a greater fraction of media users increases the probability that citizens will know about the politician's extracted effort and will vote for her. Finally, because the public court is a more efficient news provider than the traditional media, the politician has more incentives to extract effort when there are more public court viewers. Thus, the model predicts that the existence of the public court is good for political efficiency.

Until now I had assumed that the traditional media are overall unbiased. However, the media can be politically biased towards either the incumbent or challenger. Below I analyze the effect of the public court on the incumbent's effort under biased traditional media.

If the traditional media are biased towards the challenger then the reaction curve RF^{TM} in Figure 1 goes down or slopes less steeply, and as a result for the incumbent it is more difficult to be reelected. In this case, the incumbent either does not have a chance to be reelected and exerts zero effort, or if she still has a chance to be reelected then she exerts a higher reaction to an increase in β. A more difficult case to describe is when the traditional media are biased towards the incumbent. Let us study three different cases.

First, the reaction function of the traditional media users can be horizontal (see Figure 2). In this case it does not matter how much effort the incumbent puts in because her loyal media outlet always informs the public in a manner that is of benefit to the incumbent. The fraction $q(m)$ does not depend on effort level but on the persuasiveness of the media and the extent of a bias. The incumbent has a guaranteed share of the public that will vote for her, so she faces less uncertainty. Moreover, if $\gamma\beta\, p(e,m) > \frac{1}{2} - \gamma(1-\beta)q(m)$ then she is certain to be reelected and extracts zero effort. If $\gamma\beta\, p(e,m) < \frac{1}{2} - \gamma(1-\beta)q(m) - (1-\gamma)$ then she has no chance to be

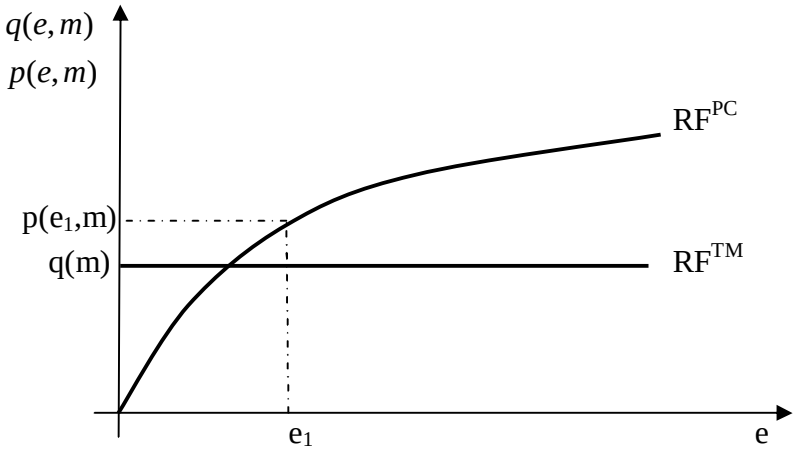

Figure 2. The reaction function of the traditional media users does not depend on the incumbent's effort level due to the traditional media bias towards the incumbent.

reelected[12]. Finally, if the incumbent finds herself in the interior solution then an increase in β will encourage her to exert more effort, and this effect will be greater than in the baseline model.

Second, the reaction function of the traditional media users can be shifted upwards (see Figure 3).

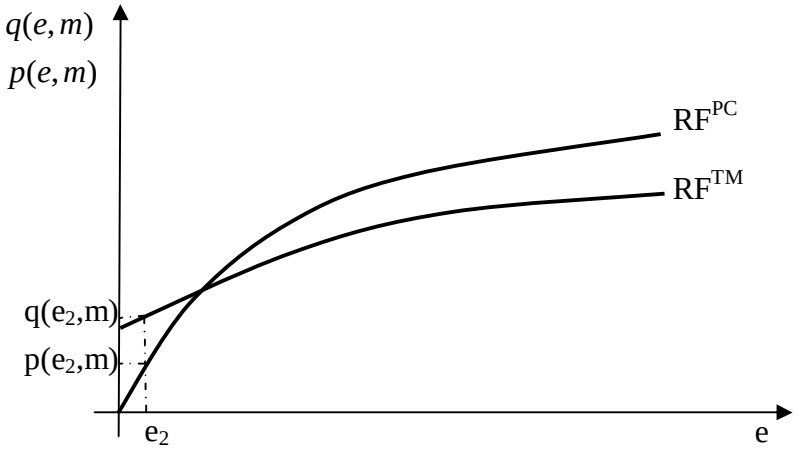

Figure 3. The reaction function of the traditional media users is shifted upwards as a result of the traditional media bias towards the incumbent.

[12] However, this is highly unlikely because then the incumbent probably would be better off if the media were not biased towards her; so, if the bias occurs then it is to such an extent that the incumbent has a chance to stay in power.

In this case, if we denote the size of upward shift by d then the incumbent is reelected if $\gamma s + (1-\gamma)\upsilon > \frac{1}{2} - \gamma(1-\beta)d$. So, the incumbent has a "bonus" $\gamma(1-\beta)d$ from the media bias. The "bonus" consists of three parts. One part comes solely from the extent of the media bias d. Another part, $1-\beta$, depends on the share of the media users who watch the public court. The smaller this share, the higher is the "bonus". The third part is the fraction of media users. The larger is the fraction of media users, the higher is the "bonus". The higher is the "bonus", the less likely that the incumbent will exert effort. If, however, the incumbent find herself in the interior solution then the baseline results hold, i.e., the incumbent's exerted effort is a positive function of the share of the public that watch the public court.

Finally, and less likely, the reaction function of the traditional media users can slope upwards to such an extent that its slope is higher than the reaction function of the public court viewers (see Figure 4).

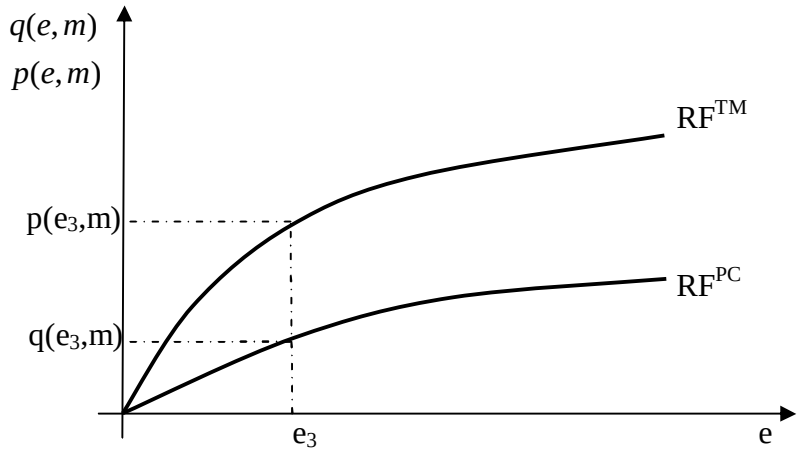

Figure 4. The reaction function of the traditional media users has a higher slope than the reaction function of the public court viewers due to the traditional media bias towards the incumbent.

If this is the case then the baseline model predicts that the higher the share of the public court viewers, β, the less effort will be exerted by the incumbent. This means that the public court is not desirable if the traditional media incline towards the incumbent in the fashion presented

in Figure 4. This statement stands against the intuition that the public court is good for political efficiency regardless of the political stance of traditional media. In order to cure this problem of the baseline model, I endogenize the fraction of the public that use media, γ. My argument is that the public likes a freedom of choice between different media. If the only media available to the public is the biased traditional media then the public is less keen to watch such news. Because the public court provides more objective information, the public shows more interest in news, and, thus, the fraction of the public that use media is likely to be a function of the existence and scale of the public court, i.e., $\gamma = f(\beta)$, $\gamma_\beta \geq 0$[13]. Under endogenized γ, the FOC for the incumbent becomes

$$\frac{\gamma(\beta)}{1-\gamma(\beta)}\left[\beta p_e(\tilde{e},m)+(1-\beta)q_e(\tilde{e},m)\right]\Omega_o = 1. \qquad (5`)$$

If the fraction of the public court viewers goes up, the ratio before the brackets in (5`) goes up, and the expression in the brackets goes down (because now $p_e(e,m) < q_e(e,m)$). Therefore, the result is unclear and depends on the shape of $\gamma(\beta)$ and the reaction curves:

$$\begin{aligned} &\text{if } \frac{\gamma_\beta}{(1-\gamma)^2} > q_e - p_e \text{ then } \beta\uparrow \Rightarrow \mathrm{e}\uparrow \\ &\text{if } \frac{\gamma_\beta}{(1-\gamma)^2} < q_e - p_e \text{ then } \beta\uparrow \Rightarrow \mathrm{e}\downarrow. \end{aligned} \qquad (6)$$

Intuitively, if more public court viewers increase the total share of media users sufficiently, then it is likely that the incumbent will react by exerting more effort. If, however, the media market is saturated so that $\gamma_\beta \approx 0$, it is more likely that the incumbent will decrease her effort level. In such a case, it is better to cope with the biased traditional media by increasing media outlets such that they increase media competition and reduce the traditional media bias.

[13] Similarly but less importantly for the current problem, it can be argued that γ is a function of number of media outlets, m.

In this section, I have shown that the existence of the public court might increase the effort of politicians when the traditional media are overall unbiased. Moreover, I have also shown that the result generally holds if the traditional media are politically biased. Still, in order to show that the public court is good for economic prosperity, I need to come up with one more type of evidence, i.e., that political efficiency increases economic prosperity. For this I am going to briefly discuss the empirical literature in this regard since it is a well established result by many authors.

IV. Political efficiency and economic prosperity

The literature about the effects of the political environment on economic prosperity is well developed and far too voluminous to summarize adequately. Here I mention a few of the most recognized empirical papers on this topic. However, since there is no such index as political efficiency out there, and since the number of indices that can be good proxies for political efficiency is limited, most empirical works take corruption and bureaucratic quality indices as the most frequent proxies for political (or governance) efficiency.

Mauro (1995, 1996) is one of the earliest attempts to empirically measure the impact of corruption on economic prosperity. Mauro (1995) runs cross-country OLS and IV regressions and provides tentative empirical evidence that corruption lowers investment and growth. However, due to several arguable approaches in the analysis and its conclusions, the results of the paper should be approached with caution. Mauro (1996) uses a larger data set than a year before. In addition, the author is more cautious about his results. He concludes that corruption may have considerable adverse effects on economic growth, largely by reducing private investment but also perhaps by worsening the composition of public expenditure.

Specifically, the paper gives some evidence on a negative and significant relationship between corruption and government expenditure on education.

Employing various indicators of institutional quality, including the pervasiveness of corruption and the risk of expropriation and contract repudiation, Knack and Keefer (1997) empirically show that the economic divergence of poor and rich countries has taken place because of different institutional environments of these groups of countries.

In addition to Mauro (1995, 1996) who finds that corruption reduces growth through lowering private investment, Tanzi and Davoodi (1997) find another way how corruption affects growth. They use cross-country OLS and find that higher political corruption decreases economic growth by increasing public investment, lowering government revenues and lowering the quality of public infrastructure. They argue that while corruption increases public investment, it decreases its productivity, since more corrupt governments tend to invest in large projects and forget about expenditures on operations and maintenance as well as on education and health; the latter results in deteriorating infrastructure, lower productivity and lower economic growth.

Rodrik (1998) analyze data for East Asia, runs IV estimation of growth on institutional quality index and finds that the latter explains well the growth differences among the East Asian countries.

Gupta et al. (1998) contributes to the literature by analyzing distributional effects. They use cross-country OLS and IV regression analysis for 1980-97 to demonstrate that high and rising corruption increases income inequality and poverty by reducing economic growth, the progressiveness of the tax system, the level and effectiveness of social spending, and the formation of human capital, and by perpetuating an unequal distribution of asset ownership and unequal access to education. The authors argue that these findings hold for countries with

different growth experiences, at different stages of development, and using various indices of corruption.

Hall and Jones (1999) study the relation between social infrastructure and output per worker. They argue that output per worker is more appropriate as a proxy of wealth than growth since growth is mostly a transitory phenomenon. Their proxy for social infrastructure is a simple average of law and order, bureaucratic quality, corruption, risk of expropriation and government repudiation of contracts indicators. Similarly to Tanzi and Davoodi (1997), they find that social infrastructure mainly causes change in output through productivity. The authors run OLS and IV estimations and conclude that differences in social infrastructure account for much of the difference in long-run economic performance throughout the world, as measured by output per worker.

In IV analysis of the cross-section of more than 150 countries from a newly available database, Kaufmann, Kraay and Zoido-Lobaton (1999) find that there is a strong causal relationship from better governance to better development outcomes such as higher per capita incomes, lower infant mortality, and higher literacy.

Chong and Calderon (2000), among other things, study the causality of different measures of corruption and bureaucratic quality, and economic growth. They find that the poorer country is, the higher the influence of those measures of institutional quality on growth.

Wei (2000) adds to the literature by studying the effect of corruption on international investors. His sample covers bilateral investment from twelve source countries and 45 host countries. He estimates a probability model by OLS and ML, and finds that a rise of corruption level in a host country reduces inward foreign direct investment.

Kaufmann and Kraay (2002) propose a new empirical strategy to estimate the causality between corruption and per capita income. They use international data to estimate the effect of governance on per capita income. The authors find both OLS and IV estimated coefficients

on government effectiveness and control of corruption significant. They conclude that there is a positive and significant effect from better governance to higher per capita incomes but vice versa is not true. That is, higher per capita income does not generate better governance.

Carmignani (2004) estimates single equations and systems of equations by GLS, SURE and IV, and finds that good institutions increase average income and growth as well as income of the poor. He constructs the governance variable as a simple average of government effectiveness, control of corruption, rule of law and regulatory burden indices. The results from the cross-sectional analysis show that the governance variable significantly and positively correlates with income, income of the poor, and growth, and negatively correlates with the Gini index of income inequality. The author contributes to the field by finding a nonlinear relationship between governance and distribution of income.

One of the recent papers is produced by Eicher and Leukert (2006) who examine the impact of economic institutions on economic performance across OECD and non-OECD subsamples using OLS and IV estimation methods. They define the economic institutions the same way Hall and Jones (1999) do. The authors find that the impact of institutions on income is three times greater for non-OECD countries compared to OECD countries.

To conclude from the empirical literature on the relation of the political effectiveness and economic prosperity, the overwhelming majority of the papers show that increasing the political effectiveness causes a rise in economic growth, per capita income for average and the poor.

V. Concluding remarks

This is possibly the first paper ever that tries to show that authoritative media is good for economic prosperity. In this paper I have described an institution that I call “the public court”

which is widely existent in the world but probably not acknowledged well enough by economists. I argued that this institution is important to discipline the politicians by giving them more incentives to extract effort. The whole structure of my argumentation lies in three blocks. First, I argued that the public court is in several aspects a better way of providing news to the public than the traditional media. Second, I used a simple model to demonstrate that more public court viewers increase political efficiency by increasing the effort of an opportunistic politician. Third, I gave a review of empirical literature on the relationship of political efficiency and economic prosperity. The literature convincingly shows that greater political efficiency induces higher economic growth, income level on average and for the poor. Thus, given the above evidences, I argue that the public court is good for economic prosperity and, thus, it needs to be supported by the public and the government in any country.

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