The media plays an important role in modern democracies. For example, it provides a large proportion of the information with which policymakers and voters make decisions, as well as analysis and editorial content that may influence the conclusions reached by potential voters (see, for example, Walter Lippmann 1922).\footnote{1} Understandably, the possibility that there is bias in the media has worried economists, as well as many social and political commentators on both sides of the political spectrum (see, for example, Bernard Goldberg 2001 and Eric Alterman 2003). A recent literature has developed different measures of media bias and analyzed how they might behave in equilibrium. Beyond the possibility of ideological influences, some have worried that financial motivations of media companies might lead them to bias their content in exchange for advertisement or other type of transfers (see, for example, James Hamilton 2004; Jonathan Reuter and Eric Zitzewitz 2006). Given that in many settings the government is the largest advertiser in the media, this

We construct measures of the extent to which the four main newspapers in Argentina report government corruption on their front page during the period 1998–2007 and correlate them with government advertising. The correlation is negative. The size is considerable—a one standard deviation increase in monthly government advertising is associated with a reduction in the coverage of the government’s corruption scandals of 0.23 of a front page per month, or 18 percent of a standard deviation in coverage. The results are robust to the inclusion of newspaper, month, newspaper × president and individual-corruption scandal fixed effects, as well as newspaper × president specific time trends. (JEL D72, K42, L82, M37, O17)
possibility is particularly troublesome as there is evidence that the introduction of investigative reporters and mass media, at least in some cases, was associated with increased government accountability.2

In this paper, we focus on a particular aspect of the media, namely the relationship between front page coverage and monetary transfers. Specifically, we study daily newspaper coverage of corruption scandals involving the government across the four main newspapers in Argentina during the period 1998–2007. We also obtained the amount spent by the government on advertisement in each newspaper, each month. We find that there is a negative correlation between the amount of front page space devoted to coverage of corruption scandals and the amount of advertisement money paid to the newspaper each month. The size is large—a one standard deviation increase in government advertisement is associated with a reduction in coverage of corruption scandals of 0.23 of a cover per month, or 18 percent of a standard deviation in our measure of front page coverage. Our results are robust to the inclusion of newspaper and month fixed effects and of government-newspaper interactions, suggesting that within a particular newspaper, and during a particular government, adverse coverage is negatively correlated with government advertising. Although our paper is concerned with the simple patterns in the data (correlations) and does not provide a clear causal story, we note that such panel results reject a simple theory of bias whereby media (newspapers) that are close to the advertiser (government) give favorable coverage, and at the same time, friendly advertisers (governments) give more funds to media (newspapers) that are ideologically close, and none of it is motivated by material concerns. Similar results are obtained when using alternative measures of coverage that allow us to control for news event dummies (i.e., scandal fixed effects). Given that we have data on individual news events, we are able to study coverage of scandals using alternative measures of coverage, such as corruption stories that were broken by one newspaper (Scoops), the number of scandals the newspaper has not yet reported but that other newspapers already have (Hide), front page coverage of corruption scandals that were reported by just one newspaper (which we call Front Pages Incidents), and coverage regarding scandals that were widely reported (by at least two newspapers, which we call Front Pages Affaires). We also find that the correlation between government transfers and the reporting of corruption disappears when we focus on the coverage of scandals by nongovernment actors.

Our definition of bias is related to the measures derived in two recent influential papers. Tim Groseclose and Jeffrey Milyo (2005) focus on the possibility that some media outlets quote as source the same think tanks as partisan politicians, while Gentzkow and Shapiro (2010) compare media use of expressions associated with partisan politicians.3 Whereas these measures are (broadly) absolute, it is possible to calculate a measure of bias by examining the relative intensity with which they cover a specific issue. In our case, we calculate an average reporting of corruption (for example for a certain newspaper during a particular period of time), and observe

2 For example, Gentzkow, Edward L. Glaeser, and Claudia Goldin (2006) argue that the rise of the informative press was one of the reasons why the corruption of the Gilded Age was sharply reduced during the Progressive Era.

3 See Stephen Ansolabehere, Rebecca Lessem, and James M. Snyder, Jr. (2006) for work using explicit endorsements of newspapers in the United States and Matthew A. Baum and Phil Gussin (2008) for work on the subjective component of bias.
if newspaper reporting is different than this average when government advertising is relatively high. Thus, if all papers are equally biased, we do not detect it with our tests.

Previous work has focused on the correlates of media bias. For example, Valentino Larcinese, Riccardo Puglisi, and Snyder (2007) study how newspapers in the United States endorsing Democratic candidates systematically give more coverage to high unemployment when the incumbent president is a Republican. Thus, identification comes from comparing reporting on a common event across different newspapers, a similar empirical strategy to the one we follow. Two papers focusing on the effect of advertising on coverage are Reuter and Zitzewitz (2006) and Marco Gambaro and Puglisi (2009). Both papers study the extent to which the media biases its content to benefit private sector advertisers, a common claim in the popular press for which there was no systematic evidence (see, for example, Hamilton 2004). Reuter and Zitzewitz (2006), for example, find that mutual fund recommendations are correlated with past advertising in personal finance publications but not in national newspapers. They note that future returns are similar for mutual funds that are predicted to have been mentioned in the absence of bias, and conclude that the cost of bias is small. Finally, Puglisi and Snyder (2008) study the relative frequency with which newspapers cover scandals in the United States. They find that newspapers endorsing Democratic candidates tend to give more coverage to scandals involving Republicans (and vice versa).

Several authors have stressed the possibility of reduced accountability when governments influence the media (see, for example, Simeon Djankov et al. 2003; Aymo Brunetti and Beatrice Weder 2003; and Besley and Andrea Prat 2006). This can be particularly large in periods of political change (e.g., see Scott Gehlbach and Konstantin Sonin 2011 on postcommunist Russia and Ruben Durante and Brian Knight 2009 on Italy during Berlusconi). Such country studies reveal that governments use a variety of ways to influence the media, including the passing of favorable laws to media firms (or affiliated companies), threats of legal action against journalists, amongst others.

In Section I, we provide some background information on government interference in the media in Argentina and anecdotal evidence on the role of government transfers in the form of advertising. Section II discusses our data and how it was constructed, as well as our empirical strategy. Section III presents our main results, while Section IV offers a brief discussion. Section V concludes.

I. Institutional Background and Theoretical Interpretation

A. Institutional Background

Governments in Latin America have used different strategies to influence media content, and previous work has emphasized how these influences might generate biased coverage (see, for example, Marvin Alisky 1981, Taylor C. Boas 2005, Andrés Cañizález 2009, inter alia). Previous work by non-governmental organizations (NGOs) in Latin America and, in particular Argentina, documents many direct attacks on freedom of expression, including legal harassment of media firms and personal attacks against journalists (see, for example, Marcela Browne and Mariel Fitzpatrick 2004 and Asociación por los Derechos Civiles (ADC)/Justice Initiative...
The ADC/JI report also documents indirect forms of interference, such as access to privileged information and, in particular, financial pressure through withdrawal of public advertisement by the governments of many countries in Latin America. The case of Argentina is no exception. The report summarizes the situation in Argentina in 2003–2008 as follows:

The national government regularly abuses its advertising powers, including through excessive allocations to political favorites and denial of advertising in retaliation for critical coverage. Such abuses are even more marked at the local level, where media are, as a rule, more dependent on provincial and municipal advertising.

— (ADC/JI 2008, 14)

An earlier report focused exclusively on Argentina between April 2003 and August 2004, concludes:

We found an entrenched culture of pervasive abuse by provincial government officials who manipulate distribution of advertising for political and personal purposes ... The effects of such abuses are especially insidious when public sector advertising is critical to the financial survival of media outlets, as is common in many Argentine provinces such as Tierra del Fuego, where on average, print and other media outlets receive approximately 75 percent of their advertising income from government agencies. Provincial governments, in particular, routinely use their control of advertising resources as financial sticks or carrots, whether it is to bankrupt an annoying publication or to inappropriately influence content.

— (ADC/JI, 2005, 11)

The report documents several instances of full interruption of provincial government advertisement in critical newspapers (and, in one case, the simultaneous tripling of advertisement spending in a competitive newspaper). The federal government, unlike provincial governments, is legally required to use competitive bidding at some stage of the process, although this is rarely enforced. In September 2007, Argentina’s Supreme Court ruled that the provincial government of the Neuquén province violated the free speech rights of the Río Negro newspaper by withdrawing advertising in retaliation for critical coverage, while the province of Tierra del Fuego issued a decree reducing the discretion in the allocation of advertising contracts.

Although the relationship between newspapers and government might be assumed to be one that develops over a long period of time, the Río Negro case provides us with an example where the interaction occurred almost instantaneously. Indeed, the ADC/JI reports that:

The Río Negro case began in December 2002 when the paper covered a bribery scandal that implicated the then-governor of Neuquén Jorge

4 In a recent case, an unprecedented number of tax inspectors (over 200) were sent to investigate tax and accounting violations at Clarín the day after Clarín reported on a corruption scandal at the tax authority. See Clarín, September 11, 2009, as well as the three other newspapers in our sample on that day.

5 “The actual contracting of advertising for most agencies is done by the government’s news agency, Télam, which uses no competitive process whatsoever.” ADC/JI (2005)
Sobisch, and the province withdrew nearly all advertising from the paper. That month, Río Negro published a series of articles on this scandal. According to Río Negro’s constitutional petition, the government began a drastic reduction of its advertising in the Río Negro that same month.

— (ADC/JI 2005, 42)

While we focus on government advertising, financial pressure can be exerted through several different channels. A newspaper’s financial position can be affected by government rules and regulations and their enforcement, for example concerning commercial distribution. The position of the owners can also be affected, either directly (particularly when they are indebted) or indirectly (particularly when they have other large business interests). Examples of this strategy are observed in Argentina during our sample period. For example, an article in the The Economist (2006) contrasts national and provincial media and reports:

The national media are less dependent on public advertising, but have received other favours. The government has been particularly kind to the Clarín Group, Argentina’s largest media conglomerate. After the devaluation of the peso in 2002, the group—like many other Argentine companies—defaulted on its dollar debts. When its creditors threatened to take it over, Congress passed a law capping any foreigners’ stake in “cultural goods” at 30 percent. The government has also extended for ten years the group’s cable-television licenses. Perhaps not surprisingly, Clarín, Argentina’s biggest-selling daily has tended to back the government.

Finally, it is unclear how independent from the public sector is private advertising in Argentina. A large part of what is typically included under private sector advertising is undertaken by firms with close ties to the government. In many cases this is direct, as is the case with state-owned firms. Although in principle this could be measured, such an approach is complicated by the fact that the government has minority positions in several large companies (such as the company owning the main airport concession). In other cases, companies are privately owned (fully), yet their business is heavily affected by government decisions on tariffs (such as public utilities), or on regulations (such as banks, pension administrators, and other financial institutions). In Argentina in 2005, the secretary of media (Enrique Albistur) explained that a magazine that was particularly critical of the Kirchner government (Noticias) was to receive no government advertising as a result of a “political decision” (see ADC/JI 2008). After they sued the government for discrimination, the editor noted that private ads fell to half of their original volume, while the circulation of its publication grew steadily. Indeed, one of the characteristics of small developing countries is the relatively large influence of the government on business.6

B. Theoretical Discussion

Two broad theories suggest coverage and transfers might be correlated. The first, which can be called “affinity,” proposes that governments provide more transfers to media outlets that are perceived to be close to the government, perhaps on ideological grounds; and, at the same time, the media which is closer to the government gives smaller coverage to negative news about the government. One characteristic of this theory is that it does not necessarily imply an exchange (quid pro quo), and can be expected to change only as affinity changes (for example, it is unreasonable to expect many changes in true affinity during a presidency).

The second theory, which can be called “collusive,” focuses on hiding scandals (or their importance) from the public. The main idea is that each scandal, if reported by a particular newspaper, has an associated cost to the government, which may depend on the characteristics of the scandal and of the newspaper’s readership base. And distorting coverage has a cost to newspapers in terms of reduced circulation (which might also have varying costs). Thus, other things equal, a “collusive” equilibrium can be maintained if a large transfer from the government to a newspaper is associated with a large distortion in coverage (the size of the corruption report in the front page is small). Note that the building block of the model is the appearance of scandals, which mark the reactions of both the government (in terms of transfers) and the newspapers (in terms of salience). This leads (potentially) to high frequency variation (there are on average 0.86 scandals per month). Of course, there are many simplifications in this account, but the main point is that there exist collusive arrangements, which benefit the newspaper and the government (but hurt consumers), where there is a negative correlation between transfers and coverage that can change with the arrival of new scandals (that can be detected at high frequency). A very simple, illustrative model is presented in the Appendix.

II. Data and Empirical Strategy

A. Data

We develop several measures of the intensity of coverage of government corruption scandals by the newspapers in our sample. The simplest measure is Front Pages, the total space in the front page of a newspaper devoted to reporting on corruption scandals involving the current federal government. Specifically, we focused on the four main newspapers in Argentina (Clarín, La Nación, Página 12, and Ámbito Financiero), which represent 74 percent of the total circulation of national newspapers in Argentina and are the core of the non-yellow press sector. Two of them have lower circulation and are clearly at opposite ends of the political spectrum: Página 12 on the left, with relatively large coverage of themes related to human rights violations, particularly under the military dictatorship; and Ámbito Financiero on the right end of the spectrum, with ample coverage of financial news. The other two

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7 This approach is simple and has been used previously (at least broadly; see, for example, Noam Chomsky and Edward S. Herman 1988 and Mimi Yu 2008).
newspapers have wider circulation (approximately 10 times more, on average, on
a given day), and are at the political center, with Clarín, somewhat to the left of
La Nación, but we note that radio and TV shows reproduce (in some form) the content
of these newspapers, so the true influence of these newspapers is not proportional
to their circulation. For each day in our sample period, and for each newspaper, a
research assistant measured the area covered by any front page article that dealt with
any corruption scandal that involved members of the current national administration
(e.g., the president or the ministers) and then divided it by the total area of the front
page. Our approach involves two steps. In the first step, we use content analysis to
select reports involving corruption scandals of the government. In the second step,
we simply measure the area occupied by this scandal on the front page (see Puglisi
and Snyder 2008 for a discussion). This daily measure, which oscillates between
0 and 1, can then be aggregated up to a monthly measure to create Front Pages
(which oscillates between 0 and 30). Figure 1 shows the front page of one day and
illustrates how Front Pages is constructed. Appendix Table A1 describes the top 20
scandals in our sample according to front page space. The number one scandal is the
accusation that government officials bribed a group of senators in exchange for their
legislative support in the year 2000. It occupied the equivalent of 50.6 front pages
during the corresponding presidency (Fernando de la Rúa’s). This number comfort-
ably exceeds those of other scandals.

We also developed measures of corruption coverage that exploited information
on individual scandals. The research assistant first separated all articles that had a
reference to the government’s corruption, and then grouped them according to the
different scandals to which they made reference, often using the judicial investi-
gation to which they gave rise. For example, if two articles referred to the same
corruption trial, they were then clustered as involving the same scandal. The judi-
cial aspect was also useful in separating corruption scandals (e.g., bribes, money
laundrying) from stories that simply portrayed the administration in an unflattering
light (e.g., unemployment, economic crisis). There are 101 different scandals in
our database that appear in 970 front pages. The raw data on individual scandals
(presented in Figure 2, panel A) reveals that over 50 of them were reported in only
one newspaper. It is possible to construct two simple measures of the speed with
which newspapers break negative news for the government. The first is Scoops,
the total number of corruption scandals of the current administration first reported
by each newspaper per month. Given that a large proportion of scandals are first
reported by one newspaper, with only later the others following, Scoops is then
a measure of how dynamic is the newspaper. A related measure is Hide, the total
number of corruption scandals of the current administration already reported by at
least one newspaper that have not yet been reported by each newspaper per month.

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8 In several early morning and late night television shows the main headlines of these newspapers are read, often
with similar amount of time given to each newspaper.

9 We did not include scandals involving members of the Armed Forces or the Federal Police. Regarding the
type of offense, note that 39 percent of the front page space was devoted to scandals involving bribes, 18 percent
embezzlement, 12 percent arms trafficking, 7 percent money laundering, 7 percent murder, 6 percent statistical
legerdemain, and 3 percent to scandals involving fraud. The remaining categories accounted for less than 9 percent.

10 Figure 2A shows how many scandals were reported by one, two, three, or the four newspapers.
We can also exploit the data on individual scandals using a measure similar to Front Pages, but considering only the space of the front page devoted to an individual corruption scandal (Figure 1 also illustrates how Front Pages Scandal is constructed). Thus, Front Pages Scandal is the total amount of space in the front pages of the month devoted to covering a particular corruption scandal of the current administration.
administration. Several corruption scandals are covered each month and the intensity with which each of these is covered varies across newspapers.

Our measure of influence by the government is Government Advertising, the total spending per month on advertising in each newspaper by the government, in millions of pesos in the year 2000. Government spending on the four main newspapers (which are the ones covered in this paper) for 2003–2004 was of a similar magnitude to spending on television stations (and approximately 10 times more than

Figure 2. Properties of Coverage of Corruption Scandals and Advertising by the Government

Notes: The top panel reveals that the majority of scandals were mentioned by only one newspaper. The bottom panel reveals that few advertising campaigns included ads in all four newspapers.
on radio) (see ADC/JI 2005, 116). ADC/JI estimated that government advertising represented 29 percent of total advertising for Página 12 on April 2004. This same figure was below 5 percent for Clarín and La Nación (there is no data for Ambito), although in order to arrive at convincing absolute numbers representing the influence of the government one might need to include advertising by heavily regulated private companies (as noted above). Table A2 includes information regarding the 20 most expensive advertising campaigns over the 2000–2007 period. We observe that government advertisement covers a wide range of activities, which include requests for bids on government contracts, public announcements, the promotion of government accomplishments, and even political statements. In addition, Figure 2, panel B reveals that it is extremely rare for the government to publish a specific advertisement in all four newspapers. In fact, this happened for less than 500 out of the 5,313 advertising campaigns in the 2000–2007 period.

Most contracting by the government in the advertising area is handled by Telam, the national government’s news agency, which reports directly to the president’s office. Government agencies make a request to Telam, which then decides where to place the ads. The legal framework for the placement of ads by Telam (basically a collection of government decrees) is “complex and ambiguous,” allowing complete discretion by government officials who regularly avoid the use of competitive bidding, often using explicitly the argument of urgency (ADC/JI 2005).

The data we use on government spending on advertising was obtained from Fundación Poder Ciudadano, an Argentine NGO that, in turn, obtained it from the government’s Secretaría de Medios de Comunicación de la Nación after a formal application process. This NGO is quite influential in Argentina, and its involvement provides some reassurance that the data is high quality. The series starts in January 2000, but given that we have data on coverage from April 1998, we constructed a measure of government advertising ourselves in order to extend our data on government advertising back two years (until April 1998). We did this in two steps. First, we randomly took two days each month and manually measured (with a digital camera) the total space taken up by government advertising in each of the four newspapers (in the full edition). We constructed the measure for three overlapping months (January, February, and March 2000) so as to be able to convert space (in centimeters) to a peso measure of government advertising.

Figure 3 presents the raw data on total corruption coverage per month (Front Pages) and total spending on advertising by the government per month (Government Advertising). Vertical lines separate the four presidencies: Carlos S. Menem until December 1999, followed by Fernando De La Rua until early January 2002, Eduardo A. Duhalde until May 25, 2003, and Néstor C. Kirchner until December 2007. It can be observed that newspapers report relatively more corruption scandals in the early

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11 Figure 2, panel B shows how many advertising campaigns included ads in one, two, three, or the four newspapers.

12 For example, the data can withstand a formal auditing process. Founded in 1989, this NGO has focused on government transparency and became the Latin American Chapter for Transparency International when the latter was launched in the mid 1990s. It has organized presidential debates on the topic (for example in 1999), has promoted legal actions against the government, and has organized national campaigns to bring about change in specific areas.
and later part of the sample period, with the lowest number of scandals reported during the middle of the sample (the Duhaldé presidency and early part of the Kirchner presidency). It is also apparent that government advertising goes up over time. One possible explanation is the stronger fiscal position of the government following the 2001 crisis. The relative changes in government advertising were broadly in proportion to the ideological proximity between the government and the newspaper (see also footnote 27 below). The Economist magazine summarizes the general view:

*One of the government’s tools is money. The robust recovery in Argentina’s economy since its collapse of 2001–02 has boosted tax revenues. That has brought an eightfold increase in the real value of the federal publicity budget (to $46m in 2006) since Mr Kirchner took office in 2003. Argentine governments have a long tradition of funneling official advertising to sympathetic media and withholding it from others.*

—The Economist 2006

B. Empirical Strategy

We start by estimating an OLS regression of the form

$Front Pages_{mj} = \alpha Government Advertising_{mj} + \theta_j + \phi_m + \mu_{mj},$

where $Front Pages$ is the total amount of front page space devoted to covering corruption scandals of the current administration in month $m$, in newspaper $j$; $Government Advertising$ is the amount of money spent by the government on advertising in month $m$ and in newspaper $j$; while $\theta$ is a newspaper dummy; $\phi$ is a month dummy, and $\mu$ is an error term. The summary statistics for all variables used in our study are reported in Appendix Table A3, where we also report in detail the exact
definitions of all the variables. We study other specifications, including one which adds newspaper-president interactions dummies. In all the regressions included in the paper, we use Newey-West standard errors to allow for autocorrelation and heteroskedasticity.

A second approach exploits information on the individual scandals. The first is similar to the specification above, but instead uses Scoops, Hide, Front Pages Incidents, or Front Pages Affaires as the dependent variable. The second is an OLS regression of the form

\[ \text{Front Pages Scandal}_{sjm} = \alpha \text{Government Advertising}_{mj} + \theta_j \]

\[ + \phi_m + \lambda_i + \omega_{smj}, \]

where \text{Front Pages Scandal} is the total amount of front page space devoted to covering corruption scandal \( s \) of the current administration in month \( m \), in newspaper \( j \); \( \lambda \) is a scandal fixed effect, and \( \omega \) is an error term. We also include other specifications, including one that adds to the above equation different dummies for each different newspaper under each president.

While we do not have a direct measure of coverage distortion, we rely on the relative intensity with which newspapers cover corruption scandals. Also, note that our measure of government influence is restricted to financial influence and leaves out a large array of other strategies that range from physical intimidation to access to information (see Section IA). Note further, that within financial influence, we focus on one narrow activity—namely government advertising—while Section IA mentions several other forms of financial influence for which we have anecdotal evidence (at least), including ownership laws, which have in fact been used in Argentina involving the newspapers in our sample. We do not have a lot of information about the co-movements in these other measures of influence and government advertising. These alternative measures are unlikely to be perfectly correlated and/or there may be some substitution between alternative forms of influence (the standard errors may be too large and there may be a downward bias in the point estimate of \( \alpha \) in the two equations above).

Three theoretical predictions can be made with respect to \( \alpha \), the main parameter of interest. The benchmark is \( \alpha = 0 \), which occurs when the media is independent and reports are uncorrelated with government advertising.

One alternative is \( \alpha < 0 \). On the one hand, a negative correlation could indicate that the media is “motivated” by money and tilts reporting to favor the government.

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13 Similar results are obtained if we use the logarithm of government advertising. On the need to include time effects as newspaper content has changed during the digital age, see, for example, Pablo J. Boczkowski and Martin De Santos (2007). On matching in commercial advertising, see Bharat Anand and Roni Shachar (2004).

14 Similar results are obtained if we use Prais-Winsten standard errors. Through the paper we allowed one lag in the Newey-West standard errors, but we note that the results in general do not change if we use two or three lags (for example, the main estimates in Table 1 remain unchanged).

15 The strategies (and their effectiveness) differ by country. For example, differential access to information is frequently observed in Latin America, in part because laws granting access have stalled during our sample period. For example in Argentina, a freedom of information bill supported by press groups died in Congress in 2005. Changes introduced by the Senate required those requesting information to explain their reasons, to file an application similar to an affidavit, and, in some cases, to pay a fee. See Committee to Protect Journalists (2006).
in exchange for government advertising. In the theory section, we provide a possible interpretation for a negative alpha: a newspaper and the government might collude to prevent information from reaching consumers. Indeed, when a corruption scandal breaks, a newspaper (government) that reduces its coverage (increases transfers) but receives a sufficiently large government transfer (reduced coverage) might prefer to remain in this collusive agreement instead of reverting to noncooperation.

On the other hand, there are alternative explanations that could also explain a negative correlation. For instance, there is the possibility that \( \alpha \) is identifying a different relationship as outlined by previous work in this literature. Firms (or governments in our case) of a particular type may direct advertising toward particular media to reach particular readers without expecting a quid pro quo from the latter; and the media of particular type may appreciate and, hence, give particular coverage to these firms (or governments) (see, for example, Reuter and Zitzewitz 2006 and, in particular, Anand and Shachar 2004). Fortunately, our dataset is sufficiently rich as to allow us to include government-newspaper interaction fixed effects that filter out such sources of potential bias (an ideological proximity fixed effect). One further possibility exists. The bias outlined above may operate at the level of particular news events. In that case, we have the possibility of including government-newspaper-scandal fixed effects.

Nevertheless, there exist other explanations that we cannot rule out. For example, the government might simply prefer not to place its ads next to corruption stories. Or we can imagine a situation where government advertising is "crowded out" by private advertising when circulation increases as a consequence of the coverage of corruption stories.

An alternative is \( \alpha > 0 \), which at first sight might seem strange from the point of view of economic incentives; higher transfers go to the newspapers that give wider coverage to corruption scandals. However, a positive correlation could exist if relative coverage results to be a poor predictor of coverage distortion. For example, we would expect to find a positive \( \alpha \) if somehow newspapers with relatively more coverage are also the ones with larger coverage distortions.

### III. Results

#### A. Main Estimates

In Table 1, we present our basic set of estimates, which use *Front Pages*, the total coverage of (any) corruption scandal, per month per newspaper. We present a simple specification, including only our measure of government transfers, as well as a set of newspaper and month fixed effects, as there aren’t many measurable and plausible confounding sources of variation. In column 1 we find that the coefficient on Government Advertising is negative and significant at the 1 percent level, indicating that coverage of corruption scandals by newspapers is relatively low when government spending on advertising is relatively high. Column 2 adds a set of newspaper...
The coefficient on government advertising in column 2 is negative and significant at the 1 percent level, suggesting that even within a certain newspaper and president regime, reporting of government corruption occupies less front page space when government advertising is relatively generous. It is worth noting that the coefficient drops to half of its value after including the interaction dummies. This result suggests that the ideological proximity between government and newspaper is also a factor in explaining both the distribution of advertising and the reporting of corruption scandals (see also the discussion regarding Figures 5 and 6).

In order to get some sense of the size of the correlation, we note that a 1 standard deviation increase in government advertising (0.26 million pesos of 2000) is associated with a reduction in coverage of corruption scandals in the month by 0.23 of a front page, or 18 percent of a standard deviation in Front pages.17

Further tests suggest that these findings are robust. While the next subsection explores this in more depth, here we anticipate one simple result adding a time trend for each newspaper-president pair. The time trend consists of a linear function over the number of months the government has been in office, which is then interacted with the 16 newspaper-president dummies (similar results are obtained with a quadratic time trend). The coefficient of interest in column 3 is again negative and significant at the 10 percent level.

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17 By adding an interaction variable between advertising and ideological distance to the column 2 specification, it is possible to explore if the correlation is stronger or weaker for opposed newspapers and presidents. The ideological distance variable is created by using the location of presidents and newspapers in the ideological spectrum employed for Figures 5 and 6 (discussed below). The coefficient on advertising does not change (−1.00 standard error 0.32) and the interaction variable is not significant (0.25 standard error 0.18).
B. Robustness I: Residuals and Timing

Figure 4 plots the residuals of Government Advertising and Front Pages after regressing both variables on newspaper and month dummies. Focusing on these residuals allows for an easier comparison of the data as the large month and newspaper fixed effects otherwise overshadow the within variation in Front Pages and Government Advertising. It is noticeable from the data that government advertising within a newspaper changes even within a presidential period. For example, we observe that government spending on Clarín plummets during the middle of the Kirchner administration. Note that in our sample, a one standard deviation in Government Advertising within the 16 presidential-newspaper units is 0.17, similar to the between standard deviation (the overall standard deviation is 0.26). Newspapers also change their reporting over time within a presidency (for example, Ambito tends to report less corruption in its front page during the middle of de la Rúa government).

Figures 5 and 6 present the average values of the residuals of Government Advertising and Front Pages for each of the 16 newspaper-president units. These figures provide information on the low-frequency correlation between advertising and coverage. As previously mentioned there would be little controversy in locating Página 12 and Ambito on opposite ends of the political spectrum. While Página 12 devotes an important fraction...
of its content to human rights, Ámbito grants more weight to financial news.\textsuperscript{18} We also locate Menem on the right end of the political spectrum and Kirchner on the left.\textsuperscript{19}

\textsuperscript{18} We can use the space devoted to the coverage of human rights abuses under the military dictatorship as a proxy to the ideological position of the newspaper. This ranking leaves Página 12 on the left end, Clarín to the left of La Nación, and Ámbito on the right end of the spectrum. The number of front pages devoted to the coverage of these crimes during our sample was: Página 12 = 53.91, Clarín = 13.5, La Nación = 7.51, and Ámbito Financiero = 2.61.

\textsuperscript{19} We can locate the presidencies on the left-right spectrum using the Property Rights Index developed by the Heritage Foundation and the Wall Street Journal. Argentina registers the following mean values for the Property...
The Kirchner and Menem presidencies—situated on opposite ends of the ideological spectrum—are always on different hemispheres and almost equidistant from the zero line (Figure 5). When the Menem administration favors one newspaper in the distribution of advertising, the Kirchner presidency tends to do the opposite. Clearly, ideological proximity between newspaper and president is associated with increased advertising. A similar pattern emerges when we focus on the coverage of corruption scandals by the newspapers. Those presidents favored by Ámbito are punished by Página 12 and vice versa (Figure 6). Moreover, as we move from the left to the right of the figure—and also on the ideological spectrum—Ámbito decreases coverage and Página 12 increases it. As we observed with advertising, ideological proximity is also connected with decreased corruption coverage. It is unsurprising then that, as we observe in the regression results, the low frequency correlation accounts for half of the correlation between advertising and coverage.

We now return to the correlation that operates at high frequency (within the president-newspaper units). Figure 7 presents the scatter plot of the residuals of Front Pages and Government Advertising after regressing these variables not only on newspaper and month fixed effects, as we did for Figures 4–6, but also on dummies for each of the 16 newspaper-president pairs. The scatter plot displays a negative relationship. Figure 8 labels these points by newspaper (Figure 8, panel A) or

Notes: On the y-axis we have the residuals of a regression of Front Pages on newspaper, month, and newspaper-president dummies. On the x-axis we have the residuals of a regression of Government Advertising on newspaper, month, and newspaper-president dummies.

Rights Index during the last presidencies: Kirchner = 30, Duhalde = 40, De la Rúa = 60, and Menem = 70. This would leave Kirchner on the left end, Duhalde to the left of De la Rúa, and Menem on the right end of the spectrum.
president (Figure 8, panel B). The fitted line is negative and significant when we focus on the points associated with Ámbito ($-2.04$ standard error 0.75, 116 points) and Clarín ($-0.45$ standard error 0.20, 117 points) and negative and not significant for La Nación ($-0.20$ standard error 0.45, 116 points) and Página 12 ($-0.95$ standard error 0.84, 117 points). These results suggest that the correlation is higher for newspapers with low circulation numbers (although the difference is statistically significant only for Ámbito). Meanwhile, the fitted line is negative and significant when we focus on the points associated with Kirchner ($-0.84$ standard error 0.14, 220 points) and negative and not significant for De la Rúa ($-3.69$ standard error 3.25, 96 points), Menem ($-0.40$ standard error 2.11, 82 points), and Duhalde ($-0.12$ standard error 0.67, 68 points). Note the small number of observations for the presidencies before Kirchner.
To address concerns regarding the possibility that the main correlation is driven by one specific episode, we proceed to study what happens in the original scatter plot (Figure 7) when we take out the points for particular newspaper-president combinations one at a time. While the fitted line remains always negative and significant at the 10 percent level in each of the 16 graphs, the slope experiences some changes during the Kirchner presidency. Indeed, while it does not really change much during the first three presidencies (the 12 coefficients vary between $-0.76$ and $-0.93$, all significant at the 1 percent level), the slope does change when we move to exclude data from the Kirchner period: from a low $-0.53$ (standard error 0.32, 411 points) when we exclude Ámbito to a high $-1.24$ (standard error 0.40, 411 points) when we exclude Clarín.

We can also study the timing of the main estimates in the paper. The first column in Table 2, for example, explores the timing by including a lagged measure of Government Advertising in the basic specification (column 2 in Table 1). The coefficient on lagged Government Advertising is negative but insignificant, while the coefficient on the current level is marginally smaller and significant at the 10 percent level. It is also possible that the advertising-coverage connection takes place at a lower frequency. To provide a partial evaluation of this possibility in columns 2–4, we run the basic specification using longer lags. Although the large standard errors do not allow for more precise conclusions, the data do not suggest that our use of specifications with current levels in Table 1 is obviously wrong.

### Table 2—Robustness: Lagged Government Advertising and Lagged Front Page Coverage

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Pages$_{t-1}$</td>
<td>0.426***</td>
<td>(0.114)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Advertising</td>
<td>$-0.791^*$</td>
<td>(0.490)</td>
<td>$-0.989^*$</td>
<td>(0.532)</td>
<td>$-0.970^*$</td>
</tr>
<tr>
<td>Government Advertising$_{t-1}$</td>
<td>$-0.096$</td>
<td>(0.329)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Advertising$_{t-1-i}$</td>
<td>0.076</td>
<td>(0.198)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Advertising$_{t-1-i-2}$</td>
<td>0.040</td>
<td>(0.141)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Advertising$_{t-1-i-3}$</td>
<td>$-0.003$</td>
<td>(0.112)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.64</td>
<td>0.65</td>
<td>0.64</td>
<td>0.64</td>
<td>0.71</td>
</tr>
<tr>
<td>Observations</td>
<td>460</td>
<td>454</td>
<td>448</td>
<td>442</td>
<td>462</td>
</tr>
<tr>
<td>Maximum number of months</td>
<td>116</td>
<td>115</td>
<td>114</td>
<td>113</td>
<td>117</td>
</tr>
<tr>
<td>Maximum number of newspapers</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Notes: Each column is a separate OLS regression (Newey-West standard errors in parenthesis). The dependent variable is Front Pages, the number of front pages devoted to corruption in each newspaper in a month. Government Advertising is the amount of money spent on advertising by the government in each newspaper each month, in millions of 2000 pesos. Government Advertising$_{t-1-i}$ takes the value of Government Advertising in the previous $i$ months. Front Pages$_{t-1}$ takes the value of Front Pages in the previous month. All regressions include newspaper, month, and newspaper-president interactions fixed effects.

***Significant at the 1 percent level.

*Significant at the 10 percent level.
Column 5 in Table 2 includes a measure of lagged coverage. It reveals that the autoregressive component is not particularly large (it is smaller than a half). The main coefficient on Government Advertising is negative and significant at the 10 percent level, suggesting that after controlling for previous coverage, current coverage is negatively correlated with current Government Advertising.

Finally, Table 3 investigates the correlation between government transfers and coverage of scandals by nongovernment actors. Our database contains coverage of scandals in which trade unions, the police, the church, or a group of low-income (and often unemployed) individuals were involved. There are 162 scandals involving these groups, which are covered in the front page 807 times. The correlations reported in Table 3 are statistically insignificant, suggesting that not all coverage of scandals is negatively correlated with government transfers.

C. Robustness II: Measures of Coverage using Data on Individual Scandals

We can further explore the robustness of our findings exploiting the fact that we have information on individual scandals, which allows us to develop different measures of coverage.

Table 4 separates front page coverage of corruption scandals that were reported by just one newspaper (which we call, somewhat arbitrarily, Front Pages Incidents) from coverage regarding scandals that were widely reported (by at least two newspapers, which we call Front Pages Affaires). The coefficient on Incidents is negative and significant at the 5 percent level in column 1 and at the 10 percent level in column 2. Meanwhile, the coefficients on Affaires are both negative and significant at the 1 percent level, with a somewhat larger point estimate. The correlation we detect

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Table 3—Front Page Coverage of Corruption Scandals by Other Actors (the Police, the Church, and Unions) and Government Advertising

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Advertising</td>
<td>0.011</td>
<td>-0.204</td>
</tr>
<tr>
<td></td>
<td>(0.167)</td>
<td>(0.223)</td>
</tr>
<tr>
<td>Fixed effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newspaper</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Month</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Newspaper × president</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.46</td>
<td>0.49</td>
</tr>
<tr>
<td>Observations</td>
<td>466</td>
<td>466</td>
</tr>
<tr>
<td>Maximum number of months</td>
<td>117</td>
<td>117</td>
</tr>
<tr>
<td>Maximum number of newspapers</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Notes: Each column is a separate OLS regression (Newey-West standard errors in parenthesis). The dependent variable is Front Pages Other, the number of front pages devoted to scandals by members of the Police, the Church, and the Trade Unions in each newspaper in a month. Government Advertising is the amount of money spent on advertising by the government in each newspaper each month, in millions of 2000 pesos.

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20 This group known as “piqueteros” has become a mildly important social actor in Argentina (often acting as a trade union of the unemployed). We do not include scandals perpetrated by Federal Police members.
between coverage and advertising appears to reflect by and large the reporting of the most important scandals.\textsuperscript{21}

Table 5 reports results using \textit{Front Pages Scandal}, the total number of front pages of a newspaper in one month accounted by coverage of a specific scandal. This variable is defined for each scandal in a particular newspaper and month. Note that \textit{Government Advertising}, however, is defined at the monthly level by newspaper. Columns 1–3 include the same set of fixed effects as Table 1 and are therefore incorporated mainly for reference. The correlation drops to a third of its value after including the president-newspaper interaction. To see the size of the effect, note that the coefficient on regression (4), which controls for scandal fixed effects, is \(-0.020\). This suggests that an increase in \textit{Government Advertising} of one standard deviation is associated with a decrease in coverage of a particular scandal of 2 percent of a standard deviation in the \textit{Front Pages Scandal} variable. Note that in regression (5), which also controls for newspaper-scandals interactions, the coefficient is significant at the 13 percent level.

Table 6 looks at measures of the speed of reporting. \textit{Scoops} is the number of corruption stories that were first reported by a newspaper each month. \textit{Hide} counts the number of corruption scandals already reported by some other newspaper but not

\textsuperscript{21}The illustrative model included in the Appendix predicts a larger bias (transfers) to arise when the scandal is bigger, which represents a possible explanation for these results.
yet reported by this newspaper.\footnote{We do not find a robust and significant association between our measures of coverage (Scoops and Hide) and Government Advertising. This result suggests that the correlation between government advertising and the reporting of corruption is not driven by the decision concerning when to first report a scandal but by the amount of space devoted to its treatment over time. In the next

\footnotetext{We also experimented with other definitions of Hide and reached similar conclusions. For example, similar results are obtained if we define the variable only for scandals that were reported by at least two papers.}
section we study the relationship between reporting of corruption and newspaper readership, which provides a possible explanation for this result.

IV. Discussion

One remaining question concerns the costs to newspapers arising from biased coverage. An important paper on this topic is Besley and Prat (2006), who present a model where the government can pay a media outlet to suppress a story. They assume that only verifiable information gets to be printed, so there are no equilibria in which the government bribes some outlets but not others. We note that the alternative assumptions of readers consuming only one publication (see, for example, Sendhil Mullainathan and Andrei Shleifer 2005) and of pieces of news that are non-verifiable (see, for example, Anand, Di Tella, and Alexander Galetovic 2007) are also attractive. Moreover, rational consumers of the media might become more certain about an event widely reported and some “impressionable” consumers may think a piece of news is more likely to be true when it is repeated (i.e., even when it is clear that it is the same report; on message repetition see, for example, Richard E. Petty and John T. Cacioppo 1981).

Unfortunately, we do not have sufficient data for a full investigation of this issue. We do, however, have some data on circulation for the two main newspapers (Clarín and La Nación). These two have a much wider circulation than the other two newspapers in our sample so, financially, the issue is particularly relevant for these two publications. Table 7 presents the correlation between circulation and Front Pages, Scoops, or Hide. The three specifications suggest that there is a positive and statistically significant relationship between circulation and corruption coverage. Using the coefficients in column 2 and 3 in Table 7, we note that not releasing a scoop or hiding a scandal for four months is associated with approximately 0.78 million fewer papers sold. The coefficient in column 1 points out that a 0.43 decrease in Front Pages is associated with a similar reduction in circulation. Note that 80 percent of our scandals take up less than 0.43 of a front page. It is possible that this explains the weak relationship between Government Advertising and Scoops or Hide documented in Table 6. Newspapers may be prone to decrease the number of front pages and space devoted to a corruption scandal by the government, but due to a higher readership loss, they may be hesitant to delay the reporting of a scandal.

23 See, for example, Gentzkow and Shapiro (2008) who discuss the deliberations prior to the Supreme Court’s decision in New York Times Co. v. United States (403 US 713 [1971]) regarding the futility of government injunctions against publication of items already revealed by one newspaper.

24 On the reputational costs of biased coverage, see Gentzkow and Shapiro (2006). Recent work on media bias includes Matthew Ellman and Fabrizio Germano (2009) and Andrea Blasco, Paolo Pin, and Francesco Sobbrio (2011). We do not review work in communications, although several authors have also emphasized the possibility of bias arising from a desire to keep access to sources of information in developed countries (e.g., W. Lance Bennett 1990).

25 The average circulation in the first half of 2007 of Clarín and La Nación is 284,000 copies per day versus approximately 20,000 for Página 12; estimates from ADC/JI (2008). Our source for Clarín and La Nación is the Instituto Verificador de Circulaciones. Self-reported data on daily circulation is typically higher (for example, Página 12 claims 97,000, whereas Ambito declares 85,000).

26 Note that these amounts are relatively large since average monthly circulation for Clarín in our sample is 13.54 million, and for La Nación is 5.06 million.
A back-of-the-envelope calculation suggests that even with large circulation costs, newspapers might still engage in the kind of transfer-for-coverage mechanism that we have outlined. In order to perform this analysis, we make a leap and assume the correlations found in the previous tables represent, in fact, causal effects. Then a transfer of 1.15 million pesos as government Advertising would produce one fewer Front pages per month. Also, one fewer Front pages translates, given an average price of a daily edition in our sample of 1.15 pesos, into 2.07 million pesos fewer in circulation revenue in the month. While this figure is clearly above the 1.15 million pesos received in government Advertising, the difference could be offset with hypothetical costs (e.g., printing) equivalent to 0.51 pesos per paper (0.51 = 1.15 - 1.15/1.8).

Of course, the media should be extremely unhappy about a regime with the characteristics we describe, as it involves biasing coverage for financial gain. Indeed, we collected evidence of several instances of journalist complaints concerning the regime with discrentional government transfers (dressed as advertising). Consider, as just one example, an editorial published in Clarín entitled “Abuses with Public Advertising.” It complains that the practice of public advertising has been transformed into a means of providing carrots and sticks in exchange for favorable coverage.

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Table 7—Newspaper Circulation and Coverage of Corruption

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Pages</td>
<td>1.808***</td>
<td>0.787**</td>
<td>-0.207***</td>
</tr>
<tr>
<td></td>
<td>(0.290)</td>
<td>(0.318)</td>
<td>(0.044)</td>
</tr>
<tr>
<td>Scoops</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newspaper</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Month</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.94</td>
<td>0.92</td>
<td>0.93</td>
</tr>
<tr>
<td>Observations</td>
<td>234</td>
<td>234</td>
<td>234</td>
</tr>
<tr>
<td>Maximum number of months</td>
<td>117</td>
<td>117</td>
<td>117</td>
</tr>
<tr>
<td>Maximum number of newspapers</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Notes: Each column is a separate OLS regression (Newey-West standard errors in parenthesis). The dependent variable is Newspaper Circulation, the number of copies sold by each newspaper in a month, in millions. Front Pages is the number of front pages devoted to corruption in each newspaper in a month. Scoops is the number of corruption scandals first reported by each newspaper per month. Hide is the number of “hides” (defined as a corruption scandal that has already been reported by other newspapers but is not yet reported by newspaper i) per month.

***Significant at the 1 percent level.
**Significant at the 5 percent level.

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27 While we do not provide a causal interpretation of our estimates, we note that we can construct a variable interacting the government’s revenue level and the government-newspaper ideological proximity variable (created using the location of presidents and newspapers in the ideological spectrum employed for Figures 5 and 6). This new (interaction) variable has a negative and significant correlation with Government Advertising. Using the government’s fiscal position times ideological distance as an “instrument” for Government Advertising, we find that the coefficient in column 2 in Table 1 is negative and significant (−2.02 standard error 0.91). Additionally, Granger tests support the notion that the government is the one that leads; when we have Front Pages as dependent variable the $F$-values for both Front Pages and Government Advertising lags are significant, while this is true only for the Government Advertising lags when we have Government Advertising as the dependent variable (we used 1, 2, and 3 lags).
coverage, and that there are “no objective parameters governing the distribution of public advertising nor adequate controls over the way money budgeted for this use is actually spent.”

We do not offer any further interpretation of our findings, except to note that several authors have argued that profit motives of media companies’ compromise coverage, that we have presented evidence consistent with such “motivated coverage” in the presence of government transfers, and that this has several possible implications for our understanding of the role of media firms. For example, our findings suggest that media firms may influence the formation of beliefs, as argued (broadly) by Chomsky and Herman (1988) who emphasize that for-profit media must cater to advertisers to stay in business. This is consistent with the results of Reuter and Zitzewitz (2006) discussed above concerning biased investment recommendations. The evidence presented in this paper concerns the size and timing of coverage, which is a priori less serious from the point of view of an individual’s financial standing, but which may affect the reader’s political positions. One possible channel is through its influence on the salience of particular pieces of news and the extent of priming on these negative (from the government’s perspective) pieces of news. In the Argentine context, Di Tella, Sebastián Galiani, and Ernesto Schargrodsky (2008) study how priming, of the type that appear in the media coverage studied in this paper, influence political beliefs. Specifically, they note that groups treated with a news report (i.e., that are asked to read a newspaper report with negative comments on the water privatization made by the president which are demonstrably untrue) hold more negative beliefs about the privatization of the water services. Of course, hard measures of coverage (such as size and timing) might also be correlated with other dimensions of coverage, such as framing, which can have a more sizeable influence on beliefs (see, for example, Robert M. Entman 1989). Indeed, if framing and editorial content also prove to be sensitive to public funding, media bias might help explain broader changes in beliefs. For example, economists who are puzzled by the popular backlash against market reforms in Argentina after the 2002 crisis might note that these took place during a period when the government both moved to the left, and increased considerably spending on advertisement

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28 See, “Abusos con la Publicidad Oficial,” Editorial, Clarín, 22 de Julio, 2009. See also, “La Publicidad Oficial como Censura,” La Nación, 14 de Abril, 2007. Of course such rhetorical evidence should be interpreted with caution. While several proposals to reform the system have been discussed, we note that the problems outlined in the paper can be avoided and the stated objectives of the program (“to provide information on the acts of government”) can still be achieved by removing discretion in the allocation of funds. For example, by fixing the amount going to each media outlet, or by allowing funding to depend on some predetermined formula (for example, based on historical data on circulation).

29 Given their focus on financial returns they can derive a cost to readers from following the biased recommendations of the publications under study. They note that future returns are similar for mentioned and not mentioned funds, and conclude that the cost of bias to readers is small. In our case, the costs include a financial cost of bias to the newspaper in terms of circulation, a “moral” cost to journalists from engaging in distortions, and to the reader in terms of biased information.

30 The news report used in that study was originally published in Clarín in 2005, which is covered in our sample. The importance of beliefs in the determination of economic systems has been emphasized by several authors (see, for example, Thomas Piketty 1995, Roland Bénabou and Jean Tirole, 2011, inter alia). There is also growing evidence on the variability of beliefs across groups and over time (see, for example, Alberto Alesina, Glaeser, and Bruce Sacerdote 2001; Di Tella, Galiani, and Schargrodsky 2007; and Paola Giuliano and Antonio Spilimbergo 2009).
in the media. Finally, note also that we can detect reduced coverage but not if coverage is eliminated.

V. Conclusions

The media is potentially important in exercising control over abusive government, particularly in countries with high levels of corruption and weak legal systems. Accordingly, governments often try to influence the media through actions that range from outright censorship and intimidation, to favors and transfers. In this paper we provide a description of one aspect of the connection between the media and the government in Argentina 1998–2007, namely that concerned with monetary transfers to newspapers and their coverage of negative news events.

We focus on coverage of government corruption scandals in the front page of the main four newspapers in the country. Advantages of focusing on corruption include that news events can be clearly classified as favorable or unfavorable to the government (independently of its political color), and that it is a topic that appears with relative frequency in the front page, with substantial variation in the amount of space devoted to it, both over time and across newspapers. Thus, the proportion of the front page occupied by the report on the current government’s corruption gives one measure of the intensity of negative coverage (per day per newspaper) that can be aggregated at the monthly level. We also have monthly data on government transfers to each newspaper as compensation for public advertising, so we can estimate the correlation between transfers of money and front page space devoted to coverage of corruption scandals. The main estimate is negative and significant, even after controlling for newspaper and month fixed effects. The same result is observed in several other specifications. For example, the negative correlation survives the inclusion of president-newspaper interaction dummies, although the key coefficient is halved, suggesting that proximity, perhaps in terms of ideology, between government and newspaper plays an important role. Nevertheless, the size of the correlation continues to be considerable even after controlling for president-newspaper interactions. A one standard deviation increase in monthly government advertising (0.26 million pesos of 2000) is associated with a reduction in the coverage given to government corruption scandals by 0.23 of a cover, or 18 percent of a standard deviation in our measure of front page coverage.

We also construct several measures of coverage exploiting information at the scandal level, something that allows us to present a broader picture of how the government’s discreional advertising regime is associated with biased coverage. These measures include Incidents (coverage of scandals that were reported by just one newspaper), Affaires (coverage of scandals that were reported by at least two newspapers), Scoops (scandals broken by the newspaper), and Hide (which counts the number of scandals already reported by some other newspaper but not yet reported by the newspaper). We also can provide a measure of the extent to which biased coverage is costly to newspapers in terms of reduced circulation for about half our sample.

Overall, our findings are consistent with a situation where newspapers and the government collude, exchanging biased reporting (in favor of the government) for
transfers of money (to the newspapers), without prohibitively large financial costs arising from reduced newspaper circulation.

APPENDIX: DATA, VARIABLE DEFINITIONS, AND ILLUSTRATIVE MODEL

A. Description of the Data

Table A1—Top 20 Corruption Scandals According to Front Page Space (1998–2007)

<table>
<thead>
<tr>
<th>Alleged scandal</th>
<th>Alleged offense</th>
<th>Presidency</th>
<th>Front pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bribes to Senators to pass labor law</td>
<td>Bribes</td>
<td>De la Rua</td>
<td>30.6</td>
</tr>
<tr>
<td>Arms trafficking to Croatia</td>
<td>Arms trafficking</td>
<td>Menem</td>
<td>26.6</td>
</tr>
<tr>
<td>Bribes (IBM–Banco Nacion)</td>
<td>Bribes</td>
<td>Menem</td>
<td>21.2</td>
</tr>
<tr>
<td>INDEC misreporting inflation</td>
<td>Statistical legerdemain</td>
<td>Kirchner</td>
<td>12.4</td>
</tr>
<tr>
<td>Murder of reporter (Cabezas)</td>
<td>Murder</td>
<td>Menem</td>
<td>12.2</td>
</tr>
<tr>
<td>Bribes (Skanska)</td>
<td>Bribes</td>
<td>Kirchner</td>
<td>11.2</td>
</tr>
<tr>
<td>María Julia Alsogaray corruption scandal</td>
<td>Embezzlement</td>
<td>Menem</td>
<td>9.4</td>
</tr>
<tr>
<td>Antonini Wilson scandal</td>
<td>Money laundering</td>
<td>Kirchner</td>
<td>7.8</td>
</tr>
<tr>
<td>Bag with money in Miceli’s office</td>
<td>Money laundering</td>
<td>Kirchner</td>
<td>6.8</td>
</tr>
<tr>
<td>Corach and the distribution of ATNs</td>
<td>Embezzlement</td>
<td>Menem</td>
<td>6.2</td>
</tr>
<tr>
<td>Banco Mendoza debt forgiving</td>
<td>Embezzlement</td>
<td>Menem</td>
<td>4.2</td>
</tr>
<tr>
<td>Inmates illegally allowed to spend time out of jail</td>
<td>Theft</td>
<td>De la Rua</td>
<td>3.7</td>
</tr>
<tr>
<td>Special pensions for public servants</td>
<td>Embezzlement</td>
<td>Menem</td>
<td>3.2</td>
</tr>
<tr>
<td>Daniel Variza accident</td>
<td>Murder attempt</td>
<td>Kirchner</td>
<td>2.9</td>
</tr>
<tr>
<td>Phone tapping</td>
<td>Extortion</td>
<td>Menem</td>
<td>2.6</td>
</tr>
<tr>
<td>Miceli and the Grupo Greco</td>
<td>Fraud</td>
<td>Kirchner</td>
<td>2.5</td>
</tr>
<tr>
<td>Illicit enrichment Menem</td>
<td>Illicit enrichment</td>
<td>Menem</td>
<td>2.4</td>
</tr>
<tr>
<td>AFIP investigates Pedro Pou’s company</td>
<td>Embezzlement</td>
<td>Menem</td>
<td>2.3</td>
</tr>
<tr>
<td>Yabran’s connection to Menem</td>
<td>Conspiracy</td>
<td>Menem</td>
<td>2.2</td>
</tr>
<tr>
<td>Ocaña talks about bribes in PAMI</td>
<td>Bribes</td>
<td>Kirchner</td>
<td>2.0</td>
</tr>
</tbody>
</table>

B. Description of the Variables

Front Pages.—The total amount of space in the front pages, in a particular newspaper and in a particular month, devoted to covering corruption scandals of the current administration. The unit is the number of front pages (0 to 30). Source: Authors’ calculation.

Government Advertising.—Total spending per month on advertising in each newspaper by the government, in millions of pesos of the year 2000. Source: Fundación Poder Ciudadano.

Front Pages Other.—The total amount of space in the front pages, in a particular newspaper and in a particular month, devoted to covering scandals by trade unions, the police, the church and the “piqueteros” (group of low-income and unemployed workers). The unit is the number of front pages (0 to 30). Source: Authors’ calculation.

Front Pages Scandal.—The total amount of space in the front pages, in a particular newspaper and in a particular month, devoted to covering a particular corruption scandal of the current administration. The unit is the number of front pages (0 to 30). Source: Authors’ calculation.
Table A2—Top 20 Government Advertising Campaigns According to Total Spending (2000–2007)

<table>
<thead>
<tr>
<th>Organism Type</th>
<th>Title</th>
<th>Month</th>
<th>Total spending</th>
<th>Number of appearances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Economy</td>
<td>Bond exchange</td>
<td>Jan-05</td>
<td>0.69</td>
<td>21</td>
</tr>
<tr>
<td>National Bank</td>
<td>Institutional</td>
<td>Dec-04</td>
<td>0.50</td>
<td>27</td>
</tr>
<tr>
<td>Minister of Federal Planning and Public Utilities</td>
<td>Public works</td>
<td>Sep-04</td>
<td>0.40</td>
<td>11</td>
</tr>
<tr>
<td>Ministry of Economy</td>
<td>Central wholesale fruit and vegetable market</td>
<td>Feb-07</td>
<td>0.40</td>
<td>10</td>
</tr>
<tr>
<td>Ministry of Economy</td>
<td>Central wholesale fruit and vegetable market</td>
<td>Mar-07</td>
<td>0.40</td>
<td>12</td>
</tr>
<tr>
<td>Ministry of Economy</td>
<td>Central wholesale fruit and vegetable market</td>
<td>Apr-07</td>
<td>0.40</td>
<td>12</td>
</tr>
<tr>
<td>Ministry of Economy</td>
<td>Fruit and vegetables</td>
<td>Jan-07</td>
<td>0.32</td>
<td>13</td>
</tr>
<tr>
<td>Presidency</td>
<td>First year in office</td>
<td>May-04</td>
<td>0.31</td>
<td>13</td>
</tr>
<tr>
<td>Minister of Labor, Employment and Social Security</td>
<td>Reduction in under the counter jobs</td>
<td>Mar-07</td>
<td>0.31</td>
<td>12</td>
</tr>
<tr>
<td>Minister of Federal Planning and Public Utilities</td>
<td>Road construction</td>
<td>May-05</td>
<td>0.30</td>
<td>5</td>
</tr>
<tr>
<td>Minister of the Provinces</td>
<td>Safety</td>
<td>Apr-04</td>
<td>0.29</td>
<td>8</td>
</tr>
<tr>
<td>Minister of Federal Planning and Public Utilities</td>
<td>First 30 days in office</td>
<td>Jun-03</td>
<td>0.28</td>
<td>4</td>
</tr>
<tr>
<td>Ministry of Education</td>
<td>House construction</td>
<td>Sep-04</td>
<td>0.27</td>
<td>7</td>
</tr>
<tr>
<td>Secretary of Culture</td>
<td>Law of Education</td>
<td>Sep-05</td>
<td>0.26</td>
<td>9</td>
</tr>
<tr>
<td>Social Security Institute</td>
<td>Medical services</td>
<td>Nov-04</td>
<td>0.26</td>
<td>20</td>
</tr>
<tr>
<td>Agency for the Control of Highways Concessions</td>
<td>Highway</td>
<td>Jul-06</td>
<td>0.25</td>
<td>8</td>
</tr>
<tr>
<td>Federal Administration of Public Income</td>
<td>Tax education</td>
<td>Mar-04</td>
<td>0.24</td>
<td>1</td>
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<tr>
<td>Presidency</td>
<td>Protests organized by farm unions</td>
<td>Dec-06</td>
<td>0.23</td>
<td>10</td>
</tr>
<tr>
<td>Secretary of Culture</td>
<td>Credits</td>
<td>Apr-00</td>
<td>0.23</td>
<td>7</td>
</tr>
</tbody>
</table>

Note: Total spending is in millions of pesos of the year 2000.

Front Pages Incidents.—The total amount of space in the front pages, in a particular newspaper and in a particular month, devoted to covering corruption scandals of the current administration that were reported by only one newspaper. The unit is the number of front pages (0 to 30). Source: Authors’ calculation.

Front Pages Affaires.—The total amount of space in the front pages, in a particular newspaper and in a particular month, devoted to covering corruption scandals of the current administration that were reported by two or more newspapers. The unit is the number of front pages (0 to 30). Source: Authors’ calculation.

Scoops.—The total number of corruption scandals of the current administration first reported by each newspaper per month. Source: Author’s calculation.

Hide.—The total number of corruption scandals of the current administration already reported by at least one newspaper that have not yet been reported by each newspaper per month. Source: Authors’ calculation.
Circulation.—Number of editions per month sold by the newspaper, in millions. Source: Instituto Verificador de Circulaciones.

C. An Illustrative Model

As an illustration, consider a simple collusion model between the newspaper and the government (excluding consumers). The building block of the model is the appearance of scandals. Each period, these can appear at three different levels, \( s^* = \{0,1,2\} \), each with probability \( 1/3 \). The level of scandal is common knowledge to the newspaper and the government. In each period, the newspaper observes a scandal level \( s^* \), then publishes a scandal report \( s \in [0,2] \), and the government pays the newspaper a transfer \( g_t \geq 0 \). The per period utilities of government and news media given transfers \( g \) and scandal report \( s \), are

\[
\begin{align*}
u_G &= -g - s^2 \\
u_N &= g - (s^* - s)^2.
\end{align*}
\]

Note: All variable definitions are contained in the Appendix.
Both players discount the future at a rate $\delta$. The unique stage game Nash equilibrium in a stage with scandal $s^*$ is $(g, s) = (0, s^*)$ so that the discounted utility if players play Nash forever is:

$$\bar{U}_G = -\sum_{t=0}^{\infty} \delta^t \frac{5}{3} = -\frac{5}{3} \frac{1}{1 - \delta}$$

$$\bar{U}_N = 0.$$ 

The efficient outcome (with symmetric weights) is to maximize $u_G + u_N$, which yields $s = s^*/2$. The continuation value of the equilibrium that maintains the efficient outcome for the newspaper is given by

$$E_N = \frac{1}{1 - \delta} \left( \frac{g_0 - 0}{3} + \frac{g_1 - 1/4}{3} + \frac{g_2 - 1}{3} \right)$$

$$= \frac{g_0 + g_1 + g_2}{3(1 - \delta)} - \frac{5}{12(1 - \delta)}.$$ 

For the government we have:

$$E_G = \frac{1}{1 - \delta} \left( \frac{-g_0 - 0}{3} + \frac{-g_1 - 1/4}{3} + \frac{-g_2 - 1}{3} \right)$$

$$= -\frac{g_0 + g_1 + g_2}{3(1 - \delta)} - \frac{5}{12(1 - \delta)}.$$ 

In order to maintain the efficient outcome as an equilibrium of the repeated game, when the punishment is Nash reversion, transfers must satisfy the following newspaper incentive constraints: $u_N(s = 1|s^* = 1) \leq u_N(s = 1/2|s^* = 1)$ and $u_N(s = 2|s^* = 2) \leq u_N(s = 1|s^* = 2)$. The government incentive constraints that must be satisfied are $u_G(g = 0|s^* = 1) \leq u_G(g_1|s^* = 1)$ and $u_G(g = 0|s^* = 2) \leq u_G(g_2|s^* = 2)$.

So, if we pick any $\delta \geq 6/11$, we obtain that both intervals are nonempty:

$$\frac{2\delta + 3}{4} \leq \delta g_0 + (3 - 2\delta)g_1 + \delta g_2 \leq \frac{15}{4} \delta$$

$$\frac{12 - 7\delta}{4} \leq \delta g_0 + \delta g_1 + (3 - 2\delta)g_2 \leq \frac{15}{4} \delta.$$ 

We only need to pick $g_0$, $g_1$, and $g_2$ in those ranges. In particular, for $\delta = 2/3$, the transfers $g_0 = 0$, $g_1 = 1/2$, and $g_2 = 1$ sustain an equilibrium, where the distortion $(s^* - s)$ and the transfer are positively correlated. Of course there are other equilibria, so perhaps the main message of the model is that even in this extremely simple
collusion setup it is possible to have the expected correlation between changes in transfers and changes in coverage driven by the appearance of scandals.31

REFERENCES


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31 Some simple variations could account for the patterns in the data. For example, assuming a given scandal (or piece of news) brings about different costs to the government depending on which newspaper publishes it (perhaps an interaction between the topic/intensity of the scandal and the ideology of the readers) yields the expected cross-sectional variation.


