

Media Capture and Reputation*

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Abstract

Mass media is largely responsible for policy outcome in the sense that they provide most of the political information to the electorate, and thus affect the public opinion. Politicians especially in developing countries are therefore tempted to manipulate the media contents. I develop a theory of media capture in which the reputation of the media works as a restraint. The model shows that the media that can acquire accurate information is less likely to accept bribes or benefits.

1 Introduction

Bribing mass media is a prevalent phenomenon among developing countries. Kasoma (2009) describes the situation in Sub-Saharan Africa as following:

The amount of *ndalama yamatako* or *sol* (Zambian and Ghanaian name for monetary incentives usually enclosed in brown envelopes, respectively) depends on the type of event and a news source's financial disposition. On the low side, journalists get on average the equivalent of US\$7-\$10 per story assignment; a more generous offering would be in the region of US\$30-\$50 per story or assignment. Given that a journalist is, on average, assigned two stories a day the money they collect in brown envelopes by the end of the month outweighs their monthly salary.

One of the major sources of such bribes are known to be politicians, and the way of controlling the media contents may be subtler than bribes in many cases, such as paying for political advertising. Since most of the political information are communicated through mass media to the general voters, such misconduct can have an enormous effect to a nation's political outcome and thus social welfare. Thus it is of our interest to know when the media is more likely to accept benefits from politicians and communicate false information to the voters. The

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present paper attributes such form of media bias to the media's information unavailability by focusing on the role of reputation.

This paper develops a two-stage model of media capture in which the incumbent politician pays monetary incentives to the media outlet. Forms of this incentive can be direct or indirect in actual cases. There are two types of media: high, which never gets captured, and normal, which maximize monetary payoffs. The voters receive report about the incumbent type from the media in each period because they want to vote for a good politician in an election with an incumbent candidate and a challenger candidate, but incur certain costs when they do so. Both incumbent and challenger politicians can be either good or bad, and that information is ex-ante unknown to the voters. An incumbent thus want the media to report herself as good and so offers monetary incentives. Voters are rational Bayesians and understand that the media can be captured, but they do not know it for sure. They also know the true type of the incumbent in the end of each period, and so partially knows whether the media had told a lie. Completely the same thing is repeated in the second term, therefore the media faces a risk of decreasing the number of viewers in the second period when accepting bribes and conveying false information to the voters in the first period. In the model, even the media does not know for sure whether the incumbent is good or bad, but more accurate signals about the incumbent type to the media implies higher likelihood of voters detecting a lie. The main result of the model is that higher accuracy of signals to the media decreases the probability of media capture.

The model in this paper is close to several papers in the area of media capture. Besley and Prat (2006) proposed a simple model of media capture, in which the media reports the news about the performance of incumbent politicians, as in the current paper. My model is different from theirs in two respects. First, my model considers repeated games of which stage game is similar to their static game, and observes how the reputation of the media plays a role. Setting up the model this way, I am able to explicitly mention the link between signal accuracy and the probability of media capture. Second, my model assumes signals to be inaccurate even when the incumbent politician is good, whereas theirs assumes the signal of to be null when the incumbent is good. Petrova (2008) focuses on the effect of each countries' income inequality on the likelihood of media capture. In her model, the media firm reports the public goods productivity by the government, and the rich spend money to influence the media.

Reputation in the current paper is defined as a belief that the monitors hold about the type of the long-run player. Reputation defined this way is utilized in other fields of political economy as well. Morris (2001) is similar to my model in the sense that it considers the reputation of a political advisor in a two stage game, and the "bad advisor" tries to imitate the "good type" in the first period for reputational concern. Phelan (2006) considers such form of reputation of a government in an infinite period model, and shows betraying

occurs in an erratic manner. Perhaps the most closest to the current paper is Gentzkow and Shapiro (2006), which analyzes the relation between reputation and media bias. Their model defines reputation almost exactly the same way as in mine, i.e., the belief of viewers about the media being “the truthful type”. The largest difference between my model and theirs lies in the focus of the parameter analyzed in comparative statics. Their focus is on the probability of feedback, or in other words, the probability of media’s lie being revealed. On the other hand, my model focuses on the accuracy of information the media firm acquires.

Although not many, models of reputation defined as belief about the type of the player is also seen in financial literatures. Chemmanur and Paolo (1994) was the first, to my knowledge, to consider such reputation concern as a tool to impose discipline over investment banks. Mathis et al. (2009) analyzes the incentive of the rating companies, and concludes that reputational concern is not enough to prevent the credit rating agencies to inflate the ratings when most of their income comes from rating complex products. Financial intermediaries have the same structure as mass media in the sense that they also provide reports about hidden information of investment outlets to the customers and customers later know the true type of the investment outlets, just as media reports to the voters and voters later know the politicians’ types (or at least what they have done). The model provided below can thus easily be extended to that of the rating companies, and I will provide some explanation in section 5.

The plan of this paper is as following. The next section provides the model and the main analysis. Section 3 and 4 show the situations media reputation may work appropriately and anecdotal evidences respectively. Section 5 explores the implication of the model when applied to credit rating agencies. Section 6 concludes.

2 The Model

2.1 Setup

Consider a two stage game with $t = 0, 1$. In each period, a new incumbent and a challenger is drawn by nature, both of which can be either good ($\omega = G$) or bad ($\omega = B$). The probability of each politician being good is independent and given by $\gamma \in (0, 1)$. There is a continuum of individual voters in the economy and each of them vote for either politician in an election. The types of the politicians are ex ante unknown to the voters, but the incumbent type is revealed in the end of each period. This corresponds to the fact that policy outcome often takes time to come out, and so we are only able to infer incumbent ability after a certain amount of time. They receive utility of 1 when they notice that they had voted for a good incumbent, while they receive utility of zero otherwise.¹ They receive

¹This form of setup is somewhat different from the conventional way of defining voters. It can be modified in such a way that voters are concerned about the type of the incumbent

utility of γ if they vote for the challenger. The voters are rational Bayesians in the sense that they can correctly predict the probability of media capture and update their priors about incumbent ability and media type based on this information, according to the Bayes' rule. I assume that the voters indifferent between both politicians vote for the incumbent and the challenger with equal probability, $1/2$. Politicians elected in each period receive office holding benefit $a \geq 0$. Before election, voters can choose to receive signal about the incumbent ability from a monopolistic media. Each voter incurs cost c when they decide to receive the report from the media, and this cost is distributed according to a uniform distribution with range $[0, 1/\phi]$ (We assume $1/\phi \geq \gamma(1-\gamma)(2\mu-1)$ for calculational convenience). The monopolistic media can be either normal type or high type ($\theta = N, H$) and the prior probability of the media being high type is given by $\lambda_0 \in (0, 1)$. Both types of media receive signals ($\omega' = g, b$) of the incumbent ability with accuracy μ , i.e., $\text{Prob}(\omega' = g | \omega = G) = \text{Prob}(\omega' = b | \omega = B) = \mu$ and $\text{Prob}(\omega' = g | \omega = B) = \text{Prob}(\omega' = b | \omega = G) = 1 - \mu$. In order to guarantee that the signals convey at least some information, I assume $\mu > 1/2$. After receiving a signal, media reports this signal ($\hat{\omega} = \hat{g}, \hat{b}$) to the audience. Incumbent tries to suppress the bad signal by bribing whatever amount they like. Normal type media receiving a bad signal can choose to accept or reject a bribe offered, and when the media chooses to receive the bribe, it must report the incumbent as good. Normal type media with a good signal and High type media always report truthfully. The high type media can be considered as a media with very high psychological cost of accepting bribe. Although such "crazy type" agents are sometimes controversial in literature of reputation, it does seem to be plausible in this case since journalism ethics is valued heavily in any journalism education. The single period payoff of the normal type media is

$$U = (\text{measure of audience}) + (\text{amount of bribe}) \tag{1}$$

It maximizes the sum of the period payoffs.

2.2 Timing

The timing of events is as following.

1. New incumbent and new challenger is given exogenously.
2. Media receives signal of the incumbent ability.
3. Incumbent offers bribe to media with bad signal.
4. Media with bad signal decide whether to accept bribe.
5. Media reports.
6. Voters decide whether to receive report or not.

before election for other reasons.

7. Report recipients update their belief of incumbent ability.
8. Voters cast ballots.
9. Incumbent ability is revealed.
10. Report recipients update their belief of media type.
11. Updated belief of media type is notified to all voters.

2.3 Analysis

I characterize the equilibrium by backward induction. Our main focus is on the behavior of the normal type media in $t = 0$. In $t = 1$, the normal type media with bad signal accepts bribe with probability one since there is no punishment for lying. Given this fact, the voters decide whether to receive the signal from the media. In order to see exactly when the voters will receive report, we need the following fact.

Lemma 1. *For any media reputation $\lambda \in (0, 1)$, good-report recipients always vote for the incumbent and bad-report recipients always vote for the challenger.*

Proof. Let p be the probability of media capture in the current period. Then the the probability of the incumbent actually being good given a good report from a media with reputation λ is

$$\gamma(\hat{g}, \lambda) \equiv \frac{\gamma[\lambda\mu + (1 - \lambda)\{\mu + (1 - \mu)p\}]}{\gamma[\lambda\mu + (1 - \lambda)\{\mu + (1 - \mu)p\}] + (1 - \gamma)[\lambda(1 - \mu) + (1 - \lambda)\{(1 - \mu) + \mu p\}]} \quad (2)$$

This is strictly larger than γ if and only if $p(1 - \lambda) < 1$, which is obviously true. Similarly the probability of incumbent being bad given a good report is

$$\gamma(\hat{b}, \lambda) \equiv \frac{\gamma\{\lambda(1 - \mu) + (1 - \lambda)(1 - \mu)(1 - p)\}}{\gamma\{\lambda(1 - \mu) + (1 - \lambda)(1 - \mu)(1 - p)\} + (1 - \gamma)\{\lambda\mu + (1 - \lambda)\mu(1 - p)\}} \quad (3)$$

This is strictly smaller than γ if and only if $\mu > 1/2$, which is true by assumption. \square

The expected benefit without receiving the report is γ . Comparing this with the expected net benefit by receiving the report from a media with reputation λ_1 , voters receive the signal in period 1 if and only if

$$\text{Prob}(\hat{\omega} = \hat{g}) \cdot \gamma(\hat{g}, \lambda_1) + \text{Prob}(\hat{\omega} = \hat{b}) \cdot \gamma - c \geq \gamma \quad (4)$$

Since in period one, the probability of normal type being captured is one, the condition reduces to

$$\lambda_1 \gamma (1 - \gamma) (2\mu - 1) \geq c \quad (5)$$

Therefore, the measure of audience in period 1 is $\phi \lambda_1 \gamma (1 - \gamma) (2\mu - 1)$.

Now consider how media report changes media's reputation. There are four possible patterns of reputation in period 1, depending on its report and the revelation of the actual incumbent ability in period 0:

$$\lambda_1(\hat{b}, G) = \lambda_1(\hat{b}, B) = \frac{\lambda_0}{\lambda_0 + (1 - \lambda_0)(1 - p)} \equiv \lambda_1(\hat{b}) \quad (6)$$

$$\lambda_1(\hat{g}, G) = \frac{\lambda_0}{\lambda_0 + (1 - \lambda_0)(1 + \delta^{-1}p)} \quad (7)$$

$$\lambda_1(\hat{g}, B) = \frac{\lambda_0}{\lambda_0 + (1 - \lambda_0)(1 + \delta p)} \quad (8)$$

where $\delta \equiv \mu/(1 - \mu)$. Not surprisingly, $\lambda_1(\hat{b}) \geq \lambda_0 \geq \lambda_1(\hat{g}, G) \geq \lambda_1(\hat{g}, B)$ and strict inequality holds when $p > 0$. When the media receives bad signal, media itself does not know for sure whether the incumbent is good, and this means at the same time that the media is not sure whether it will acquire reputation $\lambda_1(\hat{g}, B)$ or $\lambda_1(\hat{g}, G)$ after accepting bribe. So the media that received a bad signal accepts bribe of amount k if and only if

$$\phi \left\{ \lambda_1(\hat{b}) - \frac{(1 - \gamma)\delta}{\gamma + (1 - \gamma)\delta} \lambda_1(\hat{g}, B) - \frac{\gamma}{\gamma + (1 - \gamma)\delta} \lambda_1(\hat{g}, G) \right\} \gamma (1 - \gamma) (2\mu - 1) \leq k \quad (9)$$

The left hand side of the above inequality is the threshold amount of bribe that the media accepts, and I denote this as \bar{k} .

The incumbent will always offer bribe of amount \bar{k} to the normal type media with bad signal, as long as it does not exceed a . This is the case since the incumbent will win for sure once the media reports the incumbent as good. The probability of media capture is characterized as following.

$$p = (0, 1] \quad \text{if and only if} \quad \bar{k} \leq a \quad (10)$$

$$p = 1 \quad \text{if} \quad \bar{k} < a \quad (11)$$

$$p \in (0, 1) \quad \text{only if} \quad \bar{k} = a \quad (12)$$

$$p = 0 \quad \text{if and only if} \quad \bar{k} > a \quad (13)$$

However, we see in the following proposition that the fourth case above never holds.

Proposition 1. *For any initial reputation $\lambda_0 \in (0, 1)$, equilibrium media capture probability in $t = 0$, p^* exists and is unique. Furthermore, when $\mu < 1$, $p^* \in (0, 1]$.*

Proof. The first part is easily seen by the fact that \bar{k} is increasing and continuous in p . As for the second part, suppose $p = 0$. Then $\lambda_1(\hat{b}) = \lambda_1(\hat{g}, G) = \lambda_1(\hat{g}, B) = \lambda_0$ and so $\bar{k} = 0$. This is a contradiction to (13). \square

The above proposition shows that it is impossible for the normal type media to reject bribe with probability one in the equilibrium when it cannot observe the incumbent ability for sure, even if the amount of bribe is very small. The intuitive reason for this is that as the normal type accepts bribe less frequently, the benefit from reporting truthfully decreases, because the action between the two types of media gets close and so the voters do not update their belief very largely. So increasing the probability of ethical action itself works as a disincentive to take such action. This implication is very different from that of Mailath and Samuelson (2001), in which there is an equilibrium where normal type firm always chooses high effort with probability one. The main reason for this is the asymmetry of the "crazy type". In their paper, they assume an existence of a firm that can only exert low effort, and so such effect as above does not appear.

2.4 Comparative Statics

The next step is to see what happens to p , the equilibrium probability of media capture in period 0, if the parameters of the model change. The next proposition establishes the link between information accuracy and media capture, which is the main result in the paper.

Proposition 2. *For any initial reputation $\lambda_0 \in (0, 1)$, equilibrium probability of media capture p^* is decreasing in μ if $p^* \in (0, 1)$ and $\mu \geq \gamma$.*

Proof.

$$\begin{aligned} \frac{\partial \bar{k}}{\partial \mu} = & 2\phi\gamma(1-\gamma) \left\{ \lambda_1(\hat{b}) - \frac{(1-\gamma)\delta}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, B) - \frac{\gamma}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, G) \right\} \\ & + \phi\gamma(1-\gamma) \frac{2\mu-1}{(2\mu-1)^2} \cdot \frac{\partial}{\partial \delta} \left\{ \lambda_1(\hat{b}) - \frac{(1-\gamma)\delta}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, B) - \frac{\gamma}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, G) \right\} \end{aligned} \quad (14)$$

Notice that

$$\begin{aligned} \frac{\partial}{\partial \delta} \left\{ \lambda_1(\hat{b}) - \frac{(1-\gamma)\delta}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, B) - \frac{\gamma}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, G) \right\} = \\ \frac{\zeta}{(\zeta+\delta)^2} \{ \lambda_1(\hat{g}, G) - \lambda_1(\hat{g}, B) \} + \frac{\lambda_0(1-\lambda_0)p}{\zeta+\delta} \left[\frac{\delta}{\{1+(1-\lambda_0)\delta p\}^2} - \frac{\zeta}{\{\delta+(1-\lambda_0)p\}^2} \right] \end{aligned} \quad (15)$$

where $\zeta \equiv \gamma(1 - \gamma)$. $\partial \bar{k} / \partial \mu$ is positive when $\delta \geq \zeta \Leftrightarrow \mu \geq \gamma$. By (12) and the fact that \bar{k} is increasing in p , the statement is shown. \square

The message of the proposition is that the probability of media capture decreases as information accuracy increases. There are two intuitive reasons for this. One is the direct effect. when μ is high, voters expect to receive a more accurate report from the high type, and the larger amount of audience in period one mitigates the temptation of the bribe. The other one is not as obvious. When μ is low and media is not too sure about the true ability of the incumbent, even the high type can make a mistake frequently. Therefore the audience cannot distinguish the type of the media for sure, and therefore they cannot revise the reputation so much, which is equivalent to less harsh punishment. In other words, the noise of the signal is making it harder for the viewers of the media to monitor it. The above argument may not hold when there are too many good incumbents, since a bad signal is likely to be a mistake and even if the media gets captured and report \hat{g} , it is likely to match the true ability G . The above result is different from the static model of Besley and Prat (2006), in which the probability of media capture is independent from the accuracy of the signals the media receives. We can also induce another minor result from the structure of \bar{k} :

Proposition 3. *For any initial reputation $\lambda_0 \in (0, 1)$, equilibrium probability of media capture p^* decreases as γ gets close to 1/2 if $p^* \in (0, 1)$.*

This means that when the uncertainty of politicians' types is large, media reports become more valuable, and so the amount of audience increases. This in turn reduces the temptation of bribery.

3 When Does Media Reputation Work?

One of the main conclusions in Besley and Prat (2006) was that media pluralism provides effective protection against capture. The reason is basically because the incumbent politician needs to suppress all of the media outlets in order to disguise the voters, and thus needs to offer more benefits. What is more, since every time the incumbent pays an outlet to suppress its information, the commercial revenue of other outlets goes up because they face less competition on the commercial side. This means that the incumbent needs to pay each of the outlets as if it were a monopolistic media. We now see when media reputation may have a stronger effect than media pluralism in imposing discipline over media reports.

3.1 Signal Accuracy

The accuracy of the signal media receives, as noted above, is one determinant of the power of reputation. Consider a situation, for example, where $\mu = 1$, i.e., the media knows the incumbent type for sure. In such case, $\lambda_1(\hat{g}, B) = 0$, which

means that lying will be detected with probability one, and the media will be identified as the normal type. This leads to a zero payoff in the second period. Therefore if the initial reputation λ_0 is large enough ($\phi\lambda_0\gamma(1-\gamma)(2\mu-1) > a$), the monopolistic media will not be captured with probability one. Because of Proposition 1, $\mu = 1$ is actually the only case where this holds. This shows that when the media are able to grasp the politicians' ability very precisely, even an opportunistic monopolistic media is able to tell the truth for sure.

3.2 Election Timing and Survival Probability

Although I did not explicitly incorporate any discounting in the model, this may serve an important role as a determinant of effectiveness of media reputation. Discount factor far from one may correspond to a democracy with small number of elections. In such a case, the media firm does not care much about the payoff in the second period, and is more likely to yield to the temptation of bribe in the first period.

Another interpretation of the discount factor is the survival probability of the media firm. When the media firm is very likely to continue its operation in the next period, the firm weighs the payoff in the second period heavily, decreasing the probability of capture. On the other hand, when the mass media industry is declining, the opposite may be true.

3.3 Feedback Probability

This paper has assumed that the incumbent ability will be revealed for sure in the end of the period. Gentzkow and Shapiro (2006) considers a case where the revelation probability is less than one. They have shown that in such cases, media bias deteriorates. Almost the same is true in my model, and the probability of media capture increases as feedback probability decreases.

To see this, consider a modification of the model as following. Instead of perfect revelation, we now assume that the incumbent type will be revealed only with probability ρ in the end of period one. When the incumbent ability was not revealed, the voters do not change their belief over media types. When the incumbent ability was revealed, the voters update their belief over media type as before. Under such circumstance, the media that received a bad signal accepts bribe of amount k if and only if

$$\begin{aligned} & \phi \left\{ \rho\lambda_1(\hat{b}) + (1-\rho)\lambda_0 \right\} \gamma(1-\gamma)(2\mu-1) \\ & \leq \phi \left[\rho \left\{ \frac{(1-\gamma)\delta}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, B) + \frac{\gamma}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, G) \right\} + (1-\rho)\lambda_0 \right] \gamma(1-\gamma)(2\mu-1) + k \end{aligned} \quad (16)$$

which is equivalent to

$$\phi \left\{ \lambda_1(\hat{b}) - \frac{(1-\gamma)\delta}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, B) - \frac{\gamma}{\gamma+(1-\gamma)\delta} \lambda_1(\hat{g}, G) \right\} \gamma(1-\gamma)(2\mu-1) \leq k/\rho$$

(17)

Compared with (13), we see that the probability of media capture is now higher.

Low feedback probability corresponds to the situation where voters cannot infer precisely the incumbent ability from the political outcome. This may happen because policy outcome takes too long to emerge and cannot distinguish which politician's achievement it was. When the feedback probability is too low, media reputation may not work properly as an effective deterrent.

4 Anecdotal Evidence

In the model, media with inaccurate information about incumbent type is shown to be vulnerable to the temptation of bribes. Such information accuracy may be a product of several factors, such as education in journalism schools, trainings in media firms, and transparency of the government. Here, I present examples of how these factors may have affected the media and journalists to be objective.

Tsetura and Grynko (2009) remarks that "journalists and public relations practitioners (in Ukraine) agreed that media nontransparency practices take place more often in the local and regional media rather than in the national media", and that the main reason for such inclination is the financial difficulties of local and regional media. They also mention that this is true in other countries, too, including China, Poland, and Russia. It is highly possible that the potential viewers and readers of regional and local media are low in numbers and they suffer from financial instability. However, the amount of bribes or benefits offered by the those who are trying to skew the local and regional media contents should also be low, and the reasoning in such way may not be so obvious. What I propose as a factor instead is the role of information gathering. It is quite likely that the national media employ more skilled journalists with more political information sources, and more well-trained editors who are able to discern valuable information. The national media may therefore be more competent in forming their own reputation than the local and regional media, and thus the lower probability of being captured.

Tsetsura (2005) provides another possible evidence on the role of accuracy of the information gathering. They conducted a research in Poland based on questionnaire distributed to 99 journalists, 90 marketing specialists and 98 public relations practitioners. One of the interesting facts was the curious relation between the perception towards payment from news sources and years of experience in the industry. The interviewees were asked whether they agree to the statement "In general, a practice which involves payments from news sources for media coverage is commonly acceptable in the local and regional media in Poland." Those who had between 5 and 10 years of experience reported higher tendency to agree or strongly agree with the statement (57 percent) than those

who had more than 10 years of experience (34 percent). Since journalists with more experience have more discretion and connections to the news source, this may at first seem counterintuitive. This can be explained by the fact that workers in media industry with more experience are likely to obtain more accurate information through their acquired skills. Since being in the industry longer means shorter future career, experienced journalists are likely to have less reputational concern. The effect of accurate information seems to surpass such countereffect in this case.

5 Application to Credit Ratings

Credit rating agencies are accused of contributing to the subprime crisis by having been deliberately too lax in the ratings of some structured products. Mathis et al. (2009) considers whether reputational concern is sufficient in order to discipline rating agencies in this aspect, by a model which is similar to this paper. The credit rating agencies in their model corresponds to the media in my model, the investors to the viewers, and the risk of financial products to the ability of politicians, respectively. The rating agencies may tell a lie about the risk of the financial products if its loss from a decrease in reputation is less than the transaction fee obtained by telling a lie that a bad product is good. Telling the truth can be a loss since the potential customer investors would not invest if they knew the product was bad, and the rating agencies would lose their immediate transaction fees. Their main implication suggests that when rating complex products becomes a major source of income for the rating agencies, reputational concern is always too lax with a positive probability and inflates ratings with probability one when the reputation of the agency is good enough. This is because they model the income of rating agencies as the sum of fixed income which is lost forever when they tell a lie and transaction fees obtained from rating complex products. When they decide whether to tell a lie, they compare the future gain by telling the truth and the immediate gain by telling a lie. Fixed income only concerns the future gain while transaction fee concerns both.

This paper suggests that the conclusion of Mathis et al. (2009) should be true, but maybe because of a different mechanism. According to my model, the increase in the amount of rating complex products should lead to deliberate inflating of the ratings, because it may have been difficult for the credit rating agencies to build their own reputation. Rating complex products is certainly harder than rating simple corporate bonds or firms, and so the increase in the amount of complex product is equivalent to the decrease in the accuracy of the signal the rating agencies receive. This makes it harder for the investors to distinguish whether the misrating has occurred because of the agency's lie or simply by mistake. This in turn mitigates the impact of reputation as a punishment.

6 Conclusion

The model in this paper presents a new factor of media capture. When the media can acquire only inaccurate information, the viewers cannot distinguish whether the misreport was a product of pure mistake or of misconduct. This, in turn, makes the voters harder to punish the media by assigning it a lower reputation, and thus a higher probability of media capture. Further, it is impossible for the media to reject bribe with probability one, unless they observe the incumbent politicians' ability perfectly.

The model in the paper can be extended in several ways. First, reputation can be considered in an infinite stage game and see how the reputation follows different paths, depending on the initial reputation and signal accuracy. Also, the model can be extended for the case of several media firms to see how the effect of media reputation alters under pluralism and competition. Finally, the model may be applied to financial intermediaries other than credit rating agencies.

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