Synopsis: How far can autocracies strengthen popular support by silencing dissent and manipulating the news? Debate about this issue reflects some of the earliest concerns about the power of state propaganda originating during the interwar years. To address this question, based on the Reporters sans Frontières’ Worldwide Press Freedom index, 44 states are classified as either restrictive media environments, such as China, Viet Nam, Iraq and Russia, or pluralistic media environments, exemplified by Finland, the Netherlands and Trinidad and Tobago. Individual-level attitudes and media habits are examined within each environment, using the 5th wave of the World Values Survey (2005-6). The attitudes of regular consumers of information from television and radio news, newspapers, and the Internet are compared with non-users. In restrictive media environments, the comparison with the general public reveals that those regularly exposed to television and radio news consistently expressed significantly greater regime support (they had more confidence in core regime institutions, they were significantly more anti-democratic in their values, and they were more nationalistic). Newspaper readers and Internet users in these societies displayed more diverse patterns. The conclusion discusses how to interpret the findings, considers some potential criticisms of the survey evidence, and reflects upon the broader theoretical implications for assessing media effects within different contexts.
In late-September 2007, thousands of monks and civilians took to the streets of Rangoon in a week-long uprising against the Burmese government. In response to the dramatic events, the military junta shut down the Internet, arrested or intimidated Burmese journalists, and severed mobile and landline phone links to the outside world. A Japanese video journalist from AFP news was shot dead. Cameras and video cell phones were confiscated by soldiers. The official Division for Press Scrutiny and Registration pressured local editors to publish stories that the unrest was organized by ‘saboteurs’. In the immediate aftermath of these events, thousands of monks were rumored to have been arrested, but after the media clampdown no images of these events were published in the domestic and international news.¹ Even in less turbulent times, critical coverage of the Burmese junta is restricted in domestic news media, silencing negative stories about the military leadership. Citizens are punished for listening to overseas radio broadcasts. Nor are these isolated instances of state control of the airwaves; although Burma is an extreme cases, regularly ranking near the bottom of worldwide annual assessments of press freedom produced by Reporters sans frontières and Freedom House, human rights observers report that many other states routinely deploy techniques designed to suppress independent journalism, manipulate and slant news selectively in their favor, and limit critical coverage of the regime.

The many ways that autocracies seek to control the media are well documented. What is less clearly established, however, is how far states with restrictive media environments thereby succeed in manipulating public opinion and strengthening their support at home. The cumulative result of years, or even decades, of tight media control in restrictive and isolated states such as Burma and North Korea is usually assumed to have a powerful impact upon citizens, especially during war-time (Gary 1999). But the intended effects may well fail for many reasons, not least if people mistrust the source and thereby discount the information which is disseminated. These issues have been debated ever since the earliest work by Lasswell (1927), the rise of mass advertizing and the development of scientific notions of public opinion, and the experimental studies monitoring the effects of propaganda by the allies during the Second World War (Herman and Chomsky 1988; Cole 1996; Jowett and O’Donnell 2006).

Part I reviews the literature in this debate, establishes the theoretical framework, and outlines the core propositions under investigation. To examine the empirical
evidence for testing these propositions, Part II develops the comparative framework. Part III analyzed cross-national survey evidence to compare regime support at macro-level in each society and then at micro-level among the news audience living within each type of media environments. Empirical evidence is derived from a unique dataset, the 5th wave of the World Values Survey (WVS-5), with fieldwork conducted in more than forty nations in 2005-6. 2 ‘Regime support’ is understood as a multidimensional concept which is measured at three levels: confidence in core regime institutions such as the government, civil service, parties, and courts; ideological attitudes towards democracy and military rule; and more diffuse levels of nationalism.

The results of the comparison at macro-level presented in Part III revealed that confidence in government was indeed higher in societies with restricted media environments, as expected, including Iran, China and Viet Nam, compared with countries such as Sweden and France. This pattern is certainly suggestive of strong effects arising from state control of the media but it cannot be regarded as furnishing conclusive proof, since it remains possible that many other factors which differentiate these societies could always be generating this pattern. The results of the micro-level analysis are more persuasive, however, when the audiences often exposed to the news media are compared with others within the same societies who do not regularly use TV or radio news, newspapers, or the Internet for information. The findings largely confirm the initial theoretical propositions. In states with restricted media environments, compared with the attitudes of non-users, regime support was significantly higher among the regular audience for television and radio news. These patterns proved robust in multivariate models examining a range of measures of regime support, including confidence in government, confidence in regime institutions, and support for the national community, even with a battery of prior social controls. The TV and radio audience were also more negative towards democratic values than non-users in restricted media environments. By contrast, in pluralistic media environments, news consumers were more positive towards democratic values than non-users. These overall findings lead us to conclude that routine state restrictions over news broadcasting are capable of achieving their intended effects, as many commentators have long feared. The final section considers the interpretation of the results, counters some potential criticisms, and reflects upon the broader implications arising from the study.
I. Theoretical framework

The study starts from the premise that states which control more restrictive media environments aim to suppress dissent and to provide positive messages about the regime, rallying support for the authorities, as well as generating more diffuse feelings of patriotism and spreading ideological values favorable to the regime. If state control succeeds in its objectives, in this environment regular exposure to the news media is predicted to generate more confidence in the authorities, as well as encouraging more negative attitudes towards democratic values and reinforcing feelings of nationalism. Any direct effects from this process are expected to be strongest among regular consumers of radio and television news, the sector of the mass media where the state usually exercises the greatest control over the ownership and contents. Similar effects are not predicted in pluralistic media environments, where competition among different media outlets and sources provides mixed messages about the regime. Nor are such effects expected to be evident in media sectors such as newspapers and Internet where the state usually has less direct control over the ownership and contents.

The idea that states use restrictions on the free press to suppress dissent and to mobilize support is widely accepted. Liberal philosophers and human rights advocates have traditionally mounted a strong defense of an unfettered and independent press, as embodied in the fundamental freedoms of expression, information, thought, speech and conscience. These principles are widely recognized as human rights in all major conventions agreed by the world’s leaders, including the 1948 UN Universal Declaration of Human Rights, the European Convention on Human Rights, the American Convention on Human Rights, and the African Charter on Human and Peoples’ Rights. Article 19 of the 1948 Universal Declaration of Human Rights states: "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers." Rights to freedom of the press are widely recognized as essential in procedural definitions of representative democracy, for example Dahl (1971) emphasized that citizens cannot make meaningful choices in contested elections without access to alternative sources of information. The prevention of corruption and abuse of power by public officials also requires transparency, so that the public can evaluate the
outcome of government actions and hold elected representatives to account (Islaam 2002, 2003).

Techniques of suppression

Despite the acknowledged importance of these universal rights, a substantial literature has documented how states regularly subvert freedom of expression and seek to control the independent media (Inglehart 1998; Sussman 2001; Roberts 2006). The techniques employed to repress and manipulate information have also been commonly documented by human rights observers, including regular reports issued by Amnesty International, Human Rights Watch, Amnesty International, the Committee to Protect Journalists, the World Press Freedom Committee, and Reporters sans Frontières. In the most extreme cases, methods used by autocratic states include overt official censorship; state monopoly of radio and television channels, or severely-limited competition through oligopolies in commercial ownership; legal restrictions on freedom of expression and publication (such as stringent libel laws and restrictive official secrets acts); the use of outright violence, imprisonment, and intimidation against journalists and broadcasters; and the techniques of propaganda to spread state ideologies. Freedom of expression can also be restricted by less draconian factors, including requirements for registration or licenses for journalists or newspapers; broadcasting regulations as well as laws governing broadcasting contents; concentration of ownership; and a legal framework governing official secrecy or freedom of information, intellectual property, libel, and taxation.

In North Korea, for example, one of the most rigid state controlled and inaccessible societies, reports document how television and radio news broadcasts are dominated by flattering reports of the activities of the leader, Kim Jong-II, along with patriotic stories emphasizing national unity. ³ Citizens caught listening to foreign radio broadcasts face serious punishment, external signals are blocked, and individual radios are sealed so that they can only receive official stations. In Malaysia, as a less extreme example, human rights observers report that the state has manipulated the media to stifle internal dissent and forced journalists employed by the international press to modify or suppress news stories unflattering to the regime. ⁴ Elsewhere governments in Uzbekistan, Sri Lanka, and Saudi Arabia, among others, commonly place serious restrictions on press freedom to criticize government rulers through official regulations,
legal restrictions and state censorship.\(^5\) It remains more difficult for governments to censor online communications, but nevertheless in China and Cuba, state-controlled monopolies provide the only Internet service and thereby filter both access and content (Sussman 2000; Kalathil and Boas 2001). Media freedom and human rights organizations have documented cases of media professionals who are killed or injured in the course of their work each year. In Colombia, Sierra Leone, Liberia, Zimbabwe and Egypt, for example, the International Federation of Journalists reports that many journalists, broadcasters and editors have experienced intimidation or harassment, while journalists in many parts of the world face the daily threat of personal danger from wars or imprisonment by the security services.\(^6\) Mickiewicz (1999, 2007) has demonstrated the degree of pro-government bias and the lack of partisan balance in patterns of news broadcasts in Russia during presidential and Duma elections. Others have documented the impact of official state censorship and propaganda on what is covered by different media outlets in China and the impact of deregulation and liberalization of the newspaper market (Chu 1994; Cullen and Hua 1998). Gunther and Mughan (2000) suggest that the impact of state control may be particularly strong in culturally-isolated autocracies with state broadcasting monopolies and the least permeable national borders, for example in North Korea, China, and Burma, with more limited effects in societies where the public has access to alternative airwaves, for example in Communist East Germany.

\textit{The impact on processes of democratization}

Many scholars have also described the positive contribution of media liberalization and independent journalism in the transition and consolidation of democracy. Research has compared this process in post-Communist Europe (Sparks and Reading 1994; Taylor 2000; Becker 2004; Smaele 2004; Amelina 2007; McFaul 2005; Anable 2006; Dyczok 2006), Asia (Sani 2005; Gunther, Hong and Rodriguez 1994; Ni 1995), as well as in Africa (Hyden et al. 2002; Temin and Smith 2002). These studies suggest that the initial transition from autocracy liberalizes ownership and control of the media, loosens the dead hand of official censorship, and weakens state control of information. The public is thereby exposed to a wider variety of cultural products and ideas through access to multiple alternative newspapers, radio and TV channels, as well as new communication technologies such as the Internet and mobile telephones. Once
media liberalization has commenced, this process is widely believed to reinforce processes of democratic consolidation and good governance; watch-dog journalism can highlight cases of government corruption and malfeasance, alternative news outlets can provide a civic forum for multiple voices in public debate, and reporters can encourage officials to be more responsive to social needs (James 2006).

The impact of restrictive practices on mass attitudes

Therefore, practices and techniques which restrict the independent media and limit rights to freedom of expression are well documented, as is the way that a free press contributes towards the process of democratization. Yet far less systematic cross-national research has examined the impact of restrictions of press freedom upon public opinion, especially comparing the effects of different types of media environment on mass attitudes. State control of information aims to suppress potential support for opposition movements, and more positively to bolster the popularity of the regime, trust and confidence in political institutions, and feelings of national pride and identity, as well as shaping broader ideological beliefs. Despite the importance of this issue, the effects of such practices on citizens’ attitudes and values have not been clearly and systematically demonstrated. One reason is the difficulties of conducting reliable survey research in autocracies which regularly impose serious limits on freedom of speech, particularly in getting access to, and asking questions about, politically sensitive issues, such as monitoring confidence in government or trust in the authorities. This context may also encourage a climate of self-censorship; survey respondents may believe that it would be dangerous to provide critical evaluations of those in power, raising difficulties in how to interpret their replies, an issue to which we will return in the conclusion. Meanwhile, even when these difficulties are overcome, cross-national surveys need to gauge both regime support as well as systematic patterns of media use.

The case studies which are available also warn that the effects of the media environment may not be as straightforward as often assumed by over-simple ‘stimulus-response’ models of state hegemonic control over the gullible public, and considerable caution is needed when extrapolating directly from the type of coverage presented in the news media to the distribution of public opinion and attitudes. For example, a recent comparative study by Gunther and Mughan (2000), based on ten case-studies, concluded that the ability of autocracies to shape political attitudes and values remains
limited. The authors highlight detailed cases of strong state control of the media, for example in Chile under Pinochet and in Spain under Franco. Yet in both cases, surveys conducted shortly after these regimes ended suggested widespread public support for democracy and a rejection of the authoritarian past. Rather than a direct impact, the study cautions that the effect of state control of the media on the public is often complex and contingent upon many factors, such as the presence of media technologies, the nature of political institutions, and the characteristics of citizens.

States also seek to disseminate more positive images and messages through propaganda, especially in wartime, but early studies emphasized the limits of these techniques. Classic experimental studies conducted during World War II found that US military training films, Why we Fight, were relatively ineffective in altering soldier’s attitudes and behavior (Hovland, Lumsdaine and Sheffield 1949). The body of research in this era generated the consensus that attempts at using radio and films alone for political persuasion tended not to convert attitudes or to change behavior, at least in the short-term. Indeed, a wide range of literature during the height of the Cold War era traditionally emphasized the limited direct effects of the mass media for short-term persuasion in contrast to the primacy of primary ties and face-to-face communication (Katz and Lazarsfeld 1955). In this perspective, autocracies seek to strengthen regime support through positive images presented in state propaganda but such techniques are likely to fail. Moreover the early ‘direct effects’ model of the role of media propaganda has come under sustained challenge from cognitive theories in education and social psychology, derived originally from the work of Jean Piaget, which emphasize constructivist accounts of learning. When applied to the role of the mass media, in this perspective recipients of media messages play an active role when processing information and extracting meaning from information (Neuman, Just, and Crigler 1992); for example, state propaganda may prove highly ineffective if citizens suspect the source or channel and thereby discount pro-government messages. People may learn to discount media messages in a restrictive media environment, if they are aware of censorship or partisan bias in the news and they do not trust the source.

In addition, the news media is only one factor shaping confidence in authorities, and it may not be the most important driver. Ever since Easton (1965, 1975), a range of explanations for the underlying causes of system support have been offered in the
literature (Nye 1997; Norris 1999). Theories of socialization usually emphasize the influence of the family, school and local community as the key agencies which shape children and adolescents during their formative years, more than the role of the mass media in adult life. Moreover, modernization theories focus upon a glacial erosion of support for many traditional sources of political authority, including representative government, and established, hierarchical institutions such as the army, police and church, leading towards more elite-challenging behavior among the young and well-educated in post-industrial societies (Inglehart 1997; Inglehart and Welzel 2005). Instrumental accounts deriving from political economy focus on the performance of the government, especially pocket-book evaluations of the competence of leaders in managing the economy and delivering basic public services (Miller 1974; McAllister 1999). By contrast, institutional explanations focus upon the role of intermediary structures linking citizens and the state, such as parties and voluntary associations (Dalton 1999, 2004; Nye 1997; Putnam 2001; Pharr and Putnam 2002; Newton 1999), as well as the way that the outcome of elections shape attitudes towards political authorities (Anderson et al 2005). Models which assume that state control of the news media has a simple and direct effect on confidence in government are challenged by a range of alternative sociological, developmental, economic, and institutional accounts in the literature.

For all these reasons, evidence capable of assessing the impact of state control of the news media on patterns of regime support deserves to be carefully reexamined. To reiterate the core propositions, if state control of the media achieves its intended effects, then this study predicts that certain patterns of regime support will be evident among the general public. In particular, if state control works, the study predicts that:

H#1: The publics will prove more supportive of the regime in restricted media environments than in pluralistic media environment.

Yet many factors could plausibly be suggested to cause this macro-level pattern and more persuasive evidence is needed to disentangle causality and to establish that it was exposure to the state controlled news media per se which generated these effects. Comparison of users and non-users of the news media within each type of media environment, with prior controls, allows this critical test. Moreover since regime support
is understood as a multidimensional concept, this also needs to be disaggregated. Accordingly the study predicts that:

H1.1: Compared with non-users, within restricted media environments, news users will display greater confidence in regime institutions;

H1.2: Compared with non-users, within restricted media environments, news users will express more negative attitudes towards democratic values;

H1.3: Compared with non-users, within restricted media environments, news users will have stronger feelings of nationalism.

Any direct effects from this process are also expected to vary by media sector, depending upon the degree of state control. In particular, the effects are predicted as strongest from exposure to the broadcast media, the sector where the state has the greatest potential control over the ownership and contents. With newspapers, any effects are likely to be weaker, as it is often more difficult for officials to limit information flows due to the number of printed outlets, and thus the diversity of information contained in these sources. Indeed today the Internet may provide dissidents and opposition movements with the easiest access to alternative information, as the channel where autocratic states usually are least able to control the contents from beyond their borders. Accordingly the study predicts:

H2.1: Compared with non-users, within restricted media environments, the effects of exposure on regime support will be strongest among regular consumers of radio and television news.

H2.2. Compared with non-users, within restricted media environments, the effects of exposure on regime support will be weaker among regular users of newspapers and the Internet.

H2.3. Compared with non-users, within restricted media environments, the effects of exposure on regime support will be negative among regular users of the Internet.

For all these, as an additional control, similar models can be compared in pluralistic media environments, although the theoretical framework which has been outlined does not establish any clear predictions about the strength or direction of any media effects in
this context. If the ‘media malaise’ thesis holds, then exposure to the news media (especially television news) will generate more negative regime support. If however the alternative ‘virtuous circle’ thesis holds (Norris 2000), then exposure to the news media will generate more positive orientations towards the regime.

II: Classifying macro-level media environments

Monitoring regime support

Evidence for attitudes and values in many different societies is available in the 5th wave of the World Values Survey (WVS-5) which covers a wide range of countries from all world regions, as well as democratic and autocratic regimes which vary in their levels of press freedom, including China, Viet Nam, and Russia with the most restrictive policies. The World Values Surveys is a global investigation of socio-cultural and political change. This project has carried out representative national surveys of the basic values and beliefs of the publics in more than 90 independent nation-states, containing in total almost 5.5 billion people or over 88% of the world’s population and it covers all six inhabited continents. It builds on the European Values Surveys, first carried out in 22 countries in 1981. A second wave of surveys, in 41 countries, was completed in 1990-1991. The third wave was carried out in 55 nations in 1995-1996. The fourth wave, with 59 nation-states, took place in 1999-2001. The fifth wave took place in over forty nation-states in 2005-6.7

The WVS survey includes some of the most affluent market economies in the world, such as the U.S., Japan and Switzerland, with per capita annual incomes as high as $40,000; together with middle-level industrializing countries including Taiwan, Brazil, and Turkey, as well as poorer agrarian societies, exemplified by Uganda, Nigeria, and Viet Nam, with per capita annual incomes of $300 or less. Some smaller nations have populations below one million, such as Malta, Luxembourg and Iceland, while at the other extreme almost one billion people live in India and over one billion live in China. The survey contains older democracies such as Australia, India and the Netherlands, newer democracies including El Salvador, Estonia and Taiwan, and autocracies such as China, Zimbabwe, Pakistan, and Egypt. The transition process also varies markedly: some nations have experienced a rapid consolidation of democracy during the 1990s; today the Czech Republic, Latvia and Argentina currently rank as high on political rights
and civil liberties as Belgium, the United States, and the Netherlands, which have a long tradition of democracy. The survey also includes some of the first systematic data on public opinion in many Muslim states, including Arab countries such as Jordan, Iran, Egypt, and Morocco, as well as in Indonesia, Iran, Turkey, Bangladesh and Pakistan. The most comprehensive coverage of countries in the surveys is available in Western Europe, North America and Scandinavia, where public opinion surveys have the longest tradition, but countries are included from all world regions, including some Sub Saharan African nations. Since the battery of items monitoring media use were only included in the 5th wave, this study draws primarily upon the latest survey, covering more than forty societies, although others items such as confidence in governing institutions are carried in successive waves ad can be compared in a wider range of states.

Classifying media environments

As a first step towards examining the empirical evidence, how can the media environment, and thus the degree of state intervention and control of the news media, be classified and compared across diverse societies and types of regimes? The ‘media environment’ is understood in this study to cover all the major features determining the relationship between the state and the news media in any society. This includes issues of ownership, regulation, and control; the legal framework governing freedom of expression and information (such as penalties for press offences); patterns of intimidation and violations of press freedom affecting journalists and the mass media (such as cases of imprisonment and harassment of reporters); and the nature of state intervention in the media (such as state monopolies of broadcasting or the use of official censorship).

Both categorical typologies and continuous measures of media freedom can be employed to compare media environments. The standard theoretical typology of macro-level media systems was established in the mid-twentieth century by Siebert, Peterson and Schramm’s classic *Four Theories of the Press* (1956). Following their work, two ideal types of media systems have commonly been identified and compared in postindustrial societies: the more market-oriented commercial broadcasting industry which developed in the United States and throughout much of Latin America is often contrasted with the public service model of broadcasting traditionally dominating contemporary Western Europe and Scandinavia. Increasingly, however, many countries
have evolved towards a mixed or dual system, such as that used in Britain, which combines both forms of broadcasting (Norris 2000; Gunther and Mughan 2000). Moreover the simple distinction between market-oriented and state-oriented media systems, as well as between commercial and public-service broadcasting, hides important differences within each category (Schudson 2002).

Following in the footsteps of Siebert et al, recent cross-national research by Hallin and Mancini (2004) proposed a revised classification of the structure of media systems found in advanced industrialized societies. The authors distinguished how far countries differ in the development of media markets (especially for newspapers); the strength of linkages between parties and the media; the degree of journalistic professionalism; and the nature of state intervention in the media system. Based on these criteria, among Western countries, the typology identified an Anglo-American (liberal) model (found, for example, in USA, Canada, Britain), a Mediterranean (polarized pluralism) model (e.g. in Italy, Spain, and France), and a Democratic-Pluralist model (e.g. Austria, Norway, and the Netherlands).

Yet these classifications have also been challenged; for example, McQuail (2005) points out the British dual commercial-public service media system may have more in common with the North European model than with the American television market. Moreover, as numerous observers have noted, the traditional distinction between commercial and public service television has diluted today, with convergence caused by the deregulation, commercialization and proliferation of channels now available in European societies, as well as the spread of global media conglomerates which have also affected the American market (Gunther and Mughan 2000; Kelly, Mazzoleni and McQuail 2004; Helms 2006; Esser and Pfetsch 2004). A broader comparison which goes beyond post-industrial societies is required to understand the issues at the heart of this study. This also needs to include the remaining state-controlled media systems within contemporary autocracies, such as China and Viet Nam, as well as examining whether journalists play a distinctive function in newer democracies and in developing societies (Hyden et al. 2002; Voltmer 2006; Schmidt-Beck and Voltmer 2007). Typologies are important tools but unfortunately there is no consensus in political communications about the most appropriate conceptualization and categorizations of contemporary media systems. It remains difficult to develop clear-cut
rules from the Hallin and Mancini typology which could be used to classify types of media environments worldwide with any degree of reliability and consistency.

An alternative approach to comparison has classified rights to freedom of expression contained in written constitutions, or whether countries have passed Freedom of Information laws (Banisar 2006; Ackerman and Sandoval-Ballesteros 2006). These measures are an important of an open society but they were not used in this study, however, because what matters for the actual degree of press freedom is the implementation of such rights or legislation. The Kyrgyz republic, Russia and Colombia have Freedom of Information laws, for example, while Uzbekistan’s constitution has a nominal guarantee protecting freedom of speech and the press, but this does not mean that journalists are safe in these countries or that such regulations have proved effective in promoting partisan balance in the news, freedom of expression, or transparency in government. Moreover freedom of information is only one aspect of the media environments, and, while often closely related to freedom of speech and freedom of the press, these are not all equivalent concepts.

Given these reflections, it is preferable to developed categories based on indices of press freedom derived from expert judgments. This study classified countries based on the Worldwide Press Freedom Index (WPF), which is produced annually by Reporters sans frontières (Reporters without Borders). The Worldwide Press Freedom Index is constructed to reflect the degree of freedom journalists and news organizations enjoy in each country, and the efforts made by the state to respect and ensure respect for this freedom. The organization compiled a questionnaire with 52 criteria used for assessing the state of press freedom in each country every year. It includes every kind of violation directly affecting journalists (such as murders, imprisonment, physical attacks and threats) and news media (censorship, confiscation of issues, searches and harassment). It registers the degree of impunity enjoyed by those responsible for such violations. It also takes account of the legal situation affecting the news media (such as penalties for press offences, the existence of a state monopoly in certain areas and the existence of a regulatory body), the behavior of the authorities towards the state-owned news media and the foreign press, and the main obstacles to the free flow of information on the Internet. The Worldwide Press Freedom Index reflects not only abuses attributable to the state, but also those by armed militias, clandestine organizations, or
pressure groups that can pose a real threat to press freedom. The survey questionnaire was sent to partner organizations of Reporters sans Frontières, including fourteen freedom of expression groups in five continents and to the organization’s 130 correspondents around the world, as well as to journalists, researchers, jurists and human rights activists. A 100-point country-score was estimated for each country under comparison. Based on the 2005 score, the 168 countries under comparison by WPF were then ranked. The scale was standardized around the mean (Z-scores) and reversed in direction for ease of interpretation, so that a higher ranking represents an estimate of greater press freedom.

As with any such estimates, however, it is important to check whether the index is reliable and unbiased. To do so, the WPF index was compared with the results of Freedom House’s annual index of Press Freedom. The latter measured how much diversity of news content was influenced by the structure of the news industry, by legal and administrative decisions, the degree of political influence or control, the economic influences exerted by the government or private entrepreneurs, and actual incidents violating press autonomy, including censorship, harassment and physical threats to journalists. The assessment of press freedom by Freedom House distinguishes between the broadcast and print media, and the resulting ratings are expressed as a 100-point scale for each country under comparison. As with the WPF index, the Freedom House index was also reversed and standardized around the mean.

To test for reliability, both indices were compared in the 44 nation-states under comparison in the 5th wave of the World Values Survey. The results, illustrated in the scatter plot presented in Figure 1, shows a strong correlation across both these measures, (R=.869, sig .001, Cubic R²=.77, sig .001). There are a few outliers, such as Mexico and Taiwan, where the organizations disagree slightly in their estimates. Both indices differ in their construction, data sources, and conceptualization; despite this, these organizations largely report similar estimates, a process which increases confidence in the reliability of the measures. Many countries scoring most highly on press freedom by both these indicators are highly developed nations, such as the Netherlands and Sweden, as expected given the well-established linkage between
wealth and democracy. But other countries with high press freedom are less affluent, as Mali and Trinidad and Tobago, Taiwan, Ghana and Poland, as well as Burkina Faso and Uruguay. The countries ranked as having the most restrictive media environments by both organizations include China, Viet Nam, and Iraq, with Ethiopia, Colombia, and Russia classified as less extreme outliers. The countries included in the 5th wave of the WVS are skewed towards the more pluralistic media environments, but there are enough restrictive cases to facilitate comparison, including the outliers which deserve special attention.

On this basis, the Worldwide Press Freedom Index was selected to gauge the degree of press freedom in the nation-states contained in the 5th wave of the World Values Survey. For ease of analysis, the index was dichotomized to facilitate comparison of attitudes and values found among the publics living in two types of societies: pluralistic media environments, which are characterized by higher levels of press freedom, versus restricted media environments with lower levels of press freedom. The cases clustered around the cut-off points are ones where judgment has to be exercised and alternative divisions at a higher or lower point could alter the classification, for example for India, Indonesia, and Zambia. Using this dichotomy allows public opinion to be compared when the survey data is aggregated in both types of media environments, reducing any ‘noise’ caused by minor differences in the estimates of press freedom, for example, between Uruguay and Bulgaria or between Russia and Colombia. The ten most restrictive media environments are cases where both indices were in broad agreement.

III: The impact of media environments on regime support

The classification of societies allows comparison of public opinion aggregated at macro-level within each type of media environment. If states with restrictive media environments are effective in shaping attitudes and values, at a minimum the publics living in these societies should be more positive towards the regime. One of the standard ways to evaluate this issue concerns trust and confidence in political institutions. Studies have compared attitudes towards the governments, parliaments, the courts and police, the state bureaucracy, political parties, and the armed forces, as well as confidence in the press and television (Listhaug and Wiberg 1995; Lipset and Schneider 1987). Studies seek to measure generalized support for the institution -- that is approval of the
performance of the Presidency rather than support for Vladimir Putin or George W. Bush, and support for parties rather than particular party leaders -- although in practice the dividing line between the office and incumbents is often fuzzy. Using this approach, confidence in government was measured in the World Values Survey as follows: “I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? …The government in your nation’s capital.” The comparison of attitudes can be compared among all the countries included in the 4th (1999-2000) and 5th (2005-6) waves of the WVS.

[Figure 2 about here]

The results of the macro-level comparisons illustrated in Figure 2 confirm that confidence in government was indeed higher among the publics living under restricted media environments, compared with those living in pluralistic media environments, as expected in the first hypothesis (H#1). This striking pattern was most evident with the public expressing the greatest confidence in government in the People’s Republic of China and Viet Nam, both Communist one-party states where the techniques of censorship and propaganda are commonly used, and in Iran, which practices widespread censorship by the Ministry of Culture and Islamic Guidance. It was even clear with relatively high levels of confidence in government expressed in Zimbabwe and Bangladesh, which can arguably be classified as dysfunctional states. Indeed, in 2005-6 it is striking that confidence in government was far higher in Iraq, despite all the problems which the state has experienced in providing basic public services and utilities, reducing violence, and maintaining order, than in well-functioning Sweden. Nor was the latter an isolated case; less confidence in government was expressed by publics living in many advanced industrialized societies and stable democracies, such as the French, British and Germans, than in many autocracies. This pattern is also consistent with other studies which have documented the phenomenon of ‘critical citizens’ and eroding confidence in government found in many affluent post-industrial societies (Norris 1999).

This initial finding is certainly suggestive that restrictive media environments which limit negative news about the regime are capable of manipulating public opinion and popular support for those in authority, as predicted. At the same time, we need considerable caution in interpreting these results. The simple correlations found at
macro-level cannot be regarded as furnishing conclusive proof that restricted media environments necessarily boosted popular support for the regime. Plausibly these patterns remain open to many other alternative explanations. For example, performance-based accounts in political economy could emphasize surging levels of prosperity which are transforming urban cities in China and Vietnam. Developmental explanations could focus upon long-term processes of value change and rising levels of education which are making the younger generation of citizens within post-industrial societies more critical of those in authority.

To establish the effects of state control of the media more conclusively the research needs micro-level analysis within each society. In particular, we need to compare those groups who are and are not regularly exposed to different sources of news information within each country, especially television and radio news as the sector which is most open to state control. The public’s access to radio and television news, newspapers, and the Internet varies substantially in countries around the globe (see UNESCO Annual Yearbooks). The media environment determines how far citizens in developing societies have easy access to the news media, and the extent of information gaps which vary by income, education, literacy, age and gender (Norris 2000, 2001). To assess news consumption patterns, the 2005-6 World Values Survey asked the following question: “People use different sources to learn what is going on in their country and the world. For each of the following sources, please indicate whether you used it last week or did not use it last week to obtain information.” The news media sources included daily newspaper, news broadcast on radio or television, and the Internet/Email. These news media sources can be combined to examine the proportion of respondents in each country who reported no regular use of any of the news media (television or radio news, daily newspapers, or the Internet). Other sources which were monitored in the WVS survey included books, printed magazines, and in depth reports on radio or TV, but these were not selected for analysis since the proportion of regular users for each was relatively low.

[Figure 3 about here]

The comparison of the results illustrated in Figure 3 illustrates the striking contrasts in the societies under comparison: over one third of the population had no access to the news media in some of the poorest developing societies, such as Rwanda,
Burkina Faso, and India, while about one quarter reported having no access in Zambia, Mali, and China. By contrast, in most postindustrial societies, news access was ubiquitous, including in Sweden, Australia and Japan, where almost everyone reported regularly accessing information from at least one of these news media. The attitudes and values of the groups who report regular exposure to television and radio news can be compared with those who are not so exposed. Of course news could still have a more diffuse effect on the social culture through inter-personal communications, (the ‘water-cooler’ effect), for example where people discuss events and stories which they saw on television, heard on the radio, or read in newspapers with friends and family. Nevertheless the groups who regularly used the news media are still more likely to be directly influenced by the coverage.

As Easton argued, (Easton 1965, 1975; see also Norris 1999; Klingemann 1999), political support includes a number of different dimensions, rather than being all of one piece. ‘Regime support’ is understood here as a multidimensional concept which can be measured at three distinct levels: confidence and trust in the government and in core regime institutions such as the civil service, political parties, and courts; more general ideological attitudes towards the principles of democracy and military rule; and more diffuse levels of national pride and identity. Factor analysis was used to examine the dimensions of regime support and the results in Table 1 confirmed three separate components representing support for regime institutions, for regime principles and for national community. These items were summed to create scales as the three dependent variables for analysis. The multivariate models also need to control for the standard social and demographic variables which could influence both patterns of access to the news media and also attitudes towards the regime. Hence the models in this study include controls for gender and age (as men and the older population are often more regular consumers of news), as well as for education and household income (which are closely associated with literacy in developing societies and which have the strongest effects upon use of newspapers and the Internet). The models also monitored the effects of political interest, since this could also plausibly shape news media habits and also levels of regime support. Appendix A lists all variables and coding procedures.

[Table 1 about here]
The OLS regression models in Tables 2-4 display the outcome of the analysis, and the main findings are summarized in Table 5. The results showed that the television and radio news audience living in restricted media environments expressed significantly more confidence in government than non-users, even after applying the prior controls for the social characteristics of the audience. Moreover this was not just the type of indicator which was selected, as similar patterns were evident for confidence in regime institutions, attitudes which were more negative towards democratic values and principles, and positive support for the national community.

Hence in Table 2, within restricted media environments, confidence in regime institutions was significantly higher among users of television and radio news, even after applying the battery of prior social controls which could contribute towards differences in the news audience and who has access to television news in developing countries. In this context, use of daily newspapers was also significantly related to greater confidence in the regime, although with weaker effects than broadcasting. By contrast, use of the Internet was significantly related to less confidence in regime institutions. In pluralistic media environments, use of television/radio news and newspapers were not significantly related to institutional confidence, while use of the Internet was also negatively associated with confidence.

If political propaganda achieves its objectives, then in restricted media environments the news media could also be expected to shape broader attitudes and values towards the core principles and ideologies underpinning each type of regime. These values were summarized in a 12-point scale measuring negative attitudes towards strong leadership without the need for elections and military rule, and positive approval of democracy as an ideal political system. The results in Table 3 show that use of all types of news media was consistently related to more negative support for democratic principles in restricted media environments, while by contrast it was associated with more positive support in pluralistic media environments.

Lastly, pride and identity with the national community represents the most diffuse form of systems support. Nationalistic feelings were measured here by a scale combining national pride with confidence in the armed forces, which emerged as a distinct dimension of regime support. Here exposure to television and radio news was a
strong and significant predictor of nationalism in restricted media environments, although similar finding were also evident in pluralistic media environments.

Conclusions and implications

How should this evidence be interpreted? Classic debates about the impact of foreign propaganda during wartime were concerned that this process posed a major threat to America by altering attitudes and behavior among the gullible public (Gary 1999). Lasswell (1927) also thought that propaganda has a positive value, if employed to reinforce democratic values. Contrary to these beliefs about strong media effects, the earliest experimental evidence studying the impact of allied film propaganda on soldiers by Hovland et al (1949) concluded that there were minimal short-term changes in attitudes and behavior arising from this process. These conclusions fuelled the ‘minimal effects’ thesis emphasizing the limited power of the mass media to convert, compared with the stronger influence of inter-personal communication in small groups (Katz and Lazarsfeld 1955). This claim continued as the conventional wisdom during most of the Cold War era. But the short-term impact of official propaganda is only one way that states can try to use the news media to shape public support and ideological values. The long-term way that attitudes and values may be shaped by living in restrictive media environments requires alternative methods of investigation and more innovative research designs.

This study started with the simple premise that in autocracies where the state consistently restricts media freedom and controls broadcasting, regular exposure to the domestic news media would probably generate more positive orientations towards the regime. These direct effects were predicted to be strongest among the most regular consumers of radio and television news, the sector of the mass media where the state usually exercises the greatest control over the ownership and contents. Equivalent results were not expected to be found in pluralistic media environments, where audiences receive both multiple positive and negative messages about the regime, nor to be evident in sectors where the state exercises less direct control over the contents. The findings emerged from the analysis largely confirmed these propositions.

To summarize the key results, the study examined how far regime support varied under restrictive and pluralistic media environments. The macro-level comparisons
confirmed, as expected, that confidence in government was significantly higher in societies with restrictive rather than pluralistic media environments. This is certainly a suggestive finding but, by itself, it cannot be regarded as conclusive proof that state control of the media directly causes public support for the regime. Many other cross-national differences could also be responsible for generating these patterns, such as variations in levels of human development, regional or generational cultural attitudes towards authority, or patterns of actual government performance.

Multivariate regression models examined the micro-level effects of exposure to different types of news media sectors within restrictive or pluralistic media environments. The analytical models included the standard battery of controls for common social and demographic background variables, such as education, income, age, and gender, as well as political interest, which could plausibly affect both media access and attitudes towards the regime. Analysis of the micro-level data revealed that in societies with limited media freedom, regime support was significantly higher among the regular audience for television and radio news, whether measured by confidence in regime institutions, attitudes towards democratic principles, or nationalistic feelings. Similar models run at national level, not reported in detail here, show that this relationship was particularly strong in China, Colombia, Ethiopia, Mexico, Serbia, and Zambia, all societies with limited independent journalism, while at the same time no equivalent effect was found in poorer democracies with more pluralistic media systems, such as Ghana and India.

At the same time, in interpreting these results, certain important issues need to be considered, namely whether survey data which monitors support for the government can be trusted as reflecting real attitudes in societies which suppress free speech. This is an important consideration, as respondents may be offering what they perceive as the politically correct response, rather than expressing their true feelings. It is not possible to test this proposition with the survey evidence which is available; if there is self-censorship on any sensitive issue, all surveys can do is to report what respondents say. Nevertheless if respondents are offering what they believe is the 'correct' response, it is striking that the media effects documented in this study are most clearly evident for the broadcasting sector, where the state can exercise the greatest control but not consistently for those who use the Internet. There is no obvious reason why any self-
censorship response effect should vary across users of different media sectors. Moreover, even if we accept the claim that in restricted media environments, respondents are masking their true evaluations of the government, this in itself is important for the social construction of reality and what is perceived as socially acceptable in these countries.

The results of evidence presented here therefore supports the proposition that state control of the broadcasting airwaves and limits on press freedom do achieve their intended effect, by strengthening regime support among the news audience in these societies. Contrary to conventional notions of 'limited media effects', derived from the classic Hovland experiments and the long tradition established by Lazarsfeld (Katz and Lazarsfeld 1955), state control of the airwaves matters. What still needs to be established in further research is what techniques prove most important in this process, in particular whether it is the result of official propaganda disseminating positive images and messages about the leadership and authorities, or alternatively whether it is due to state censorship of independent journalism which restricts alternative viewpoints and perspectives. It requires closer examination of the content of the news, and what messages are most persuasive, although most probably it is some combination of propaganda and censorship which allows autocracies to reinforce their popular support. The broader implications emphasize the political importance of liberalizing the media in societies such as Burma, Zimbabwe and North Korea, so that fundamental freedoms of expression, publication, and information are strengthened, both for the intrinsic value of improving human rights in these states, as well as for generating the underlying conditions most conducive to the transition from autocracy and the consolidation of democratic governance.
Figure 1: Indicators of press freedom, 2005

Note: The ratings of press freedom for 2005 provided by Freedom House and Reporters sans Frontières for the 44 countries included in the 5th wave of the World Values Survey, 2005-6. The 100-point scores were reversed and standardized around the mean (Z-scores).

Figure 2: Press Freedom and Confidence in Government

Note: “I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them. The government in [your nation’s capital].” Proportion in each country expressing ‘a great deal’ or ‘quite a lot’ of confidence in government.

Figure 3: Access to the news media

Proportion of the population with no regular use of any news media

Note: Q. “People use different sources to learn what is going on in their country and the world. For each of the following sources, please indicate whether you used it last week or did not use it last week to obtain information.” The figure illustrates the proportion of respondents reporting no regular use of either a daily newspaper, news broadcasts on radio or TV, or the Internet/email as an information source.

Source: World Values Survey, 2005-6
### Table 1: Factor analysis of regime support

<table>
<thead>
<tr>
<th></th>
<th>Confidence in regime institutions</th>
<th>Support for democratic principles</th>
<th>Support for nationalism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence in government</td>
<td>.809</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidence in parties</td>
<td>.795</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidence in the civil service</td>
<td>.783</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidence in the courts</td>
<td>.777</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Against having a strong leader who does not bother with parliament and elections</td>
<td>.760</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Against having the army rule</td>
<td>.738</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Favor having a democratic political system</td>
<td>.631</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong feeling of national pride</td>
<td></td>
<td>.921</td>
<td></td>
</tr>
<tr>
<td>Confidence in the armed forces</td>
<td>.471</td>
<td></td>
<td>.504</td>
</tr>
<tr>
<td>% variance</td>
<td>32.7</td>
<td>17.1</td>
<td>11.1</td>
</tr>
</tbody>
</table>

**Notes:** The table represents the results of Principal Component factor analysis using varimax rotation with kaiser normalization, excluding all coefficients below .40. See the technical appendix for details of all variables.

**Source:** World Values Survey 2005-6
Table 2: Confidence in regime institutions

<table>
<thead>
<tr>
<th></th>
<th>Restricted media environment</th>
<th></th>
<th>Pluralistic media environment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>Sig.</td>
</tr>
<tr>
<td>Information sources</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use TV/radio</td>
<td>.992</td>
<td>.122</td>
<td>.085</td>
<td>***</td>
</tr>
<tr>
<td>Use daily newspaper</td>
<td>.217</td>
<td>.075</td>
<td>.032</td>
<td>**</td>
</tr>
<tr>
<td>Use Internet/email</td>
<td>-.222</td>
<td>.094</td>
<td>-.027</td>
<td>**</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>.243</td>
<td>.016</td>
<td>.176</td>
<td>***</td>
</tr>
<tr>
<td>Education</td>
<td>-.435</td>
<td>.060</td>
<td>-.088</td>
<td>***</td>
</tr>
<tr>
<td>Age</td>
<td>.142</td>
<td>.025</td>
<td>.059</td>
<td>***</td>
</tr>
<tr>
<td>Gender</td>
<td>.001</td>
<td>.069</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Interest</td>
<td>.740</td>
<td>.039</td>
<td>.195</td>
<td>***</td>
</tr>
<tr>
<td>Constant</td>
<td>6.26</td>
<td></td>
<td>.195</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.083</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. respondents</td>
<td>8,696</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. nation-states</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The table presents the results of OLS linear regression models where the dependent variable, ‘confidence in regime institutions’, was measured on a 16-pt scale. See Appendix A for the items used to construct each variable. The figures represent the unstandardized beta coefficient (B), the Standard Error, the Standardized Beta, and the significance of the coefficient. Sig. P. * .05 ** .01 * .001. All models were checked to be free of any problems of multicollinearity.

Source: World Values Survey 2005-6
Table 3: Support for democratic principles

<table>
<thead>
<tr>
<th>Information sources</th>
<th>Restricted media environment</th>
<th>Pluralistic media environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Use TV/radio</td>
<td>-.256</td>
<td>.073</td>
</tr>
<tr>
<td>Use daily newspaper</td>
<td>-.114</td>
<td>.045</td>
</tr>
<tr>
<td>Use Internet/email</td>
<td>-.665</td>
<td>.057</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>.130</td>
<td>.010</td>
</tr>
<tr>
<td>Education</td>
<td>.653</td>
<td>.036</td>
</tr>
<tr>
<td>Age</td>
<td>.020</td>
<td>.015</td>
</tr>
<tr>
<td>Gender</td>
<td>-.058</td>
<td>.042</td>
</tr>
<tr>
<td>Interest</td>
<td>.272</td>
<td>.024</td>
</tr>
</tbody>
</table>

Constant                    | 6.09 | 102 | .102 | .052 |

N. respondents               | 8,696 | 34 |

Note: The table presents the results of OLS linear regression models where the dependent variable, ‘support for democratic principles’, was measured on a 12-pt scale. See Appendix A for the items used to construct each variable. The figures represent the unstandardized beta coefficient (B), the Standard Error, the Standardized Beta, and the significance of the coefficient. Sig. P. *.05 **.01 *.001. All models were checked to be free of any problems of multicollinearity.

Source: World Values Survey 2005-6
Table 4: Support for national community

<table>
<thead>
<tr>
<th>Information sources</th>
<th>Restricted media environment</th>
<th>Pluralistic media environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Use TV/radio</td>
<td>.668</td>
<td>.045</td>
</tr>
<tr>
<td>Use daily newspaper</td>
<td>-.013</td>
<td>.028</td>
</tr>
<tr>
<td>Use Internet/email</td>
<td>-.017</td>
<td>.035</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controls</th>
<th>Restricted media environment</th>
<th>Pluralistic media environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Income</td>
<td>.039</td>
<td>.006</td>
</tr>
<tr>
<td>Education</td>
<td>-.189</td>
<td>.022</td>
</tr>
<tr>
<td>Age</td>
<td>.046</td>
<td>.009</td>
</tr>
<tr>
<td>Gender</td>
<td>.133</td>
<td>.026</td>
</tr>
<tr>
<td>Interest</td>
<td>.142</td>
<td>.015</td>
</tr>
<tr>
<td>Constant</td>
<td>5.54</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.052</td>
<td></td>
</tr>
</tbody>
</table>

| N. respondents      | 8,696 | 24,632 |
| N. nation-states    | 10    | 34     |

**Note:** The table presents the results of OLS linear regression models where the dependent variable, ‘support for national community’, was measured on an 8-pt scale. See Appendix A for the items used to construct each variable. The figures represent the unstandardized beta coefficient (B), the Standard Error, the Standardized Beta, and the significance of the coefficient. Sig. P. *.05 **.01 *.001. All models were checked to be free of any problems of multicollinearity.

**Source:** World Values Survey 2005-6
Table 5: Summary of results

<table>
<thead>
<tr>
<th></th>
<th>Restricted media environment</th>
<th>Pluralist media environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TV/Radio</td>
<td>Newspapers</td>
</tr>
<tr>
<td>Confidence in regime institutions</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Support for democratic principles</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Support for national community</td>
<td>+</td>
<td>N/s</td>
</tr>
</tbody>
</table>

**Note:** See Tables 2-5 for details. The symbols summarize the direction of any significant coefficients established in the previous regression models. The symbols highlighted in **bold** point in the direction which is consistent with the core hypotheses.
## Technical appendix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Q.</th>
<th>Coded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household income</td>
<td>V.253 &quot;On a card is a scale of incomes on which 1 indicates the 'lowest income decile' and 10 'the highest income decile' in your country. We would like to know in what group your income falls, counting all wages, salaries, pensions, and other incomes that come in.&quot;</td>
<td>Coded 1 (low) to 10 (high)</td>
</tr>
<tr>
<td>Gender</td>
<td>V235.</td>
<td>1=Male, 0=Female</td>
</tr>
<tr>
<td>Education</td>
<td>V238.&quot;What is the highest educational level that you have attained?&quot;</td>
<td>8 categories from 'No formal education' (1) to 'University degree' (8)</td>
</tr>
<tr>
<td>Age</td>
<td>V237. Age in years</td>
<td>Recoded into 6 age groups from 18 to 85.</td>
</tr>
<tr>
<td>Interest</td>
<td>V7. &quot;For each of the following, indicate how important it is in your life…Politics.&quot;</td>
<td>Very important (4), rather important (3), not very important (2), not at all important (1).</td>
</tr>
<tr>
<td>Use radio/TV</td>
<td>&quot;People use different sources to learn what is going on in their country and the world. For each of the following sources, please indicate whether you used it last week or did not use it last week to obtain information. Radio/TV&quot;</td>
<td>Used last week(1), Not (0)</td>
</tr>
<tr>
<td>Use daily newspaper</td>
<td>&quot;People use different sources to learn what is going on in their country and the world. For each of the following sources, please indicate whether you used it last week or did not use it last week to obtain information. Daily newspaper&quot;</td>
<td>Used last week(1), Not (0)</td>
</tr>
<tr>
<td>Use Internet/email</td>
<td>&quot;People use different sources to learn what is going on in their country and the world. For each of the following sources, please indicate whether you used it last week or did not use it last week to obtain information. Internet/email.&quot;</td>
<td>Used last week(1), Not (0)</td>
</tr>
<tr>
<td>Media environment</td>
<td>Classified from the RSF Worldwide Press Freedom Index.</td>
<td>0=Restrictive (China, Colombia, Ethiopia, Iraq, Malaysia, Mexico, Russia, Rwanda, Vietnam, Ukraine), 1=Pluralistic, (all the remainder)</td>
</tr>
<tr>
<td>Institutional confidence</td>
<td>V131-147 &quot;I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them. Government in [your nation's capital], political parties, the civil service, the courts.&quot;</td>
<td>4=A great deal of confidence, 3=quite a lot of confidence, 2=not very much confidence 1= none at all. Summed for a 16 point scale (Confidence in Government + political parties, + civil service+ the courts)</td>
</tr>
<tr>
<td>Support for the national community</td>
<td>V132 Confidence in the armed forces (item coded as above) V.209 &quot;How proud are you to be [nationality].&quot;</td>
<td>4=very proud, 3=quite proud 2=not very proud, 1=not at all proud. Summed to an 8-point scale.</td>
</tr>
<tr>
<td>Support for democratic principles</td>
<td>&quot;I am going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? V148 Having a strong leader who does not have to bother with parliament and elections? V150. Having the army rule? V151 Having a democratic political system?&quot;</td>
<td>The three items were recoded in a consistent pro-democratic direction then summed to form a 12-point scale.</td>
</tr>
</tbody>
</table>
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Sparks, Colin and A. Reading. 1994. 'Understanding media change in East-Central-Europe.' Media Culture & Society 16 (2): 243-270.


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2 For more technical details of the World Values Survey methodology and fieldwork, see http://www.worldvaluessurvey.org/


7 Full methodological details about the World Values Surveys, including the questionnaires, sampling procedures, fieldwork procedures, principle investigators, and organization can be found at: http://wvs.isr.umich.edu/wvs-samp.html.


10 For more methodological details and results, see Freedom House. 2007. *Global Press Freedom 2007*. www.freedomhouse.org. The IREX *Media Sustainability Index* provides another set of indicators (http://www.irex.org/resources/index.asp). The Media Sustainability Index by IREX benchmarks the conditions for independent media in a more limited range of countries across Europe, Eurasia, the Middle East, and North Africa. Unfortunately the IREX index does not contain sufficient cases of countries included in the WVS-5 to be useful as a cross-check for this study.

11 Further analysis found that replication of the core regression models in this study using the Freedom House classification suggests that the results remain robust and consistent irrespective of which particular measure of press freedom is used, which is hardly surprising given the strong inter-correlation of both measures.