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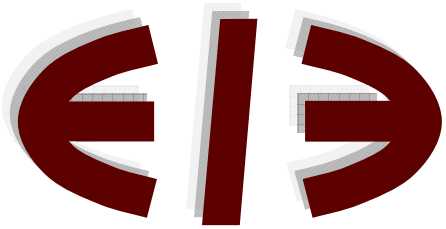
EERI Research Paper Series No 09/2011

ISSN: 2031-4892



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Who trusts Berlusconi? An econometric analysis of the role of television in the political arena[1]

Fabio Sabatini [2 3 4 *]

Abstract

This paper contributes to the literature by carrying out the first econometric investigation into the role of television in the formation of political consensus in Italy. Based on probit and instrumental variables estimates, we find trust in television to be the most significant predictor of trust in the Italian prime minister. The latter is also strongly and negatively correlated with trust in the judicial system and tolerance towards immigrants.

Keywords: trust; institutions; democracy; television; media; social capital; Italy; instrumental variables.

JEL Codes: D720; D830; H8; L820; Z1; Z13

[1] The empirical analysis in this paper is based on data collected within a research project promoted and funded by the European Research Institute on Cooperative and Social Enterprises (Euricse), Trento. The findings, interpretations and conclusions expressed in the paper are solely of the author and do not necessarily represent the views of Euricse. I am deeply indebted to Damiano Fiorillo for precious suggestions and conversations on our research topics. I am grateful to Alessandra Gualtieri and Michela Giovannini for helpful comments. Needless to say, usual disclaimers apply.

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1. Introduction

Silvio Berlusconi has dominated Italian political life since he was first elected prime minister in 1994. He is now in his third term, although the terms were not consecutive. He is the second longest-serving prime minister of Italy, after Benito Mussolini, and, as of May 2011, he is the longest-serving current leader of a G8 country. This political longevity is often difficult to understand for foreign political analysts. The Italian prime minister has an extensive record of criminal allegations, including mafia collusion, false accounting, tax fraud, corruption and bribery of police officers and judges[5]. Recently, he has even been charged with child prostitution. In a famous editorial published ten years ago in April 2001, respected British newsmagazine *The Economist* stated that: "In any self-respecting democracy it would be unthinkable that the man assumed to be on the verge of being elected prime minister would recently have come under investigation for, among other things, money-laundering, complicity in murder, connections with the Mafia, tax evasion and the bribing of politicians, judges and the tax police"[6]. According to *The Economist*, one of the main explanations of Mr Berlusconi's political success is his exceptional grip on Italy's media. "Through his *Mediaset* empire, he controls most of Italian private television. As prime minister, he indirectly controls Italian public service television (*Radio Televisione Italiana*, RAI), giving him influence over some 90% of Italian TV"[7]. The media power that Berlusconi has built his empire on is indeed unimaginable in any other western democracy[8].

Not surprisingly, rightist opinion leaders argue that television does not influence political opinion. This view is widespread in the Italian political debate and leads commentators to affirm that, even if Italians are well aware of Mr Berlusconi's criminal allegations as well as of his personal and political limitations, they actually trust the prime minister because they feel a deep affinity with him. This argument implies that Mr Berlusconi's political success is not specifically related to the power of his media empire to bias public opinion. If the assumption of television's irrelevance was true, one could reasonably expect to find no significant individual-level relationship between trust in television and trust in the Italian prime minister.

So far it has been impossible to carry out an econometric test of this thesis. The most comprehensive Italian surveys are conducted by public institutions, such as the National Bureau of Statistics and the Bank of Italy, which cannot collect information on interviewees' political preferences. On the other hand, political opinion polls carried out by private agencies cannot administer excessively long questionnaires able to collect comprehensive data on the social and economic background of respondents.

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[5] The mafia prosecution was dropped due to the expiration of statutory terms for preliminary inquiry (Ginsborg 2005). False accounting prosecution was dropped because of a law passed by Berlusconi's parliamentary majority that made false accounting illegal only if a specific damaged party reports the fact to the authorities (Blondel and Segatti 2003). For bribery of judges and tax evasion, charges were dropped because the statute of limitations had expired (Warner 2007). Trials for bribery, corruption and child prostitution are currently in progress (Center for the Study of Democracy 2010).

[6] *The Economist*, "An Italian story", published in the issue of April 28th 2001. This issue the cover title: "Why Silvio Berlusconi is unfit to lead Italy" and provoked a heated debate in Italy. In July 2001 Mr Berlusconi launched a lawsuit in Italy alleging that *The Economist* had defamed him in the article. The court in Milan has issued a judgment rejecting all of Mr Berlusconi's claims and requiring him to make a payment for costs to *The Economist*. Mr Berlusconi's lawyers have announced that he will appeal.

[7] *The Economist*, "Mamma mia. Italians may come to regret electing Silvio Berlusconi once again", published on April 17th 2008.

[8] It must be remembered that RAI has never been an independent public service broadcaster, since it has always been subject to the distribution of posts and power according to political affiliation. As head of the government, Berlusconi has de facto power to appoint the managers of RAI and the directors of the majority of RAI's information and entertainment broadcasts. RAI channels have traditionally been divided along political lines. *RAI 1* and *RAI 2*are relatively centre right and currently give manifest support to Mr Berlusconi's government. *RAI 3*, the most independent channel of the public broadcasting system (PBS), is commonly viewed as the opposition channel (Brevini 2010).

In this paper, we use a unique dataset to carry out the first econometric investigation into the relationship between trust in television and trust in the Italian prime minister. Raw data were collected through the administration of a questionnaire to a representative sample (n = 817) of the population of the Italian Province of Trento in March 2011. The sample was stratified by age, gender and area of residence. The questionnaire was specifically designed for the evaluation of individuals' values, beliefs and behaviours, along with a wide range of relevant socio-demographic and economic characteristics[9].

Our dependent variable is measured through the question: "Do you think that the prime minister can be trusted?". Interviewees were asked to give a score from 1 to 10 for their trust, 1 meaning "Not at all" and 10 meaning "Totally". The main independent variable is trust in television, as measured by the score from 1 to 10 given by respondents to the question: "Do you think that television can be trusted?".

Probit and ordered logit estimates clearly show that trust in television is the most significant predictor of trust in the prime minister and that this finding is robust to different specifications. However, there are three reasons for which this result could be interpreted as the fruit of a spurious correlation. First, it is difficult to distinguish the effect of trust in television from that of other phenomena that potentially influence trust in the prime minister. To deal with this problem, we include in the trust equation a wide set of individual and household control variables. We place a special focus on the possible role of social capital, which is traditionally claimed to play a role in making democracy work at the community level. Specifically, we account for multiple indicators of both structural and cognitive dimensions of social capital. Second, individual effects, such as individuals' exogenous shocks, may be correlated with trust both towards television and the prime minister, thus creating a common bias. Third, it is reasonable to assume the existence of reverse causality: Mr Berlusconi's television empire has helped shape the country's imagination over a generation, and the prime minister invites citizens to trust his media. To deal with the last two problems, we turn to instrumental variables (IV) estimates.

When we address endogeneity in IV estimates, trust in television remains the best (most significant and strongest) predictor of trust in the prime minister. Interestingly, trust in the press is not an explanatory variable. Social capital variables are also found to be irrelevant. Certain categories of self-employed workers – i.e. farmers and members of professions – are found to be more likely to trust the prime minister. By contrast, we find that the dependent variable is significantly and negatively correlated with trust in the judicial system and with a measure of tolerance towards immigrants.

Even if these results pass robustness checks and hold in IV estimates, it must be remarked that the cross-sectional design of the research dictates extreme caution in the interpretation of correlations as causal relationships. Nonetheless, the paper contributes to the literature by carrying out the first econometric investigation into the role of television in individuals' political opinions, with a focus on trust towards the Italian prime minister. The relationship between television and political attitudes and beliefs is an important topic for economics, in view of the unquestionable role that political institutions, particularly the government and the prime minister, play in a country's economic performance (Besley and Burgess 2002; Connolly and Hargreaves Heap 2007). However, this topic is largely neglected in the literature. This paper aims to take a step in filling that gap. The use of a unique and very recent (March 2011) dataset collected in a region traditionally characterized by efficient public institutions and very contained inequalities adds further value to the analysis.

The remainder of the paper is organized as follows. The next section describes the data and our empirical strategy. Section 3 presents and discusses the results of the estimates. Concluding remarks and a brief discussion of policy implications close the paper.

[9] The questionnaire was administered through computer assisted telephone interviewing by the Technical Unit of the Department of Sociology and Social Research of the University of Trento.

2. Data and empirical strategy

Our dependent variable is given by responses to the question: "Do you think that the prime minister can be trusted?". Interviewees were asked to give a score from 1 to 10 for their trust, 1 meaning "Not at all" and 10 meaning "Totally". We followed the approach to code 1 for responses above 6. Still, all results presented in this paper are robust to a different specification of the dependent variable in which responses above the mean value are coded 1. It must be stated that interviewers did not explicitly mention the name of Silvio Berlusconi. So, it is theoretically possible that some respondents' answers referred to the institution of the presidency of the council of ministers, rather than to the person of the prime minister. However, the questionnaire was administered in March 2011, when the man and his institutional office were virtually indistinguishable. In our view, in the context of the contemporary Italian political arena, the assumption that the above-mentioned responses can be used to score citizens' trust towards Mr Berlusconi is reasonably reliable.

Trust in television is measured by the score from 1 to 10 given by respondents to the question: "Do you think that television can be trusted?", 1 meaning "Not at all" and 10 meaning "Totally".

Our choice to focus on the Province of Trento was due to results from recent empirical studies which found the territory to be characterized by contained inequalities, efficient public institutions, and above average levels of material and subjective well-being (Degli Antoni 2006, 2009; Fiorillo 2008; Sabatini 2008, 2009a; Villa and Zola 2008). Administratively, the Province enjoys a large degree of autonomy in the following sectors: health, education, welfare and transport infrastructure. In our view, these characteristics do not imply a particular bias in terms of political opinions. More in particular, we argue it is not possible to establish whether the traditionally well-known efficiency of local public institutions could reinforce trust towards the Italian prime minister as an institution in himself, since the Province has been governed by centrist or centre-leftist coalitions for a long time. Overall, results from past elections suggest that political opinions of the Trentino Region's[10] population seem not to be particularly biased in favour Mr Berlusconi's party (see Table A2 in the Appendix).

2.1 Probit estimates

In Model 1 we control for a number of socio-demographic and economic characteristics (see column 1 in Table 2). At the household level, the analysis accounts for a measure of economic well-being given by responses to the question: "Is your household's income sufficient to see you through to the end of the month?". Respondents were asked to give a score from 1 to 5, with 1 meaning "With great difficulty" and 5 meaning "Very easily". We coded 1 for negative responses (i.e. "With great difficulty" and "With difficulty") and used the label "Poor" to indicate the dichotomous variable in regressions. Robustness checks were performed by replacing this measure with two other indicators of economic well-being. The first is given by responses to the question: "How would you place your household income in respect to the average income of Italian households?". Respondents were asked to give a score from 1 to 5, 1 meaning "Much below the average" and 5 meaning "Much above the average". The second measure of economic well-being used in robustness checks is given by responses to the question: "Overall, how satisfied are you with your economic situation?". Once again, interviewees were asked to give a score from 1 to 10, with 1 meaning "Not at all" and 10 meaning "Totally satisfied".

At the individual level, the analysis accounts for the following control variables:

- Education, treated as an ordinal variable where each category corresponds to a degree of educational qualification. Results do not change if we include dummy variables corresponding to each level of qualification.

[10] Hereafter we will use "Province of Trento" and "Trentino Region" as synonyms.

- Work status, as indicated by a number of dummies reporting whether the interviewee is a blue-collar worker, office worker, teacher, managerial employee, member of profession, entrepreneur, farmer, pensioner, homemaker, or unemployed. Students are the omitted category in regressions.
- Usual socio-demographic controls such as gender, being in a stable relationship, age, and the area of residence (urban vs. rural).

All the variables are described in detail in Table A1 in Appendix A. Summary statistics are reported in Table 1.

The measurement of social capital is a delicate and controversial issue which we prefer not to discuss here. For a comprehensive survey of methodological problems in the empirical literature on social capital, we refer the reader to the reviews in Fine (2001, chapter 10), Durlauf and Fafchamps (2005) and Sabatini (2007, 2009a, 2009c). In model 2, we account for the "structural"

Table 1. Summary statistics

Trust in the Italian prime minister	754	.229443	.4207537
Trust in television	817	.5911873	.4919157
Membership of associations	817	.3206854	.467026
Number of associations	817	.5446756	.9565431
Volunteer unpaid work for associations	817	.2729498	.4457481
Help to strangers within volunteering activities	817	.2056304	.4044091
Participation in associational meetings	817	.2888617	.4535111
Social trust	817	.4247246	.4946039
Trust in the judicial system	817	.621787	.4852382
Tolerance towards non EU immigrants	817	.7380661	.4399562
Tolerance towards EU immigrants	817	.8567931	.3504982
Tolerance towards drug or alcohol addicts	817	.4381885	.4964686
Age 35-49	817	.2949816	.4563139
Age 50-64	817	.2325581	.4227216
Age 65 and more	817	.2362301	.4250254
Female	817	.5165239	.500033
Being in a stable relationship	817	.7172583	.4506078
Educational qualification (ordinal)	817	4.452876	1.48375
Precarious worker	817	.0110159	.104441
Blue-collar worker	817	.122399	.3279469
Office worker	817	.2264382	.4187823
Teacher	817	.0428397	.2026195
Managerial employee	817	.0183599	.1343311
Member of professions	817	.0403917	.1969967
Entrepreneur	817	.0146879	.1203739
Farmer	817	.0403917	.1969967
Unemployed	817	.0269278	.1619716
Retired	817	.2594859	.4386211
Homemaker	817	.0832313	.2764008
Area or residence (urban vs. rural)	817	.3561812	.479163
Poor	817	.1505508	.3578295

dimensions of the concept. The structural dimension deals with individuals' behaviours and can take the form of relational goods consumption, participation in social networks, and volunteering activities. Cognitive social capital deals with agents' perceptions and involves concepts such as trust, reciprocity, and shared beliefs (Uphoff 1999).
In this paper, we measure structural social capital through membership of voluntary organizations, as given by a number of indicators capturing:
- the number of associations in which the interviewee participates, both through a formal membership or through informal participatory activities.
- The type of association, as measured by a number of dummy variables. In particular, the analysis includes cultural, recreational, health and assistance, advocacy, environmental and religious associations.
- Attendance at associational meetings, measured through a binary variable coded 1 if the respondent had joined meetings in the last 12 months before the interview.
- Volunteering, measured through a binary variable coded 1 if the respondent had done unpaid volunteer work in the last 12 months before the interview.
- Altruism, measured through a binary variable coded 1 if the respondent had concretely helped strangers within her volunteering activities in the last 12 months before the interview.
In model 3 we add measures of cognitive social capital, as given by two indicators of social trust and trust towards the institutions, and three indicators of "tolerance". Social trust was measured through the standard trust question, "In general, do you think most people can be trusted or can't you be too careful?", conceived by Elisabeth Noelle-Neumann and introduced to large U.S. surveys by Rosenberg (1956). Institutional trust is measured through the scores from 1 to 10 given by responses to the question "Do you that the judicial system can be trusted?", with 1 meaning "Not at all" and 10 meaning "Totally". In both cases responses were recoded 1 if their value was above the mean.
In principle, it could be argued that at the community level a vibrant social environment which allows people to meet frequently and to share information, opinions and experience might scale down the role of mass media in the formation of political preferences. Indeed it seems somewhat significant that the Province of Trento, which according to previous studies enjoys an exceptional wealth of community social capital (Sabatini 2008, 2009b), has always exhibited a relatively moderate consensus for the prime minister's party. However, as column 2 of Table 2 reports, most social capital variables are found to be irrelevant at the individual level.
Tolerance was measured through the question: "Which of these categories of people would you be willing to have as neighbours", where categories were non EU immigrants, EU immigrants, alcohol or drug addicts, and people who declare themselves to be racist.

2.2 Instrumental variables estimates

As will be reported in section 3, probit estimates clearly show that trust in television is the most significant predictor of trust in the prime minister, and that this result is robust to different specifications. However, as we mentioned in the introduction, individual effects or other unknown phenomena which we may not be able to account for within the model could be correlated with both the dependent variable and the main regressor, thus creating a common bias. Moreover, there are reasons to suspect the existence of reverse causality: Mr Berlusconi owns or controls the majority of the Italian broadcasting system, so it is reasonable to argue that trusting Mr Berlusconi may also lead citizens to trust his television channels. After a simple regression-based test of endogeneity, we deal with this issue by means of instrumental variables (IV) estimates.
In IV estimates, we use two individual-level instruments for trust in television given by the quality of friendships and trust in the press. As the tests reported in section 3 show, these variables satisfy the two necessary conditions for instrument validity, since they are both strongly correlated with trust in television ("relevance" condition) and they are both orthogonal to the disturbance term of the trust in the prime minister equation ("orthogonality" condition).

The quality of friendships is measured through individuals' reported satisfaction with relationships with friends, as given by responses to the question: "How satisfied do you feel with your relationships with friends?".
The relationship between television, relational goods and life satisfaction has already been analyzed in the literature (Putnam 1995; Corneo 2005; Bruni and Stanca 2006, 2008; Frey et al. 2007). Drawing on data from the first wave of the European Social Survey, Frey et al. (2007) find that watching TV is positively related to people's material aspirations and negatively related to their trust in others as well as to relative frequency of social activities. Bruni and Stanca (2006, 2008) use data from the World Values Survey to show that television viewing plays a key role in reducing happiness through two main mechanisms. First, it crowds-out relationality (Bruni and Stanca 2008). Second, it contributes to raising individual material aspirations, thus lowering the effect of higher income on happiness (Bruni and Stanca 2006). Antoci, Sabatini and Sodini (2011a, 2011b) show that under certain conditions the crowding out hypothesis can be generalized to various kinds of technology-intensive consumption, with an exception made for the Internet.
It must be stated that, in respect to the above mentioned literature, in this paper we measure trust in television instead of viewing TV. This difference is critical to the purpose of our study for two main reasons. First, as stated by Frey et al. (2007), subjective time use data may be inaccurate or biased: "Watching television might not be understood in the same way by all respondents, and they might not differentiate between television viewing as primary, secondary or even tertiary activity. Respondents might not even correctly remember all the times they were watching television" (p. 290). Moreover, people may watch television without trusting the reliability of its contents. For example, spectators of reality shows are often aware that characters are actually following a script, but they are likely to enjoy the show even if they do not trust its "reality" at all.
Moreover, we refer to relational goods in terms of their quality, rather than to the mere frequency of their consumption. Friendship is a qualitative concept which cannot be measured just through the frequency of meetings with friends. Following Diener and Seligman (2002), in this paper we use satisfaction with relationships with friends as a proxy for the "quality" of friendship. The quality of relationships with friends has been found to be strongly associated with aspects of well-being such as happiness (Baldassarre et al. 1984; Argyle 1987; Myers 1999;Deci and Ryan 2001; Diener and Seligman 2002; Lyubomirsky et al. 2006; Demir and Weitenkamp 2007; Van Praag and Ferrer-i-Carbonell 2008; Sabatini 2011) and health (Fiorillo and Sabatini 2011). Drawing on a sample of 222 undergraduate students, Diener and Seligman (2002) find that the subjective rating of relationships with close friends is the best predictor of happiness. Demir et al. (2007) use a sample of 280 college students to analyze the role of best and close friendships in happiness. The authors find that best friendship quality – as measured by the subjective rating of respondents' relationships with their best friends – is the only significant predictor of happiness.
In the population object of our investigation, the frequency of contact with friends exhibits a weak and positive correlation with trust in television[11]. By contrast, the quality of friendships is found to be significantly and negatively correlated with trust in TV by probit and first stage IV estimates. Arguably, satisfactory relationships which entail mutual trust as well as the exchange of ideas and information may reduce the role of television in the obtaining of social and political information, thereby preventing individuals from uncritically evaluating broadcasting contents. The significance of the correlation, along with the tests of the joint significance of coefficients carried out in section 3 (see Tables 3 and 4), support the assumption that this variable is a relevant instrument.
As for the orthogonality condition, it must be stated that several studies find the quality of friendships to be correlated with certain domains of trust, such as social trust. However, the latter concept is extremely different from the dependent variable we use in the empirical analysis. In support of the hypothesis of orthogonality, probit and ordered logit regressions do not find any significant correlation between the quality of friendships and trust in the Italian prime minister.

[11] Estimates are available upon request to the author.

The other instrument we use in the analysis, i.e. trust in the press, may be subject to greater contention. One could argue that people who trust the press are not likely to behave and think so differently from those who trust television. Indeed we find the two variables to be significantly correlated in our sample through probit estimates and first stage IV estimates (p value = 0.000). The test of the joint significance of coefficients (see Tables 3 and 4) also supports the assumption that this variable satisfies the relevance condition. However, this correlation does not imply that trust in television and trust in the press are able to bias political opinions to the same extent and in the same direction.

There are at least three reasons to suspect that the orthogonality condition might be satisfied. First, television and the press are very different media. As stated by Frey et al. (2007), "TV viewing is characterized by immediate benefits and negligible immediate marginal costs. *One just has to push a button*" (p. 287, italic is ours). By contrast, reading the press requires an active and mindful choice of newspaper, as well as the act of going to a kiosk and paying for the purchase. Compared to reading newspapers, watching TV has virtually no entry barriers, especially in the case of television channels owned or controlled by Mr Berlusconi (*Mediaset* and public service channels can be viewed free of charge). Moreover, as reported by Frey et al. (2007), there is anecdotal evidence that individuals may have self-control problems in watching television: it is hardly arguable that the activity of reading newspapers can cause similar problems.

Second, newspaper readers are far fewer in number than TV viewers (Istat 2008). Thus, people who report that they trust the press are not necessarily habitual readers. By contrast, people who trust TV are more likely to be habitual watchers. Overall, in Italy the press is a less influential and pervasive media than the television.

Third, the Italian press is much more pluralist than Italian television. Mr Berlusconi's family directly owns "only" a small number of newspapers and several magazines, not the majority[12]. Overall, it is possible to state that Italian newspapers more or less equally represent all political views. Thus, trust in the press cannot be correlated with a definite bias in terms of trust or distrust towards the prime minister. Moreover, local newspapers published in the Province of Trento are traditionally moderate and try to remain equidistant from political alignments.

In light of the arguments discussed above and of the estimates carried out within the empirical analysis, it seems reasonable to assume that, in the population under investigation, there is no direct link between trust in the press and trust in the prime minister. Moreover, as mentioned earlier, we test the validity of our instruments with over-identification tests presented in Tables 3 and 4.

3. Empirical results

Our empirical model of trust in the Italian prime minister can be represented through the following estimation equation:

$$SB_{it}^{*} = \alpha + TV'_{it}\beta + SC'_{it}\gamma + Z'_{it}\delta + \varepsilon_{it} \qquad (1)$$

where SB is trust in the prime minister for individual i at time t, TV is trust in television, SC are the social capital variables (both structural and cognitive) defined at the individual level, the Z vector

[12] Berlusconi owns *Arnoldo Mondadori Editore*, the largest Italian publishing house which owns over 50 magazines, including *Panorama*, one of the country's most popular news magazines, and *Chi*, and *TV Sorrisi e Canzoni*, two of the most popular tabloids. His brother, Paolo Berlusconi, owns and operates *il Giornale*, a right wing newspaper which provides a strong pro-Berlusconi slant on Italy and its politics. *Il Foglio*, one of the most influential Italian right-wing newspapers, is partially owned by his former wife, Veronica Lario. As for television, the Italian prime minister owns three of the seven national terrestrial televisions, i.e. *Canale Cinque*, *Italia Uno* and *Rete Quattro*, he holds a minority stake in *La 7* and, as head of the government, he has *de facto* power to control the three country's public television channels, i.e. *Rai 1*, *Rai 2* and *Rai 3*. Overall, he is in a position to influence more than 90% of the country's television output.

consists of the other variables that may influence trust in the prime minister, and ε is a random-error term.

We do not observe the "latent" variable SB_{it}^{*} in the data. Rather, we observe SB_{it} as a binary variable which takes the value 1 if SB_{it}^{*} takes values over 6 and 0 otherwise. Thus, the structure of (1) makes it suitable for estimation as a probit model:

$$\Pr(SB_{it} = 1) = \Phi(\alpha - \mathrm{TV}_{\mathrm{it}}^{'}\beta - \mathrm{SC}^{'}{}_{\mathrm{it}}\gamma - Z_{it}^{'}\delta) \tag{2}$$

Table 2. Probit estimates

	Model 1		Model 2		Model 3	
	Marginal effect	t stat.	Marginal effect	t stat.	Marginal effect.	t stat.
Trust in television	.1221223	4.19	.121433	4.17	.163775	5.44
Structural social capital						
Membership of associations			-.016752	-0.15	.00572	0.05
Number of associations			-.008192	-0.26	-.013603	-0.43
Volunteer unpaid work for associations			.081718	0.79	.074366	0.73
Help to strangers within volunteering activities			-.035951	-0.64	-.013694	-0.25
Participation in associational meetings			-.012335	-0.11	-.016904	-0.17
Cognitive social capital						
Social trust					.023262	0.64
Trust in the judicial system					-.066084	-1.88
Tolerance towards non EU immigrants					-.082413	-1.63
Tolerance towards EU immigrants					-.097133	-1.56
Tolerance towards drug or alcohol addicts					-.019794	-0.60
Demographic, social and economic characteristics						
Age 35-49	-.001951	-0.04	-.000595	-0.01	.009243	0.18
Age 50-64	-.063654	-1.16	-.062013	-1.13	-.033643	-0.59
Age 65 and more	-.094093	-1.54	-.093188	-1.52	-.078107	-1.26
Female	-.041786	-1.24	-.042057	-1.24	-.023448	-0.70
Being in a stable relationship	-.031322	-0.81	-.032415	-0.83	-.032461	-0.83
Educational qualification (ordinal)	-.051397	-5.84	-.051832	-5.72	-.030242	-3.00
Precarious worker	.029832	0.18	.032712	0.19	.091561	0.48
Blue-collar worker	-.029190	-0.47	-.026524	-0.43	-.020346	-0.33
Office worker	-.063411	-1.05	-.060772	-1.00	-.04892	-0.80
Teacher	-.026763	-0.26	-.021731	-0.21	-.039327	-0.42
Managerial employee	.190955	1.20	.185009	1.16	.186922	1.18
Member of professions	.213090	1.77	.219489	1.81	.255212	2.03
Entrepreneur	.03321	0.19	.020350	0.12	.056658	0.33
Farmer	.209372	1.76	.217122	1.82	.23481	1.89
Unemployed	-.038612	-0.41	-.038335	-0.40	-.041619	-0.45
Retired	.081971	0.96	.082864	0.97	.105075	1.18
Homemaker	.018582	0.21	.022775	0.26	.037979	0.41
Area or residence (urban vs. rural)	-.052349	-1.64	-.052472	-1.62	-.039295	-1.21
Poor	.0561422	1.19	.053071	1.13	.048195	1.03

Omitted categories are: "Age 18-34" and "Students".

where $\Phi(\cdot)$ is the cumulative distribution function of a normal standard.
Table 2 presents the results of the probit estimates. To compare relative magnitudes of the effects of the independent variables, we report their marginal effects. In model 1 (column 1 of Table 2), we principally focus on trust in television and on a number of covariates representing individual socio-demographic and economic characteristics. Trust in television is found to be the strongest predictor of trust in the prime minister. More precisely, people who trust television exhibit a 12 percentage point higher likelihood of also trusting Mr Berlusconi. Trust in the prime minister is significantly and negatively correlated with education.
When education is measured as an ordinal variable, the size effect of each category is significantly lower than that of trust in TV. On the other hand, if we replace the ordinal variable with a number of dummies representing each type of qualification provided by the Italian education system, the significance, sign and size of the role of TV do not change, and we observe slight changes in the size effect across the different qualifications[13].
These results are robust to the inclusion of a number of control variables. The more we add covariates to the model, the more the role of trust in television grows in significance and size.
In models 2 and 3 we add indicators of structural and cognitive social capital. Trust in TV is confirmed as the most significant regressor, with a size effect increasing to about 15%. Social capital variables seem to be irrelevant, with the exception of the indicator of trust towards the judicial system, which is found to be significantly and negatively correlated with trust towards the prime minister. This is not surprising, since Mr Berlusconi always claims to be the victim of a manifest judicial persecution. The Italian prime minister frequently refers to the judicial system as a cancer – and to single judges as "metastases" – in public discourses. People who trust the judicial system report an approximately 10% lower likelihood of trusting the prime minister. Results are robust to the consideration of different types of associations, which are all found to be irrelevant in respect to the dependent variable. As for work status, members of professions and farmers are significantly more likely to trust the prime minister.
Another interesting finding is the significant and negative correlation of tolerance towards immigrants with our dependent variable. The significance and size of trust in television further grows in model 3, the marginal effect now reaching more than 16%. All the other effects remain substantially unchanged.

3.1 Endogeneity issues

As pointed out in section 2, there are two main reasons to suspect the existence of endogeneity problems. First, trust in the prime minister and trust in television are individual choices, which depend on individual specific and unobservable preferences. Hence, they are by definition endogenously determined. Unobservable individual effects such as time preferences, personal interests, and individuals' exogenous shocks may be correlated both with trust in the prime minister and trust in TV. Second, there is concern about possible reverse causality: Mr Berlusconi hopes his citizens trust his television channels and continuously invites them to do so. Thus, it is likely that people can trust television *as a consequence* of their trust towards the prime minister.
First, we run a regression-based test endogeneity of trust in television. If the test fails to reject absence of endogeneity, we can go back and use the probit model (2) to estimate the effect of trust in TV. Otherwise, we are prompted to address endogeneity through IV estimates.
To derive the regression-based test, a two stage procedure is used. The first-stage reduced form regression has trust in television as dependent variable and all the exogenous variables as regressors (i.e. the instrumental variables and all exogenous variables included in model 2). As explained in section 2, the instruments for trust in television are the quality of friendships and trust in the press. At the second-stage, we regress trust in the prime minister on the predicted OLS residuals from the

[13] We do not report estimates including all educational qualification dummies in order not to overload tables. Estimates are available upon request to the author.

first-stage, on the potential endogenous variable (trust in television), and on all the exogenous variables. A standard t test on the predicted residuals is our test for endogeneity. The test cannot reject the presence of endogeneity (t = 17.61, P > |t| = 0.000), hence we address endogeneity through instrumental variables (IV) estimates[14].

Table 3 reports the marginal effects of trust in television in the second stage of the IV estimates, along with diagnostic tests of the validity of our instrumental variable estimators. In column 1 we report results of IV probit estimates. The Amemiya-Lee-Newey test of over-identifying restrictions does not lead us to reject the orthogonality of our instruments with respect to the disturbance term of the trust equation with a *p*-value greater than 0.75.

As robustness checks, in columns 2 and 3 we report the results of OLS and GMM estimates. The Sargan test and the Basmann test of over-identifying restrictions reported in column 2do not lead us to reject the null hypothesis that the excluded instruments are valid instruments, i.e., uncorrelated with the error term, and that they are correctly excluded from the estimated equation, with a *p*-value $\cong$ 0.74.

Table 3. IV estimates with dichotomous endogenous variable

	Probit		OLS		GMM	
	Marginal effect	t stat.	Marginal effect	t stat.	Marginal effect.	t stat.
Trust in television	.1877695	3.39	.1794878	2.95	.1798147	3.07
Instrumental variables diagnostics						
Test of over-identifying restrictions: Statistic (*p*-value)	Amemiya-Lee-Newey test chi-sq (1) = 0.094 (0.7597)		Sargan test chi-sq (1) = 0.114 (0.7352) Basmann test chi-sq (1) = 0.108 (0.7419)		Hansen test chi-sq (1) = 0.112 (0.73821)	
Joint significance coefficient	chi-sq (1) = 189.87 (0.000)		F = 140.30 (0.000)		F = 138.77 (0.000)	

In column 3, we report the Hansen-Sargan test of over-identifying restrictions[15]. Once again, the test does not lead us to reject the null with a *p*-value $\cong$ 0.74.

In columns 2 and 3, the F-statistics, testing the hypothesis that the coefficient of the excluded instruments are all zero in each first-stage estimate, are well above the threshold of 10 suggested by the literature as the rule of thumb criterion of instrument weakness. Taken together with the non-rejection of the tests of over-identification, this suggests that our set of instruments is reasonable.

Overall, when we address the endogeneity of trust in television in IV estimates, we find a slight increase in its marginal effect, which now grows to about 17-18%. Trust in TV remains the best predictor of trust in the prime minister. Its significance, sign and size remain unchanged in the three models.

In summary, the instrumental variable results confirm the role of trust in television as presented in Table 2.

As a further robustness check, we report in Table 4 results of IV estimates performed that treat the endogenous variable as an ordinal, i.e. measured on the original 10 points-scale. The upper part of the table contains the marginal effects of trust in television on trust in the prime minister, while the

[14] Estimates are available upon request to the author.

[15] For the 2SLS estimator, the test statistic is Sargan's statistic. Under the assumption of conditional homoskedasticity, Hansen's J statistic becomes Sargan's statistic. The J statistic is consistent in the presence of heteroskedasticity; Sargan's statistic is not (Baum et al. 2007; Wooldridge 2002)

lower part reports the same diagnostic tests described with reference to Table 3. As expected, there is a decrease in the marginal effect.

Table 4. IV estimates with ordinal endogenous variable

	Probit		OLS		GMM	
	Marginal effect	t stat.	Marginal effect	t stat.	Marginal effect.	t stat.
Trust in television	.1546698	3.02	.0436048	3.01	.0409883	3.08
Instrumental variables diagnostics						
Test of over-identifying restrictions: Statistic (*p*-value)	Amemiya-Lee-Newey test chi-sq (1) = 0.053 (0.8177)		Sargan test chi-sq (1) = 0.043 (0.8348) Basmann test chi-sq (1) = 0.041 (0.8391)		Hansen test chi-sq (1) = 0.023 (0.88016)	
Joint significance coefficient	chi-sq (1) = 280.23 (0.000)		F = 174.39 (0.000)		F = 172.42 (0.000)	

4. Conclusions

Empirical studies in social psychology have provided some evidence that people vote for politicians whose traits they rate as being most similar to their own (Caprara et al. 2002; Caprara et al. 2007). This view is often invoked with reference to the Italian political debate, where commentators claim that the main reason of Mr Berlusconi's political success is that people feel a deep affinity with him. This argument is hardly questionable per se, in view of the exceptional consensus which the Italian prime minister has enjoyed for about 20 years. The objective of this paper is rather to investigate how this consensus was formed and kept despite the never-ending series of scandals in which Mr Berlusconi has been involved. In other words, we try to improve our understanding of whether the Italian media, specifically the television, allow public opinion to be formed in an objective and impartial way. Not surprisingly, centre-right political commentators argue that television does not exert any particular bias on public opinion. More surprisingly, this view seems to have been shared in the last 20 years by all centre-left coalitions, who never proposed a law to regulate Mr Berlusconi's huge conflict of interest. If the assumption of television's irrelevance were true, one could reasonably expect to find no significant relationship between trust in TV and trust in the Italian prime minister. Contrary to this hypothesis, our empirical analysis shows that trust in television is the strongest predictor of trust in the Italian prime minister, thus suggesting that Mr Berlusconi's media empire plays a key role in the building of his political consensus.

This result passes all robustness checks and holds in IV estimates. It must be remarked that the cross-sectional design of the research dictates caution in the interpretation of correlations as causal relationships. Moreover, we could not control for a series of phenomena which could potentially influence both the dependent variable and trust in television (e.g. trust in other information channels, such as the Internet, interviewees' vote intentions, and active political participation, which were not measured in our dataset). Nonetheless, this paper contributes to the literature by carrying out the first econometric investigation into the role of television in steering political consensus, with a special focus on trust towards the Italian prime minister. To our knowledge, despite its economic relevance this topic is neglected in the literature. We hope our work has a ripple effect in stimulating further research on political representatives' conflicts of interest in the media sector.

The policy implications of the study are so straightforward that may look obvious, at least in most Western democracies. A regulation of conflicts of interest should be a primary objective in the political agenda of every democratic government, independent of its political colour. Democracy has been defined in various ways by philosophers and political scientists. But whatever definition is used, there is no doubt that to qualify as a democracy a regime must allow the selection of the

leadership and the formulation of general rules as a result of popular decisions, which are based on a public consensus of citizens. A democracy requires that this consensus must be formed freely, without manipulation by anyone who has the power to control the mass media.
Conflicts of interest are not a problem peculiar to the present Italian system, but one of the unavoidable issues of democratic theory to which all democratic systems have brought a response. Thus, promoting a set of rules to regulate the conflicts of interest of political representatives is not a partisan demand based on the desire to attack one specific leader. Rather, it is a necessary step to allow democracy to work properly.

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Appendix

Table A1. Preferences for Mr Berlusconi's party and the centre-right coalition in the last three ballotings

Election	Mr Berlusconi's party (People of Freedom)	Centre-right coalition
European Parliament election 2009 (National data in brackets)	26.29 (35.26)	43.22 (45.46)
Elections of the Chamber of Deputies 2008. (National data in brackets)	27.44 (37.39)	46.62 (46.81)
Local administration election 2008	12.27	37.87

Table A2. Description of variables

Trust in the Italian prime minister	1-10 points respondents' score to the question "Do you think that the prime minister can be trusted?" Responses equal to 6 and above are coded 1.
Trust in television	1-10 points respondents' score to the question "Do you think that television can be trusted?" Responses above the mean value are coded 1.
Membership in associations	Membership in associations; 1 = the interviewee is member and/or participates in the activities of one or more associations.
Number of associations	Number of associations to which the interviewee participates.
Volunteer unpaid work for associations	Binary variable = 1 if the interviewee has done unpaid volunteer work for associations in the last 12 months before the interview.
Help to strangers within volunteering activities	Binary variable = 1 if the interviewee has concretely helped strangers in the last 12 months before the interview.
Participation in associational meetings	Binary variable = 1 if the interviewee has joined meetings of voluntary association sin the last 12 months before the interview.
Social trust	Trust towards strangers, given by the 10 points respondents' score to the question "Generally speaking, do you think that most people can be trusted?"; 1 = values above the mean.
Trust in the judicial system	Trust towards the judicial system, given by the 10 points respondents' score to the question "Do you think that the judicial system can be trusted?". 1 = values above the

	mean.
Tolerance towards non EU immigrants	Tolerance towards non EU immigrants, as given by 1-5 respondents' score to the question: "Would you be willing to have non EU immigrants as neighbours?", 1 meaning "Totally unfavourable", 3 meaning "Indifferent", 5 meaning "Totally favourable". Binary variable = 1 if interviewee is willing or indifferent to have non EU immigrants as neighbours.
Tolerance towards EU immigrants	Tolerance towards EU immigrants, as given by 1-5 respondents' score to the question: "Would you be willing to have EU immigrants as neighbours?", 1 meaning "Totally unfavourable", 3 meaning "Indifferent", 5 meaning "Totally favourable". Binary variable = 1 if interviewee is willing or indifferent to have EU immigrants as neighbours.
Tolerance towards drug or alcohol addicts	Tolerance towards non drug and alcohol addicts, as given by 1-5 respondents' score to the question: "Would you be willing to have drug and alcohol addicts as neighbours?", 1 meaning "Totally unfavourable", 3 meaning "Indifferent", 5 meaning "Totally favourable". Binary variable = 1 if interviewee is willing or indifferent to have towards drug or alcohol addicts as neighbours.
Age 35-49	Age of the respondent; 1 = age between 35 and 49
Age 50-64	Age of the respondent; 1 = age between 50 and 64
Age 65 and more	Age of the respondent; 1 = age 65 and more
Female	1 = female
Being in a stable relationship	1 = the respondent is in a stable relationship, including marriage
Educational qualification (ordinal)	Ordinal variable assuming the following values; 1 = no educational qualification; 2 = elementary school (5 years); 3 = junior high school (8 years); 4 = high school (13 years); 5 = university degree and/or doctorate (18 years and more).
Precarious worker	Binary variable = 1 if the respondent is a precarious worker with a temporary or no contract of employment.
Blue-collar worker	Binary variable = 1 if the respondent is blue-collar worker with permanent contract of employment.
Office worker	Binary variable = 1 if the respondent is office worker with permanent contract of employment.
Teacher	Binary variable = 1 if the respondent is teacher with permanent contract of employment.
Managerial employee	Binary variable = 1 if the respondent managerial employee with permanent contract of employment (includes college teachers, magistrates, university researchers).
Member of professions	Binary variable = 1 if the respondent is member of professions.
Entrepreneur	Binary variable = 1 if the respondent is entrepreneur.
Farmer	Binary variable = 1 if the respondent is farmer.
Unemployed	Binary variable = 1 if the respondent is unemployed.
Retired	Binary variable = 1 if the respondent is retired.
Homemaker	Binary variable = 1 if the respondent is homemaker.
Area or residence (urban vs. rural)	Binary variable = 1 if the respondent lives in a urban area.
Poor	Indicator of economic well-being given by responses to the question: "Is your household's income sufficient to see you through to the end of the month?". Respondents were asked to give a score from 1 to 5, with 1 meaning

	"With great difficulty" and 5 meaning "Very easily". Binary variable = 1 for negative responses (i.e. "With great difficulty" and "With difficulty")
Quality of friendships	Subjective assessment of satisfaction with relationships with friends; 1 = values above the mean
Trust in the press	1-10 points respondents' score to the question "Do you think that the press can be trusted?" Responses above the mean value are coded 1.