WHO OWNS THE MEDIA?*

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Abstract

We examine the patterns of media ownership in 97 countries around the world. We find that almost universally the largest media firms are owned by the government or by private families. Government ownership is more pervasive in broadcasting than in the printed media. We then examine two theories of government ownership of the media: the public interest (Pigouvian) theory, according to which government ownership cures market failures, and the public choice theory, according to which government ownership undermines political and economic freedom. The data support the second theory.

I. Introduction

In modern economies and societies, the availability of information is central to better decision making by voters, consumers, and investors.[1] Much of that information is provided by the media, including newspapers, television, and radio, which collect information and make it available to the public. A crucial question, then, is how the media should be optimally organized. Should newspapers or television channels be state or privately owned? Should the media industry be organized as a monopoly or competitively? In this paper, we consider two broad theories of organization of the media and evaluate them using a new database of media ownership in 97 countries.

The first theory of the media—and of institutions more generally—is the public interest (Pigouvian) theory, in which governments maximize the welfare of consumers. Government ownership of the media, perhaps even as a monopoly, is then desirable for three reasons. First, information is a public

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[1] Henry Simons, Economic Policy of a Free Society (1948); and George J. Stigler, The Economics of Information, 69 J. Pol. Econ. 213 (1961).

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good—once it is supplied to some consumers, it is costly to keep it away from others, even if they have not paid for it. Second, the provision, as well as dissemination, of information is subject to strong increasing returns: there are significant fixed costs of organizing information gathering and distribution facilities, but once these costs are incurred, the marginal costs of making the information available are relatively low. Third, if consumers are ignorant, and especially if private media outlets serve the governing classes, then state media ownership can expose the public to less biased, more complete, and more accurate information than it could obtain with private ownership.[2] All these arguments were adduced by the management of the newly formed British Broadcasting Corporation (BBC) in support of maintaining a publicly subsidized monopoly on radio and television in Britain,[3] and subsequently repeated in many developing countries.

In contrast, the public choice theory holds that a government-owned media outlet would distort and manipulate information to entrench the incumbent politicians, preclude voters and consumers from making informed decisions, and ultimately undermine both democracy and markets. Because private and independent media supply alternative views to the public, they enable individuals to choose among political candidates, goods, and securities—with less fear of abuse by unscrupulous politicians, producers, and promoters.[4] Moreover, competition among media firms assures that voters, consumers, and investors obtain, on average, unbiased and accurate information. The role of such private and competitive media is held to be so important for the checks-and-balances system of modern democracy that they have come to be called "the fourth estate," along with the executive, the legislature, and the courts.

Interestingly, even the Pigouvian economists, who advocate regulation or even nationalization by a benevolent government when considering other industries, support the free and private media.[5] Ronald Coase points to this hypocrisy of Pigouvian economists: in the very industry where the case for state ownership is theoretically attractive, they shy away from taking it seriously. "It is hard to believe that the general public is in a better position to evaluate competing views on economic and social policy than to choose

[2] Vladimir Lenin, On the Freedom of the Press, 7 Lab. Mon. 35 (1925).

[3] R. H. Coase, British Broadcasting (1950).

[4] See Amartya Sen, Poverty and Famines (1984); Amartya Sen, Development as Freedom (1999); Timothy Besley & Robin Burgess, The Political Economy of Government Responsiveness: Theory and Evidence from India, 117 Q. J. Econ. 1415 (2002); and Timothy Besley & Andrea Prat, Handcuffs for the Grabbing Hand? Media Capture and Government Accountability (CEPR Discussion Paper No. 3132, London 2002).

[5] See Simons, *supra* note 1; W. Arthur Lewis, The Theory of Economic Growth (1955); and Gunnar Myrdal, The Political Element in the Development of Economic Theory (1953).

between different kinds of food."[6] Nonetheless, the assumption of benevolent government often stops at the doorstep of the media, perhaps because economists want to protect their own right to supply information without being subject to regulation.

The two theories have distinct implications for both the determinants and the consequences of who owns the media.[7] The public interest theory predicts that the more "benign" or "public-spirited" governments should have higher levels of media ownership and that the consequence of such ownership is greater freedom of the press, more economic and political freedom, and better social outcomes. The public choice theory predicts the opposite.

To understand the basic facts about media ownership, and to evaluate these predictions, we collect data on ownership patterns of media firms—newspapers, television, and radio—in 97 countries. Our paper provides a first systematic look at the extent of state and private ownership of media firms around the world, of the different kinds of private ownership, and of the prevalence of monopoly across countries and segments of the media industry. Our basic finding is that the two dominant forms of ownership of media firms around the world are ownership by the state and ownership by concentrated private owners, namely, controlling families.

Many hypothesize that the "amenity potential," also known as "the private benefits of control,"[8] arising from owning media outlets is extremely high. In other words, the nonfinancial benefits, such as fame and influence, that are obtained by controlling a newspaper or a television station must be considerably higher than those that come from controlling a firm of comparable size in, say, the bottling industry. Economic theory then predicts that private control of media firms should be highly concentrated: the control of widely held firms with a high amenity potential is up for grabs and cannot be sustained in equilibrium.[9] Our findings are broadly consistent with this prediction.

Having described the basic patterns of media ownership, we evaluate the data in light of the public interest and the public choice theories. We find that government ownership of the media is greater in countries that are poorer, have greater overall state ownership in the economy, lower levels of school enrollments, and more autocratic regimes. The last finding in particular casts

[6] R. H. Coase, The Market for Goods and the Market for Ideas, 64 Am. Econ. Rev. Papers & Proc. 389 (1974).

[7] See also Simeon Djankov et al., The Regulation of Entry, 117 Q. J. Econ. 1 (2002).

[8] See Harold Demsetz, The Amenity Potential of Newspapers and the Reporting of Presidential Campaigns, in Efficiency, Competition and Policy (H. Demsetz ed. 1989); Harold Demsetz & Kenneth Lehn, The Structure of Corporate Ownership: Causes and Consequences, 93 J. Pol. Econ. 1155 (1985); and Sanford J. Grossman & Oliver D. Hart, One Share–One Vote and the Market for Corporate Control, 20 J. Fin. Econ. 175 (1988).

[9] Lucian Arye Bebchuk, A Rent-Protection Theory of Corporate Ownership and Control (Working Paper No. 7203, Nat'l Bur. Econ. Res. 1999).

doubt on the proposition that state ownership of the media serves benevolent ends.

We then consider the consequences of state ownership of the media, as measured by freedom of the press, political and economic freedom, and health outcomes. To this end, we run regressions of a variety of outcomes across countries on state ownership of the media, holding constant various country characteristics. We find pervasive evidence of "worse" outcomes associated with greater state ownership of the media (especially the press). The evidence is inconsistent with the Pigouvian view of state ownership of the media. Still, since we have only a cross-section of countries, we cannot decisively interpret this evidence as causal. Other, unmeasured, factors may account for the observed relationships.

II. Ownership Data

This section focuses on patterns of ownership in the media industry. Because ownership bestows control,[10] it shapes the information provided to voters and consumers. Ownership, of course, is not the only determinant of media content. In many countries, even with private ownership, government regulates the media industry, provides direct subsidies and advertising revenues to media outlets, restricts access to newsprint and information collection, and harasses journalists. We discuss these modes of control as well.

A. Construction of the Database

We gathered new data on media ownership in 97 countries. We focused on newspapers and television since these are the primary sources of news on political, economic, and social issues.

Data on radio ownership are limited. Radio reaches a high proportion of the population, even in countries with the lowest levels of income and literacy, but it mainly delivers entertainment. The radio market is also highly regional, which precludes any single station from achieving a large market share. As a crude index, we gather ownership data on the top radio station as measured by peak adult audience and on the "all-news" radio station when one exists in a country.

Our selection of sample countries is driven by data availability. First, we identify the countries for which we have information on control variables. Since we are interested in the consequences of state ownership of the media, we need to make sure that our results are not driven by differences in economic development, education, political competition, or state intervention in the economy. To this end, we control for general levels of state ownership in the economy, primary school enrollment, autocracy, and gross national

[10] Sanford J. Grossman & Oliver D. Hart, The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration, 94 J. Pol. Econ. 691 (1986).

product per capita. We exclude five countries because (1) the country is in civil war (Democratic Republic of Congo, Sierra Leone), (2) the entity cannot be classified as a country (Hong Kong), or (3) no daily newspapers exist (Belize, Tajikistan). We also exclude 31 countries that lack sufficient data on media ownership. The final sample of 97 countries includes 21 in Africa, 9 in the Americas, 17 in Asia and the Pacific, 7 in Central Asia and the Caucasus, 16 in Central and Eastern Europe, 11 in Middle East and North Africa, and 16 in Western Europe.Table 1 describes all the variables used in the paper.

Within countries, we select media outlets on the basis of market share of the audience and provision of local news content for the year 1999. This approach focuses on who controls the majority of information flows on domestic issues to citizens. We exclude entertainment and sport media, as well as foreign media outlets, if they do not provide local news content.[11] We include in our sample the five largest daily newspapers, as measured by share in the total circulation of all dailies, and the five largest television stations, as measured by share of viewing.[12] We consult three primary data sources to select these outlets. First, we use Zenith Media *Market and Media Fact Book 2000* publications, which are organized by region, including Western Europe, Central and Eastern Europe, Asia-Pacific, Middle East and Africa, and the Americas. Zenith Media's rankings of newspapers are checked with the World Association of Newspapers (WAN) *World Press Trends 2000* report. The WAN data are also used as the source for total newspaper circulation, which is not reported by Zenith Media. Finally, we use the European Institute for the Media *Media in the CIS* report as a primary source for countries in the former Soviet Union. Alternative sources are sought in two

[11] We include satellite and cable television if they carry local news content and are one of the top five television stations as measured by share of viewing. Satellite and cable television account for three of the top five stations in China. Out of the top five stations, four in India, two in Hungary, and three in Norway transmit by satellite. We do not include CNN and other global stations because they generally do not carry local news (and typically have a small share of viewers). We cover foreign news stations that spill over to local audiences if they carry local news and are among the top five stations. For example, in Austria, three of the top five television stations are German, but have a "local news window." We do not account for illegal access to foreign and/or global satellite television because we do not have access to such data (but also, there is no local news content).

[12] Following the WAN definition, newspapers are considered dailies if they are published at least four times per week. In the initial phase of the data gathering (first 12 countries), we focused on the top 10 media enterprises in the daily newspaper and television markets. We subsequently reduced the sample to five firms per media type for two reasons. First, the difference in market coverage from increasing the sample of companies from five to 10 was marginal. In the first 12 countries, the top five newspapers account for an average of 62.4 percent of total circulation, and the top 10 for 74.1 percent. The correlation between the two is 94.2 percent. For the sample as a whole, the top five newspapers account for an average of 66.7 percent of total circulation. Television markets are even more concentrated—on average the top five firms cover 89.5 percent of total viewing. Second, 20 countries in our sample do not have more than five daily newspapers, and 42 countries do not have more than five television stations.

TABLE 1

THE VARIABLES

Variable Name	Description	Sources
Media ownership:		
State ownership, press (by count)	Percentage of state-owned newspapers out of the five largest daily newspapers (by circulation)	Company annual reports, Worldscope database, LexisNexis, and other sources on company ownership, 1999
State ownership, press (by share)	Market share of state-owned newspapers out of the aggregate market share of the five largest daily newspapers (by circulation)	Company annual reports, Worldscope database, LexisNexis, and other sources on company ownership, 1999
State ownership, television (by count)	Percentage of state-owned television stations out of the five largest television stations (by viewership)	Company annual reports, Worldscope database, LexisNexis, and other sources on company ownership, 1999
State ownership, television (by share)	Market share of state-owned television stations out of the aggregate market share of the five largest television stations (by viewership)	Company annual reports, Worldscope database, LexisNexis, and other sources on company ownership, 1999
Controls:		
Gross national product per capita	Gross national product per capita in 1999, in thousands of U.S. dollars	World Bank, World Development Indicators, 2000
State-owned enterprise index	Index from 0 to 10 based on the number, composition, and share of output supplied by state-owned enterprises (SOEs) and government investment as a share of total investment; countries with more SOEs and larger government investment received lower ratings	Gwartney, Lawson, & Samida 2000, for all countries except Armenia, Azerbaijan, Belarus, Ethiopia, Moldova, and Turkmenistan. Data for these six countries were constructed by the authors on the basis of the World Bank's Database of Enterprise Indicators, 2000
Autocracy	Index of authoritarian regimes, 1999, based on an 11-point autocracy scale that is constructed additively from the codings of five component variables: competitiveness of executive recruitment, openness of executive recruitment, constraints on chief executive, regulation of participation, and competitiveness of political participation. Values were rescaled from zero to one, with zero being high in autocracy and one being low in autocracy	Polity IV Project, 2000

Primary school enrollment	Total enrollment at the primary educational level, regardless of age, divided by the population of the age group that typically corresponds to that level of education as of 1995. The specification of age groups varies by country, on the basis of different national systems of education and the duration of schooling at the primary level	UNESCO Annual Statistical Yearbook, 1999
Media freedom:		
Journalists jailed, RSF[a]	Number of journalists held in police custody for any length of time in 1999, rescaled from zero to one, with higher values indicating more oppression	Reporters sans Frontières, 2000
Media outlets closed	Number of media outlets closed in 1999, rescaled from zero to one, with higher values indicating more oppression	Reporters sans Frontières, 2000
Journalists jailed, CPJ[b]	Number of journalists held in police custody for any length of time per year, average over 1997–99, rescaled from zero to one, with higher values indicating more oppression	Committee to Protect Journalists, 2000
Internet freedom	Zero if the state has a monopoly on internet service provision 1999, one otherwise	Committee to Protect Journalists, 2000
Political and economic freedom:		
Political rights	Index of political rights. Higher ratings indicate countries that come closer to the “ideals suggested by the checklist questions of (1) free and fair elections; (2) those elected rule; (3) there are competitive parties or other competitive political groupings; (4) the opposition has an important role and power; (5) the entities have self-determination or an extremely high degree of autonomy.” Rescaled from zero to one, with higher values indicating better political rights	Freedom House, Freedom in the World, 2000
Civil liberties	Index of civil rights. Higher ratings indicate countries that enjoy “the freedoms to develop views, institutions, and personal autonomy apart from the state.” The basic components of the index are (1) freedom of expression and belief, (2) association and organizational rights, (3) rule of law and human rights, (4) personal autonomy and economic rights. Rescaled from zero to one, with higher values indicating better civil liberties	Freedom House, Freedom in the World, 2000
Corruption	Aggregated measure of “perceptions of corruption,” whose components range from “the frequency of additional payments to get things done to the effects of corruption on the business environment.” Higher values indicate more corruption	Kaufmann, Kraay, & Zoido-Lobaton, 1999, at 8
Security of property	Rating of property rights in each country in 1997, assessing “Are property rights secure? Do citizens have the right to establish private businesses? Is private business activity unduly influenced by government officials, the security forces, or organized crime?” Rescaled from zero to one, with higher values indicating more secure property rights	Freedom House, 1997
Risk of confiscation	Assessment of the legal security of private ownership rights, 1997; ranges from 0 to 10, with higher values indicating higher risk	Fraser Institute, 2000

TABLE 1 (*Continued*)

Variable Name	Description	Sources
Quality of regulation	Aggregated measure focused on national regulatory policies. "It includes measures of the incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development"	Kaufmann, Kraay, & Zoido-Lobaton, 1999, at 8
Number of listed firms	Number of domestically incorporated companies listed on the country's stock exchanges at the end of 1999, scaled by population; this indicator does not include investment companies, mutual funds, or other collective investment vehicles	World Bank, World Development Indicators, 2000
Health outcomes:		
Life expectancy	Life expectancy at birth (years), average over 1995–2000	UNDP 2000[c]
Infant mortality	Infant mortality rate (per 1,000 live births) in 1998; rescaled from zero to one, with higher values indicating higher mortality	UNDP 2000[c]
Nutrition	Daily per capita supply of calories, 1997	UNDP 2000[c]
Access to sanitation	Percent of population with access to adequate sanitation, average over 1990–99	World Bank, World Development Indicators, 2000
Health system responsiveness	Responsiveness of the health system, both its level and distribution in 1999; higher values indicate greater responsiveness	World Health Organization, 2000

SOURCES.—World Bank, World Development Indicators 2000 (2000); James Gwartney, Robert Lawson, & Dexter Samida, Economic Freedom of the World (2000); World Bank, Database of Enterprise Indicators on Transition Economies, Europe and Central Asian Region (2000); Polity IV Project, Polity IV Dataset (2000); UNESCO Institute for Statistics, Annual Statistical Yearbook (1999); Reporters sans Frontières, Annual Report 2000 (2000); Committee to Protect Journalists, Attacks on the Press in 1999 (2000); Freedom House, Freedom in the World (2000); Daniel Kaufmann, Aart Kraay, & Pablo Zoido-Lobaton, Governance Matters (Working Paper No. 2196, World Bank 1999); Freedom House, Freedom in the World (1997); UNDP, Human Development Report 2000 (2000); World Health Organization, World Health Report 2000 (2000).

[a] RSF = Reporters sans Frontières.

[b] CPJ = Committee to Protect Journalists.

[c] UNDP = United Nations Development Programme.

cases: when there is an inconsistency in data reported by primary sources or when none of the sources covers the country in question. When this occurs, we use local media survey firms, World Bank external affairs offices, U.S. Department of State information offices, and direct contact with the media outlets.

Where possible, we rely on company annual reports and the WorldScope database for information on ownership of media firms. Many of our sample companies are not covered by WorldScope and operate in countries with limited disclosure requirements. Accordingly, we also use business news reports in LexisNexis and the Financial Times databases, country-specific company handbooks, media surveys, and internet information services. In all cases, we verify the ownership and other information externally by contacting World Bank external affairs offices, embassies in Washington, D.C., and regional or in-country media organizations.

Ownership data are for December 1999 or the closest date for which reliable data were available. For the majority of firms in the sample, ownership structures are stable over time. Timing is a significant issue only in the transition economies, where many media enterprises have been privatized or have increasing rates of foreign ownership. For these countries, we strictly enforce the December 1999 date of ownership information, even when we have more recent data.

We follow past work in identifying the ultimate controlling shareholder of each media outlet.[13] We focus explicitly on voting as opposed to cash flow rights in firms. For each firm, we identify the legal entities and families who own significant voting stakes.[14] This provides us with the first level of ownership. For each legal entity, then, we identify its ownership structure by determining all significant vote holders—the second level of ownership. We continue to identify vote holders at each level of ownership until we reach an entity for which it is not possible to break down the ownership structure any further.

The entity that ultimately controls the highest number of voting rights, but no less than 20 percent at every link of the chain, is defined as the ultimate owner. Such control can be gained through direct ownership of more than 20 percent of voting rights of a media enterprise or indirectly through a chain of intermediate owners. For example, an individual X may control newspaper Z when he holds over 20 percent of the voting rights in Company Y, which in turn owns over 20 percent of the voting rights in Z. With indirect holdings,

[13] For a discussion of methodology, see Rafael La Porta, Florencio Lopez-de-Silanes, & Andrei Shleifer, Corporate Ownership around the World, 54 J. Fin. 471 (1999).

[14] The cutoff level of voting stakes depends on the mandatory disclosure levels in the country. In no case, however, is that threshold higher than 5 percent.

we define the percentage of ultimate ownership as the minimum holding along the chain of control.[15]

After identifying the ultimate owner, we classify each media outlet into one of the four main categories of owners: the state, families,[16] widely held corporations, and "other." Examples of other controlling entities are employee organizations, trade unions, political parties, churches, not-for-profit foundations, and business associations. We define a corporation as widely held if there is no owner with 20 percent or more of the voting rights. We also keep track of whether the ultimate owner is a foreign family, entity, or government.

B. Examples of Media Ownership

We illustrate the construction of the ownership variables with examples of individual firms. We start with a simple case of family ownership. In Argentina, the third largest newspaper, with a daily circulation of 177,000, is *La Nacion*. The owner of each share in *La Nacion* is entitled to one vote. There are two large shareholders in *La Nacion* (Figure 1): the Saguier family, with 72 percent of capital and votes, and Grupo Mitre, with 28 percent of capital and votes. Grupo Mitre is in turn 100 percent owned by the Mitre family. Although the Mitre family holds an indirect control of 28 percent, we follow the chain of control of the largest shareholder at each level of ownership. Thus we record the Saguier family as the ultimate owner and classify *La Nacion* as family owned.

A more complex example of family ownership is the Norwegian television station TVN (Figure 2). TVN is the second largest television station with local content in Norway, as measured by share of viewing. It is 50.7 percent controlled by Scandinavian Broadcasting Systems (SBS) and 49.3 percent by the largest Norwegian television station, TV2. We follow the chain of control along SBS rather than TV2, since SBS holds the majority of votes in TVN. Although Harry Evans Sloan (the chairman and CEO of SBS) holds a 9.8 percent share of voting rights in SBS, the only voting interest above 20 percent is held by the Netherlands United Pan-Europe Communications (UPC), with 3.3 percent of the vote. The majority shareholder of UPC is UnitedGlobal Com (51 percent). UnitedGlobal Com is in turn controlled by the Schneider family, through a combination of three direct interests totaling 21.9 percent, as well as 50 percent control of a voting agreement with 69.2 percent control of votes. We classify TVN as family owned and the Schneider family as the ultimate owner.

[15] In a few cases, the owner of voting rights in a media firm does not hold the broadcast license. In these cases, we say that firm and not license ownership determines control. We do this because control of all broadcast licenses ultimately belongs to the government and licenses can be revoked depending on the strength of property rights in a country.

[16] We use families as a unit of analysis and do not look within families.

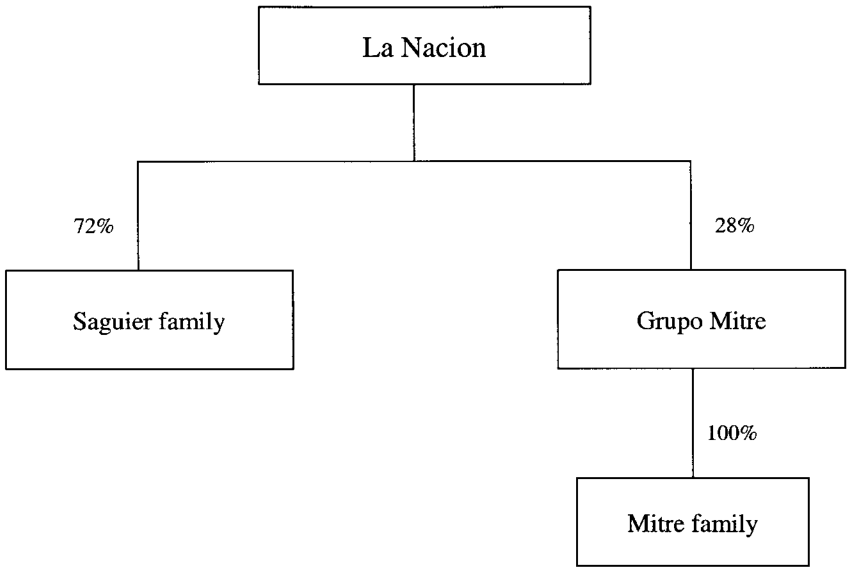

FIGURE 1.—La Nacion (Argentina)

State ownership takes different forms. The BBC is classified as state owned. It is funded by government license fees and advertising. The board of governors is appointed by Royal Prerogative, in practice the prime minister, and is accountable to the government. The BBC charter specifies a number of safeguards to ensure its independence from government interference. By contrast, the largest television station in Myanmar is controlled directly by the Ministry of Information and Culture, and the second largest station is controlled directly by the Myanmar military. In both cases, the state retains full powers to manage content and appoint and remove staff. In Turkmenistan, the state maintains direct control over the press: President Niyazov is officially declared the founder and owner of all newspapers in the country.

In a number of cases, we need to distinguish between state and political party ownership. In Kenya, the ruling party, the Kenyan African National Union (KANU), is the ultimate owner of the daily newspaper the *Kenya Times*, the country's fourth largest daily. Yet we do not classify *Kenya Times* as state owned, because if there were a change of government the ownership would remain with KANU. In contrast, control of the Kenyan Broadcasting Corporation (KBC) would remain with the state regardless of the political party in power, so we classify KBC as state owned. Ruling party ownership also occurs in Malaysia and Cote d'Ivoire. We place these firms in the "other" category, along with more clear-cut cases of media owned by opposition political parties.

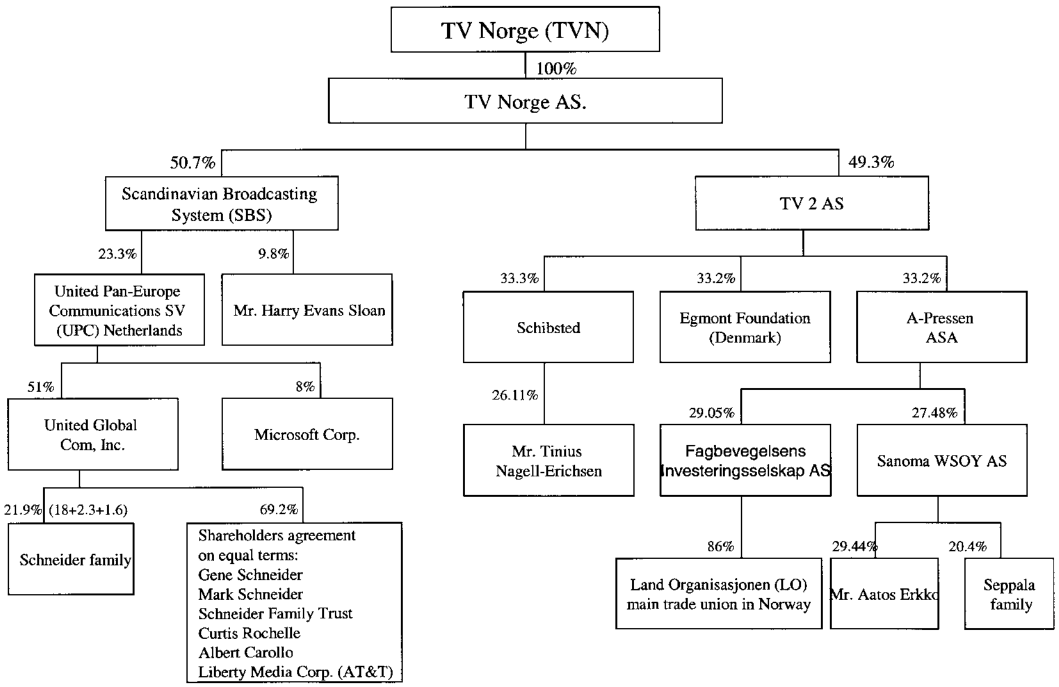

FIGURE 2.—TVN (Norway)

In several cases, family ownership is closely associated with the state. In Kazakhstan, President Nazarbayev's daughter and son-in-law between them control seven of the 12 media outlets in our country sample. In Saudi Arabia, members of the royal family are the ultimate owners of two of the five most popular dailies. In cases where there is a direct family relationship between the ultimate owner and the head of state, and the governing system is a single-party state, we classify the media enterprise as state owned.

Other associations between families and state are prevalent throughout our sample. In Ukraine, the deputy prime minister holds over 30 percent of the top television station, while in Malawi the owner of the *Nation* newspaper is the minister of agriculture and vice-president of the ruling party. Neither of these positions are head of state in single-party governments, and we therefore classify both media outlets as family owned. Other unofficial links to the state were documented in country files but did not influence our classification of ultimate ownership. In Russia, the close associations between the owner of one of the main television stations, Boris Berezovsky, and then-President Yeltsin are well documented.[17] In Indonesia, the daughter of ex-President Suharto still controls one of the main television stations. In an effort to be conservative in our measures of state control, in all these cases we classified the media outlets as family owned, since a change in government would sever the link between the politician and the media owner.

C. Media Regulations and Ownership

Throughout the world, governments regulate media using measures ranging from content restrictions in broadcasting licenses to constitutional freedom of expression provisions. The types of regulations and their enforcement vary significantly within our sample countries.

In some cases, ownership is influenced directly by regulation. In Norway, for example, regulations restrict owners from holding more than one-third of shares in media enterprises. Similar restrictions on ownership apply in Israel. Regulations of foreign ownership and cross-media ownership are also prevalent. Of the 49 countries surveyed by the World Association of Newspapers (WAN), 14 have explicit restrictions on foreign ownership of newspapers. In Brazil, for example, foreign ownership of voting capital of media enterprises is prohibited, and foreign participation in nonvoting capital is limited to 30 percent. Not surprisingly, foreign owners are absent from the Brazilian sample. A further 21 of WAN countries regulate cross-media ownership. In Australia, proprietors of major metropolitan newspapers are not permitted to own controlling interests in free-to-air television stations in the same market. As a result, the ultimate owner of the Nine Network television

[17] Boris Berezovsky wrote that "we helped Yeltsin defeat the Communists at the polls, using privately owned television stations" (Our Reverse Revolution, Wash. Post, October 26, 2000, at A27).

station, the Packer family, is limited to a 14.99 percent ownership stake in the one of Australia's leading publishers, John Fairfax Holdings.

Our data do not account for regulations that can substitute for state ownership as a means to control content. Singapore Press Holdings (SPH) publishes all of the top five daily newspapers in Singapore (Figure 3). Shares of SPH are divided into two categories: ordinary shares, which carry one vote per share, and management shares, which carry 200 votes per share. The ownership structure of SPH is characterized by complex cross holdings, with three major groups of shareholders evident in the data. First, the Lee family controls a total of 47.23 percent of votes through four companies. Second, the state holds a total of 27.23 percent of votes through various intermediary institutions. Third, there are a number of minority shareholdings held in nominee accounts at widely held financial institutions.[18] Ownership of nominee accounts is not disclosed. It is possible that they are owned by families or the state, in which case our estimate of their control is conservative. We classify the Lee family as the ultimate owner of SPH. Yet by law, the government must approve the owners of management shares of SPH and can require owners to sell shares. We say that SPH is family owned and note that this is a conservative measure of the true influence of the state over SPH.

We use similar approaches in other cases of structural government influence of media firms. In Saudi Arabia, the government approves the appointment of editors-in-chief of newspapers and also has the right to dismiss them. Although clearly this increases the influence of the state on press content, we do not change the ownership classification because of this rule. In Malaysia, newspapers are required to renew their licenses annually. Editors of newspapers that publish critical views of government have been pressured to resign.[19] In this environment, self-censorship becomes the norm. In all these instances, we nonetheless rely on ownership in constructing our measures, thus underestimating state influence.

State subsidies and state advertisement revenues enable governments to influence media content. Such subsidies are common in transition and African countries. In Cameroon, for example, the state refused to advertise in privately owned press after critical coverage of government. Defamation laws also influence content by repressing investigative journalism.

[18] In particular, Raffles Nominees Pre Ltd. holds 7.74 percent in SPH, 10.11 percent in Overseas Union Bank Ltd., and 19.44 percent in United Overseas Bank Ltd. GSBC Nominees Pte Ltd. controls 3.98 percent of SPH, 5.88 percent of the Overseas-Chinese Banking Corporation, 3.42 percent of Overseas Union Bank, and 4.31 percent of United Overseas Bank. Finally, Citibank Nominees Ltd. controls 1.63 percent of SPH, 3.82 percent of the Overseas-Chinese Banking Corporation, 4.08 percent of Overseas Union Bank, and 2.77 percent of United Overseas Bank.

[19] U.N. ESCOR, 55th Sess. Report on the Mission to Malaysia, U.N. Doc. E/CN.4/1999/64.Add.1 (December 23, 1998).

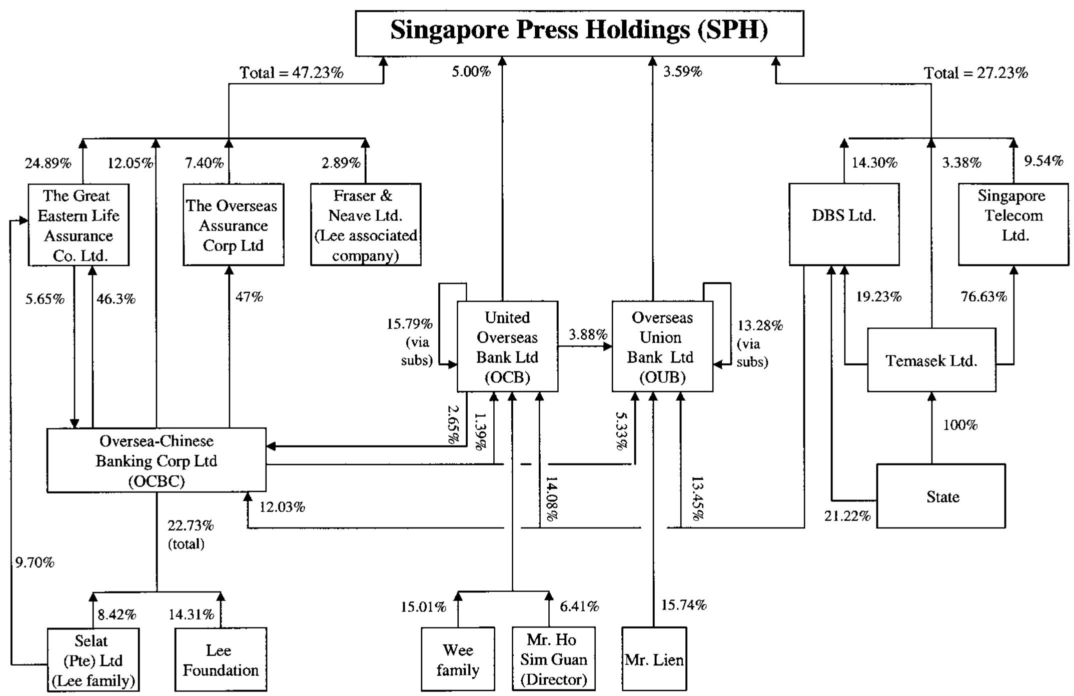

FIGURE 3.—SPH (Singapore)

Direct regulations of content may interact with ownership. The North Korean Constitution states that the role of the press is to "serve the aims of strengthening the dictatorship of the proletariat, bolstering the political unity and ideological conformity of the people and rallying them solidly behind the Party and the Great Leader in the cause of revolution."[20] In the Netherlands, the content of public service programming must be at least 25 percent news, 20 percent culture, and 5 percent education. Italy requires that 50 percent of broadcasting be of European origin. Because of these extensive regulations, our ownership classification is a conservative estimate of the true influence of the state over content.

D. Variable Construction

We construct two ownership variables from these data. First, we compute the percentage of firms in each category—state or private. For example, two out of the top five newspaper enterprises in the Philippines are classified as state owned, as are three out of the top five television stations. We record Philippine newspaper market ownership as 40 percent state owned when measured by count, and television market ownership as 60 percent when measured by count. Second, we weight the ownership variable by market share. In the Philippines, the two state-owned newspapers account for 22.2 percent and 21.3 percent of circulation for the top five newspapers, respectively, so the newspapers are 43.5 percent state owned when measured by market share. In television, the three state-owned Philippine stations account for only 17.5 percent of the share of viewing for the top five television stations, so the television market is 17.5 percent state owned as measured by market share.

The market share variables, while more precise as a metric of state control, have the disadvantage that, in the countries with regional newspapers, such as the United States, the market share of any single firm is small. As a consequence, the variables we define are not properly compared with those in countries with national newspapers. This criticism, of course, is less compelling for television firms, which are typically national. The regressions presented below use market share variables, but our results are virtually identical using the counts.

For the radio market, we create a dummy equal to one if the top radio station is state owned, and zero otherwise.

[20] N. Korea Const., art. 53, ch. 4 (1975).

III. Patterns in Media Ownership

A. Descriptive Statistics

Table 2 presents descriptive statistics on the ownership of newspaper and television markets in 97 countries. Countries are organized first by region and then sorted in alphabetical order. Several patterns emerge from the data.

Our first significant finding is that families and the state own the media throughout the world (Figure 4). In the sample of 97 countries, only 4 percent of media enterprises are widely held. Less than 2 percent have other ownership structures, and a mere 2 percent are employee owned. On average, family-controlled newspapers account for 57 percent of the total and family-controlled television stations for 34 percent of the total. State ownership is also vast. On average, the state controls approximately 29 percent of newspapers and 60 percent of television stations. The state owns a huge share—72 percent—of the top radio stations. On the basis of these findings, for the remaining analysis we classify ownership into three categories: state, private (which is the sum of the family, widely held, and employee categories), and other.

The nearly total absence of firms with dispersed ownership in the media industry is extreme, even by comparison with the finding of high levels of ownership concentration in large firms around the world.[21] This result is consistent with the insight that the large amenity potential of ownership of media outlets creates competitive pressures toward ownership concentration. In a sense, both governments and controlling private shareholders get the same benefit from controlling media outlets: the ability to influence public opinion and the political process.

We say that the state has a monopoly in a media market if the share of state-controlled firms exceeds 75 percent. As Table 2 shows, a total of 21 countries have government monopolies of daily newspapers and 43 countries have state monopolies of television stations with local news. Table 2 also shows that families and the state control the media regardless of whether ownership is measured by count or weighted by market share.

Television has significantly higher levels of state ownership than newspapers.[22] To explain this finding, a Pigouvian would focus on public goods and note that television broadcasts are at least in part nonexcludable and nonrivalrous. Television also has higher fixed costs than publishing and more significant economies of scale. The private sector might then underprovide broadcasting services, particularly in smaller markets serving remote areas, ethnic minorities, or students. These theories are central to many of the laws

[21] *Supra* note 13.

[22] Only five countries (Ghana, the Philippines, Uganda, Ukraine, and Uzbekistan) have more state control of the top five newspapers than of television stations.

TABLE 2

OWNERSHIP DISTRIBUTION: TOP FIVE DAILY NEWSPAPERS AND TOP FIVE TELEVISION STATIONS

	PRESS, BY COUNT			PRESS, BY SHARE			TELEVISION, BY COUNT			TELEVISION, BY SHARE		
COUNTRY	State	Private	Other	State	Private	Other	State	Private	Other	State	Private	Other
Angola	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Benin	.20	.60	.20	.31	.50	.19	.50	.50	.00	.71	.29	.00
Burundi	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Cameroon	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Chad	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Cote d'Ivoire	.40	.20	.40	.64	.11	.24	1.00	.00	.00	1.00	.00	.00
Ethiopia	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Gabon	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Ghana	1.00	.00	.00	1.00	.00	.00	.33	.67	.00	.55	.45	.00
Kenya	.00	.80	.20	.00	.88	.12	.20	.80	.00	.45	.55	.00
Malawi	.00	1.00	.00	.00	1.00	.00	1.00	.00	.00	1.00	.00	.00
Mali	.20	.80	.00	.33	.67	.00	1.00	.00	.00	1.00	.00	.00
Niger	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Nigeria	.00	1.00	.00	.00	1.00	.00	.20	.80	.00	.25	.75	.00
Senegal	.33	.67	.00	.51	.49	.00	1.00	.00	.00	1.00	.00	.00
South Africa	.00	.60	.40	.00	.70	.30	.75	.00	.25	.90	.00	.10
Tanzania	.00	1.00	.00	.00	1.00	.00	.20	.80	.00	.07	.93	.00
Togo	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Uganda	.50	.50	.00	.58	.42	.00	.25	.50	.25	.61	.39	.00
Zambia	.67	.33	.00	.74	.26	.00	1.00	.00	.00	1.00	.00	.00

Zimbabwe	.67	.33	.00	.60	.40	.00	1.00	.00	.00	1.00	.00	.00
Average, Africa	.57	.37	.06	.61	.35	.04	.78	.19	.02	.84	.16	.00
Argentina	.00	1.00	.00	.00	1.00	.00	.20	.80	.00	.04	.96	.00
Brazil	.00	1.00	.00	.00	1.00	.00	.00	.80	.20	.00	.89	.11
Canada	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.34	.66	.00
Chile	.00	1.00	.00	.00	1.00	.00	.20	.60	.20	.30	.41	.28
Colombia	.00	1.00	.00	.00	1.00	.00	.50	.50	.00	.27	.73	.00
Mexico	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00
Peru	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00
United States	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00
Venezuela	.00	1.00	.00	.00	1.00	.00	.25	.75	.00	.03	.97	.00
Average, Americas	.00	1.00	.00	.00	1.00	.00	.17	.78	.04	.11	.85	.04
Australia	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.17	.83	.00
China	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
India	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.88	.12	.00
Indonesia	.00	.80	.20	.00	.85	.15	.20	.80	.00	.23	.77	.00
Japan	.00	1.00	.00	.00	1.00	.00	.20	.80	.00	.39	.61	.00
Korea, Democratic Republic	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Korea, Republic	.00	1.00	.00	.00	1.00	.00	.80	.20	.00	.77	.23	.00
Laos, People’s Democratic Republic	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Malaysia	.00	.60	.40	.00	.60	.40	.40	.60	.00	.47	.53	.00
Myanmar	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
New Zealand	.00	1.00	.00	.00	1.00	.00	.50	.50	.00	.71	.29	.00
Pakistan	.00	1.00	.00	.00	1.00	.00	1.00	.00	.00	1.00	.00	.00
Philippines	.40	.60	.00	.44	.56	.00	.60	.40	.00	.18	.83	.00
Singapore	.00	1.00	.00	.00	1.00	.00	1.00	.00	.00	1.00	.00	.00
Sri Lanka	.40	.60	.00	.29	.71	.00	.40	.60	.00	.81	.19	.00
Taiwan, China	.00	1.00	.00	.00	1.00	.00	.40	.40	.20	.63	.37	.00
Thailand	.00	1.00	.00	.00	1.00	.00	.80	.20	.00	.60	.40	.00
Average, Asia-Pacific	.28	.68	.04	.28	.69	.03	.65	.34	.01	.70	.30	.00
Algeria	.40	.60	.00	.57	.43	.00	1.00	.00	.00	1.00	.00	.00
Bahrain	.00	1.00	.00	.00	1.00	.00	1.00	.00	.00	1.00	.00	.00
Egypt	.80	.00	.20	.94	.00	.06	1.00	.00	.00	1.00	.00	.00

TABLE 2 (*Continued*)

Country	Press, by Count			Press, by Share			Television, by Count			Television, by Share		
	State	Private	Other	State	Private	Other	State	Private	Other	State	Private	Other
Iran, Islamic Republic	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Israel	.00	1.00	.00	.00	1.00	.00	.25	.75	.00	.36	.64	.00
Jordan	.60	.40	.00	.83	.17	.00	1.00	.00	.00	1.00	.00	.00
Kuwait	.00	1.00	.00	.00	1.00	.00	1.00	.00	.00	1.00	.00	.00
Morocco	.40	.00	.60	.41	.00	.59	1.00	.00	.00	1.00	.00	.00
Saudi Arabia	.40	.60	.00	.51	.49	.00	1.00	.00	.00	1.00	.00	.00
Syrian Arab Republic	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Tunisia	.20	.40	.40	.23	.50	.27	1.00	.00	.00	1.00	.00	.00
Average, Middle East and North Africa	.44	.45	.11	.50	.42	.08	.93	.07	.00	.94	.06	.00
Armenia	.20	.40	.40	.27	.45	.27	.20	.80	.00	.53	.47	.00
Azerbaijan	.20	.80	.00	.10	.90	.00	.20	.80	.00	.31	.69	.00
Belarus	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Bulgaria	.00	1.00	.00	.00	1.00	.00	.50	.50	.00	.75	.25	.00
Croatia	.50	.25	.25	.29	.33	.38	.75	.25	.00	.97	.03	.00
Cyprus	.00	.80	.20	.00	.89	.11	.40	.60	.00	.23	.77	.00
Czech Republic	.00	1.00	.00	.00	1.00	.00	.50	.50	.00	.34	.66	.00
Estonia	.00	1.00	.00	.00	1.00	.00	.25	.75	.00	.29	.71	.00
Georgia	.20	.80	.00	.06	.94	.00	.40	.60	.00	.66	.34	.00
Hungary	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.20	.80	.00
Kazakhstan	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Kyrgyz Republic	.50	.25	.25	.35	.35	.30	.33	.67	.00	.69	.31	.00
Lithuania	.00	1.00	.00	.00	1.00	.00	.20	.80	.00	.23	.77	.00
Moldova	.20	.80	.00	.12	.88	.00	.20	.80	.00	.44	.56	.00
Poland	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.57	.43	.00
Romania	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.37	.63	.00
Russian Federation	.20	.80	.00	.15	.85	.00	.80	.20	.00	.96	.04	.00
Slovak Republic	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.35	.65	.00
Slovenia	.00	1.00	.00	.00	1.00	.00	.40	.40	.20	.54	.45	.01

Turkey	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00
Turkmenistan	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00	.00	.00
Ukraine	.40	.40	.20	.15	.77	.07	.40	.60	.00	.14	.86	.00
Uzbekistan	1.00	.00	.00	1.00	.00	.00	.80	.20	.00	.73	.27	.00
Average, Central/Eastern Europe and transition	.28	.67	.06	.24	.71	.05	.48	.52	.01	.53	.46	.00
Austria	.00	.80	.20	.00	.86	.14	.40	.60	.00	.78	.22	.00
Belgium	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.41	.59	.00
Denmark	.00	.40	.60	.00	.37	.63	.60	.40	.00	.80	.20	.00
Finland	.00	1.00	.00	.00	1.00	.00	.50	.50	.00	.48	.52	.00
France	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.43	.57	.00
Germany	.00	1.00	.00	.00	1.00	.00	.60	.40	.00	.61	.39	.00
Greece	.00	.60	.40	.00	.68	.32	.20	.80	.00	.08	.92	.00
Ireland	.00	.80	.20	.00	.79	.21	.60	.40	.00	.68	.32	.00
Italy	.00	.80	.20	.00	.83	.17	.60	.40	.00	.61	.39	.00
Netherlands	.00	1.00	.00	.00	1.00	.00	.60	.40	.00	.57	.43	.00
Norway	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.47	.53	.00
Portugal	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.38	.62	.00
Spain	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.43	.57	.00
Sweden	.00	1.00	.00	.00	1.00	.00	.40	.60	.00	.51	.49	.00
Switzerland	.00	1.00	.00	.00	1.00	.00	.60	.40	.00	.89	.11	.00
United Kingdom	.00	1.00	.00	.00	1.00	.00	.60	.40	.00	.60	.40	.00
Average, Western Europe	.00	.90	.10	.00	.91	.09	.48	.52	.00	.55	.45	.00
Average, total sample	.29	.65	.06	.29	.66	.05	.60	.39	.01	.64	.36	.01

NOTE.—The category "private" comprises family ownership, widely held firms, and employee-owned media outlets. The category "other" includes trade unions, political parties, churches, not-for-profit foundations, and business associations.

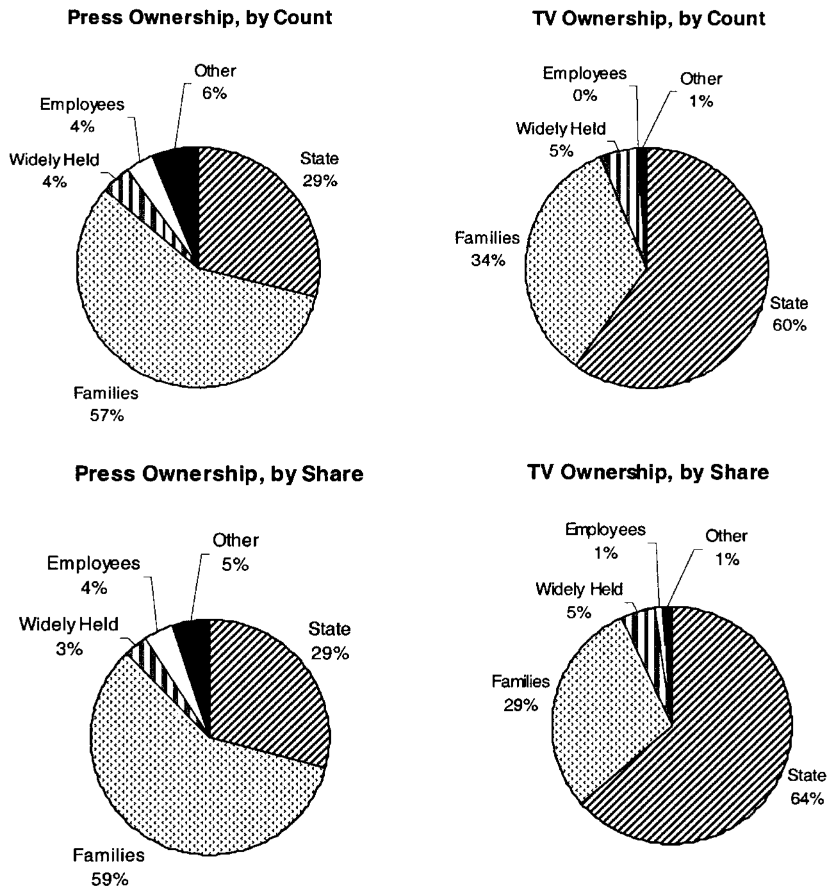

FIGURE 4.—Newspaper and TV ownership

on public broadcasters in Europe. Alternatively, from the political perspective, privately owned newspapers are easier to censor than privately owned television. Because television can be broadcast live, control of content is more likely to require ownership. In this case, governments that want to censor news would own television.[23]

Table 3 shows that the data exhibit distinct regional patterns. State own-

[23] A further argument is that the extent of required regulation of television is higher because of difficulties in defining property rights for broadcasting frequencies. It may be optimal from an efficiency standpoint for the state to control television stations directly as opposed to regulating the sector and spending resources in monitoring compliance. These arguments have been disputed by R. H. Coase, The Federal Communications Commission, 2 J. Law & Econ. 1 (1959), and others who do not see any need for government ownership and regulation arising from the particular technological features of broadcasting frequencies.

TABLE 3

TEST OF STATE OWNERSHIP MEANS BY REGION: *t*-STATISTICS

Region	Press, by Count	Press, by Share	Television, by Count	Television, by Share
Africa vs. Americas	3.950**	4.348**	5.094**	7.227**
Africa vs. Asia-Pacific	2.053*	2.383*	1.228	1.451
Africa vs. MENA	.870	.766	−1.323	−1.113
Africa vs. CEE/transition	2.410*	3.091**	3.296**	3.357**
Africa vs. Western Europe	5.302**	5.836**	3.417**	3.506**
Americas vs. Asia-Pacific	−1.949^{+}	−1.922^{+}	−4.249**	−5.342**
Americas vs. MENA	−3.450**	−3.592**	−8.032**	−10.670**
Americas vs. CEE/transition	−2.209*	−1.915^{+}	−2.954**	−3.929**
Americas vs. Western Europe	.000	.000	−4.981**	−5.829**
Asia-Pacific vs. MENA	−.969	−1.290	−2.577**	−2.354*
Asia-Pacific vs. CEE/transition	.032	.304	1.889^{+}	1.632
Asia-Pacific vs. Western Europe	2.621*	2.585*	2.077*	1.659^{+}
MENA vs. CEE/transition	1.150	1.773^{+}	4.675**	4.001**
MENA vs. Western Europe	4.666**	4.857**	6.706**	5.230**
CEE/transition vs. Western Europe	2.963**	2.568*	−.078	−.126

NOTE.—CEE = Central and Eastern Europe; MENA = Middle East and North Africa.
$^{+}$ Significant at the 10% level.
* Significant at the 5% level.
** Significant at the 1% level.

ership of newspapers and television is significantly greater in countries in Africa and the Middle East and North Africa (MENA). On average, governments in Africa control 61 percent of the top five (in circulation) daily newspapers and reach 84 percent of the audience for the top five television stations. Seventy-one percent of African countries have state monopolies on television broadcasting. With the exception of Israel, all countries in MENA have a state monopoly over television broadcasting. State ownership of newspapers—which averages 50 percent share of circulation—is also high in countries in MENA.

By contrast, newspapers in Western Europe and the Americas are held predominately privately. In Western Europe, none of the top five daily newspapers are owned by the state. In the Americas, the majority of the newspapers have been owned and managed by single families for many decades. Levels of state ownership of television are also overwhelmingly lower in the Americas than in other regions. None of the top five stations in Brazil, Mexico, Peru, and the United States are state owned; this occurs in only one other country (Turkey) in our sample. In Western Europe, in contrast, a substantial number of public broadcasters push the regional state ownership average to 48 percent by count and 55 percent by share.

Countries in the Asia-Pacific, Central and Eastern Europe, and the former Soviet Union have ownership patterns closer to the sample mean.[24]

[24] Ownership within each of these regions varies dramatically. Indonesia and Thailand have

TABLE 4

DETERMINANTS OF STATE OWNERSHIP OF THE MEDIA ($N = 97$ Countries)

State Ownership	Gross National Product per Capita	State-Owned Enterprise Index	Autocracy	Primary School Enrollment	Constant	R^2
Press (by share)	−.0086**	−.0181	−.6709**	−.0031	1.2522**	.4920
	(.0026)	(.0113)	(.1441)	(.0023)	(.2341)	
Television (by share)	.0046	−.0283*	−.5849**	−.0028	1.4371**	.3835
	(.0033)	(.0132)	(.1009)	(.0017)	(.1719)	
Radio	−.0031	−.0463**	−.3600**	−.0041**	1.6043**	.3058
	(.0060)	(.0175)	(.0983)	(.0015)	(.1465)	

NOTE.—The table presents the results of ordinary least squares regressions using three dependent variables. Table 1 describes all variables in detail. Robust standard errors are shown in parentheses.
* Significant at the 5% level.
** Significant at the 1% level.

The simple statistics presented so far raise many questions. The evidence suggests that there are large private benefits of media ownership. Throughout the world, media are controlled by parties likely to value these private benefits: families and the state. In particular, the extent of state ownership of the media (particularly in television and radio) is striking, which suggests that governments extract value through control of information flows in the media. In the next few sections, we examine this evidence in light of the alternative theories.

IV. DETERMINANTS OF MEDIA OWNERSHIP

In this section, we examine how ownership patterns are associated with different characteristics of countries. We examine four determinants of media ownership: the level of development, government ownership in other sectors, primary school enrollment, and autocracy.[25] For all of these characteristics, it is hard to argue that causality runs from media ownership to these very basic country characteristics rather than the other way around.

Table 4 presents the results. Levels of state ownership of the press, but not of television and radio, are (statistically significantly) lower in countries that are richer. Levels of state ownership of television and radio but not the press are (statistically significantly) lower in countries that have lower levels of overall state ownership. Levels of state ownership of the radio are lower in countries with higher primary school enrollments. Perhaps most interestingly from the theoretical perspective, levels of state ownership of all forms

low levels of state ownership of the media compared with full state monopolies in North Korea and Myanmar. The predominantly privately owned media in Estonia and Moldova contrast with the full state control in Belarus and Turkmenistan.

[25] We also considered ethnolinguistic fractionalization and latitude, but these variables did not enter significantly and reduced the sample size, so we do not include them in the analysis we present.

TABLE 5

STATE MONOPOLIES IN THE MEDIA

A. MEANS BY GROSS NATIONAL PRODUCT PER CAPITA QUARTILE

Gross National Product per Capita Quartile	STATE MONOPOLIES (by Count and Share)			
	Press, by Count	Press, by Share	Television, by Count	Television, by Share
1. Low	.348	.348	.565	.636
2. Mid-low	.417	.458	.667	.667
3. Mid-high	.083	.087	.250	.333
4. High	.000	.000	.080	.200

B. TEST OF STATE MONOPOLY MEANS BY GROSS NATIONAL PRODUCT PER CAPITA QUARTILE (*t*-Statistics)

Quartile	Press, by Count	Press, by Share	Television, by Count	Television, by Share
1st vs. 2d	−.586	−.874	−.874	−.586
1st vs. 3d	2.194*	2.194*	2.119*	1.758+
1st vs. 4th	3.463**	3.463**	3.966**	2.933**
2d vs. 3d	2.828**	3.156**	3.122**	2.398*
2d vs. 4th	4.139**	4.505**	5.255**	3.665**
3d vs. 4th	1.477	1.477	1.620	1.047

NOTE.—Table 1 describes all variables in detail.
+ Significant at the 10% level.
* Significant at the 5% level.
** Significant at the 1% level.

of media are sharply and statistically significantly lower in less autocratic countries.[26]

This evidence challenges the public interest view of government ownership of the media. In particular, the fact that more autocratic regimes have higher levels of state ownership suggests that the unchecked and unlimited governments, rather than those constrained by the public, come to own the media. This is of course exactly what a public choice theorist would predict.

Table 5 presents data on the incidence of state media monopolies around the world (with the exception of Singapore, there are no private media mo-

[26] We also considered how state ownership varies according to the origin of commercial law in a country. Legal origins are classified into five categories: English, French, German, Socialist, and Scandinavian. Two countries (Iran and Saudi Arabia) cannot be classified in any of these groups since they practice traditional Islamic law. Legal origin has been interpreted as a proxy for the strength of property rights and inclination of the government to intervene in an economy as discussed in Rafael La Porta *et al.*, Law and Finance, 106 J. Pol. Econ. 1113 (1998); and Rafael La Porta *et al.*, The Quality of Government, 15 J. L. Econ. & Org. 222 (1999). It could, therefore, be argued that legal origin influences the extent to which a state chooses to control media. We find that, in television, average state ownership is remarkably similar across legal origins. Levels of state ownership of newspapers in countries of German and Scandinavian origin are significantly lower than in countries of French and socialist origin. For every other combination, state ownership of television or newspapers does not vary significantly according to legal origin.

nopolies in our sample). The data show that state monopoly is largely a feature of poor countries—there is almost no incidence of state monopolies of newspapers, and relatively few of television, in the upper two quartiles of income distribution. These data themselves do not distinguish among theories—a Pigouvian can easily explain why television and low income levels call for state monopoly.

V. The Consequences of State Ownership of the Media

In this section, we consider some of the consequences of state ownership of the media for a number of development indicators, such as freedom of the press, political and economic freedom, and health. In this analysis, we control for the factors that we identified as shaping media ownership. Even so, the results should be interpreted with caution, since it is possible that some omitted third factors determine both media ownership patterns and outcomes and we do not have instruments. In our defense, one must recognize that this omitted characteristic of a country must reflect the state's interest in controlling the information flows.

A. Freedom of the Press

Perhaps the clearest way to compare alternative theories of state ownership of the media is by focusing on freedom of the press. After all, the main implication of the Pigouvian theories is that greater government ownership should if anything lead to greater press freedom, as media avoid being captured by individuals with extreme wealth or political views.

Table 6 presents the results from the regressions of "objective" measures of media freedom on state ownership of the media. One measure of media freedom comes from Reporters sans Frontières (RSF) and reports on journalists jailed and media outlets closed by governments in 1999. Another measure was constructed from the reports by the Committee to Protect Journalists (CPJ) on the actual numbers of journalists jailed during 1997–99. These measures should be interpreted with caution, since presumably a truly repressive state, with full ownership and control of the media, does not need to repress journalists. We also look at a measure of internet freedom.

Table 6 shows that greater state media ownership is associated with a greater number of journalists jailed and media outlets closed by the government, holding per capita income, primary school enrollment, state ownership, and autocracy constant. With one of the measures, the results are statistically significant. In our data, 45 democracies do not jail journalists, but seven (Benin, Malawi, Moldova, Niger, Nigeria, Russia, and South Korea) do. While 17 "near-democracies" do not jail journalists, 11 (Algeria, Angola, Cameroon, Ethiopia, Gabon, Iran, Peru, Togo, Tunisia, Turkey, and Zambia) do. Of the autocracies, 11 do not jail journalists—perhaps because there is no dissent, but six (China, Egypt, Kuwait, Myanmar, Syria, and Uzbekistan) do.[27]

Table 6 also establishes that countries with greater state media ownership censor the internet more heavily, as measured by a dummy that equals one if the government does not monopolize internet access and content (as measured by CPJ reports). This association is more naturally consistent with the public choice theory.

B. Political and Economic Freedom

We examine the association between state media ownership and civil, political, and economic rights of a country's citizens. Under the public interest theory, state ownership of the media enhances these rights; under the public choice view, it curtails them by suppressing public oversight of the government and facilitating corruption. In this analysis, we again control for per capita income, government ownership of state-owned enterprises (SOEs), primary school enrollment, and autocracy.

The results are reported in Table 7. Government ownership of the press is associated with (statistically significantly) lower levels of political rights, civil liberties, security of property, and quality of regulation and higher levels of corruption and risk of confiscation. The effect of state ownership of television is also usually adverse, but only sometimes significant. These results support the public choice view that government ownership of the press restricts information flows to the public, which reduces the quality of government.[28]

Studies of election coverage illustrate the effect of state ownership of the media on the supply of political information. In Ukraine, election monitors from the Organization for Security and Cooperation in Europe recorded significant biases in media coverage related to ownership. Although all major television stations devoted more time to the incumbent than the opposition candidate, the state-owned television was more unbalanced in coverage and biased in content (despite legal requirements for the state-owned media to provide balanced and neutral coverage). Of its total first-round election-related coverage, the state-owned UT1 devoted 51 percent to the incumbent, and 75 percent of that coverage was positive. Each of the six opposition candidates received substantially less coverage (a maximum of 16.7 percent), and the vast majority of opposition coverage was negative. The television channel Inter displayed similar prejudice—48.5 percent of coverage was

[27] We have also measured freedom of the press using subjective indicators from Douglas A. van Belle, Press Freedom and the Democratic Peace, 34 J. Peace Res. (1997); and Freedom House, The Annual Survey of Press Freedom 2000 (2000). The effects of state ownership on these measures of freedom were also negative but in general insignificant.

[28] Our results are also unsurprising in a broader historical context. Dictators from Napoleon, to Lenin, to Hitler, to Marcos nationalized the press.

TABLE 6

MEDIA FREEDOM (N = 97 Countries)

Variable	State Ownership: Press, by Share	State Ownership: Television, by Share	State Ownership: Radio	Gross National Product per Capita	State-Owned Enterprise Index	Autocracy	Primary School Enrollment	Constant	R^2
Journalists jailed, RSF[a]	.0865			−.0013	−.0018	−.0531	.0004	.0581	.1678
	(.0562)			(.0010)	(.0048)	(.0575)	(.0009)	(.0979)	
		.0272		−.0022**	−.0026	−.0952	.0002	.1272^{+}	.1362
		(.0428)		(.0008)	(.0049)	(.0652)	(.0009)	(.0776)	
			−.0141	−.0021*	−.0040	−.1162^{+}	.0001	.1890**	.1348
			(.0224)	(.0009)	(.0050)	(.0642)	(.0008)	(.0683)	
Media outlets closed	.0674			−.0019	.0033	−.0488	.0012**	−.0418	.1040
	(.0543)			(.0018)	(.0060)	(.0550)	(.0004)	(.0658)	
		−.0524		−.0022^{+}	.0006	−.1247*	.0009*	.1180	.0947
		(.0738)		(.0013)	(.0048)	(.0604)	(.0004)	(.0937)	
			−.0276	−.0025	.0008	−.1039*	.0009*	.0868	.0899
			(.0425)	(.0017)	(.0049)	(.0462)	(.0003)	(.0593)	
Journalists jailed, CPJ[b]	.4539**			−.0067^{+}	−.0017	.1121	.0030	−.2107	.2106
	(.1592)			(.0038)	(.0179)	(.2243)	(.0025)	(.3250)	
		.4069*		−.0125**	.0016	.0455	.0028	−.2270	.1822
		(.1604)		(.0041)	(.0182)	(.2249)	(.0026)	(.3506)	
			.1343^{+}	−.0102**	−.0037	−.1441	.0022	.1423	.1324
			(.0802)	(.0039)	(.0179)	(.2008)	(.0029)	(.3318)	
Internet freedom	−.4231**			−.0011	.0032	.3693^{+}	−.0020	.8550**	.4321
	(.1546)			(.0022)	(.0121)	(.1952)	(.0024)	(.2950)	
		−.1297		.0031	.0069	.5832**	−.0010	.5052^{+}	.3347
		(.1184)		(.0029)	(.0123)	(.1884)	(.0024)	(.2835)	
			−.0208	.0025	.0096	.6516**	−.0008	.3522	.3265
			(.0443)	(.0025)	(.0130)	(.1558)	(.0025)	(.2700)	

NOTE.—Values are the results of ordinary least squares regressions using four dependent variables. All regressions are run for press, television, and radio separately. We control for gross national product per capita, the state-owned enterprise index, autocracy, and primary school enrollment. Table 1 describes all variables in detail. Robust standard errors are shown in parentheses.

[a] RSF = Reporters sans Frontières.

[b] CPJ = Committee to Protect Journalists.

$^{+}$ Significant at the 10% level.

* Significant at the 5% level.

** Significant at the 1% level.

allocated to the incumbent, and 73 percent of that coverage was favorable. Although Inter is classified as privately owned, it has strong informal links to the state because one of the three shareholders is the First Deputy Speaker of Parliament.[29] The channel 1+1 is 51 percent privately and foreign owned, with a 49 percent nonvoting minority stake held by the State Property Company. The channel 1+1 devoted 34 percent of coverage to the incumbent, and 50 percent of that coverage was positive. Finally, STB, which is privately owned, was the least biased of the four stations. STB dedicated 23 percent of its coverage to the incumbent, with 40 percent of that coverage recorded as favorable. Similar observations have been made about Mexico,[30] Ghana, and Kenya.

Our results are much stronger for the press than for television. For the latter, the effects of government ownership are insignificant. One reason might be that private press, which is more common, provides a check on state television, ensuring freer flows of information than would occur if both were in state hands. The data confirm that the outcomes are worse when the state owns both newspapers and television than when it owns only one of them.

Luigi Zingales[31] argues that one benefit of private media is to provide information for stock market participants, thereby improving security pricing and revealing abuses by corporate insiders. The last row of Table 7 shows that greater state ownership of the media is associated with a lower number of companies (per capita) listed on the national stock market. These results suggest that state control of information flow is detrimental to financial development, which is consistent with the public choice theory.

Taken in its entirety, the evidence is broadly supportive of the public choice view that governments own the media—especially the press—not to improve the performance of economic and political systems, but to improve their own chances to stay in power. When the two theories yield different predictions, there is no evidence consistent with public interest.

C. Health

Lenin asked a pointed question: whom is the free press for? Our analysis has focused on political and economic freedom, but a Pigouvian could presumably argue that the true benefits of state ownership accrue to the disadvantaged members of society. Freed from the influence of the capitalist owners, state-controlled media can serve the social needs of the poor. A public choice theorist would argue, in contrast, that the government would

[29] The shareholdings are approximately equally distributed—33 percent, 33 percent, and 34 percent—among three individuals, with the Deputy Speaker holding one of the 33 percent stakes.

[30] For Mexico, see Joel Simon, Hot on the Money Trail, 37 Colum. J. Rev., January–February 1998, at 13.

[31] Luigi Zingales, In Search of New Foundations, 55 J. Fin. 1623 (2000).

TABLE 7

POLITICAL AND ECONOMIC FREEDOM

Variable	State Ownership: Press, by Share	State Ownership: Television, by Share	State Ownership: Radio	Gross National Product per Capita	State-Owned Enterprise Index	Autocracy	Primary School Enrollment	Constant	R^2	N
Political rights	−.1804**			.0107**	−.0016	.7819**	.0005	−.1039	.8276	97
	(.0612)			(.0020)	(.0071)	(.0792)	(.0007)	(.1122)		
		−.1161^{+}		.0128**	−.0016	.8351**	.0007	−.1630	.8144	97
		(.0680)		(.0020)	(.0078)	(.0701)	(.0008)	(.1222)		
			.0042	.0123**	.0018	.9045**	.0011	−.3366**	.8072	97
			(.0419)	(.0020)	(.0076)	(.0667)	(.0009)	(.1164)		
Civil liberties	−.1468**			.0104**	−.0006	.5377**	.0005	.0653	.7718	97
	(.0529)			(.0018)	(.0063)	(.0756)	(.0007)	(.1084)		
		−.0671		.0120**	.0001	.5969**	.0007	−.0220	.7547	97
		(.0660)		(.0017)	(.0070)	(.0694)	(.0007)	(.1189)		
			.0162	.0117**	.0028	.6420**	.0010	−.1445	.7514	97
			(.0395)	(.0018)	(.0069)	(.0598)	(.0008)	(.1023)		
Corruption	.0801^{+}			−.0188**	−.0096	−.0804	−.0006	.8204**	.7711	95
	(.0451)			(.0019)	(.0070)	(.0500)	(.0008)	(.0903)		
		−.0236		−.0194**	−.0115	−.1483**	−.0009	.9509**	.7642	95
		(.0491)		(.0020)	(.0072)	(.0442)	(.0009)	(.1048)		
			.0002	−.0195**	−.0108	−.1343**	−.0008	.9169**	.7637	95
			(.0382)	(.0019)	(.0070)	(.0418)	(.0009)	(.1060)		
Security of property	−.2716**			.0115**	.0316**	−.1239	−.0018*	.7615**	.6697	91
	(.0714)			(.0018)	(.0078)	(.1047)	(.0009)	(.1476)		
		−.0243		.0138**	.0350**	.0324	−.0009	.4582**	.5929	91
		(.0613)		(.0018)	(.0082)	(.1228)	(.0008)	(.1534)		
			.0310	.0137**	.0373**	.0588	−.0007	.3713	.5941	91
			(.0421)	(.0018)	(.0090)	(.1093)	(.0009)	(.1459)		

Risk of confiscation	.2146**			−.0064**	−.0047	.1140	−.0056	.6445**	.5369	81
	(.0788)			(.0017)	(.0095)	(.1037)	(.0017)	(.1896)		
		.1442[+]		−.0090**	−.0039	.0818	−.0058**	.6774**	.5037	81
		(.0729)		(.0020)	(.0098)	(.1156)	(.0016)	(.1935)		
			.0488	−.0081**	−.0051	−.0060	−.0059**	.8142**	.4855	81
			(.0377)	(.0018)	(.0100)	(.1121)	(.0018)	(.2044)		
Quality of regulation	−.5400**			.0204**	.0620**	.5461	.0007	−.5779	.6522	97
	(.1856)			(.0046)	(.0178)	(.2433)	(.0025)	(.3528)		
		−.1120		.0255**	.0686**	.8429**	.0021	−1.0931**	.6088	97
		(.1652)		(.0048)	(.0197)	(.2628)	(.0023)	(.3605)		
			−.0425	.0249**	.0698**	.8932**	.0022	−1.1859**	.6076	97
			(.1019)	(.0046)	(.0207)	(.2341)	(.0023)	(.3212)		
Number of listed firms	−.0271			.0010**	−.0032	.0063	.0000	.0258*	.1653	97
	(.0104)			(.0003)	(.0025)	(.0136)	(.0001)	(.0129)		
		−.0147		.0013**	−.0032	.0159	.0001	.0130	.1333	97
		(.0116)		(.0003)	(.0027)	(.0142)	(.0001)	(.0137)		
			.0080	.0013**	−.0024	.0274	.0001	−.0209	.1286	97
			(.0076)	(.0003)	(.0023)	(.0193)	(.0001)	(.0199)		

NOTE.—Values are the results of ordinary least squares regressions using eight dependent variables. All regressions are run for press, television, and radio separately. We control for gross national product per capita, the state-owned enterprise index, autocracy, and primary school enrollment. Table 1 describes all variables in detail. Robust standard errors are shown in parentheses.

[+] Significant at the 10% level.
* Significant at the 5% level.
** Significant at the 1% level.

use its ownership of the media to muzzle the press and to prevent the disadvantaged groups from voicing their grievances. Government ownership should then be associated with inferior social outcomes.

The contrasting predictions of the two views can be evaluated empirically.Table 8 reports the relationships between state ownership of the media and health indicators, holding constant our usual controls. Countries with greater state ownership of the media exhibit lower life expectancy, greater infant mortality, and less access to sanitation and health system responsiveness. Private media ownership is associated with health as well as economic and political outcomes, which is consistent with the public choice but not with the public interest theory.[32]

D. Robustness

We check the robustness of our results in a number of ways. First, we estimate the regressions in Tables 4–8 using ethnolinguistic heterogeneity and latitude as additional controls. These controls are insignificant and do not affect the results, but we do lose observations.

Second, we ask whether the rich countries, with good outcomes and low levels of state ownership of the press, drive the results, by estimating all the regressions excluding Organization for Economic Cooperation and Development (OECD) countries. In Table 9, we present the results using state ownership of the press (by share) as the independent variable and using all the dependent variables from Tables 6–8 that were statistically significantly influenced by this state ownership variable in the whole sample. We find that, with the exception of "number of listed firms," the influence of state ownership of the press on outcomes remains statistically significant, although in many regressions the level of significance diminishes as compared with the whole sample. The magnitude of the coefficients remains very similar as well. The results thus are not driven by the OECD countries. Likewise,

[32] Earlier studies reached a similar conclusion. Duncan Thomas, John Strauss, & Maria-Helena Henriques, How Does Mother's Education Affect Child Height? 26 J. Hum. Resources 183 (1991), finds that maternal access to the media has a strong and positive effect on child health in Brazil. Sen, Poverty and Famines, *supra* note 4, argues that the lack of democracy, freedom of information, and an independent press contributed to almost 30 million deaths during China's Great Leap Forward between 1958 and 1961. Sen contrasts this with India, which has not experienced a major famine since independence and has stronger democratic processes and press freedom: "The Government (of India) cannot afford to fail to take prompt action when large scale starvation threatens. Newspapers play an important part in this, in making the facts known and forcing the challenge to be faced" (at 76). Besley & Burgess, *supra* note 4, at 1, tests Sen's proposition empirically. Using data across Indian states, it finds that higher newspaper circulation increases government responsiveness to natural shocks. Supporting this hypothesis as well is David Stromberg, Radio's Impact on Public Spending (Working paper, Inst. Int'l Econ. Stud., Stockholm 2001). Rather than focus on media penetration, our study points to a critical deterrent to media's ability to serve social goals—government ownership.

the results are preserved if we remove the richest quartile of countries and hold both within the richer half and the poorer half of the sample.

Third, when in addition to all the other controls we include a separate dummy for each quartile of per capita income, the results stay at comparable significance levels.

Fourth, we check whether the results are driven by any particular region. The answer is no: the results hold controlling for continent "dummies," but also within Europe, within America, and within Africa/Middle East, although at lower levels of statistical significance.

Fifth, we check whether the results are robust to controlling for the level of media penetration, and the answer is yes.

Last, alternative definitions of dependent and independent variables yield similar results.

We also try to address the question of whether our results are driven by monopoly rather than government ownership per se (there is no private monopoly of the press in the sample, only state monopoly). To this end, we divide countries into unequal groups with 0–25 percent, 26–50 percent, 51–75 percent, and over 75 percent state ownership of the press and reestimate our regressions using the quartile state ownership dummies. In general, we do not find a strong pattern of coefficients, although the results are inconsistent with the proposition that "bad" outcomes associated with state ownership are driven solely by monopoly. There is some evidence, to the contrary, that the lowest quartile of state ownership is associated with somewhat better outcomes than the middle quartiles. Although the evidence is very weak, it does not point to a "monopoly only" story.

VI. Conclusion

In this paper, we examine ownership patterns of newspapers and television (and to a lesser extent radio) in 97 countries around the world. We find that media firms nearly universally have ownership structures with large controlling shareholders and that these shareholders are either families or governments. This evidence is broadly consistent with the ideas that there is large amenity potential (control benefits) associated with owning media—be it political influence or fame.[33]

We then show that countries that are poorer, more autocratic, with lower levels of primary school enrollment, and with higher levels of state intervention in the economy also have greater state ownership of the media. In addition, countries with greater state ownership of the media have less free press, fewer political rights for citizens, inferior governance, less developed capital markets, and inferior health outcomes (the last result being particularly important in light of the argument that state ownership of the media serves

[33] See Demsetz, and Demsetz & Lehn, *supra* note 8, for the discussion of these ideas.

TABLE 8

HEALTH OUTCOMES

Variable	State Ownership: Press, by Share	State Ownership: Television, by Share	State Ownership: Radio	Gross National Product per Capita	State-Owned Enterprise Index	Autocracy	Primary School Enrollment	Constant	R^2	N
Life expectancy	−9.8288**			.4648**	.2543	−4.9351	.0998$^+$	59.5669**	.5201	95
	(3.1357)			(.0648)	(.3971)	(3.4752)	(.0592)	(6.8662)		
		−9.6032*		.5925**	.1652	−4.2398	.1044$^+$	61.1994**	.5082	95
		(3.7139)		(.0710)	(.3603)	(4.1199)	(.0638)	(9.5051)		
			−3.8437*	.5401**	.2378	.1502	.1155$^+$	53.4806**	.4698	95
			(1.7617)	(.0684)	(.4106)	(3.6747)	(.0686)	(7.9161)		
Infant mortality	.2411**			−.0090**	.0027	.1027	−.0035*	.4567**	.5191	95
	(.0792)			(.0014)	(.0098)	(.0842)	(.0015)	(.1648)		
		.2277**		−.0121**	.0048	.0774	−.0036*	.4317*	.5009	95
		(.0827)		(.0018)	(.0093)	(.0969)	(.0015)	(.2028)		
			.0587	−.0110**	.0014	−.0379	−.0040*	.6664**	.4454	95
			(.0404)	(.0016)	(.0098)	(.0891)	(.0017)	(.1887)		
Nutrition	−241.7942$^+$			26.3356**	−2.4257	−97.6108	6.7168**	2,153.5160**	.4945	93
	(144.4463)			(4.6628)	(17.4479)	(185.7830)	(2.1777)	(279.6389)		
		−239.1214		29.1321**	−5.8745	−54.5932	6.7961**	2,181.8780**	.4924	93
		(163.0415)		(4.4736)	(17.1176)	(196.1844)	(2.2910)	(359.7296)		
			5.4791	28.2367**	1.5262	82.6154	7.4517**	1,833.5890**	.4763	93
			(102.7495)	(4.6139)	(18.1672)	(172.6119)	(2.4268)	(299.4591)		

Access to sanitation	−.2769**			.0137**	.0066	−.0728	.0017	.5215**	.5848	81
	(.0851)			(.0024)	(.0099)	(.1005)	(.0011)	(.1583)		
		−.1548+		.0174**	.0063	−.0004	.0021+	.4113*	.5275	81
		(.0879)		(.0024)	(.0106)	(.1229)	(.0011)	(.1842)		
			.0483	.0165**	.0131	.1089	.0029*	.1031	.5117	81
			(.0510)	(.0024)	(.0103)	(.1054)	(.0012)	(.1601)		
Health system responsiveness	−.3508**			.0707**	.0284	−.1417	.0082**	4.2760**	.8194	96
	(.1323)			(.0062)	(.0240)	(.1431)	(.0027)	(.2941)		
		−.3522*		.0752**	.0252	−.1148	.0083**	4.3443**	.8179	96
		(.1679)		(.0060)	(.0237)	(.1706)	(.0026)	(.3266)		
			.0343	.0737**	.0367	.1034	.0094**	3.7832**	.8084	96
			(.1207)	(.0061)	(.0245)	(.1535)	(.0031)	(.3427)		

NOTE.—Values are the results of ordinary least squares regressions using five dependent variables. The dependent variables are scaled so that higher values indicate better outcomes. All regressions are run for press, television, and radio separately. We control for gross national product per capita, the state-owned enterprise index, autocracy, and primary school enrollment. Table 1 describes all variables in detail. Robust standard errors are shown in parentheses.

+ Significant at the 10% level.

* Significant at the 5% level.

** Significant at the 1% level.

TABLE 9

RESULTS EXCLUDING OECD COUNTRIES

Variable	State Ownership, Press (by Share)	Gross National Product per Capita	State-Owned Enterprise Index	Autocracy	Primary School Enrollment	Constant	R^2	N
Journalists jailed, CPJ	.4913**	.0010	−.0106	.1895	.0036	−.3262	.1691	69
	(.1535)	(.0109)	(.0228)	(.2128)	(.0026)	(.2934)		
Internet freedom	−.4140*	.0018	.0036	.3899^{+}	−.0020	.8327**	.3848	69
	(.1675)	(.0061)	(.0166)	(.2148)	(.0025)	(.3262)		
Political rights	−.1677*	.0100	−.0035	.7407**	.0002	−.0617	.7421	69
	(.0680)	(.0071)	(.0092)	(.0791)	(.0007)	(.1189)		
Civil liberties	−.1719**	.0043	−.0028	.4780**	.0002	.1510	.6654	69
	(.0578)	(.0053)	(.0070)	(.0720)	(.0007)	(.1133)		
Security of property	−.2559**	.0113*	.0303**	−.1482	−.0019*	.7742**	.4593	63
	(.0797)	(.0045)	(.0107)	(.1214)	(.0010)	(.1694)		
Risk of confiscation	.1897*	−.0113*	−.0028	.0900	−.0057**	.6888**	.4698	54
	(.0890)	(.0048)	(.0127)	(.1174)	(.0018)	(.2143)		
Quality of regulation	−.4357*	.0396**	.0540*	.5975*	.0000	−.6346	.5068	69
	(.2027)	(.0091)	(.0226)	(.2665)	(.0027)	(.4004)		

Number of listed firms	−.0157	.0035**	−.0038	.0186	.0000	.0064	.2746	69
	(.0108)	(.0007)	(.0028)	(.0134)	(.0001)	(.0109)		
Life expectancy	−7.8352*	.7461**	.1923	−4.7176	.0931	58.2185**	.3511	67
	(3.4965)	(.2499)	(.4865)	(4.0082)	(.0628)	(7.6217)		
Infant mortality	.1931*	−.0165**	.0060	.0856	−.0035*	.5059**	.4030	67
	(.0861)	(.0050)	(.0120)	(.0912)	(.0015)	(.1775)		
Access to sanitation	−.2115*	.0234**	.0003	−.0562	.0015	.4740**	.4383	57
	(.0938)	(.0072)	(.0120)	(.1077)	(.0011)	(.1731)		
Health system responsiveness	−.2638+	.0853**	.0158	−.1131	.0084**	4.1840**	.5995	68
	(.1498)	(.0197)	(.0308)	(.1539)	(.0028)	(.3275)		

NOTE.—The table presents the results of ordinary least squares regressions using 12 dependent variables. The independent variable is state ownership of the press by share. We control for gross national product per capita, the state-owned enterprise index, autocracy, and primary school enrollment. Table 1 describes all variables in detail. Robust standard errors are shown in parentheses. OECD = Organisation for Economic Co-operation and Development; CPJ = Committee to Protect Journalists.

+ Significant at the 10% level.

* Significant at the 5% level.

** Significant at the 1% level.

the needs of the poor). The negative association between government ownership and political and economic freedom is stronger for newspapers than for television. Although none of this evidence can be unambiguously interpreted as causal, it obtains with extensive controls and there is no empirical evidence of any "benefits" of state ownership.

At some broad level, these results are unsurprising, as intellectuals since John Milton in the seventeenth century have advocated free press and independent media. Still, the results do provide support for the public choice against public interest theory of media ownership in an environment where, as Coase has argued, the public interest case is especially strong.[34] Yet the data are inconsistent with these Pigouvian arguments and reveal no benefits of state ownership.

Bibliography

Bebchuk, Lucian Arye. "A Rent-Protection Theory of Corporate Ownership and Control." Working Paper No. 7203. Cambridge, Mass.: National Bureau of Economic Research, 1999.

Berezovsky, Boris. "Our Reverse Revolution: Under Yeltsin, We Oligarchs Helped Stop Russia from Reverting to Its Old, Repressive Ways." *Washington Post*, October 26, 2000, p. A27.

Besley, Timothy, and Burgess, Robin. "The Political Economy of Government Responsiveness: Theory and Evidence from India." *Quarterly Journal of Economics* 117 (2002): 1415–51.

Besley, Timothy, and Prat, Andrea. "Handcuffs for the Grabbing Hand? Media Capture and Government Accountability." CEPR Discussion Paper No. 3132. London: Centre for Economic Policy Research, January 2002.

Coase, R. H. *British Broadcasting; A Study in Monopoly*. Cambridge, Mass.: Harvard University Press, 1950.

Coase, R. H. "The Federal Communications Commission." *Journal of Law and Economics* 2 (1959): 1–40.

Coase, R. H. "The Market for Goods and the Market for Ideas." *American Economic Review: Papers and Proceedings* 64 (1974): 384–91.

Committee to Protect Journalists. "Attacks on the Press in 1999: A Worldwide Survey by the Committee to Protect Journalists." 2000. http://www.cpj.org/attacks99/frameset_att99/frameset_att99.html.

Demsetz, Harold. "The Amenity Potential of Newspapers and the Reporting of Presidential Campaigns." In *Efficiency, Competition and Policy*, edited by H. Demsetz. London: Basil Blackwell, 1989.

Demsetz, Harold, and Lehn, Kenneth. "The Structure of Corporate Ownership: Causes and Consequences." *Journal of Political Economy* 93 (1985): 1155–77.

[34] *Supra* note 6.

Djankov, Simeon; La Porta, Rafael; Lopez-de-Silanes, Florencio; and Shleifer, Andrei. "The Regulation of Entry." *Quarterly Journal of Economics* 117 (2002): 1–37.

Freedom House. *Freedom in the World: Annual Survey of Freedom Country Ratings 1996/1997*. New York: Freedom House, 1997.

Freedom House. *Freedom in the World: Annual Survey of Freedom Country Ratings 1999/2000*. New York: Freedom House, 2000. http://www.freedomhouse.org/research/index.htm.

Freedom House. *The Annual Survey of Press Freedom 2000*. New York: Freedom House, 2000. http://www.freedomhouse.org/research/pressurvey.htm.

Grossman, Sanford J., and Hart, Oliver D. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." *Journal of Political Economy* 94 (1986): 691–719.

Grossman, Sanford J., and Hart, Oliver D. "One Share–One Vote and the Market for Corporate Control." *Journal of Financial Economics* 20 (1988): 175–202.

Gwartney, James; Lawson, Robert; and Samida, Dexter. *Economic Freedom of the World*. Vancouver: Fraser Institute, 2000.

Kaufmann, Daniel; Kraay, Aart; and Zoido-Lobaton, Pablo. "Governance Matters." Policy Research Working Paper No. 2196. Washington, D.C.: World Bank, 1999.

Lange, Yasha. *Media in the CIS*. Duesseldorf: European Institute for the Media, 2000.

La Porta, Rafael; Lopez-de-Silanes, Florencio; and Shleifer, Andrei. "Corporate Ownership around the World." *Journal of Finance* 54 (1999): 471–517.

La Porta, Rafael; Lopez-de-Silanes, Florencio; Shleifer, Andrei; and Vishny, Robert W. "Legal Determinants of External Finance." *Journal of Finance* 52 (1997): 1131–55.

La Porta, Rafael; Lopez-de-Silanes, Florencio; Shleifer, Andrei; and Vishny, Robert W. "Law and Finance." *Journal of Political Economy* 106 (1998): 1113–55.

La Porta, Rafael; Lopez-de-Silanes, Florencio; Shleifer, Andrei; and Vishny, Robert W. "The Quality of Government." *Journal of Law, Economics, and Organization* 15 (1999): 222–79.

Lenin, Vladimir. "On Freedom of the Press." *Labour Monthly* 7 (1925): 35–37.

Lewis, W. Arthur. *The Theory of Economic Growth*. New York: Harper Torchbook, 1955.

Myrdal, Gunnar. *The Political Element in the Development of Economic Theory*. London: Routledge & Kegan, 1953.

Polity IV Project. *Polity IV Dataset: Political Regime Characteristics and Transitions, 1800–1999*. College Park: University of Maryland, Center for

International Development and Conflict Management, 2000. http://www.cidcm.umd.edu/inscr/polity/.

Reporters sans Frontières. *Annual Report 2000.* Paris: Reporters sans Frontières, 2000. http://www.rsf.fr/content.php3.

Sen, Amartya. *Poverty and Famines*. Oxford: Oxford University Press, 1984.

Sen, Amartya. *Development as Freedom.* New York: Alfred A. Knopf, 1999.

Simon, Joel. "Hot on the Money Trail." *Columbia Journalism Review*, January–February 1998, pp. 13–22.

Simons, Henry. *Economic Policy of a Free Society.* Chicago: University of Chicago Press, 1948.

Stigler, George J. "The Economics of Information." *Journal of Political Economy* 69 (1961): 213–25.

Stromberg, David. "Radio's Impact on Public Spending." Working paper. Stockholm: Stockholm University, Institute for International Economic Studies, 2001.

Thomas, Duncan; Strauss, John; and Henriques, Maria-Helena. "How Does Mother's Education Affect Child Height?" *Journal of Human Resources* 26 (1991): 183–211.

United Nations Development Programme. *Human Development Report 2000*. New York: United Nations Development Programme/Oxford University Press, 2000.

UNESCO Institute for Statistics. *Annual Statistical Yearbook.* Paris: UNESCO, 1999.

van Belle, Douglas A. "Press Freedom and the Democratic Peace." *Journal of Peace Research* 34 (1997): 405–14.

World Association of Newspapers. *World Press Trends 2000.* Paris: Zenith Media, 2000.

World Bank. *Database of Enterprise Indicators on Transition Economies, Europe and Central Asia Region.* Washington, D.C.: World Bank, 2000.

World Bank. *World Development Indicators 2000*. Washington, D.C.: World Bank, 2000.

World Health Organization. *World Health Report 2000*. Geneva: World Health Organization, 2000.

Zenith Media. *Americas Market and MediaFact*. London: ZenithOptimedia, 2000.

Zenith Media. *Asia Pacific Market and MediaFact.* London: ZenithOptimedia, 2000.

Zenith Media. *Central and Eastern European Market and MediaFact*. London: ZenithOptimedia, 2000.

Zenith Media. *Middle East and Africa Market and MediaFact*. London: ZenithOptimedia, 2000.

Zenith Media. *Western European Market and MediaFact*. London: ZenithOptimedia, 2000.

Zingales, Luigi. "In Search of New Foundations." *Journal of Finance* 55 (2000): 1623–54.