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Abstract:

Governments control media in much of the developing world. Does this have an effect on political choices of voters? We address this question using exogenous variation in the availability of the signal of the only independent from the government national TV channel in Russia during the 1999 parliamentary elections. We find that the presence of an independent source of political news on TV significantly decreased the vote in favor of the government party and increased the vote in favor of the opposition parties. We find that the difference in TV coverage significantly changed voting behavior even controlling for voters' inclinations just one month prior to the elections. The effects we find are larger than those found in established democracies.

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Introduction

During December 1999 Parliamentary elections in Russia, the government-created party called "Unity," which did not exist two months prior to the election, scored the second with 23.8% of the total vote. Three months later, during March 2000 Presidential elections, Vladimir Putin – unknown to the majority of Russians eight months before the election – won the presidential elections in the first round by getting 52.9% of the vote. In August 1999, Vladimir Putin had popularity rating between 1 to 2%; at that time he was appointed as prime minister of Russia by the first president Boris Yeltsin. Massive media campaigns headed by state-owned national TV channels played a crucial role in bringing these fortunes. This example is a stark illustration of the importance of mass media for politics in young democracies.

In this paper, we use Russia's example to study the causal effect of the access to independent media sources on political views of the electorate. In particular, we estimate an impact of the only independent from the government federal TV channel in Russia in 1999, NTV, on the results of the Russian 1999 Parliamentary elections. We exploit the exogenous geographical variation in the NTV coverage to identify the effect of the channel on voting behavior both at the voting district and the individual level. First, we analyze the effects of having NTV transmission on the official electoral results in the 2323 municipalities. Second, we use survey data to investigate the effects on the individual level, using media availability as an instrument for NTV exposure. The results demonstrate that TV had a substantial persuasion power over Russian voters. We find large and significant effect of NTV on the voting outcomes both at the aggregate and at the individual level. In municipalities that had access to the opposition channel in addition to the government-supporting channels, voters were more likely to vote for the opposition and against the government party. The aggregate effect is large: opposition parties got an additional 10% of the total vote in 1999 elections due to the NTV broadcast. The NTV presence had a significant effect on the change in voter' political preferences in favor of the main opposition party supported by NTV even up to one month before the elections.

This paper contributes to a growing literature on the effects of media on voting behavior. Early classic studies (e.g., Berelson et al. 1944 and Lazarsfeld et al. 1954) found no effect of media on voting once political predispositions of survey respondents are taken into account and argued that media does not persuade voters but only reinforce their existing preferences. These studies, however, suffer from severe endogeneity problem: survey respondents prefer media sources that reflect their political views. Recent contributions to the literature employ experimental and quasi-experimental approaches to avoid inherent endogeneity of survey-based studies and show that media can in fact affect voting behavior (e.g., Della Vigna and Kaplan 2006 and Gerber et al. 2007).

Media can influence voting outcomes through persuasion of voters to change their political preferences or to change their decision to vote in elections. Under the conditions of free and competitive media and stable party systems, which usually characterize established democracies, media is more likely to have an effect on turnout than on political preferences, whereas in young democracies, characterized by high degree of political uncertainty and restricted access to information, both channels can be important. Indeed, most of the existing evidence of the effect of media on political outcomes in established democracies point to the effect of media on turnout.¹ For example, Gentzkow (2006) finds empirical support for the theory of Putnam (2000) who argues that the introduction of television in 1940s-1950s in the US significantly decreased turnout, as people read less newspapers and received less political information. George and Waldfogel (2006) use penetration of New York Times in 1990s to show that it decreased turnout in local elections because of a "distraction" of college-educated voters from local media and local affairs. Oberholzer-Gee and Waldfogel (2007) show that in the U.S. local news channels in Spanish increase turnout of Spanish-speaking electorate. Kaplan and Della Vigna (2006) use idiosyncratic diffusion of Fox News before 2000 elections to show that it increased Republican vote by increasing turnout among Republicans and decreasing it among Democrats. Strömberg (2004) finds that an increase in the penetration of local radio stations in the US in the 1930s increased turnout. Ansolabehere and Ivengar (1995) and Ansolabehere et al. (1999) show that negative campaigns significantly decrease willingness of Americans to turnout for vote.²

The evidence on the effects of media on voting in developing countries is scarce. Several recent papers start to fill this gap in the literature. They suggest that media in addition to affecting turnout can have a substantial effect on political preferences in young democracies and authoritarian regimes. Using survey data, Lawson and McCann (2007) show that before the 2000 elections in Mexico, the TV news had a significant effect on both attitudes and vote choices. Gentzkow and Shapiro (2004) argue that biased media in Arabic countries reinforce anti-Americanism. McMillan and Zoido (2004) provide a detailed account on how the media was used to undermine democratic accountability in Peru. Haimueller and Kern (2007) show that availability of free West-German TV increased support of authoritarian regime in Eastern Germany by providing otherwise-missing entertainment to East Germans. Our paper contributes

¹ Gerber et al. (2007) is a notable exception. They conducted a randomized experiment by providing individuals with free subscription to Washington Times or Washington Post and found a substantial effect of the access to Washington Post on the voting behavior: those who received the paper were 8% more likely to vote for Democrats. ² Laboratory experiments also show that turnout should be affected by the negative media campaigns as voter

confidence in electoral process is eroded (Ansolabehere et al. 1994 and Houston et al. 1999).

to this strand of literature. It is most closely related to White et al. (2005). They also try to estimate the effect of Russian media on the results of 1999 parliamentary and 2000 presidential elections and find significant effect of media exposure on voting results. They use survey-based measure of presence of state-owned or commercial television as an instrument for a media exposure. However, as any survey-based method, it does not solve endogeneity problem (survey respondents, whose choice was affected by media, tend to remember it better; and survey respondents, not interested in watching a particular channel, do not know if it is available). Our paper, in contrast, employs a quasi-experimental methodology and uses an exogenous measure of access to NTV, based on the geography of its coverage. Thus, our main goal in this paper is to document and evaluate the size of the causal effect of NTV on voting decisions as the previous literature just established a correlation without establishing causality. Furthermore, in addition to analysis of self-reported individual voting behavior, we document the effect of NTV on the actual electoral outcomes using official electoral statistics.³ Colton and McFaul (2003) also emphasize the importance of media effects for the outcomes of Russian elections in 1999 and 2000 using a survey-based approach.

A growing literature focuses on the effects of media on public policy. Strömberg (2004) finds that in the U.S. in the 1930s radio diffusion in a county was positively correlated with the level of public expenditures in the region. Einesee and Strömberg (2007) show that the amount of media coverage, instrumented by the timing of external news-worthy events, such as Olympics, affects U.S. aid on disaster relief. Besley and Burgess (2002) find that in India the newspaper circulation in the state is an important factor which influences government's responsiveness to the food shortages and the damages from floods. Reinikka and Svensson (2005) show that in Uganda the amount of public spending that actually reached local schools was higher when the intended funding arrangements were covered by local newspapers.⁴

A number of studies aim at explaining the differences in the freedom of media across countries. The lack of media freedom is found to be associated with state media ownership (Djankov et al. 2003), resource curse and low incentives for bureaucracy (Egorov et al. 2006), low level of social spending (Petrova 2007), and high corruption (Brunetti and Weder, 2003).

The rest of the paper is organized as follows. Section 2 describes television market and political situation in Russia in the end of 1990s, section 3 contains data description, section 4 describes results for the analysis on municipal level, section 5 discusses results based on survey, and section 6 concludes.

³ We cannot compare the magnitudes of the estimated effects in our paper and theirs, as they do not report either the marginal effects for their logit estimation or the results of the corresponding OLS regressions.

⁴ Previous work has also demonstrated that media has a significant effect on people's attitudes and behavior in spheres unrelated to politics (e.g., Olken (2006) shows that TV decreased participation in social organizations in Indonesian Villages; Jensen and Oster (2007) show that TV improved women's position in families in India.

Background

Politics

Prior to the 2004 political reform, the lower house of the Russia's parliament directly elected by the general population (called the Duma), was formed by the mixed electoral rule: one half of all seats (225 deputies) was filled by single-member-district majoritarian elections in 225 districts and the other half of the seats was filled by party-lists voting in a single national district according to proportional representation formula with 5% entry barrier. Political parties, electoral blocks, and political movements (i.e., "quasi-parties" according to Colton and McFaul 2003) were allowed to participate in the party-list voting.⁵ In this paper, we focus on the party-list vote in the December 1999 Duma elections.

Political landscape in Russia throughout the 1990s was constantly changing (see, e.g., White, Rose, and McAllister 1997; White, Wyman, and Kryshtanovskaya 1995; Brader and Tucker 2001). After the fall of communism and transition to democracy, the majority of citizens did not have established political preferences and partisan attachments, with the exception of a large part of the Communist Party electorate. A multitude of new parties was formed and joined political races. For instance, 13, 43, and 26 parties participated in the parliamentary elections of 1993, 1995, and 1999, respectively. Partisan attachments were extremely weak. According to Colton (2000), 71% of voters changed their preferred party between 1993 and 1995; and for 60% of voters this change came with a substantial change in ideology.⁶ Less than one fourth of voters chose the same party in 1995 and 1999 parliamentary elections (Colton and McFaul 2003).

In 1999, the official party of the Kremlin in 1995 parliamentary elections, NDR ("Our Home - Russia"), was in decline: in June, polls predicted that less than 5% of the population supported it, compared to 10% in 1995.⁷ On September 27, 1999, a new electoral block "Unity" ("Edinstvo" in Russian) was created. The only aim of block was to support the Kremlin and the government. The leaders of the block officially stated that it has no ideology.⁸ Two months before the election, in October 1999, less than 2% of population had intentions to vote for it. In October, the front-runner of these elections was the electoral block called OVR ("Fatherland – All Russia"). This block was created in August 1999 by the coalition of existing electoral blocks

⁵ Political reform of 2004 instituted the new electoral rule for Duma. Starting with 2007 parliamentary elections, all seats in the Duma are filled by party-lists elections with the proportional representation and 7% entry barrier. Only registered political parties are allowed to form party lists.

⁶ Colton classified all Russian parties into 6 different groups by their ideology: liberal, socialist, centrist, nationalist, government and miscellaneous. 60% of survey respondents chose different party families in 1993 and 1995.
⁷ Fond "Obschestvennoe mnenie," June 1999, http://bd.fom.ru/report/cat/policy/party_rating/of19993101

⁸ The leader of "Unity," Sergei Shoigu, then the minister of emergency situations, said about the ideology of the newly created movement: "We do not bind ourselves to any narrow ideological direction. We are not 'centrists', 'rightists', or 'leftists.' We are a party of consolidation of all healthy forces in society, free of ideological bias." Here "healthy forces" meant support of Putin's government and Putin himself. Source: Nezavisimaya Gazeta, December 8, 1999, as cited in Colton and MacFaul (2003).

"Fartherland" and "All Russia." It was backed by influential regional leaders united by the centrist ideology and opposition to the Kremlin.⁹ Since August 1999, OVR was headed by popular ex-prime minister Evgeny Primakov who governed the country during the 1998 crisis. According to the polls two months before elections, OVR was expected to get 29% and KPRF (the Communists Party) – 21% of the total vote.¹⁰ The results of the December 1999 election turned out to be very different from these forecasts: KPRF was the first with 24.29%, "Unity" – the second with 23.32%, and OVR – the third with 13.33%.¹¹ The other three parties that received more than 5% of the votes were the SPS, LDPR and Yabloko, which received 8.52%, 5.98% and 5.93%, respectively.

Unlike the "Unity," the other parties, which got Duma seats, had some ideological platforms. The ideology of the Communist Party of the Russian Federation, the successor of the CPSU, which earned 22.3% in the previous elections of 1995 was "socialism with a human face," implying social state with corporatized large-scale state ownership, but allowing for small private entrepreneurship.¹² There were also two liberal parties represented in the 1999 Duma:¹³ "Yabloko" and SPS ("Union of Right Forces"). The "Yabloko" party got 6.89% in the 1995 elections. SPS did not exist in the previous Duma, it was formed in August 1999 by merging the two former "parties of power" – "Russia's Choice" and NDR.¹⁴ LDPR ran on the nationalist platform. It got 11.18% of votes in the 1995 elections.¹⁵

Mass Media

What accounts for such a sharp change in voter preferences? Colton and MacFaul (2003) conjecture that skilled PR campaign with the help of state-owned TV channels were the main cause for this "reversal of fortunes." Indeed, during the electoral campaign of 1999, television played a very important role in dissemination of political information to population: according to a representative survey of Russia's voters, 89% said that television was their "basic source of

⁹ These blocks also didn't have a long history. "Fartherland" was created in December 1998 by followers of Yurii Luzhkov, the mayor of Moscow. "All Russia" was created in April 1999 by regional leaders, such as Mintimer Shaimiev, the president of Tatarstan republic, and Ruslan Aushev, the President of Ingushetia republics.

¹⁰ Fond "Obschestvennoe mnenie," 20.10.1999 http://bd.fom.ru/report/cat/policy/party_rating/0907003

¹¹ It is worth noting that after one year and half, in April 2001, "Unity" and OVR, former fierce competitors, united to create "United Russia" party, which became the main "party of power" in Russia for the 2003 and 2007 elections. ¹² NEP, or New Economic Policy, was a policy of USSR in 1920s which introduced some features of market

economy to be the part of new Communist state. For example, it allowed for private property, and allowed farms and manufacture firms to hire laborers or invest in capital.

¹³ Liberal parties in Russia are parties with ideology supporting market economy, Westernization, human rights and freedoms.

¹⁴ The "Party of power" is a concept in Russian politics which labels the party created by the current leadership of the country before upcoming parliamentary elections with the purpose of participation in elections on the platform of supporting the Kremlin. In 1993, the "party of power" was "Russia's Choice," in 1995 – "Our Home is Russia," in 1999 - "Unity," in 2003 – "United Russia."

¹⁵ In the 1999 parliamentary elections it was registered as "Zhirinovsky bloc," by the name of its leader, Vladimir Zhirinovsky, for procedural reasons.

information about political events," compared with 8% for radio, and 3% for newspapers (Colton and McFaul 2003; see also White and Oates 2003).

There were three major national TV channels in 1999 that broadcasted political news. The two main channels, ORT and RTR ("the first channel" and "the second channel") were controlled by the state. The state owned 100% of RTR and 51% of ORT, with the rest of ORT belonging to Boris Berezovsky, a tycoon who actively supported Vladimir Putin at that time and was considered to be a part of the "Yeltsin's family." The third major channel, NTV ("Independent TV"), was a commercial network owned by Vladimir Gusinsky, a tycoon who was not close to the "Yeltsin's family." The remaining three national TV channels were either much smaller as "TV-Tsentr" and "TV-6" or did not cover politics as "Cultura."¹⁶

The broadcast of political news on all major national channels was highly biased: ORT and RTR was biased towards Unity, while NTV and TV-Tsentr were biased towards OVR. The political biases of the media channels were computed by the Institute of the European Media on the basis of the content analysis by Russian researchers (Oates, 2000). The political news coverage on both of the state-owned channels was uneven both terms of the amount of time allocated to different parties and in the content of the broadcasted messages. First, it disproportionately covered electoral block "Unity" and its head Shoigu as well as the Putin's government, and second, it was highly critical of it opponents. ORT positively covered Unity 28% of the time and its party leader Shoigu 19% of the time, with OVR and Luzhkov getting extremely negative coverage 9% and 4% of the time, respectively (Oates 2000, 2006). For example, a weekly news magazine with Sergei Dorenko on ORT, the notoriously known for political propaganda, fiercely criticized the members of OVR block, often using falsified information.¹⁷ Another state channel, RTR, covered Unity 24% of the time, and OVR 13% of the time, in addition to the heavy coverage of Unity leader Shoigu and prime minister Putin (Oates 2000).

The content of NTV programs was sharply different from that of the state TV channels. It criticized Putin's government and supported OVR and liberal pro-reform parties, SPS and Yabloko. NTV covered OVR 33% of a time and "Unity" only 5% of a time, i.e., despite the fact that the many analysts found its coverage to be more fair, as compared with other channels, it

¹⁶ "TV-Tsentr" belonged to the Moscow government. It actively supported the mayor of Moscow Yurii Luzhkov and his party OVR. "TV-6" was an entertainment channel owned by Boris Berezovsky. "Culture" was established in 1997 as non-profit channel covering arts, music, and education.

¹⁷ Oates (2006) uses focus group interviews to show that though viewers of Dorenko's show did not believe all accusations of Yurii Luzhkov, the mayor of Moscow and one of the OVR leaders, they thought that there must have been some ground for the accusations, as otherwise Dorenko would not talk about it. It is worth noting that after the elections, Luzhkov won slander suit against Dorenko and ORT proving that they presented false information on Luzhkov's performance in office and property ownership during the month preceding the elections (OCSE/ODIHR report 2000).

was heavily biased toward OVR. Its weekly show "Itogi" ("Summing up") with Evgeny Kiselev was critical of Putin and "Unity" and supportive of OVR and its leader Evgeny Primakov.

Broadcasting infrastructure in Russia was largely inherited from the Soviet times. ORT and RTR were accessible almost everywhere covering nearly 100% of the population. NTV covered approximately 66% of country's population.¹⁸ Thus, 33% of voters located in parts of the country where NTV was not accessible were treated with one-sided media coverage (by ORT and RTR only), while 66% of voters in the other parts of the country that had access to NTV were treated with media coverage from both sides of the political battle.¹⁹ In the paper, we use this difference in the signal coverage as the source of exogenous variation in political persuasion. We look at how the exposure to NTV affected voting decision at the aggregate and at the individual levels using the exogenous geographical variation of NTV coverage as an instrument for voter exposure to NTV.

Hypotheses

Existing literature on media does not give satisfactory answer on how media affects voters in young democracies. There are several reasons for why the effects of media exposure can substantially exceed those found in mature democracies. First, citizens in young democracies lack stable partisan attachments. Second, young democracies are characterized by unstable party systems which rapidly evolve from one election to another. Third, it is often the case that parties run on platforms with no distinct ideology. Finally, in addition to all these uncertainties, voters in young democracies are often bombarded by biased political messages on TV news programs, sometimes without an opportunity to listen to the arguments of the other side. All these characteristics of a typical young democracy were found in Russia in 1999. This implies that the effects of media on voting in Russia should be bigger than in such established democracies as the U.S.²⁰ We expect to see significant persuasion effects of NTV presence on voting for all liberal and centrist parties which were supported and covered by NTV, and, in particular, OVR, Yabloko, and SPS and against "Unity," which was criticized by NTV. We also expect to see a positive turnout effect for potential supporters of OVR, Yabloko, and SPS, and a negative turnout effect for potential supporters of "Unity." There is no clear-cut prediction about the net effect on the overall turnout.

¹⁸ The other two channels that covered political news, "TV-Tsentr" and "TV-6," were much smaller. "TV-Tsentr" was accessible only in the 6 largest cities, whereas "TV-6" covered around one third of the population, but the message of its political programs did not differ from ORT and RTR.
¹⁹ NTV had a satellite transmission that was available in all the Russian territory, but the share of population using

¹⁷ NTV had a satellite transmission that was available in all the Russian territory, but the share of population using this service was minuscule.

²⁰ In the U.S., Kaplan and Della Vigna (2006) find that the effect of the presence of Fox News on vote for Republicans in 2000 was 0.5%.

Data description

Sources

We use four primary sources of data. First, data on NTV coverage for 1997 and 1999 are the courtesy of the *Video International* media advertising company. Second, data on electoral results come from the Central Election Commission of the Russian Federation. Specifically, we use the data at the level of local electoral commissions on the turnout and voting results in the party-lists part of the Duma elections of 1995 and 1999. Third, we use municipality-level data on socio-economic conditions from Rosstat, the official Russian statistical agency. Finally, we use the results of a representative survey of voters from Colton (2000) and Colton and McFaul (2003). The survey is a large-scale panel survey of the Russian electorate in 1999 and 2000, performed under contract by the researchers from the Institute of Sociology of the Russian Academy of Sciences.

Summary Statistics

Using NTV coverage data, we created a municipal-level dummy variable *NTV* which is equal to 1 if NTV was available in that municipality, and 0 otherwise. After excluding Moscow and St. Petersburg from the sample (as they have a status of the Subjects of the federation rather than municipalities), we have 425 municipalities with the NTV signal and 1682 municipalities without the NTV signal. Summary statistics for availability of NTV and socio-economic characteristics of municipalities with and without NTV signal are presented in Table 1. NTV disproportionately covered big cities and regions with high urban population. Among municipalities from the Rosstat data base, NTV covered only 20% of municipalities and 52% of population, after the exclusion of metropolitan areas of Moscow and St. Petersburg.

Summary statistics for the election results in 1995 and 1999 by the presence of NTV signal are shown in Tables 2 and 3. Without additional controls, NTV municipalities are different from non-NTV municipalities in their voting behavior as well. In 1995, the voters in municipalities that had NTV signal in 1999 were more likely to vote for liberal Yabloko and NDR, the party of power of the time, and less likely to vote for Communists and LDPR (see Table 2). In NTV municipalities, voters were more likely to vote against all and less likely to turnout for elections. As far as the vote for Yabloko, Communists, LDPR, "against all," and turnout, these differences remain the same in 1999 (Table 3). In 1999, votes for new electoral blocks Unity, OVR, and SPS were also different between NTV and non-NTV municipalities. People in NTV municipalities were more likely to vote for OVR and SPS and less likely to vote for Unity. This comparison is based on the unconditional means and does not take into account heterogeneity between municipalities in terms of socio-economic characteristics (presented in Table 1).

Checking validity of the instrument

Table 4, however, shows that after controlling observables, such as municipal population, education, and average wage, the presence of NTV is no longer significantly linked to voting outcomes in 1995. Table 4 presents results of regression in which a dummy for NTV signal in a municipality is regressed on voting results in 1995 conditional on municipal characteristics. Without additional controls (Column 1), the availability of NTV signal is significantly correlated with past vote choices. Once socio-economic controls are included (see Columns 2 and 3), the joint significance of electoral variables sharply decreases. F-statistic for electoral controls in the model with all controls (column 3) is only 1.49 (insignificant at 10% level), while F-statistic for socio-economic controls is 14.21 (significant at 1% level). These results become even stronger when we include region fixed effects (columns 4-6).²¹ F-statistics for the electoral covariates are 0.80 and 0.88 for the basic set (Column 5) and full set (Column 6) of socio-economic controls, respectively.

The results presented in Table 4 imply that the presence of NTV in 1999 was determined by the socio-economic characteristics of municipalities, but was idiosyncratic with respect to the voting behavior in 1995. Thus, NTV signal was unrelated to preexisting voting preferences of people, at least with respect to revealed preferences observed in 1995 elections.

Results on the aggregate-level data

In order to test whether the presence of NTV had an effect on voting outcomes in 1999 elections, we estimate the following model:

$$vote_{i,1999} = \beta_0 + \beta_1 NTV_{i,1999} + X_{i,1995} ' \beta_2 + Z_{i,1998} ' \beta_3 + \varepsilon_i,$$
(1)

where *i* indexes municipalities. $vote_{i,1999}$ is the percent of votes for a particular party at the 1999 Duma elections in a municipality *i*. $NTV_{i,1999}$ is a dummy variable for the presence of NTV signal in the municipality *i* in 1999, $X_{i,1995}$ is a vector of electoral outcomes in 1995 elections, and $Z_{i,1998}$ is a set of socio-economic characteristics of the municipality *i* before the 1999 elections.

Table 5 presents the regression results for the vote for six major parties (i.e., Unity, OVR, KPRF, SPS, Yabloko, and LDPR), vote against all parties, and the voter turnout. Vote for Unity (columns 1-3) was substantially smaller in NTV municipalities than in non-NTV municipalities. The magnitude of the effect is substantial: availability of an NTV signal in a municipality decreased vote for Unity by approximately 2.6 percentage points. It corresponds to the idea that NTV was a successful counterweight to the propaganda power of RTR and ORT. The effect of NTV on the vote for OVR, the electoral bloc directly supported by NTV, is weaker both in terms

²¹ Here region is sub-national administrative unit of Russian Federation, i.e., Oblast', Krai, or Republic. In 1999, Russia had 89 regions.

of economic and statistical significance. With the extended set of controls, NTV increased vote for the OVR by 0.8 percentage points, which is comparable with the effect of the Fox News of 0.5 percentage points observed by Kaplan and Della Vigna in the U.S. The effect of NTV on vote for the two liberal parties, SPS and Yabloko, are roughly almost the same in magnitude: 0.8 percentage points.

The effect of NTV on vote for KPRF does not have a consistent sign and is insignificant. It is consistent with the observation that NTV was not very different from the other TV channels in its coverage of the Communist Party, and, therefore, we did not expect to find any systematic difference between Communist vote in the NTV municipalities and non-NTV municipalities. After controlling for the socio-economic characteristics there is no significant effect of NTV signal on the turnout, but people in the NTV municipalities were more likely to vote "against all," which can be considered as another form of abstention from supporting any particular party.

Our findings on the aggregate level data can be summarized as follows. The presence of NTV signal affected the vote for the parties which were covered differently by NTV and the two state channels. The effect of NTV on the vote for OVR and the liberal parties was equal to approximately 0.8 percentage points for each party. This implies a combined effect on the voting for all parties supported by NTV of 2.4 percentage points. The effect on the vote for Unity, criticized on NTV and advertised by the two state TV channels, was minus 2.6 percentage points. This is consistent with the idea that NTV prevented its viewers from being persuaded to vote for Unity, which happened to voters in non-NTV municipalities. Finally, we do not find a substantial effect of NTV on turnout, but we do find a substantial positive effect of NTV on the vote "against all" which procedurally is similar to a decrease in turnout.²²

Results on the individual-level data

In order to test whether NTV had an effect on voting decisions and intentions of individuals, we use the survey data from Colton and McFaul (2003). The same 1783 individuals were surveyed at several stages: first, before the 1999 elections (in November and December 1999); second, after the 1999 parliamentary elections and before the 2000 presidential elections (in late December 1999 and January 2000); and third, after the 2000 presidential elections (in April 2000). We use the data from the first two stages to construct the dummy variables which reflect the intention to vote, the preferred party before elections, the reported turnout, and the reported vote for each party. Table 6 summarizes these intentions and reported the vote variables

²² The main difference between the vote "against all" and not voting at all is that vote the "against all" increases the probability of having legitimate elections since legitimacy depends on the number of people who actually turned up to the elections (even if they voted against all).

for the whole sample and by the availability of NTV signal, using the geographic location of the survey respondents, i.e., by the dummy variable used in the aggregate level analysis.

In the survey, respondents reported whether they watched daily news (Segodnya) on NTV, its weekly magazine (Itogi with Evgeny Kiselev), or the channel in general in 1999. In the regression analysis, we instrument a reported exposure to NTV programs by the availability of NTV signal in 1999.

The basic model which we estimate for the reported vote and the intention to vote is:

$$vote_{i,1999} = \beta_0 + \beta_1 Watches NTV_{i,1999} + Y_{i,1999} \,' \boldsymbol{\beta}_2 + \varepsilon_i, \qquad (2)$$

where *i* indexes individual respondents. *WatchesNTV*_{*i*,1999} equals one if the respondent *i* answers yes to either one of the following questions: "Do you watch NTV?", "Do you watch Segodnya (daily news program on NTV)?" or "Do you watch Itogi (weekend newsmagazine on NTV)?" in 1999 and zero otherwise. $Y_{i,1999}$ is a set of individual socio-demographic characteristics.²³ Variable *WatchesNTV*_{*i*,1999} is instrumented by the availability of the NTV signal in the home municipality of individual *i*.

Table 7 presents the results of the first stage of the regressions (2). For all specifications, the availability of the NTV signal is a strong predictor for the respondents' exposure to NTV programs (all coefficients in the first row are positive and significant at 1% level).

Panel A of Table 8 reports the results of the IV regressions for the intention to vote, as reported by respondents in the pre-election survey. Intention to vote for OVR and Yabloko, follows the same pattern as the vote in the aggregate-level data – watching NTV increases the probability that a particular person is going to vote for one of these parties. Coefficients are larger in magnitude and more significant then the corresponding results for the plain OLS estimations reported in Panel B of Table 8. The coefficients on our main variable of interest, *WatchesNTV_{i,1999}*, in Panel A of Table 8 are the estimates of the causal effect of watching NTV on the intention to vote for a particular party. The effect is substantial: watching NTV increases the probability that a respondent is planning to vote for OVR and Yabloko by 0.60 and 0.47 respectively. These results appear rather large, but in interpreting them, it is important to bear in mind, that they represent the local average treatment effect (Imbens and Angrist, 1994), i.e., the effect of NTV on the people who started watching NTV just because it became available. It is reasonable to expect that the effect for these people would be higher than the average for the whole population.

²³ Social and demographic controls include: sex, age, marital status, dummy for ethnic Russian, education (dummy for college education or higher), religiosity (answer to the question: Do you attend regularly religious services?), dummy for former membership in CPSU, and consumption index. We follow Colton and McFaul (2003) and construct a consumption index as the sum of the answers to the following consumption questions: Do you own a car? A dacha (summer home)? A computer? A phone? An automatic washing machine? Do you have Internet access? Have you ever been abroad?

Other results from the IV estimates in Table 8 demonstrate that an effect of watching NTV on intention to vote for SPS turns out to be negative. Watching NTV decreases the probability that a respondent is planning to vote for SPS by 0.40. Other results are much weaker (none of the coefficients is significant at 10% level for the errors clustered at the level of municipality).

Panel A of Table 9 presents the results of the IV estimation for the vote as reported by the respondents in the post-election survey. All the effects except for the effect of watching NTV on turn out have the same sign as for the intention to vote. The survey respondents who watched NTV were approximately 50 percentage points more likely to vote for OVR, 42 percentage points less likely to vote for Unity and 29 percentage points less likely to vote against all. Again, as with the intention to vote, the OLS estimates are similar in their sign, but smaller in magnitude than the IV estimates (see Panel B of Table 9). Other results are weaker and not significant once we cluster the errors at the level of municipality.

A part of the survey respondents (864 out of 1783) also participated in an earlier survey conducted immediately after the 1995 elections. Thus, we can use the reported vote in 1995 to control for the preexisting voting preferences. Note that the size of the sample in these specifications is substantially reduced.²⁴ Tables 10 and 11 show the results of IV estimation controlling for the vote in 1995. The results for the effect of watching NTV on intention to vote and reported vote for OVR and Yabloko remain similar in size and significance once we control for the vote in 1995. The negative effect of watching NTV on the intention to vote for LDPR and reported vote against all becomes higher in magnitude and highly significant.

In addition, the reported turnout was significantly and substantially lower for those who watched NTV as compared to those who did not, although their intention to turn out was substantially higher (see the last columns in Tables 10 and 11). NTV watchers were 61 percentage points less likely to turn out to vote than those who did not. Again, this magnitude describes local average treatment effect, i.e., it shows the effect only for those who were going to change their viewing patterns because of the availability of NTV signal. The negative effect on turnout is consistent with the literature on negative campaigning (Ansolabehere et al. 1994, Ansolabehere and Iyengar, 1995, Ansolabehere et al. 1999, Houston et al. 1999) as both the progovernment channels and the opposition channel heavily relied on so-called "black PR," i.e., the negative campaign messages.

²⁴ We do not use measures of vote in 1995 recalled by respondents in 1999 because they are subject to a very severe recall bias. Colton and McFaul (2003) show that around half of respondents in 1999 either did not remember their vote in 1995 at all or recalled a vote that was different from that reported immediately after the 1995 elections.

Table 12 shows how the exposure to NTV affected the difference between the actual vote and the intended vote, as reported by survey respondents. In this table, we report estimation of the following model:

 $rep_vote_party_j_{i,1999} = \beta_0 + \beta_1 Watches NTV_{i,1999} + int_vote_party_{i,1999} '\beta_2 + Y_{i,1999} '\beta_3 + \varepsilon_i$, where $rep_vote_party_j$ is a vote for party *j* reported after 1999 elections, and *int_vote* is a vector of variables indicating intention to vote reported before 1999 elections. The coefficient β_1 on *WatchesNTV*_{*i*,1999} estimates the effect of exposure to NTV on reported voting, controlling for the intention to vote a month before the elections. The results indicate that the exposure to NTV made people 54 percentage points more likely to vote for OVR and less likely to vote for KPRF, LDPR and against all by 58, 31 and 69 percentage points respectively controlling for their intention to vote.

Table 13 presents the results of testing how NTV affected the decision to participate in election for people with different initial voting intentions. In particular, we estimate the following model:

 $turnout_{i,1999} = \beta_0 + \beta_1 NTV_{i,1999} + \beta_2 NTV_{i,1999} \times int_vote_party_j_{i,1999} + int_vote_party_{i,1999} '\beta_3 + Y_{i,1999} '\beta_4 + where turnout is a dummy for reported turnout in 1999 elections, int_vote_party_j is an intended vote for party j, and int_vote is a vector of variables indicating intention to vote reported before 1999 elections. Coefficient <math>\beta_2$ on the interaction term between $NTV_{i,1999}$ and $int_vote_party_j$ shows how the decision to participate in elections for people, who were going to vote for a party j, was affected by NTV. As shown in Table 13, NTV decreased turnout of those who were going to vote for OVR and against all. Interaction terms for intention to vote for all other parties are not significant.

Finally, Table 14 shows how NTV affected the voting behavior of "undecided" voters, i.e., the voting behavior of the voters who did not answer which party they were going to vote in pre-election survey, but who answered which party they voted for in post-election survey. The availability of NTV decreased the probability that an undecided voter is going to vote for Unity by 48 percentage points. It also increased the probability that an undecided voter is going to vote for Vote for SPS, LDPR and against all by 13, 16 and 22 percentage points respectively.

In sum, the results for the individual preferences over major political parties are consistent with those for the aggregate level data. IV regressions show that the effect of exposure to NTV on vote for OVR was positive, and the effect of exposure to NTV on vote for Unity was negative. Empirical results, which take into account previous vote choice of respondents in 1995 elections, show that only the OVR effect on both intention to vote and reported vote remains significant, though the lack of significance of the effects for the vote for other parties might be due to the substantial reduction in the sample size. NTV was able to affect the vote choice even

during one month of political campaign before the elections. Voters were 54% more likely to vote for OVR if they were exposed to NTV even controlling for their voting intentions just a month before the elections. In contrast to the results about voting for specific parties, we do not find a robustly significant effect of NTV coverage on the vote against all candidates or the decision to participate in elections.

Conclusions

In this paper, we document the effects of media on the voting behavior of people in a young democracy, using the data from Russian parliamentary elections of 1999. We use the data on geographical coverage of NTV, the only major TV channel which at that time was in opposition, to isolate the effect of exposure to media on voting behavior and to avoid endogeneity biases inherent to survey studies. At the aggregate level of analysis, we find that the effect of NTV was positive and significant for three parties supported by NTV– OVR, SPS, and Yabloko. Together, these parties got 2.4 percentage points more votes in each municipality with NTV signal. This amounts to almost additional one tenth of the combined vote received by these parties as a result of the NTV broadcast. At the same time, pro-government Unity party got 2.6 percentage points fewer votes in each municipality with the NTV signal. This amounts to a total a loss of about one tenth in the total vote received by the Unity party.

Using survey data we find that even controlling for the voting intentions just before the December 1999 elections, NTV had a substantial effect on the vote for OVR. Thus, NTV was able to persuade voters to vote for OVR despite their initial voting intentions just a month before the elections.

Our results imply that the power of media in political persuasion in young democracies, such as Russia, can be much larger than in established democracies. With constantly evolving party system and weak partisan attachments, it is easier for the media to persuade voters that a particular party responds to their needs.

Recent histories of Peru and Venezuela as well as the dominating role of the state as the owner of much of the broadcast media throughout the world illustrate that incumbent governments recognize the power of political persuasion of mass media and, particularly, TV (e.g., Djankov et al. 2003; Haimueller and Kern 2007; Egorov et al. 2006). Putin's government also drew lessons from the NTV's political campaign in 1999: in 2001, after a fierce struggle, NTV was acquired by a state-controlled gas monopoly Gazprom. Moreover, both of the Russia's media magnates, Vladimir Gusinsky and Boris Berezovsky, who were on the opposite sides of the barricades in 1999, were forced to flee the country. Since that time all national TV channels in Russia have been under the full control of the government. As a result, in the 2003 parliamentary elections, the newly-created government party "United Russia" got 38% of party

list votes, leaving the Communists, i.e., winners of the last two elections, on the second place with only 12% of the votes.

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| | W | hole Samn | le | ١ | JTV=0 | | N | JTV=1 | | | |
|--|-------|-----------|------|-------|----------|------|-------|----------|------|------------|------------------|
| | Mean | St. dev. | Obs. | Mean | St. dev. | Obs. | Mean | St. dev. | Obs. | Difference | SE of difference |
| Crime rate | 0.01 | (0.01) | 2085 | 0.01 | (0.01) | 1617 | 0.00 | (0.01) | 468 | -0.004 | [0.0001]*** |
| Fraction of young adults (18-29 yrs old) | 4.79 | (2.41) | 1171 | 4.72 | (2.34) | 947 | 5.10 | (2.70) | 224 | 0.38 | [0.196]* |
| Doctors per 10000 | 23.63 | (16.5) | 2085 | 20.88 | (13.1) | 1617 | 33.14 | (22.3) | 468 | 12.263 | [1.082]*** |
| Nurses per 10000 | 87.55 | (42.6) | 2085 | 84.90 | (42.3) | 1617 | 96.69 | (42.3) | 468 | 11.789 | [2.218]*** |
| Average pension, in thousands of rubles | 0.40 | (0.07) | 1921 | 0.39 | (0.06) | 1486 | 0.42 | (0.07) | 435 | 0.023 | [0.004]*** |
| Students | 0.18 | (0.05) | 2085 | 0.18 | (0.04) | 1617 | 0.19 | (0.05) | 468 | 0.013 | [0.003]*** |
| Migration rate | 0.00 | (0.00) | 2085 | 0.00 | (0.00) | 1617 | 0.00 | (0.00) | 468 | 0.0001 | [0.000] |
| Average wage, in thousands of rubles | 0.83 | (0.60) | 2095 | 0.75 | (0.51) | 1629 | 1.11 | (0.78) | 466 | 0.363 | [0.038]*** |
| Log (population) | 3.52 | (0.87) | 2085 | 3.32 | (0.69) | 1617 | 4.20 | (1.08) | 468 | 0.878 | [0.053]*** |
| Fraction of retired | 0.25 | (0.11) | 2081 | 0.26 | (0.11) | 1614 | 0.24 | (0.11) | 467 | -0.016 | [0.006]*** |
| Fraction of unemployed | 0.02 | (0.02) | 2085 | 0.02 | (0.02) | 1617 | 0.02 | (0.02) | 468 | 0.0001 | [0.001] |
| People with college education | 1.05 | (4.80) | 2085 | 1.22 | (5.24) | 1617 | 0.48 | (2.74) | 468 | -0.746 | [0.182]*** |
| Population change | -0.29 | (2.36) | 2085 | -0.28 | (2.27) | 1617 | -0.33 | (2.64) | 468 | -0.05 | [0.135] |
| Telephone lines per capita | 0.12 | (0.09) | 2085 | 0.11 | (0.08) | 1617 | 0.15 | (0.11) | 468 | 0.048 | [0.006]*** |
| Fraction of population employed in farms | 0.00 | (0.02) | 2085 | 0.00 | (0.01) | 1617 | 0.00 | (0.02) | 468 | 0.001 | [0.001] |

Table 1. Summary statistics, socio-economic characteristics of municipalities with and without NTV signal

| 1 allo 2. Vote in parnamentary elections in Dunia, 1995. Summary statistic | Table 2. | Vote in | parliamentary | elections in Duma, | 1995. | Summary | statistics |
|--|----------|---------|---------------|--------------------|-------|---------|------------|
|--|----------|---------|---------------|--------------------|-------|---------|------------|

| | XX71 1 | G 1 | | 0 | | 1 | | |
|---|--------|--------------------|-------|---------------|-------|---------|------------|------------------|
| | Mean | Sample St. dev. | Mean | =0 St.dev. | Mean | St.dev. | Difference | SE of difference |
| Vote for KPRF (Communists), % | 25.72 | (11.92) | 26.49 | (12.07) | 23.10 | (10.99) | -3.38 | [0.61]*** |
| Vote for LDPR. % | 13.45 | (6.25) | 13.84 | (6.33) | 12.15 | (5.81) | -1.70 | [0.32]*** |
| Vote for NDR (Our Home is Russia). % | 8.45 | (8.17) | 8.18 | (8.77) | 9.36 | (5.62) | 1.19 | [0.35]*** |
| Vote for Yabloko % | 3.57 | (3.16) | 2.96 | (2.64) | 5.60 | (3.86) | 2.64 | [0.20]*** |
| Vote for Women of Russia. % | 5.01 | (2.47) | 4.92 | (2.51) | 5.34 | (2.32) | 0.42 | [0.13]*** |
| Vote for Communists of USSR, % Vote for KRO (Congress of Russian | 5.87 | (2.87) | 6.16 | (2.93) | 4.86 | (2.42) | -1.31 | [0.14]*** |
| Communities, % | 2.95 | (2.42) | 2.63 | (2.26) | 4.06 | (2.61) | 1.43 | [0.14]*** |
| Vote for PST, % | 2.87 | (2.07) | 2.51 | (1.74) | 4.07 | (2.59) | 1.56 | [0.13]*** |
| Democratic Russia's Choice, % Vote for APR (Agrarian Party of | 1.89 | (2.76) | 1.60 | (2.63) | 2.89 | (2.96) | 1.29 | [0.16]*** |
| Russia), % | 7.60 | (8.22) | 8.66 | (8.53) | 4.01 | (5.76) | -4.65 | [0.35]*** |
| Vote against all, % | 2.58 | (1.21) | 2.49 | (1.23) | 2.89 | (1.09) | 0.40 | [0.06]*** |
| Vote for Derzhava, % | 2.76 | (4.15) | 2.81 | (4.25) | 2.56 | (3.81) | -0.26 | [0.21] |
| Vote for Forward Russia!, % | 1.35 | (0.87) | 1.19 | (0.73) | 1.87 | (1.08) | 0.67 | [0.05]*** |
| Power to the People!, % Vote for PGL(Pamfilova-Gurov- | 1.97 | (1.44) | 2.08 | (1.53) | 1.59 | (1.02) | -0.49 | [0.06]*** |
| Lysenko bloc), % | 1.28 | (1.09) | 1.20 | (1.13) | 1.53 | (0.90) | 0.34 | [0.05]*** |
| Vote for Union of Labor, % | 1.37 | (1.26) | 1.33 | (1.36) | 1.52 | (0.88) | 0.19 | [0.05]*** |
| Vote for Kedr, % | 1.06 | (0.62) | 0.96 | (0.57) | 1.37 | (0.68) | 0.40 | [0.04]*** |
| Vote for BIR, % | 1.17 | (1.43) | 1.14 | (1.50) | 1.25 | (1.17) | 0.10 | [0.07] |
| Vote for Stanislav Govorukhin Bloc, % | 0.60 | (0.57) | 0.53 | (0.52) | 0.84 | (0.67) | 0.31 | [0.04]*** |
| Vote for My Fartherland, % | 0.66 | (1.53) | 0.63 | (1.72) | 0.75 | (0.47) | 0.13 | [0.05]** |
| Vote for Obshcheye delo, % | 0.53 | (0.37) | 0.48 | (0.35) | 0.70 | (0.41) | 0.21 | [0.02]*** |
| Vote for PLP(Party of Beer Lovers), % | 0.48 | (0.38) | 0.44 | (0.35) | 0.61 | (0.44) | 0.17 | [0.02]*** |
| Vote for NUR, % | 0.62 | (1.58) | 0.62 | (1.42) | 0.62 | (2.02) | 0.00 | [0.10] |
| Vote for Preobrazhenie Otechestva, % | 0.42 | (2.10) | 0.35 | (1.78) | 0.66 | (2.93) | 0.31 | [0.15]** |
| Vote for NRPR, % | 0.36 | (0.48) | 0.35 | (0.51) | 0.39 | (0.40) | 0.04 | [0.02]* |
| Vote for Dzhuna, % | 0.46 | (0.32) | 0.44 | (0.32) | 0.51 | (0.33) | 0.07 | [0.02]*** |
| Vote for PRES, % | 0.36 | (0.37) | 0.35 | (0.37) | 0.36 | (0.38) | 0.01 | [0.02] |
| Vote for AAR, % | 0.33 | (0.16) | 0.32 | (0.16) | 0.37 | (0.17) | 0.05 | [0.01]*** |
| Vote for Za Rodinu!, % | 0.29 | (0.45) | 0.29 | (0.50) | 0.28 | (0.19) | -0.02 | [0.02] |
| Vote for HDS, % | 0.26 | (0.15) | 0.26 | (0.15) | 0.27 | (0.14) | 0.01 | [0.01] |
| Vote for Delo Petra I, % | 0.18 | (0.12) | 0.17 | (0.12) | 0.21 | (0.12) | 0.05 | [0.01]*** |
| Vote for Narodny Soyuz, % | 0.18 | (0.15) | 0.18 | (0.17) | 0.18 | (0.10) | -0.01 | [0.01] |
| Vote for T-T-T, % | 0.16 | (0.24) | 0.16 | (0.26) | 0.16 | (0.15) | 0.00 | [0.01] |
| Vote for ZKH, % | 0.15 | (0.19) | 0.15 | (0.21) | 0.14 | (0.12) | -0.01 | [0.01] |
| Vote for Social Democrats, % | 0.11 | (0.08) | 0.11 | (0.08) | 0.12 | (0.07) | 0.01 | [0.004]*** |
| Vote for PES, % | 0.11 | (0.07) | 0.10 | (0.07) | 0.13 | (0.06) | 0.02 | [0.004]*** |
| Vote for ROD, % | 0.14 | (0.18) | 0.14 | (0.20) | 0.12 | (0.11) | -0.02 | [0.01]*** |
| Vote for Bloc of Independents, % | 0.12 | (0.34) | 0.13 | (0.37) | 0.11 | (0.16) | -0.02 | [0.01] |
| Vote for FDD, % | 0.15 | (0.12) | 0.15 | (0.11) | 0.13 | (0.14) | -0.02 | [0.01]*** |
| Vote for Stable Russia, % | 0.12 | (0.08) | 0.12 | (0.08) | 0.12 | (0.08) | 0.00 | [0.004] |
| Vote for Duma-96, % | 0.09 | (0.08) | 0.09 | (0.08) | 0.08 | (0.06) | -0.01 | [0.003]*** |
| Vote for Pokoleniya Rubezha, % | 0.06 | (0.05) | 0.06 | (0.05) | 0.07 | (0.05) | 0.01 | [0.003]*** |
| Vote for 89, % | 0.06 | (0.11) | 0.06 | (0.12) | 0.06 | (0.05) | 0.00 | [0.004] |
| Vote for Mezhnatsionalnyi Soyuz, % | 0.06 | (0.06) | 0.06 | (0.06) | 0.06 | (0.07) | 0.00 | [0.003] |
| Voter turnout, % | 68.98 | (8.75) | 70.33 | (8.53) | 64.40 | (7.89) | -5.93 | [0.45]*** |
| Sample size | 19 | 48 | 1503 | 3 | 445 | i - | | |

| Table 3. | Vote | in par | liamentary | elections | in Duma, | 1999. | Summary | statistics |
|----------|------|--------|------------|-----------|----------|-------|---------|------------|
| | | | | | , | | | |

| | Whole | Sample | NTV | =0 | NTV | =1 | | |
|---|------------|---------------|--------------|-------------|--------------|---------|------------|------------------------|
| | Mean | St. dev. | Mean | St.dev. | Mean | St.dev. | Difference | St. Er. for difference |
| Vote for Unity, % Vote for OVR(Fartherland - All Russia). | 28.01 | (11.13) | 29.17 | (10.95) | 24.10 | (10.88) | -5.072 | [0.538]*** |
| % | 10.02 | (14.05) | 9.62 | (14.59) | 11.34 | (11.99) | 1.713 | [0.624]*** |
| Vote for KPRF (Communists), % | 27.37 | (10.72) | 28.23 | (10.91) | 24.48 | (9.50) | -3.747 | [0.486]*** |
| Vote for LDPR (Bloc of Zhirinovsky), % | 7.13 | (3.07) | 7.24 | (3.17) | 6.75 | (2.67) | -0.491 | [0.138]*** |
| Vote for SPS(Union of Right Forces), % | 5.30 | (4.11) | 4.61 | (3.94) | 7.59 | (3.83) | 2.977 | [0.190]*** |
| Vote for Yabloko, % | 3.34 | (2.80) | 2.60 | (2.10) | 5.84 | (3.35) | 3.246 | [0.153]*** |
| Vote for Women of Russia, % Vote for Communists, workpeople of | 2.27 | (1.04) | 2.25 | (1.07) | 2.33 | (0.91) | 0.082 | [0.047]* |
| Russia, % | 2.67 | (1.59) | 2.75 | (1.71) | 2.39 | (1.07) | -0.361 | [0.061]*** |
| Vote against all, % | 2.71 | (1.24) | 2.51 | (1.17) | 3.39 | (1.24) | 0.877 | [0.060]*** |
| Vote for Party of Pensioners, % | 1.96 | (1.23) | 1.90 | (1.24) | 2.16 | (1.16) | 0.255 | [0.058]*** |
| Vote for NDR (Our Home is Russia), % Vote for Russian Party of Women's | 1.34 | (2.41) | 1.34 | (2.48) | 1.36 | (2.14) | 0.024 | [0.110] |
| Defence, % Vote for KRO (Congress of Russian | 0.89 | (0.42) | 0.89 | (0.45) | 0.91 | (0.31) | 0.024 | [0.017] |
| Communities), % | 0.34 | (0.37) | 0.31 | (0.37) | 0.43 | (0.34) | 0.122 | [0.017]*** |
| Vote for Stalin's bloc - for USSR, % | 0.65 | (0.29) | 0.66 | (0.30) | 0.62 | (0.26) | -0.038 | [0.013]*** |
| Vote for Za grazhdanskoe dostoinstvo, % | 0.54 | (0.27) | 0.51 | (0.27) | 0.62 | (0.25) | 0.109 | [0.013]*** |
| Vote for V podderzhku armii, % | 0.43 | (0.39) | 0.40 | (0.38) | 0.53 | (0.40) | 0.135 | [0.019]*** |
| Vote for Mir. Trud. Mai, % Vote for Bloc of Nikolaev and Fedorov, | 0.63 | (1.57) | 0.58 | (1.45) | 0.81 | (1.92) | 0.236 | [0.090]*** |
| % | 0.45 | (0.29) | 0.41 | (0.27) | 0.58 | (0.28) | 0.168 | [0.014]*** |
| Vote for Party of peace and unity, % Vote for Rossiisky obshchenarodny | 0.49 | (0.23) | 0.52 | (0.24) | 0.40 | (0.18) | -0.121 | [0.009]*** |
| soyuz, % | 0.29 | (0.56) | 0.28 | (0.61) | 0.32 | (0.36) | 0.041 | [0.021]* |
| Vote for Russian Socialist Party, % | 0.24 | (0.37) | 0.22 | (0.31) | 0.30 | (0.52) | 0.073 | [0.024]*** |
| Vote for Russkoe delo, % Vote for Conservative Movement of | 0.17 | (0.11) | 0.17 | (0.11) | 0.17 | (0.08) | -0.004 | [0.004] |
| Russia, % | 0.16 | (0.09) | 0.17 | (0.10) | 0.15 | (0.08) | -0.019 | [0.004]*** |
| Vote for Party of People, % | 0.13 | (0.08) | 0.13 | (0.08) | 0.11 | (0.07) | -0.021 | [0.004]*** |
| Vote for Duhovnoe nasledie, % | 0.10 | (0.10) | 0.10 | (0.10) | 0.10 | (0.08) | 0.006 | [0.004] |
| Vote for Socilaist Party of Russia, % | 0.12 | (0.19) | 0.13 | (0.21) | 0.10 | (0.06) | -0.021 | [0.006]*** |
| Vote for Social Democrats, % | 0.09 | (0.09) | 0.09 | (0.09) | 0.08 | (0.08) | -0.003 | [0.004] |
| Voter turnout, % Sample size | 64.62 1 | (9.40) 948 | 65.79 150 | (9.59) 3 | 60.68 445 | (7.48) | -5.113 | [0.396]*** |

Table 4. Correlates of availability of NTV in 1999, linear probability model.

| | | Ava | ilability of NT | ⁻ V in 1999 (0 | or 1) | |
|---|---------------------|------------|-----------------|---------------------------|------------|------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Vote for KPRF (Communists), % | 0.001 | 0.001 | -0.002 | 0.001 | 0.001 | -0.001 |
| | [0.002] | [0.002] | [0.002] | [0.003] | [0.003] | [0.003] |
| Vote for LDPR. % | -0.005 | -0.006 | -0.006 | -0.001 | -0.003 | -0.005 |
| | [0 002]** | [0 002]*** | [0 002]** | [0 003] | [0 003] | [0 004] |
| Vote for NDD (Our Home is Duesia) % | 0.002 | 0.002 | 0.002 | 0.001 | 0.0003 | 0.0001 |
| Vole for NDR (Our Home is Russia), 76 | 0.002 | 100.0 | 0.001 | 0.001 | 0.0002 | 0.0001 |
| | [0.002] | [0.002] | [0.002] | [0.003] | [0.003] | [0.003] |
| Vote for Yabloko, % | 0.024 | 0.005 | 0.001 | 0.021 | -0.005 | -0.013 |
| | [0.005]*** | [0.006] | [0.009] | [0.007]*** | [0.007] | [0.012] |
| Vote for Women of Russia, % | -0.009 | -0.004 | 0.014 | -0.005 | 0.007 | 0.019 |
| | [0.005]* | [0.006] | [0.009] | [0.007] | [0.009] | [0.012] |
| Vote for Communists of USSR, % | -0.008 | -0.007 | -0.011 | 0.003 | 0.006 | 0.001 |
| | [0.003]** | [0.003]* | [0.005]** | [0.005] | [0.005] | [0.006] |
| Vote for KRO (Congress of Russian Communities), | 0.003 | 0.001 | -0.004 | 0.02 | 0.01 | 0.01 |
| % | [0.005] | [0.006] | [0.009] | [0.008]** | [800.0] | [0.013] |
| Vote for PST. % | 0.031 | 0.012 | 0.003 | 0.028 | 0.008 | -0.004 |
| | [0 007]*** | [0 008] | [0 009] | [0 010]*** | [0 010] | [0 014] |
| Democratic Russia's Choice % | 0.011 | 0.005 | -0.001 | 0.007 | -0.003 | -0.006 |
| Democratic Russia's Choice, 76 | 0.011 [0.004]*** | 0.003 | -0.001 | 0.007 | -0.003 | 10.000 |
| | [0.004] | [0.004] | [0.004] | [0.006] | [0.006] | [0.006] |
| Vote for APR (Agrarian Party of Russia), % | 0.0004 | 0.001 | -0.001 | -0.002 | 0.001 | 0.0004 |
| | [0.002] | [0.002] | [0.002] | [0.003] | [0.003] | [0.003] |
| Vote against all, % | 0.016 | 0.029 | -0.021 | 0.01 | 0.018 | -0.014 |
| | [0.011] | [0.012]** | [0.015] | [0.013] | [0.016] | [0.020] |
| Voter turnout, % | -0.006 | -0.001 | -0.001 | -0.006 | 0.0003 | -0.002 |
| | [0.001]*** | [0.001] | [0.002] | [0.002]*** | [0.002] | [0.002] |
| Average pension, in thousands of rubles, 1998 | | 0.226 | 0.271 | | -0.244 | 0.757 |
| | | [0.274] | [0.314] | | [0.443] | [0.543] |
| Migration rate, 1998 | | -7.162 | -13.997 | | -9.177 | -12.895 |
| | | [4 441] | [3 804]*** | | [4.352]** | [4 077]*** |
| Average wage in thousands of rubles 1998 | | 0.068 | 0.027 | | 0.032 | 0.067 |
| Average wage, in indusarius of tubles, 1990 | | 0.000 | 10 0591 | | 0.002 | 0.007 [0.071] |
| Les (sendation) 4000 | | [0.034] | [0.056] | | [0.046] | [0.071] |
| Log (population), 1998 | | 0.151 | 0.157 | | 0.206 | 0.165 |
| | | [0.014]*** | [0.024]*** | | [0.017]*** | [0.030]*** |
| Fraction of retired people, 1998 | | 0.077 | 0.192 | | -0.135 | 0.122 |
| | | [0.155] | [0.225] | | [0.218] | [0.324] |
| Fraction of unemployed, 1998 | | 0.848 | -0.384 | | 0.895 | 0.039 |
| | | [0.655] | [0.752] | | [0.751] | [0.994] |
| People with college education, 1998 | | -0.004 | -0.002 | | 0.002 | 0.003 |
| | | [0.002]** | [0.002] | | [0.002] | [0.003] |
| Population change, 1998 | | -0.002 | 0.002 | | 0 | -0.001 |
| | | [0.004] | [0.005] | | [0.004] | [0.004] |
| Telephone lines per capita, 1998 | | 0.606 | 0.563 | | 0 492 | 0.263 |
| | | [0 147]*** | [0 204]*** | | [0 170]*** | [0 308] |
| Crime rate 1998 | | [0.147] | 0.615 | | [0.170] | _0.81 |
| Chine rate, 1990 | | | 0.013 | | | -0.01 |
| | | | [0.466] | | | [0.836] |
| Fraction of young adults (18-29 yrs old), 1998 | | | 0.02 | | | 0.033 |
| | | | [0.007]*** | | | [0.008]*** |
| Doctors per 10000, 1998 | | | 0.002 | | | 0.004 |
| | | | [0.002] | | | [0.002]** |
| Nurses per 10000, 1998 | | | -0.001 | | | -0.001 |
| | | | [0.001] | | | [0.001] |
| Students, 1998 | | | 0.906 | | | 0.92 |
| | | | [0.342]*** | | | [0.403]** |
| Fraction of population employed in farms 1998 | | | 1.58 | | | 1.548 |
| | | | [0 676]** | | | [1 1 QAI |
| Pagion fixed offects | No | No | [0.070] No | Voc | Vac | |
| Characters | 10.40 | | | 1040 | 165 | 165 |
| Observations | 1948 | 1568 | 890 | 1948 | 1568 | 890 |
| R-squared | 0.19 | 0.27 | 0.28 | 0.3 | 0.38 | 0.35 |
| F-statistics, electoral | 31.88 | 4.36 | 1.49 | 14.99 | 0.88 | 0.8 |
| F-statistic, socioecon | | 22.2 | 14.21 | | 22.06 | 11 |

Robust standard errors in brackets * significant at 10%; ** significant at 5%; *** significant at 1%

Table 5. Effect of NTV on voting behavior, aggregate data

| | Vote for OVR, % | | | V | ote for Unity, | % | ١ | ote for SPS, 9 | % | Vote for Yabloko, % | | |
|------------------------------------|-----------------|----------|------------|-------------|----------------|-------------|-------------|----------------|-------------|---------------------|-------------|-------------|
| NTV1999 | 1.6586 | 0.4882 | 0.8283 | -4.557 | -3.0638 | -2.6038 | 0.6482 | 0.8783 | 0.7962 | 1.1259 | 0.9685 | 0.7987 |
| | [0.9448]* | [0.5228] | [0.3636]** | [1.0865]*** | [0.8780]*** | [0.8002]*** | [0.2075]*** | [0.2164]*** | [0.1845]*** | [0.1377]*** | [0.1630]*** | [0.1802]*** |
| Electoral controls from 1995 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Socioeconomic controls, basic | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Socioeconomic controls, additional | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes |
| Regional dummies | No | No | Yes | No | No | Yes | No | No | Yes | No | No | Yes |
| Observations | 1568 | 890 | 890 | 1568 | 890 | 890 | 1568 | 890 | 890 | 1568 | 890 | 890 |
| R-squared | 0.46 | 0.55 | 0.84 | 0.24 | 0.27 | 0.67 | 0.32 | 0.37 | 0.83 | 0.69 | 0.67 | 0.79 |
| Number of regions | 78 | 46 | 46 | 78 | 46 | 46 | 78 | 46 | 46 | 78 | 46 | 46 |
| | | | | | | | | | | | | |

| | Vc | te for KPRF | - , % | Vote for LDPR, % | | | Ve | ote agains all, | % | Voter turnout, % | | | |
|------------------------------------|----------|-------------|--------------|------------------|----------|----------|-------------|-----------------|-------------|------------------|----------|----------|--|
| NTV1999 | 0.173 | 0.2437 | -0.1437 | -0.0261 | -0.2458 | -0.1566 | 0.2962 | 0.3345 | 0.2775 | -0.325 | -0.3959 | -0.4756 | |
| | [0.4504] | [0.5632] | [0.3639] | [0.1909] | [0.2204] | [0.1654] | [0.0839]*** | [0.0994]*** | [0.1006]*** | [0.4324] | [0.3980] | [0.3646] | |
| Electoral controls from 1995 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Socioeconomic controls, basic | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Socioeconomic controls, additional | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | |
| Regional dummies | No | No | Yes | No | No | Yes | No | No | Yes | No | No | Yes | |
| Observations | 1568 | 890 | 890 | 1568 | 890 | 890 | 1568 | 890 | 890 | 1568 | 890 | 890 | |
| R-squared | 0.65 | 0.62 | 0.79 | 0.60 | 0.69 | 0.80 | 0.54 | 0.58 | 0.73 | 0.62 | 0.64 | 0.77 | |
| Number of regions | 78 | 46 | 46 | 78 | 46 | 46 | 78 | 46 | 46 | 78 | 46 | 46 | |

Robust standard errors clustered by region in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%

Electoral controls include the results of Duma elections in December 1995, in particular vote for KPRF (Communists), vote for Yabloko, vote for NDR (Our Home is Russia), vote for LDPR (Liberal-Democratic Party of Russia), vote for Women of Russia, vote for Communists of USSR, vote for KRO (Congress of Russian Communities), vote for PST, vote for DVR (Democratic Russia's Choice), vote for other parties, vote "against all," voter turnout. The basic set of socio-economic controls includes log of population, fraction of retired people, fraction of unemployed, fraction of those with college education, population change, log of average wage, average pension, telephone lines per capita. The set of additional socioeconomic controls includes crime rate, migration rate, fraction of young people, number of doctors and nurses per 10000, number of students, number of employed in farms.

| | Mean | St. dev. | Mean | St. dev. | Mean | St. dev. | Difference | St. Er. of difference |
|---|-------|----------|------|----------|------|----------|------------|-----------------------|
| | Whole | e Sample | N | TV=0 | N | ΓV=1 | | |
| Intention to vote for OVR | 0.15 | (0.36) | 0.07 | (0.26) | 0.20 | (0.40) | 0.137 | [0.023]*** |
| Intention to vote for KPRF | 0.30 | (0.46) | 0.43 | (0.50) | 0.21 | (0.40) | -0.216 | [0.031]*** |
| Intention to vote for Unity | 0.11 | (0.32) | 0.12 | (0.33) | 0.11 | (0.31) | -0.022 | [0.020] |
| Intention to vote for Yabloko | 0.11 | (0.31) | 0.06 | (0.23) | 0.14 | (0.35) | 0.091 | [0.018]*** |
| Intention to vote for Zhirinovsky bloc (LDPR) | 0.05 | (0.21) | 0.04 | (0.19) | 0.05 | (0.22) | 0.010 | [0.014] |
| Intention to vote for SPS | 0.11 | (0.31) | 0.06 | (0.23) | 0.14 | (0.35) | -0.009 | [0.017] |
| Intention to vote against all | 0.06 | (0.24) | 0.05 | (0.21) | 0.07 | (0.26) | 0.019 | [0.016] |
| Intended to vote | 0.88 | (0.33) | 0.87 | (0.33) | 0.88 | (0.32) | 0.013 | [0.017] |
| Sample size | 1 | 104 | 4 | 433 | 6 | 671 | | |
| Vote for OVR | 0.13 | (0.33) | 0.07 | (0.25) | 0.17 | (0.38) | 0.116 | [0.020]*** |
| Vote for KPRF | 0.30 | (0.46) | 0.40 | (0.49) | 0.22 | (0.42) | -0.173 | [0.028]*** |
| Vote for Unity | 0.24 | (0.43) | 0.29 | (0.45) | 0.21 | (0.41) | -0.086 | [0.027]*** |
| Vote for Yabloko | 0.07 | (0.26) | 0.05 | (0.21) | 0.09 | (0.29) | 0.048 | [0.014]*** |
| Vote for Zhirinovsky bloc (LDPR) | 0.04 | (0.19) | 0.04 | (0.19) | 0.04 | (0.19) | 0.000 | [0.012] |
| Vote for SPS | 0.07 | (0.26) | 0.05 | (0.21) | 0.09 | (0.29) | 0.085 | [0.016]*** |
| Vote against all | 0.03 | (0.16) | 0.02 | (0.15) | 0.03 | (0.16) | 0.003 | [0.009] |
| Turnout | 0.79 | (0.41) | 0.85 | (0.35) | 0.74 | (0.44) | -0.137 | [0.028]*** |
| Sample size | 1 | 311 | ţ | 572 | 7 | 739 | | |

Table 6. Summary statistics. Intention to vote and reported vote, December 1999 Duma elections.

Table7. The first stage estimation.

| | Wa | tches Segod | nya | 1 | Watches Itog | i | ١ | Watches NTV | | | |
|---|------------|-------------|------------|------------|--------------|------------|------------|-------------|------------|--|--|
| NTV1999 | 0.253 | 0.28 | 0.195 | 0.233 | 0.209 | 0.197 | 0.259 | 0.284 | 0.198 | | |
| | [0.040]*** | [0.059]*** | [0.050]*** | [0.040]*** | [0.061]*** | [0.051]*** | [0.039]*** | [0.060]*** | [0.049]*** | | |
| Sex (1 if male) | 0.128 | 0.144 | 0.084 | 0.105 | 0.076 | 0.093 | 0.102 | 0.096 | 0.058 | | |
| | [0.032]*** | [0.050]*** | [0.040]** | [0.032]*** | [0.052] | [0.041]** | [0.032]*** | [0.050]* | [0.040] | | |
| Age | -0.002 | -0.004 | -0.003 | -0.001 | -0.001 | -0.001 | -0.003 | -0.004 | -0.003 | | |
| | [0.001]*** | [0.001]*** | [0.001]*** | [0.001] | [0.001] | [0.001] | [0.001]*** | [0.001]*** | [0.001]*** | | |
| Ethnic Russian | 0.071 | -0.091 | 0.116 | 0.068 | -0.141 | 0.052 | 0.101 | -0.098 | 0.155 | | |
| | [0.037]* | [0.064] | [0.050]** | [0.037]* | [0.071]** | [0.050] | [0.037]*** | [0.066] | [0.050]*** | | |
| Higher education | 0.062 | 0.029 | 0.094 | 0.097 | 0.117 | 0.113 | 0.068 | 0.015 | 0.097 | | |
| | [0.039] | [0.068] | [0.051]* | [0.039]** | [0.067]* | [0.051]** | [0.038]* | [0.067] | [0.050]* | | |
| Attends religious services | 0.033 | 0.116 | 0.009 | 0.061 | 0.114 | 0.028 | 0.051 | 0.11 | 0.028 | | |
| | [0.032] | [0.050]** | [0.039] | [0.032]* | [0.051]** | [0.039] | [0.032] | [0.050]** | [0.039] | | |
| Former Member of CPSU (Communist Party of Soviet Union) | -0.003 | 0.032 | 0.018 | 0.031 | 0.046 | 0.052 | 0.009 | 0.087 | 0.036 | | |
| | [0.048] | [0.080] | [0.059] | [0.049] | [0.082] | [0.061] | [0.047] | [0.078] | [0.058] | | |
| Marital status (1 if married) | 0.046 | 0.026 | 0.034 | 0.086 | 0.057 | 0.078 | 0.052 | 0.015 | 0.059 | | |
| | [0.032] | [0.049] | [0.041] | [0.031]*** | [0.049] | [0.040]* | [0.031]* | [0.049] | [0.040] | | |
| Consumption index | 0.023 | 0.002 | 0.035 | 0.032 | 0.023 | 0.038 | 0.03 | 0.017 | 0.035 | | |
| | [0.012]* | [0.018] | [0.015]** | [0.011]*** | [0.018] | [0.015]** | [0.012]*** | [0.018] | [0.015]** | | |
| Log (population), 1998 | -0.048 | -0.044 | -0.052 | -0.061 | -0.048 | -0.066 | -0.046 | -0.04 | -0.053 | | |
| | [0.013]*** | [0.021]** | [0.017]*** | [0.014]*** | [0.021]** | [0.017]*** | [0.013]*** | [0.021]* | [0.016]*** | | |
| Controls for voting choice in 1995 | No | Yes | No | No | Yes | No | No | Yes | No | | |
| Intention to vote for OVR in 1999 | | | 0.049 | | | -0.058 | | | 0.023 | | |
| | | | [0.070] | | | [0.069] | | | [0.069] | | |
| Intention to vote for KPRF in 1999 | | | 0.077 | | | -0.032 | | | 0.022 | | |
| | | | [0.059] | | | [0.059] | | | [0.058] | | |
| Intention to vote for Unity in 1999 | | | 0.043 | | | 0.031 | | | 0.033 | | |
| | | | [0.073] | | | [0.069] | | | [0.071] | | |
| Intention to vote for Yabloko in 1999 | | | 0.005 | | | -0.046 | | | -0.045 | | |
| | | | [0.075] | | | [0.073] | | | [0.075] | | |
| Intention to vote for LDPR in 1999 | | | -0.039 | | | -0.085 | | | -0.114 | | |
| | | | [0.090] | | | [0.089] | | | [0.090] | | |
| Intention to vote for SPS in 1999 | | | 0.107 | | | 0.11 | | | 0.066 | | |
| | | | [0.085] | | | [0.082] | | | [0.084] | | |
| Intention to vote against all in 1999 | | | -0.085 | | | -0.113 | | | -0.138 | | |
| | | | [0.088] | | | [0.087] | | | [0.089] | | |
| Observations | 1289 | 536 | 825 | 1289 | 536 | 825 | 1289 | 536 | 825 | | |
| R-squared | 0.08 | 0.11 | 0.08 | 0.09 | 0.08 | 0.09 | 0.1 | 0.11 | 0.09 | | |
| F-statistics for the exclustion of NTV1999 | 40.31 | 22.85 | 15.1 | 33.46 | 11.83 | 14.79 | 44.24 | 22.59 | 16.12 | | |

Robust standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%

Table 8. Intention to vote and NTV.

Panel A: IV estimates.

| I differ I v estimates. | | | | | | | | |
|---|-------------|----------|-------------|-------------|----------|----------|-------------|----------|
| | OVR | Unity | SPS | Yabloko | KPRF | LDPR | Against all | Turn out |
| Watches NTV | 1.9772 | -0.7809 | -1.5538 | 1.7776 | -1.1084 | -1.3648 | -0.1273 | 1.1796 |
| | [0.2807]*** | [0.9153] | [0.5897]*** | [0.5188]*** | [0.9940] | [1.5588] | [2.1316] | [0.7426] |
| Marginal effect | 0.60 | -0.17 | -0.40 | 0.47 | -0.39 | -0.22 | -0.01 | 0.29 |
| Vote in 1995 | No | No | No | No | No | No | No | No |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 825 | 825 | 825 | 825 | 825 | 825 | 825 | 1193 |
| χ^2 statistics for the exclusion of NTV1999 in the first stage | 7.90 | 7.90 | 7.90 | 7.90 | 7.90 | 7.90 | 7.90 | 18.14 |
| | | | | | | | | |
| Panel B: Plain OLS est | imates. | | | | | | | |
| | OVR | Unity | SPS | Yabloko | KPRF | LDPR | Against all | Turn out |

| | OVIC | Officy | 010 | TADIORO | INF INI | LDFIX | Ayamsi an | Tuni out |
|-----------------|----------|----------|----------|----------|----------|----------|-----------|----------|
| Watches NTV | 0.1209 | 0.0732 | 0.106 | -0.105 | 0.1068 | -0.2502 | -0.3011 | -0.002 |
| | [0.1514] | [0.1421] | [0.1702] | [0.1495] | [0.1016] | [0.1576] | [0.1550]* | [0.1499] |
| Marginal effect | 0.02 | 0.01 | 0.01 | -0.02 | 0.04 | -0.02 | -0.03 | 0.00 |
| Vote in 1995 | No | No |
| Controls | Yes | Yes |
| Observations | 825 | 825 | 825 | 825 | 825 | 825 | 825 | 1193 |

Probit model. In Panel A, Watched NTV variable form the pre-election survey instrumented by the presence of NTV dummy. Observations are weighted by sample survey weights. Vector of controls includes dummy variables for sex, age, marital status, ethnic Russian, education, religiosity, former membership in CPSU, consumption index, logarithm of municipal population and logarithm of average wage in municipality. Robust standard errors clustered by municipality in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%

Table 9. Reported vote and NTV.

Observations

| Panel A: IV estimates. | | | | | | | | |
|---|---|---|--|--|--|--|--|--|
| | OVR | Unity | SPS | Yabloko | KPRF | LDPR | Against all | Turn out |
| Watches NTV | 1.8611 | -1.2029 | -0.2316 | 1.1951 | -0.5105 | -1.0936 | -1.6147 | -1.0595 |
| | [0.3057]*** | [0.5043]** | [1.1280] | [0.8529] | [0.5115] | [0.9978] | [0.9517]* | [1.1179] |
| Marginal effect | 0.49 | -0.42 | -0.03 | 0.16 | -0.18 | -0.14 | -0.29 | -0.30 |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 951 | 951 | 951 | 951 | 951 | 951 | 951 | 779 |
| χ^2 statistics for the exclusion of NTV1999 in the first stage | 16.53 | 16.53 | 16.53 | 16.53 | 16.53 | 16.53 | 16.53 | 18.52 |
| | | | | | | | | |
| | | | | | | | | |
| Panel B: Plain OLS esti | mates. | | | | | | | |
| Panel B: Plain OLS esti | mates. ovr | Unity | SPS | Yabloko | KPRF | LDPR | Against all | Turn out |
| Panel B: Plain OLS esti Watches NTV | mates. OVR 0.1168 | Unity -0.0823 | SPS 0.2699 | Yabloko -0.0432 | KPRF 0.0635 | LDPR -0.0891 | Against all -0.0771 | Turn out -0.0639 |
| Panel B: Plain OLS esti Watches NTV | mates. OVR 0.1168 [0.1388] | Unity -0.0823 [0.1257] | SPS 0.2699 [0.1569]* | Yabloko -0.0432 [0.1668] | KPRF 0.0635 [0.1001] | LDPR -0.0891 [0.1451] | Against all -0.0771 [0.1784] | Turn out -0.0639 [0.1123] |
| Panel B: Plain OLS esti Watches NTV Marginal effect | mates. OVR 0.1168 [0.1388] 0.02 | Unity -0.0823 [0.1257] -0.03 | SPS 0.2699 [0.1569]* 0.04 | Yabloko -0.0432 [0.1668] 0.00 | KPRF 0.0635 [0.1001] 0.02 | LDPR -0.0891 [0.1451] -0.01 | Against all -0.0771 [0.1784] 0.00 | Turn out -0.0639 [0.1123] -0.02 |
| Panel B: Plain OLS esti Watches NTV Marginal effect Vote in 1995 | mates. OVR 0.1168 [0.1388] 0.02 No | Unity -0.0823 [0.1257] -0.03 No | SPS 0.2699 [0.1569]* 0.04 No | Yabloko -0.0432 [0.1668] 0.00 No | KPRF 0.0635 [0.1001] 0.02 No | LDPR -0.0891 [0.1451] -0.01 No | Against all -0.0771 [0.1784] 0.00 No | Turn out -0.0639 [0.1123] -0.02 No |

Probit model. In Panel A, Watched NTV variable form the pre-election survey instrumented by the presence of NTV dummy. Observations are weighted by sample survey weights. Vector of controls includes dummy variables for sex, age, marital status, ethnic Russian, education, religiosity, former membership in CPSU, consumption index, logarithm of municipal population and logarithm of average wage in municipality. Robust standard errors clustered by municipality in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%

Table 10. Intention to vote and NTV, IV model with controls for 1995 vote.

| Watches NTV | OVR 1.7812 [0.3956]*** | Unity 0.2362 [0.9889] | SPS -1.4227 [2.8615] | Yabloko 1.7613 [0.5115]*** | KPRF -0.2588 [1.0423] | LDPR -1.7064 [0.4982]*** | Against all -0.7207 [2.2299] | Turn out 1.5319 [0.4953]*** |
|---|------------------------------|-----------------------------|----------------------------|----------------------------------|-----------------------------|--------------------------------|------------------------------------|-----------------------------------|
| Marginal effect | 0.50 | 0.04 | -0.30 | 0.44 | -0.09 | -0.38 | -0.10 | 0.40 |
| Vote in 1995 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 357 | 357 | 324 | 363 | 363 | 319 | 357 | 505 |
| χ^2 statistics for the exclusion of NTV1999 in the first stage | 5.62 | 5.62 | 0.40 | 4.49 | 4.48 | 8.19 | 5.62 | 11.59 |

Probit model with Watched NTV variable form the pre-election survey instrumented by the presence of NTV dummy. Observations are weighted by sample survey weights. Vector of controls includes dummy variables for sex, age, marital status, ethnic Russian, education, religiosity, former membership in CPSU, consumption index, logarithm of municipal population and logarithm of average wage in municipality. Controls for vote in 1995 include dummy variables for reported vote for 10 major parties and "agains all." Robust standard errors clustered by municipality in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%

Table 11. Reported vote and NTV, IV model with controls for 1995 vote.

| Watches NTV | OVR 1.8438 | Unity -0.7921 | SPS 1.2728 | Yabloko 1.0977 | KPRF 0.1972 | LDPR 1.0289 | Against all -1.8625 | Turn out -1.918 |
|---|---------------|------------------|---------------|-------------------|----------------|----------------|------------------------|--------------------|
| | [0.3200]*** | [1.0330] | [1.1728] | [1.2588] | [1.3000] | [0.8647] | [0.4685]*** | [0.4955]*** |
| Marginal effect | 0.49 | -0.29 | 0.10 | 0.13 | 0.07 | 0.08 | -0.44 | -0.61 |
| Vote in 1995 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 408 | 408 | 408 | 367 | 408 | 357 | 399 | 330 |
| χ^2 statistics for the exclusion of NTV1999 in the first stage | 5.32 | 5.32 | 5.32 | 5.87 | 5.32 | 9.87 | 6.07 | 3.12 |

Probit model with Watched NTV variable form the post-election survey instrumented by the presence of NTV dummy. Observations are weighted by sample survey weights. Vector of controls includes dummy variables for sex, age, marital status, ethnic Russian, education, religiosity, former membership in CPSU, consumption index, logarithm of municipal population and logarithm of average wage in municipality. Controls for vote in 1995 include dummy variables for reported vote for 10 major parties and "agains all." Robust standard errors clustered by municipality in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%

Table 12. Actual vote and intended vote.

| Watched NTV | OVR 1.9391 [0.3101]*** | Unity -0.8583 [0.8689] | SPS -0.4358 [1.6723] | Yabloko 1.3518 [1.4018] | KPRF -1.6603 [0.9200]* | LDPR -1.5816 [0.8935]* | Against all -2.1126 [0.1476]*** | Turn out -1.4371 [0.9224] |
|---|------------------------------|------------------------------|----------------------------|-------------------------------|------------------------------|------------------------------|---------------------------------------|---------------------------------|
| Marginal effect | 0.54 | -0.28 | -0.08 | 0.15 | -0.58 | -0.31 | -0.69 | -0.40 |
| Intention to vote | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 601 | 684 | 459 | 543 | 656 | 684 | 656 | 530 |
| χ^2 statistics for the exclusion of NTV1999 in the first stage | 6.15 | 6.50 | 2.51 | 5.44 | 3.40 | 6.50 | 3.40 | 13.47 |

In IV models Watched NTV variable form the post-election survey instrumented by the presence of NTV dummy. Observations are weighted by sample survey weights. Vector of controls includes dummy variables for sex, age, marital status, ethnic Russian, education, religiosity, former membership in CPSU, consumption index, logarithm of municipal population and logarithm of average wage in municipality. Controls for intention to vote include dummy variables for 6 major parties and "agains all." Robust standard errors clustered by municipality in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%

Table 13. Turnout, NTV, and intention to vote for different parties.

| | Reported turnout in December 1999 | | | | | | | |
|---|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| Availability of NTV in 1999 | -0.3649 | -0.5479 | -0.4019 | -0.415 | -0.4143 | -0.3601 | -0.3927 | |
| | [0.2663] | [0.2722]** | [0.2497] | [0.2479]* | [0.2574] | [0.2499] | [0.2507] | |
| Availability of NTV in 1999 x Intention to vote for OVR | -5.1893 | | | | | | | |
| | [0.2443]*** | | | | | | | |
| Availability of NTV in 1999 x Intention to vote for Unity | | 0.638 | | | | | | |
| | | [0.3932] | | | | | | |
| Availability of NTV in 1999 x Intention to vote for SPS | | | -0.1445 | | | | | |
| | | | [0.4316] | | | | | |
| Availability of NTV in 1999 x Intention to vote for Yabloko | | | | 0.0382 | | | | |
| | | | | [0.4288] | | | | |
| Availability of NTV in 1999 x Intention to vote for KPRF | | | | | 0.002 | | | |
| | | | | | [0.3464] | | | |
| Availability of NTV in 1999 x Intention to vote for LDPR | | | | | | -0.5283 | | |
| | | | | | | [0.6680] | | |
| Availability of NTV in 1999 x Intention to vote against all | | | | | | | -4.7043 | |
| | | | | | | | [0.4404]*** | |
| Intention to vote for OVR | 4.9897 | -0.1061 | -0.1246 | -0.1235 | -0.1236 | -0.1323 | -0.1249 | |
| | [0.0000] | [0.2381] | [0.2359] | [0.2361] | [0.2383] | [0.2340] | [0.2363] | |
| Intention to vote for Unity | -0.8468 | -1.2612 | -0.8516 | -0.8562 | -0.8558 | -0.8495 | -0.8494 | |
| | [0.3028]*** | [0.3539]*** | [0.3054]*** | [0.3054]*** | [0.3041]*** | [0.3042]*** | [0.3036]*** | |
| Intention to vote for SPS | -1.3404 | -1.4227 | -1.305 | -1.3633 | -1.3626 | -1.3413 | -1.3511 | |
| | [0.2910]*** | [0.3088]*** | [0.3640]*** | [0.2977]*** | [0.3016]*** | [0.2951]*** | [0.2945]*** | |
| Intention to vote for Yabloko | -0.9057 | -0.8933 | -0.8999 | -0.9326 | -0.8994 | -0.9032 | -0.902 | |
| | [0.2857]*** | [0.2906]*** | [0.2860]*** | [0.4073]** | [0.2872]*** | [0.2863]*** | [0.2863]*** | |
| Intention to vote for KPRF | 0.4902 | 0.4693 | 0.4841 | 0.4822 | 0.4808 | 0.4878 | 0.4837 | |
| | [0.2694]* | [0.2751]* | [0.2713]* | [0.2709]* | [0.3069] | [0.2712]* | [0.2701]* | |
| Intention to vote for LDPR | -0.3241 | -0.3362 | -0.3308 | -0.3315 | -0.3318 | 0.0494 | -0.3257 | |
| | [0.3216] | [0.3252] | [0.3214] | [0.3227] | [0.3222] | [0.6441] | [0.3223] | |
| Intention to vote against all | 0.161 | 0.173 | 0.162 | 0.1642 | 0.1638 | 0.1598 | 4.7837 | |
| | [0.4106] | [0.4157] | [0.4133] | [0.4118] | [0.4120] | [0.4099] | [0.0000] | |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Observations | 530 | 530 | 530 | 530 | 530 | 530 | 530 | |

Observations530530530530530530Probit model. Observations are weighted by sample survey weights. Vector of controls includesdummy variables for sex, age, marital status, ethnic Russian, education, religiosity, former membership in CPSU, consumption index,
logarithm of nuncipal population and logarithm of average wage in municipality. Robust standard errors clustered by municipality in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%

| | OVR | Unity | SPS | Yabloko | KPRF | LDPR | Against all | Turn out |
|---|----------|------------|------------|----------|----------|------------|-------------|----------|
| Watched NTV | 0.5279 | -1.3357 | 1.1005 | -0.3203 | 0.7692 | 1.2302 | 1.4444 | -1.4091 |
| | [0.9047] | [0.5635]** | [0.5397]** | [0.9870] | [0.8578] | [0.5170]** | [0.6219]** | [0.9605] |
| Marginal effect | 0.08 | -0.48 | 0.13 | -0.04 | 0.21 | 0.16 | 0.22 | -0.37 |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 267 | 267 | 267 | 238 | 267 | 186 | 158 | 249 |
| χ^2 statistics for the exclusion of NTV1999 in the first stage | 19.80 | 19.81 | 19.80 | 18.68 | 19.80 | 14.40 | 8.65 | 6.14 |

Only respondents that did not report their intention to vote in the pre-election survey are included in the sample. Probit model with Watched NTV variable form the post-election survey instrumented by the presence of NTV dummy. Observations are weighted by sample survey weights. Vector of controls includes dummy variables for sex, age, marital status, ethnic Russian, education, religiosity, former membership in CPSU, consumption index, logarithm of municipal population and logarithm of average wage in municipality. Robust standard errors clustered by municipality in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%