Thesis:

Media effects on trust in politicians across European countries

ERASMUS UNIVERSITY ROTTERDAM

Erasmus School of Economics

Department of Economics

Supervisor: Robert Dur

By Madina Ismailova

Student number: 329236

Madina_ism@hotmail.com

Table of Contents

1. Introduction

Trust is a core condition for an effective democracy. More trust allows governors to have more freedom to carry out their job effectively and provides government institutions bigger support. Higher perceived trustworthiness of the government is associated with better compliance with its demands and regulations (Tyler, 1990). Thus declining political trust creates an environment in which it is difficult for leaders of any government to succeed (Hetherington, 1998).

Due to the vital role of political trust, it is important to study factors that affect it. In modern society, people establish their opinion about government and political institutions based on information obtained from news media. Popular news media include television, newspaper, radio and internet. However, the information provided in the media is often biased: it is exaggerated and framed in a way to attract attention at the expense of objective presentation and accurate information. Television news is often credited with instilling cynical attitudes towards politics while newspaper is believed to be an effective mean for increasing political knowledge of citizens. It seems that the depending on the source, political news may induce different attitudes towards government.

Modern news media is a powerful tool that has power to "move and shake governments" (Cohen, 1994). For instance, the news media was found to have the ability to influence the salience of topics on the public agenda. The issues that received more frequent and prominent coverage were perceived by the audience as more important (McCombs, 2013). Media may bring to attention of large audiences examples of injustice or wrong judgments that might have been gone unnoticed otherwise and thus induce government officials to act more careful. However, there is evidence that media serves mainly to produce support for the policy preferences of dominant elites such as government officials (Chomsky & Herman, 1988; Hammond & Herman, 2000). This evidence supports the "manufacturing consent" school of thought, which is defined by Robinson (2001) as a literature that "emphasizes the ability of the government to influence the output of journalists and the tendency of journalists to both self –censor and perceive events through the cultural and political prisms of their respective political and social elites". For instance in Malaysia editors of newspapers that publish critical views of government are risking to be pressured to resign[1]. Hence in more corrupt countries journalist tend to present only favorable reviews of the government that may induce higher political trust among citizens.

---

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

Due to the ability of corrupt officials to control media and influence the presentation of the news, political news consumption in countries with different corruption levels may vary substantially. Does media has weaker power of persuasion when it has to portray corrupt government officials as trustworthy?

The importance of political trust in any democratic nation and the growing abundance of information in media have encouraged numerous studies on the effect of media consumption on trust in political institutions. While there is much literature on the correlation between corruption and trust as well as media consumption and trust, there are only few research papers that study these topics in one coherent analysis. This study seeks to further develop the analysis of media influence on political trust by considering how exposure to political news media affects trust in politicians and how this relationship differs among European countries with different levels of corruption. Specifically the paper studies the following research question: "What is the effect of the various media exposure on trust in politicians across European countries with different corruption levels?" The illustration of the research question is provided by the conceptual framework presented in Figure 1.
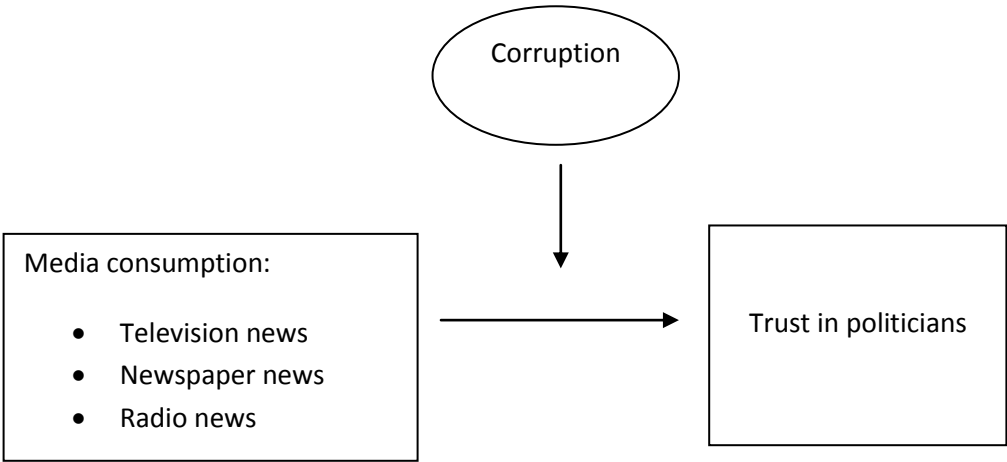
Figure 1. Conceptual framework

This paper examines the influence of exposure to different media on political trust in 22 European countries using data from a cross-national European Social Survey. Similarly to previous studies on the topic by Avery (2009) and Newton (1999) I test the influence of exposure to political news on television, newspaper and radio individually. After that I study the changes in marginal influence of each media on political trust depending on different levels of consumption of the news from other sources. This demonstrates whether there is a difference in influence of television news on political trusts among people who rely only on television to provide them with political information and people who also read newspapers and listen to radio. What sets apart this study from previous research

is that additionally I look into changes in this relationship across countries with different corruption levels. While there is evidence that media influence on political trust varies across nations through multiple studies on individual countries, there are not many that study the relationship across a number of them. Aarts and Semetko (2003) show that newspaper consumption in The Netherlands has no effect on political trust, while Newton (1999) reports that readers of British broadsheet newspaper are rather more trusting than non readers and found no evidence of the effect of political television news on political trust. News media consumption in China is negatively associated with political trust according to Chen & Shi (2001), whereas Feldman (1995) found a positive correlation between media exposure and trust in political institutions among Japanese. My study of 22 European countries allows to research whether there are any common traits in media effect on different nations' political trust.

The thesis is organized as follows. First I discuss the opinions expressed in the existing literature on the relationships between corruption, media and political trust. Then I turn to issues of measurement and data analysis. After presenting the results I discuss possible limitations of this research followed by concluding remarks.

2. Literature review

When in the 1950s and the early 1960s it was revealed that most Americans felt rather efficacious and moderately trusting toward government, it was recognized as an indication of the governments stability and effectiveness (Nie, Verba & Petrocik, 1979). When it was followed by the dramatic decline of political trust in the late 1960s and early 1970s (Rosenstone & Hansen, 1993), some considered it as a possible threat to the democratic order itself (Miller, 1974). Political trust is commonly accounted as an important determinant of the stability of any political system. Chen and Shi (2001) for instance report that the downfall of authoritarian regimes and the following process of democratization in former communist societies in the early 1990s are often associated with diminishing political trust. Due to the importance of the attitudes towards government in nation's social and economic life numerous researches has been conducted on political trust and its determinants in modern societies.

2.1. Corruption and political trust

There is a large body of literature that aims to capture the negative effect of corruption on social and economic aspects of a nation. Political corruption revolves around a situation where government officials misuse the public funds for private enrichment (Bardhan, 1997), therefore this research study focuses on trust in politicians rather than trust in political institutions such as European Parliament and United Nations in contrast to a study by Zmerli and Newton (2008). Trust in politicians and political trust are highly correlated and therefore by studying one aspect - trust in politicians, one may indicate the influence on trust in government as a whole. Miller, Lipset and Schneider (1984: 840) explain the decline of trust in government in 1970s and 1990s in the USA as a consequence of dissatisfaction with politicians: "People … lost confidence because time after time political authorities, Democrats and Republicans alike, demonstrated through their decisions and actions that they were not competent, not efficient, not honest, not fair, and certainly not to be trusted to make the right policy decisions". Levi and Stoker (2000) note that the level of citizens' trust in politicians influences their political involvement, voting and attitude towards policy or institutional reforms, whether they comply with political authorities, as well as the level of their social trust. Castells (2007) summarizes this concept by naming politicians "the faces of politics".

Levi and Stoker (2000) differentiate between three approaches to defining political trust. The first one defines trust in terms of fulfillment of role responsibilities by authorities. They adopt definition by Miller & Listhaug (1990:358) to describe the notion:

> Trust … reflects evaluations of whether or not political authorities and institutions are performing in accordance with normative expectations held by the public. Citizen expectations of how government should operate include, among other criteria, that it be fair, equitable, honest, efficient, and responsive to society's needs. In brief, an expression of trust in government (or synonymous political confidence and support) is a summary judgment that the system is responsive and will do what is right even in the absence of constant scrutiny.

This definition gives emphasis to the question asked by National Election Studies (NES) introduced by Stokes in 1962, which asks whether the respondents think that the government can be trusted to do what is right, the politicians waste tax money or serve special interest and not the people.

The second definition of trust would focus on whether the respondent feels that the political actors and institutions act in his interest or at least not against his interest. However this definition dominant in elite-focused work on trust has not appeared in survey-based micro-level work according to Levi and Stoker (2000).

The third approach is the one used in this research. Under this approach the trustworthiness is left undefined and open to interpretation of potential respondent. A good example is a question used by Gibson (2001) in his survey of Russian citizens: "What about the political leaders of Russia – can they be trusted, or do you have to be very careful when dealing with Russian political leaders?"

Countries with higher levels of corruption are commonly characterized by lower levels of trust in political systems (Seligson, 2002; Chang & Chu, 2006; Anderson & Tverdova, 2003). However, if those countries officials can influence the content of the media it might be possible to portray the political affairs in positive light and therefore increase in media consumption may lead to increase in initially low levels of political trust and lower perceived corruption. For instance there is evidence that the levels of state ownership of all forms of media are significantly higher in more autocratic countries that aim to control media content (Djankov et al., 2003), and autocratic countries tend to be more corrupt (Nur-Tegin & Czap, 2012). On the other hand even in countries of low corruption such as the USA, people's trust in media's news reports has sharply declined since 1970s (Jones, 2004). Thus in countries with initially low levels of social and political trust due to high perceived levels of corruption (Treisman, 2000; Uslaner, 2004) the media news exposure might have no or even negative effect on

political trust. Chang and Chu (2006) analyzing data from East Asia Barometer come to conclusion that political corruption has a strong trust-eroding effect even in Asian countries that have a different political culture and electoral politics than Europe. For example, in China, where corruption is relatively high, news media exposure has a negative effect on people's attitude and trust towards government (Chen & Shi, 2001).

Corruption does not only influence the political trust; high levels of corruption also cause low social trust (Rothstein, 2000). In a recent study, Rothstein and Eek (2009) find evidence that people who live in highly corrupt countries do not approve the corrupt politicians' behavior. Moreover experience of corrupt behavior by public authority tends to lead to both lower social and political trust. Wilhelm (2002) describes the significance of social trust as "uncorrupted human capital is the engine of economic development". He explains that countries that provide their citizens with both legal order and individual freedom are the most innovative and prosperous. After reviewing literature on the topic Wilhelm (2002) summarizes that trust enhances cooperation, lowers agency and transaction costs as well as facilitates smooth efficient market exchanges. As the result of high correlation and interconnection of corruption and both social and political trust this research will additionally control for social trust levels of respondents.

2.2. Media influence

Another line of research specifically focuses on the influence of the news media on people's trust in government. Avery (2009) looks closely at the "videomalaise" and "virtuous circle" theorems that present two conflicting views on media influence. "Videomalaise" refers to the theory that the negative emphasis of the television news reports and lack of substance resulted in the mistrust in political institutions (Robinson, 1976). In other words this theory predicts that an increase in exposure to television leads to a decrease in political trust. Conforming to this theory the decreasing level of voters' turnout and political trust has been related to the increase in number of households with televisions sets in America (Clarke & Fredin, 1978).

The thesis of "virtuous circle" on the other hand argues that increased access and variety of media sources induces political trust (Norris, 2000). According to this theory people with higher levels of political interest and trust pay closer attention to the political news, and their hence increased knowledge of government and politics leads to even higher political engagement and trust. Thus the virtuous circle is created. Norris (2000) suggests that those who are initially politically disengaged and mistrusting will pay less attention to the media and the news content due to their mistrust. The

"virtuous circle" theory therefore predicts that increase in consumption of television news would be mainly observed among people with higher levels of political interest and lead to increase in level of political trust.

After a careful examination of both theories and an empirical analysis of 2000 National Annenberg Election Survey, Avery (2009) concludes that the influence of media on political trust depends both on the news source and the individual's excising level of political trust. While people with low levels of political trust experience no influence as a result of media exposure, people with initially higher levels of political trust become more trusting after exposure to press and less trusting after watching television.

While advocates of "videomalaise" theory associate declining trust in government with the influence of news framed negatively and aggressively in television, McLeod and McDonald (1985) through reliance contingency analysis show that there is a positive effect of television on political efficacy and activity among TV-reliant people, and a negative impact among newspaper-, and other-reliant groups. Therefore television news consumption does not necessarily have a negative impact on society. While television may cause mistrust of political institutions it also induces citizens to be more politically active.

During elections citizens do not read candidates platforms, but increasingly rely on news media to learn the values and personality traits. Thus the media becomes essential in creating the image of the potential candidates in elections (Castells, 2007). Mazzoleni and Schulz (1999) research the ability of the media to distort the political process. Some people fear that politics are increasingly presented in media as market like games based on battles of images. Because media compete for the public attention it is common that news that fit certain criteria of conflict, drama and personalization appear on television. This sort of media representation brings systematic bias to realistic representation of political situation since reports often accentuate the features to make and event newsworthy (Galtung & Ruge, 1965).

People dependent on television to obtain the political news tend to have higher level of political cynicism (Robinson, 1976), while those who rely on newspapers are more politically knowledgeable (Guo & Moy, 1998). Therefore due to increased political expertise and less critical presentation of politics newspaper reading is argued to induce higher political trust compared to television news (Moy & Pfau, 2000). McCombs (2013) notes that newspaper may appear as more credible information source since television service is usually controlled by the government to some degree, while newspapers are often in private ownership. According to research by Djankov et al. (2003) in 97 countries on average

the state has control over approximately 29% of newspapers, 60% of television stations and 72% of the top radio stations. Furthermore they report that in Western European countries government did not own any of the top five daily newspapers. Guo and Moy (1998) describe the difference between television and newspaper in the following way: "Television's audio-visual characteristics give it greater power in conveying realism and emotional appeal, whereas print media do a better job of relating abstract ideas".

Overall radio seems to be the least influential among the three news media. Research by Moy and Scheufele (2000) shows that radio has no bearing on political trust. Aarts and Semetko(2003) observe that radio use and press use has little or no influence on the levels of political knowledge.

2.3. Education effects

Another possible determinant of media influence on trust in politicians is education level. For example, according to Neuman, Just and Crigler (1992) people with low to average cognitive skills and low attention levels gain more political knowledge from exposure to television news rather than from newspaper reading. Thus media effect varies among people with different level of cognitive skills and attention levels. Higher education usually signals higher cognitive skills and higher degree of political sophistication (Mazzoleni & Schulz, 1999). People with higher education are likely to become more critical and cynical due to higher knowledge of political process (Seligson, 2002). They are less likely to blindly rely on mainstream media to create their political opinions. Higher education seems to lead to greater general awareness, as well as awareness of political affairs and government failures which consequently leads to lower levels of political trust (Converse, 1972). For example, in research by Chen and Shi (2001) education is negatively correlated with political trust in China. Surprisingly, according to other research by Moy and Scheufele (2000) people with higher levels of formal schooling tend to have greater trust in the government. They state that political trust is not function of media use at all, but rather it is a result of education and political ideology.

It appears that the existing literature does not have a consensus on the general effect of education on political trust. For instance, Catterberg and Moreno (2006) report that education "has no effect on political trust in established democracies and Eastern Europe, and it is negatively related to trust in former Soviet republics". On the other hand, Mishler and Rose (2001), testing micro theories[2]

---

[2] "Micro theories emphasize that political trust varies both within and between societies as a result of different political socialization experiences linked to differences in education, gender, or other social structural influences and/or because people with different political values and interests evaluate political and economic performance differently" (Mishler and Rose, 2001).

and life time learning, state that education is "often a significant predictor of political trust in established democracies is not significant in post-Communist societies".

Hypothesis:

I expect that the news consumption from various sources will have a distinct effect on trust in politicians. The increase in consumption of newspaper and radio news are expected to have a positive effect on political trust, while exposure to political news on television is expected to have a negative effect on trust in politicians for countries with low levels of corruption. I think that this relationship will vary among countries with higher levels of perceived corruption and predict the positive effect of media on trust in politicans will increase with corruption (H1). In other words I expect that in the highly corrupt countries the newspaper reading and radio news consumption will be associated with even higher marginal effect on trust in politicians than in countries with low corruption. As for television news consumption, I expect it to be associated with increase in trust in politicians in highly corrupt countries, where the cynical news representation may be reduced due to increased control from corrupt government officials. The predictions are formalized in Figure 2.
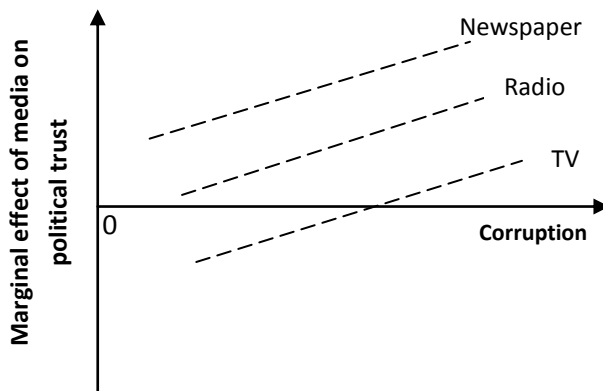
Figure 2. Hypothesis 1 predictions

Moreover I expect that the marginal influence television, newspaper and radio news have on political trust will decrease as the amount of time spent on following news from other sources increases(H2).

In addition, I expect that people with higher education level would be less affected by political news from newspaper, television and radio and have lower trust in politicians than people with lower education due to higher knowledge of political process.

3. Data and Measures

I test the hypotheses using data from the European Social Survey (ESS). The ESS is a cross-national survey that has been conducted every two years across Europe since 2001. It provides a rich set of data on attitudes, beliefs and behavior patterns of residents in more than thirty countries. The ESS is a reliable cross-national survey that is characterized by employment of accurate translations, face-to-face interviews, strict sampling rules, and carefully designed questionnaire (Koch et al., 2009). Despite the non perfect adherence to data collection targets, the ESS has been proved to have one of the lowest nonresponse biases due to its highly rigid fieldwork procedures of the surveys among other comparative European survey projects (Kohler, 2007).

Although the research will mainly focus on the first round of the ESS from the year 2002, I include a section that provides overview of the other years 2004-2012 to see how the relationship between media and trust in politicians may change from year to year. While the first wave of the ESS includes data on around 40,000 individuals from 22 nations, removing respondents with missing vales from the dataset resulted in a sample of 25,144 people. The following countries were included in the analysis: Austria, Belgium, Switzerland, the Czech Republic, Germany, Denmark, Spain, Finland, France, Great Britain, Hungary, Ireland, Israel, Italy, Luxemburg, the Netherlands, Norway, Poland, Portugal, Sweden and Slovenia. As such the analysis includes surveys from a diverse set of countries with different political cultures and histories.

The focus of the research is on the following main variables: media consumption, political trust and corruption. Descriptive statistics for all variables and the exact wording for all measures are listed in the appendix.

3.1. Political trust

To measure the trust in politicians the respondents were asked to rate "on a score of 0-10 how much you personally trust politicians, 0 means you do not trust at all, and 10 means you have complete trust". While there are many researchers who prefer multi- item construct for the political trust measure (Zmerli & Newton, 2008; Hetherington, 1998), this research specifically focuses on trust in politicians; therefore it includes a single item indicator. This allows for a clear view of the parameter measured as well as a more straightforward intuition behind the interpretations. Additionally, including more items to an indicator has no direct effect on its validity (Guilford, 1954; Kerlinger & Lee, 2000). Furthermore

even if the dependent variable is unreliable, it does not result in biased regression estimates, although it does make it more difficult to attain statistical significance (King, Keohane & Verba, 1994).

3.2. Media consumption

The ESS provides detailed data on exposure to different media outlets such as television, newspaper, radio and internet. Academic research suggests that television content is not uniform, and therefore television viewing that involves special content should be included when analyzing media influence on political trust (Hawkins & Pingree, 1981; McLeod & McDonald, 1985). Newton (1999) concludes that the biggest effect of media depends on its content: "television pulls in different directions, according to content: television news seems to inform and mobilize; general television has a weak and patchy association with malaise". My study focuses on political news media exposure. Viewing of the regular entertainment programs and reading newspapers articles on culinary, for example, are unlikely to affect citizens' political trusts. Although the ESS provides data on general internet use, there is no information on internet use for obtaining political news. Thus I only include exposure to political news on newspaper, television, and radio, but do not include internet usage variable in this study.

Newspaper exposure was measured by a question about the number of hours spent on average weekday on reading about politics and current affairs. For the measure of political television news the respondents were asked about amount of time spent on watching news and programs about politics on an average weekday. Similarly, to determine exposure to political news on radio, the ESS inquired to report time spent listening to news or programs about politics and current affairs on radio. The answer score ranges between 0 (no time at all) and 7 (more than 3 hours).
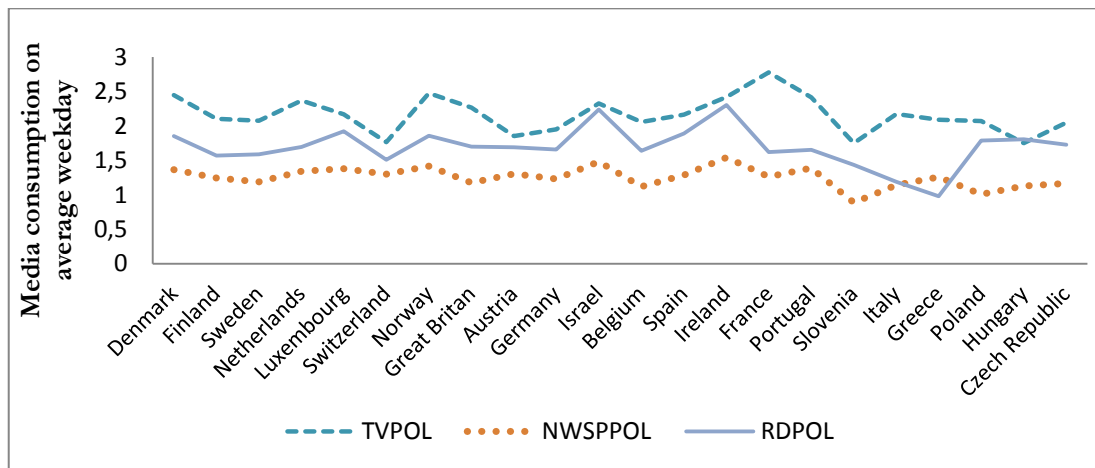

Figure 3. **Cross-national consumption of television, newspaper and radio political news**

Figure 3 presents information on average time spent on learning political news through television, newspaper and radio in each of the countries. The scale of media coverage corresponds to questionnaire score. This simple overview shows that in most of the countries the main source of political news information is television, followed by radio, and the least number of hours is spent reading political news in newspapers.

3.3. Corruption

The corruption variable was not provided by the ESS. I have used the Corruption Perception Index (CPI) published by Transparency International measured for the year 2002 to match with my survey data. The CPI is a composite index that is based on multiple surveys of business people and assessments by country analysts. In total in the 2002 CPI index 15 sources were included, coming from 9 independent institutions.[3] The sources mostly use a definition of corruption as "the misuse of public power for private benefit, for example bribing of public officials, kickbacks in public procurement, or embezzlement of public funds" (Lambsdorff, 2002). This definition of corruption is in line with our definition of trust in politicians. The politicians who do not deserve trust are those who are known or suspected to misuse public power and funds. While the index relates to the perceptions of the people rather than the actual level of corruption, it might be the only guidance since the real levels of corruptions cannot be measured directly. The validity of the index was researched by Wilhelm (2002). He observes a strong correlation of the CPI with other measures of corruption such as Black Market activity and overabundance of regulation or unnecessary restriction of business activity. Furthermore the validity of the index is strongly suggested by highly significant correlations with real gross domestic product per capita (RGDP/Cap), which supports the proposition that corruption may be a barrier for economic growth. To make the interpretation of the variable easier I rescale the index by creating new variable "corruption". While in the original Corruption Perception Index the score ranges between 10 (very clean) and 0 (highly corrupt), the "corruption" variable score ranges between 0 (not corrupt at all) and 10 (highly corrupt), where the score was calculated as: corruption = 10-CPI.

Figure 4 shows the distribution of the corruption index across the countries included in the study. These countries are moderately corrupt at 3,01 on average. The most corrupt countries in sample are Hungary, Poland and the Czech Republic with the scores of six and higher. Denmark, Finland,

---

[3] 2002 CPI includes data from the following sources: The World Economic Forum, The Institute for Management Development (Lausanne), PricewaterhouseCoopers, the World Bank's World Business Environment Survey, The Economist Intelligence Unit, Freedom House (Nations in Transit), the Political and Economic Risk Consultancy (Hong Kong),Gallup International on behalf of Transparency International, the State Capacity Survey by Columbia University.

Luxembourg, Netherlands and Sweden were reported to be the cleanest from corruption with the index of less or equal to one. Furthermore Figure 4 presents the average level of trust in politicians in each country. A simple observation of the graph shows negative correlation between corruption level and trust in politicians. This fact conforms to the previous research that countries with higher corruption tend to have lower trust in politicians (Seligson, 2002; Chang & Chu, 2006; Anderson & Tverdova, 2003).
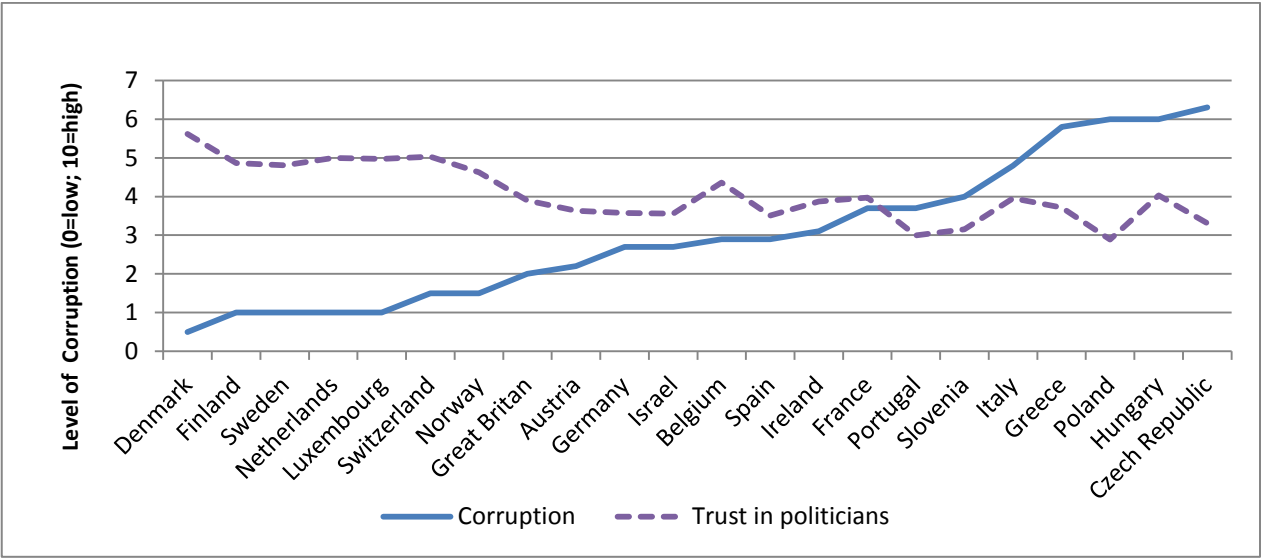

Figure 4. Cross-national levels of corruption and political trust

3.4. Control variables

I control for the following demographics: gender, age, education, and country of residence. I would have controlled for the income variable however the missing data would lead to the omission of three countries France, Hungary and Ireland. [4] I additionally include social trust as a control variable, since there is a significant correlation and interdependence between social and political trust (Zmerli & Newton, 2008).

The social trust was measured by asking the classic question: "Using this card, generally speaking, would you say that most people can be trusted, or that you can't be too careful[5] in dealing with people? Please tell me on a score of 0 to 10, where 0 means you can't be too careful and 10 means

---

[4] I estimate the model with 19 countries after excluding France, Hungary and Ireland. After including the income dummies signs of the coefficients remain identical across the different specifications, while the statistical significance of the explanatory variables is also comparable.

[5] The term "careful" was further defined to interviewers as: "Can't be too careful: need to be wary or always somewhat suspicious".

that most people can be trusted". This question was formulated by the German political scientist Elisabeth Noelle-Neumann in 1948. Recent researches by Ostrom et al. (2009) and Sapienza et al. (2007) confirm the validity of this trust question.

This research does not include more control variables based on observation by Levi and Stoker (2000) that the trust of citizens is primarily function of their political lives and not their personalities or their social traits.

The correlation matrix between independent variables can be seen in Table 1. Consumptions of political news from all sources are significantly correlated between each other.

Table 1. Correlation matrix

	TVPOL	NWSPPOL	RDPOL	Corruption	Education	Age	Female
TVPOL	1						
NWSPPOL	0,329***	1					
RDPOL	0,282***	0,267***	1				
Corruption	-0,057***	-0,071***	-0,022***	1			
Education	-0,043***	0,104***	-0,006	-0,021**	1		
Age	0,267***	0,216***	0,166***	-0,066***	-0,220***	1	
Female	-0,055***	-0,085***	-0,017**	0,004	-0,038***	0,011	1

Note: Correlation calculated using 25144 observations. $*p<0.05$; $**p<0.01$; $***p<0.001$.

4. Regression Model

4.1. Two-way interaction model

I estimate the effect of media on trust in countries with different levels of corruption using ordinary least squares (OLS) regression model including country fixed effects. In order to test the first conditional hypothesis I use multiplicative interaction model. I use Brambor, Clark and Golder (2006) criteria in constructing the regression model and interpreting its results.

$$Trust\ in\ politicans = \alpha + \beta_1 TvPol + \beta_2 NwspPol + \beta_3 RdPol + \beta_4 TvPol * Corruption +$$
$$\beta_4 NwspPol * Corruption + \beta_6 RdPol * Corruption + \beta_7 x' + \varepsilon \qquad (1)$$

Where α is country fixed effects, the vector x contains all control variables, $TvPol, NwspPol$ and $RdPol$ are measures of political news consumption from television, newspaper and radio respectively. I removed the intercept term to avoid the dummy "variable trap". Keeping the intercept would cause perfect multicollinearity between the country dummy variables and the intercept.

While according to Franzese and Kam (2009) variable centering "alters nothing important statistically and nothing at all substantively", for the simplicity of interpretation I decided to center the "corruption" variable around 3.01, which is the average corruption level of 22 countries[6]. Thus β_1 represents the marginal effect of one-unit increase in television news consumption in a country with an average corruption.

The aim of building this multiplicative interaction model is to find the marginal effect of exposure to each news media on trust in politicians. A positive value for the effect of any of the interaction terms would imply that the higher the level of perceived corruption, the greater (more positive or less negative) the effect of political news consumption from certain media on trust in politicians. Similarly, the higher the political news consumption from that media source, the greater (more positive or less negative) is the effect of corruption on trust in politicians. For example, the marginal effect of television news is: $\frac{\partial Trust\ in\ politicans}{\partial TvPol} = \beta_1 + \beta_4 Corruption$.

---

[6] I additionally center age variable around 18, although this does not change the interpretation of the variables of interest: media and interaction effects.

4.2. Three-way interaction model

In addition to simple estimation of marginal effect of each media on political trust separately I would like to test how this marginal effect depends on consumption of political news from other media sources. Do people who follow political news from newspaper in addition to television have different level of trust in politicians, compared to those who mainly rely on one media to provide political news? Perhaps in countries with higher corruption level people tend to follow political news from many sources to make up their opinion, and thus each media by itself has little marginal effect on trust in politicians. It also may be that in more corrupt countries people do not trust news media at all and consumption of extra information from other sources does not influence political trust.

Taken together these arguments imply a three-way interaction between corruption, consumption of news from certain media and consumption of news from other media sources. To test the second hypotheses I create new variable that measures time spent on consuming political news from sources other than television for an average weekday: $otherTv = NwspPol + RdPol$. Similarly I create new variables to measure hours spent on news from sources other than newspaper and radio respectively: $otherNwsp = TvPol + RdPol, \ otherRd = Tvpol + NwspPol$.

To check for possibility of non linear relationship between media consumption and trust in politicians I include quadratic terms of media consumption. The modified regression model then looks as follows:

$$
\begin{aligned}
Trust\ &in\ politicans \\
&= \alpha + \beta_1 TvPol + \beta_2 TvPol^2 + \beta_3 otherTv + \beta_4 otherTv^2 + \beta_5 TvPol \\
&\quad * Corruption + \beta_6 TvPol^2 * Corruption + \beta_7 otherTv * Corruption \\
&\quad + \beta_8 otherTv^2 * Corruption + \beta_9 TvPol * otherTv + \beta_{10} TvPol^2 * otherTv \\
&\quad + \beta_{11} TvPol * otherTv^2 + \beta_{12} TvPol^2 * otherTv^2 \\
&\quad + \beta_{13} TvPol * otherTv * Corruption + \beta_{14} TvPol^2 * otherTv * Corruption \\
&\quad + \beta_{15} TvPol * otherTv^2 * Corruption + \beta_{16} TvPol^2 * otherTv^2 * Corruption \\
&\quad + \beta_{17} x' + \varepsilon
\end{aligned} \tag{2}
$$

Where α is country fixed effects and the vector x contains all control variables. This regression model is specified to observe how marginal effect of each hour spent watching television news changes depending on hours spent following political news from other sources of information, such as radio and newspaper. The regression models for observing how the marginal effect of following news on radio or newspaper depend on other sources is built in the same manner:

$Trust\ in\ politicians$
$$= \alpha + \beta_1 NwspPol + \beta_2 NwspPol^2 + \beta_3 otherNwsp + \beta_4 otherNwsp^2$$
$$+ \beta_5 NwspPol * Corruption + \beta_6 NwspPol^2 * Corruption + \beta_7 otherNwsp$$
$$* Corruption + \beta_8 otherNwsp^2 * Corruption + \beta_9 NwspPol * otherNwsp$$
$$+ \beta_{10} NwspPol^2 * otherNwsp + \beta_{11} NwspPol * otherNwsp^2 + \beta_{12} NwspPol^2$$
$$* otherNwsp^2$$
$$+ \beta_{13} NwspPol * otherNwsp * Corruption + \beta_{14} NwspPol^2 * otherNwsp$$
$$* Corruption + \beta_{15} NwspPol * otherNwsp^2 * Corruption + \beta_{16} NwspPol^2$$
$$* otherNwsp^2 * Corruption + \beta_{17} x^{'} + \varepsilon \qquad (3)$$

$Trust\ in\ politicans$
$$= \alpha + \beta_1 RdPol + \beta_2 RdPol^2 + \beta_3 otherRd + \beta_4 otherRd^2 + \beta_5 RdPol$$
$$* Corruption + \beta_6 RdPol^2 * Corruption + \beta_7 otherRd * Corruption$$
$$+ \beta_8 otherRd^2 * Corruption + \beta_9 RdPol * otherRd + \beta_{10} RdPol^2 * otherRd$$
$$+ \beta_{11} RdPol * otherRd^2 + \beta_{12} RdPol^2 * otherRd^2$$
$$+ \beta_{13} RdPol * otherRd * Corruption + \beta_{14} RdPol^2 * otherRd * Corruption$$
$$+ \beta_{15} RdPol * otherRd^2 * Corruption + \beta_{16} RdPol^2 * otherRd^2 * Corruption$$
$$+ \beta_{17} x^{'} + \varepsilon \qquad (4)$$

5. Results

5.1. Two-way interaction model

Table 2 presents the results of the OLS model specified in the equation (1). In the column one I present the results of the full sample regression. The results show that exposure to the television and newspaper political news has a significant positive correlation with the trust in political figures in a country with mean value of corruption. Social trust is as expected significantly positively correlated with trust in politicians. Although age and education have small, but statistically significant effects, gender does not seem to significantly influence political trust of people in the sample.

Table 2. Regression analysis of trust in politicians (two-way interaction model)

Independent Variable	Trust in politicians		
	Full Sample	Less HS	More HS
Television news	0,044***	0,037**	0,051**
	(0,012)	(0,0189)	(0,016)
Newspapers news	0,140***	0,153***	0,133***
	(0,018)	(0,029)	(0,022)
Radio news	0,008	0,011	0,005
	(0,009)	(0,016)	(0,012)
Television news*corruption	0,022**	0,009	0,027**
	(0,007)	(0,011)	(0,009)
Newspapers news*corruption	0,000	0,0003	0,007
	(0,01)	(0,016)	(0,013)
Radio news*corruption	0,000	0,015	-0,0118
	(0,005)	(0,009)	(0,007)
Female	0,021	0,049	0,002
	(0,026)	(0,043)	(0,032)
Age	-0,016***	-0,018***	-0,013***
	(0,002)	(0,004)	(0,003)
Age^2	0,0003***	0,0003***	0,0002***
	(0,000)	(0,000)	(0,000)
Education	0,025***	0,006	0,027***
	(0,004)	(0,014)	(0,006)
Social trust	0,236***	0,227***	0,243***
	(0,006)	(0,010)	(0,008)
country dummies	yes	yes	yes
Total Observations	25144	9970	15174
R-squared	0,173	0,151	0,195
Log Likelihood	-53421,03	-21656,46	-31654,85

Note: Heteroskedasticity robust standard errors between parentheses.
*p<0.05; **p<0.01; ***p<0.001.

Although this information is interesting, traditional tables only throw limited lights on hypotheses according to Brambor, Clark and Golder (2006). Thus Figure 5 graphically illustrates how the marginal effect of exposure to television political news changes across the range of corruption level.[7] As predictions stated in the first hypothesis, the figure shows that television political news exposure has an enhancing effect on trust in politicians for countries with high corruption levels. This positive marginal effect increases as the corruption level rises. An interesting result is that an increase in hours spent following political news on television is associated with higher trust in politicians in countries with higher corruption. It could be interpreted that politicians in more corrupt countries who do not deserve trust of the citizens gain more trust through television than politicians who work in countries perceived clean of corruption. It may be that television has ability to fool people into trusting politicians of the country and it is more successful in more corrupt countries. Perhaps, in more corrupt countries politicians put more pressure on television network to frame news in ways to present government officials trustworthy and refrain from critique. For countries with low level of corruption watching television news seems to be associated with diminishing trust in politicians. This corresponds to the predictions stated in the first hypothesis, although this negative effect is not statistically significant at 95% confidence interval. For countries with rather low corruption levels (lower than mean centered corruption index of -1, or corruption index of 2) television news exposure has statistically insignificant marginal impact on political trust[8]. In this sample seven countries have a corruption index lower than two: Denmark, Finland, Sweden, the Netherlands, Luxembourg, Switzerland and Norway.
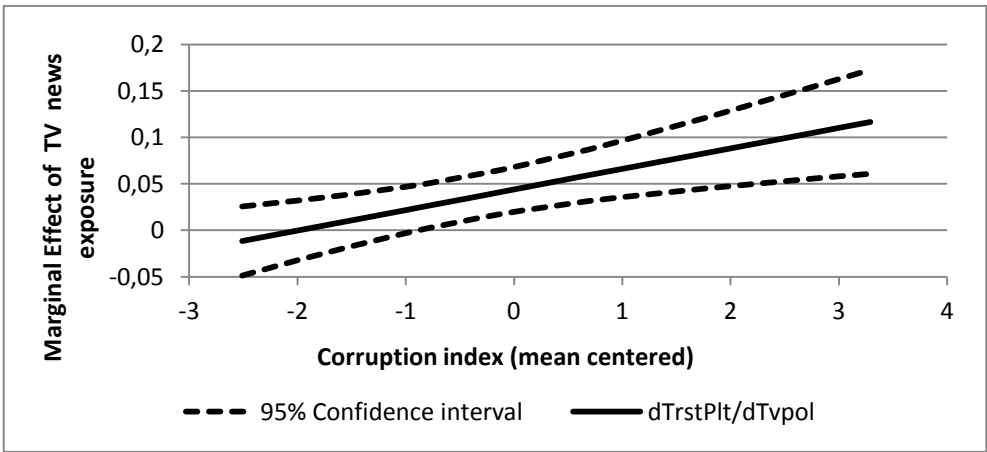
Figure 5. The marginal effect of television news exposure on the trust in politicians.

---

[7] While I discuss the marginal effects of media consumption on trust in politicians, I am aware that the regression results merely report correlation between variables and the direction of relationship and causation is not established clearly.

[8] The significant effect exists when both the upper and lower limit of 95% confidence interval are either above or below zero.

Similarly Figures 6 and 7 present the marginal effect of exposure to newspaper and radio news. It is easy to see that reading political news in newspapers has positive marginal effect on trust in politicians, which is significant and constant for all levels of corruption. The radio news consumption on the other hand has positive, but not significant effect on trust in politicians. These results partially conform to predictions of the first hypothesis.
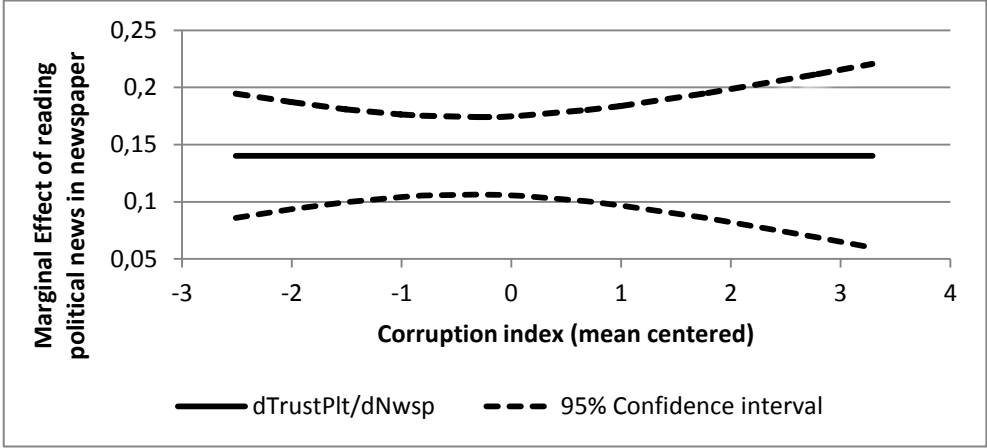

Figure 6. The marginal effect of political news consumption from newspaper on the trust in politicians

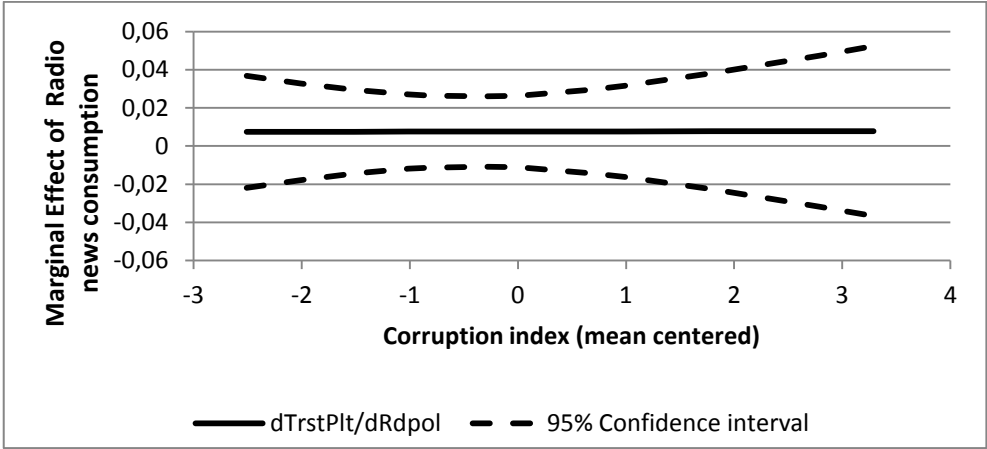**Figure 7. The marginal effect of political news consumption from radio on the trust in politicians**

As we have seen from Table 2, education has a significant positive effect on trust in politicians. To further test how education may impact consumption of political news from different sources I split the sample based on education level: less than high school (11 years of education and less) and more

than high school (HS). The subsample of people with less than HS education includes 9970 observations, which is 40% of the full sample. Descriptive statistics for the variables in each subsample can be found in the appendix. Table 2 includes comparative descriptions of results for regressions of two subsamples along with the full sample regression results. The results presented show that the television news exposure, contrary to my predictions, has a stronger positive effect on people with more than HS education, while newspaper has higher positive effect on people with less than HS education for countries with average level of corruption. The effect of radio remains positive and insignificant at 0.05 level, although the coefficient is lower for the subsample of people with more than HS education.

Once more we look at the marginal effect of each news media on political trust in Figures 8 and 9. Comparing the figures presented side by side we can see that the marginal effect of television news on political trust is positive in both cases, but increases with corruption level at higher rate for people with more than HS education. This observation in case of a population with less than HS education is significant at 0.05 level for Ireland, France and Portugal only. For people with more than HS education the marginal effect is significant for 13 countries with the corruption index higher than 2.2 (mean centered index of -0.81).

Newspaper news exposure for people with less than HS education has a significant positive marginal effect on trust in politicians, which is constant across all countries. This effect of newspaper in this subsample is slightly larger than in a full sample (coefficients of 0.153 and 0.140 respectively). The marginal effect of newspaper political news consumption in subsample of more than HS education is positive and increases with corruption index, however it is not significant at 0.05 level.

If we look at the radio news consumption for less than HS subsample we see that the effect is negative for clean of corruption countries and positive for countries with higher corruption, but not significant. However, for people with more than HS education radio news consumption has a significant positive marginal effect on political trust that becomes weaker with increase in corruption index. This effect of radio becomes insignificant for countries with corruption index higher than 1.35 (mean centered index of 4.36): Italy, Greece, Poland, Hungary and Czech Republic. An interesting observation is that the effect of radio seems to decline with increase in corruption in more than HS subsample, but it increases in less than HS subsample.
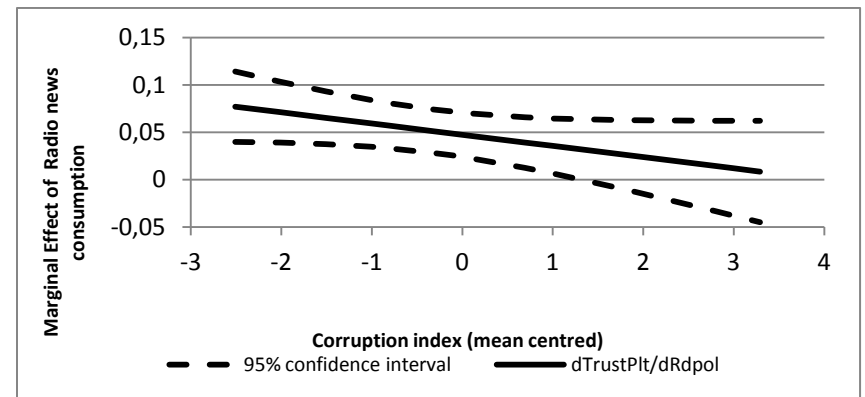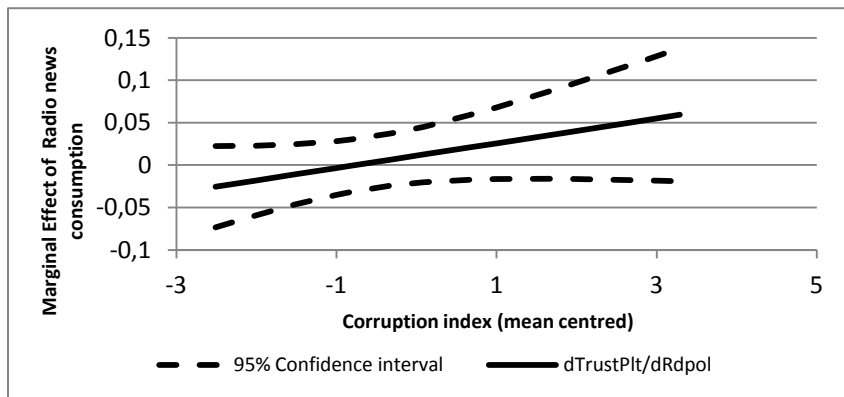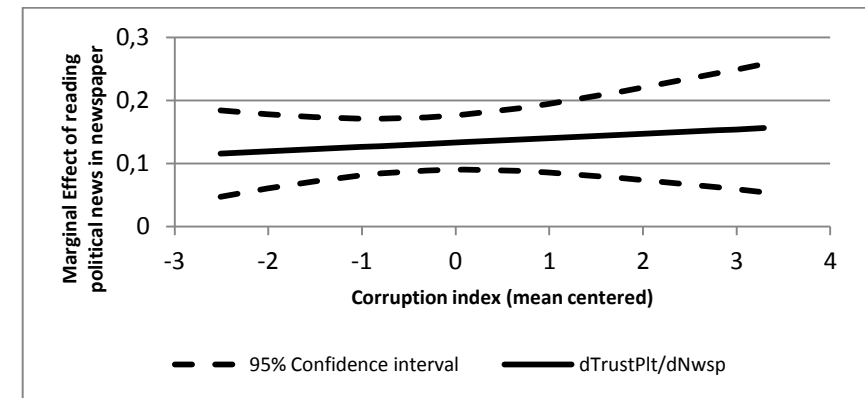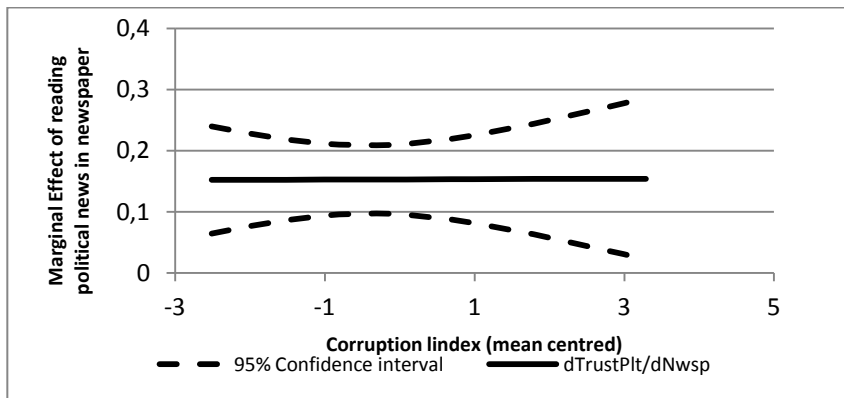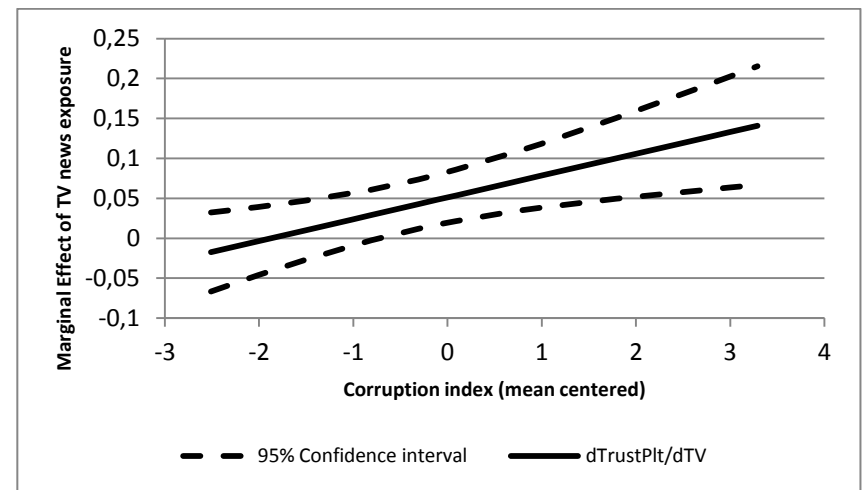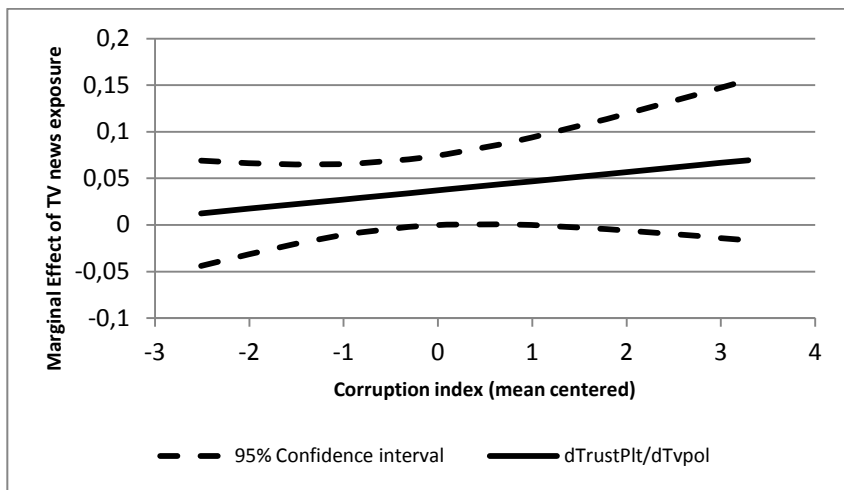
Figure 8. Marginal effect of media on political trust for people with less than HS education

Figure 9. Marginal effect of media on political trust for people with more than HS education

These observations support the notion that the effect of media on political trust may vary in magnitude among people with different levels of education. Education variable has a significant effect on relationship between media consumption and political trust for people with more than HS education and the full sample, but not on the less than HS education subsample. Additional year of education has a significant effect on trust in politicians among more educated people, it may bring them more insight and understanding of politics because they study in college; however, it is not significant for people with less than HS education how many years of formal education they completed.

5.2. Two-way interaction model (overview 2002-2012)

In this section I present the overview of the results of the OLS model specified in equation (1) for other years than 2002. This section does not include detailed information on the analysis of each year, but rather aims to see how the relationship between media consumption, political trust and corruption varies from year to year. The data is taken from the same source, the ESS, thus the variables and their measure are identical to the year of 2002. Only the regression of the data from year 2012 differs, since in that year information on newspaper and radio consumption is not available. The corruption variable is created by rescaling the Corruption Perception Index for each year to match the data. Corruption variable in all years is mean centered around 3 in order to simplify the comparison and interpretation.

I decide not to merge data from all years for panel data analysis for two reasons. First, the ESS lacks data for certain countries in some years, thus the research would be limited to only 14 countries in order to create panel data. Second, the Corruption Perception Index is not easily comparable from year to year. The countries included in the report may differ per year and the values report only relative corruption level for the year, rather than absolute value. For example, if a certain country receives the CPI of 4 in year 2002 and index of 5 in 2006, this does not necessarily mean that country became less corrupt. It may be a result of a changed methodology in creating index.

The results of the analysis can be seen in Table 3. Television news consumption is associated with higher trust in politicians in all years for countries with corruption level of 3. The results are also notably significant in all years except 2010. The positive correlation of political news consumption from television with trust in politicians increases with corruption in years 2002-2010. The negative sign for interaction term in the year 2012 could be a result of omitting newspaper and radio consumption variables.

It is remarkable that the newspaper consumption also throughout all years is positively and significantly correlated with trust in politicians in countries with corruption level of 3. The interaction term of newspaper consumption and corruption is either negative or very close to zero. Therefore I observe that the political news consumption from newspaper is positively correlated with trust in politicians, and this relationship either decreases (2004-2008) or remains constant (2002, 2010) with increase in corruption level in the country.

24

Table 3. Regression analysis of trust in politicians (two-way interaction model)

Independent Variable	Trust in politicians					
	2002	**2004**	**2006**	**2008**	**2010**	**2012**
Television news	0,044***	0,025*	0,043***	0,035**	0,022	0,089***
	(0,012)	(0,012)	(0,013)	(0,011)	(0,012)	(0,009)
Newspapers news	0,140***	0,112***	0,147***	0,097***	0,147***	
	(0,018)	(0,016)	(0,019)	(0,017)	(0,017)	
Radio news	0,008	0,011	0,019	0,013	0,031**	
	(0,009)	(0,009)	(0,010)	(0,009)	(0,009)	
Television news*corruption	0,022**	0,017*	0,014*	0,019***	0,012**	-0,004
	(0,007)	(0,005)	(0,006)	(0,005)	(0,006)	(0,004)
Newspapers news*corruption	0,000	-0,026***	-0,019*	-0,008	0,0004	
	(0,01)	(0,007)	(0,009)	(0,008)	(0,008)	
Radio news*corruption	0,000	0,015***	0,011*	0,006	0,006	
	(0,005)	(0,004)	(0,005)	(0,005)	(0,005)	
Female	0,021	-0,006	0,060*	0,077**	0,114***	0,081***
	(0,026)	(0,025)	(0,026)	(0,024)	(0,026)	(0,021)
Age	-0,016***	-0,035***	-0,025***	-0,038***	-0,048***	-0,049***
	(0,002)	(0,004)	(0,004)	(0,004)	(0,004)	(0,003)
Age^2	0,0003***	0,0004***	0,0003***	0,0004***	0,0005***	0,0005***
	(0,000)	(0,000)	(0,000)	(0,000)	(0,000)	(0,000)
Education	0,025***	0,013***	0,017***	0,013***	0,014***	0,024***
	(0,004)	(0,004)	(0,004)	(0,003)	(0,004)	(0,003)
Social trust	0,236***	0,234***	0,230***	0,227***	0,235***	0,234***
	(0,006)	(0,006)	(0,007)	(0,006)	(0,006)	(0,005)
country dummies	yes	yes	yes	yes	yes	yes
Total Observations	25144	27403	23771	27594	24333	40932
R-squared	0,173	0,222	0,222	0,271	0,261	0,274
Log Likelihood	-53421,03	-58140,8	-50498,32	-58324,35	-51496,18	-88065,79

Note: Heteroskedasticity robust standard errors between parentheses.
*p<0.05; **p<0.01; ***p<0.001.

Political news consumption from radio is associated with higher trust in politicians and this correlation increases with corruption level. While either the individual coefficient for radio or the interaction term is not significant in most years, the analysis of marginal effect of radio on trust in politicians shows that the total marginal effect of radio news consumption is positive and significant at 0.05 level in countries with mean centered corruption value higher than 0.

In all years the marginal effect of political news consumption from reading newspaper is bigger than the marginal effect of television news for a country with corruption level of 3. The radio news consumption is associated with the smallest increase in trust in politicians. While Graber (2001) attributes visual nature of the television to the fact that political information is better processed and retained by citizens, we observe that newspaper has more influence on its readers' trust in politicians.

Aside from the main variables of interest, the control variables effects are consistent across all years. Higher education and level of social trust are significantly correlated with higher trust in politicians, while older people in all years are reported to have lower trust in politicians.

In this section we can see that the results obtained for the year 2002 are not unique statistical observations. We observe consistent relationship between media consumption and trust in politicians which, I believe, increases the validity of the analysis.

5.3. Three-way interaction model

Now that we have seen that television, radio and newspaper news consumption have positive significant correlation with political trust in most years, I would like to see how each of this relationships changes depending on different levels of consumption of the news from other sources. In this section I discuss the results of OLS models specified in equations (2), (3) and (4) based on data from the year 2002.

As we have seen before the effect of media on trust in politicians varies for different levels of education, thus in this step, I keep the sample split in less than HS and more than HS subsamples. The results of the regressions can be found in Tables 4-6.

Table 4. Regression analysis of trust in politicians (three-way interaction model, equation 2)

Independent Variable	Trust in politicians			
	Less HS		More HS	
Television news	0,492***	(0,108)	0,501***	(0,096)
Television news^2	-0,056**	(0,018)	-0,063***	(0,016)
Other Tv	0,435***	(0,078)	0,422***	(0,068)
Other Tv^2	-0,044***	(0,009)	-0,048***	(0,007)
Television news*corruption	-0,001	(0,069)	-0,023	(0,059)
Television news^2*corruption	-0,003	(0,011)	0,001	(0,011)
Other Tv*corruption	-0,055	(0,054)	-0,069	(0,042)
Other Tv^2*corruption	0,009	(0,007)	0,006	(0,005)
Television news*Other Tv	-0,123*	(0,055)	-0,163***	(0,047)
Television news^2*Other Tv	0,009	(0,008)	0,017*	(0,007)
Television news*Other Tv^2	0,13*	(0,005)	0,021***	(0,005)
Television news^2*Other Tv^2	-0,001	(0,001)	-0,002**	(0,001)
Television news*Other Tv*corruption	0,029	(0,037)	0,043	(0,029)
Television news^2*Other Tv*corruption	-0,001	(0,005)	-0,004	(0,004)
Television news*Other Tv^2*corruption	-0,004	(0,004)	-0,004	(0,003)
Television news^2*Other Tv^2*corruption	0,0002	(0,001)	0,0005	(0,00)
Female	0,047	(0,42)	0,004	(0,032)
Age	-0,024***	(0,004)	-0,017***	(0,03)
Age^2	0,0004***	(0,00)	0,0003***	(0,00)
Education	0,006	(0,13)	0,027***	(0,006)
Social trust	0,226***	(0,010)	0,240***	(0,008)
	yes		yes	
Country dummies				
Total Observations	9970		15174	
R-squared	0,15		0,198	
Log Likelihood	-21618,65		-31622,51	

Note: Heteroskedasticity robust standard errors between parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table 5. Regression analysis of trust in politicians (three-way interaction model, equation 3)

Independent Variable	Trust in politicians			
	Less HS		More HS	
Newspaper news	0,631***	(0,151)	0,652***	(0,129)
Newspaper news^2	-0,060	(0,038)	-0,104**	(0,032)
Other Nwsp	0,287***	(0,054)	0,195***	(0,052)
Other Nwsp^2	-0,022***	(0,005)	-0,014**	(0,005)
Newspaper news*corruption	0,031	(0,088)	0,009	(0,076)
Newspaper news^2*corruption	0,003	(0,0186)	-0,007	(0,018)
Other Nwsp*corruption	0,035	(0,032)	-0,017	(0,030)
Other Nwsp^2*corruption	-0,002	(0,003)	0,002	(0,003)
Newspaper news*Other Nwsp	-0,088	(0,058)	-0,107*	(0,051)
Newspaper news^2*Other Nwsp	-0,002	(0,012)	0,017	(0,010)
Newspaper news*Other Nwsp^2	0,005	(0,004)	0,007	(0,004)
Newspaper news^2*Other Nwsp^2	0,0004	(0,001)	-0,0005	(0,001)
Newspaper news*Other Nwsp*corruption	-0,028	(0,036)	0,0007	(0,030)
Newspaper news^2*Other Nwsp*corruption	0,003	(0,007)	0,002	(0,006)
Newspaper news*Other Nwsp^2*corruption	0,002	(0,003)	-0,0001	(0,002)
Newspaper news^2*Other Nwsp^2*corruption	-0,0003	(0,000)	-0,000154	(0,00)
Female	0,057	(0,043)	0,011	(0,031)
Age	-0,024***	(0,004)	-0,016***	(0,003)
Age^2	0,0004***	(0,00)	0,0003***	(0,00)
Education	0,0036	(0,013)	0,024***	(0,006)
Social trust	0,2256***	(0,010)	0,239***	(0,008)
Country dummies	yes		yes	
Total Observations	9970		15174	
R-squared	0,159		0,198	
Log Likelihood	-21607,52		-31629,36	

Note: Heteroskedasticity robust standard errors between parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table 6. Regression analysis of trust in politicians (three-way interaction model, equation 4)

Independent Variable	Trust in politicians			
	Less HS		More HS	
Radio news	0,324**	(0,125)	0,262*	(0,107)
Radio news^2	-0,031	(0,021)	-0,038*	(0,017)
Other Rd	0,445***	(0,072)	0,370***	(0,054)
Other Rd^2	-0,041***	(0,009)	-0,033***	(0,006)
Radio news*corruption	-0,064	(0,072)	-0,091	(0,064)
Radio news^2*corruption	0,010	(0,012)	0,008	(0,009)
Other Rd*corruption	0,001	(0,043)	0,003	(0,035)
Other Rd^2*corruption	-0,002	(0,005)	-0,0006	(0,004)
Radio news*Other Rd	-0,075	(0,062)	-0,080	(0,048)
Radio news^2*Other Radio	0,001	(0,009)	0,009	(0,007)
Radio news*Other Rd^2	0,007	(0,007)	0,008	(0,005)
Radio news^2*Other Rd^2	-0,0001	(0,001)	-0,001	(0,001)
Radio news*Other Rd*corruption	0,029	(0,036)	0,034	(0,030)
Radio news^2*Other Rd*corruption	-0,004	(0,005)	-0,004	(0,004)
Radio news*Other Rd^2*corruption	-0,001	(0,004)	-0,002	(0,003)
Rdio news^2*Other Rd^2*corruption	0,0001	(0,000)	0,0003	(0,000)
Female	0,055	(0,042)	0,009	(0,032)
Age	-0,024***	(0,003)	-0,017***	(0,003)
Age^2	0,0003***	(0,000)	0,0003***	(0,000)
Education	0,006	(0,013)	0,026***	(0,006)
Social trust	0,226***	(0,010)	0,240***	(0,008)
Country dummies	yes		yes	
Total Observations	9970		15174	
R-squared	0,158		0,198	
Log Likelihood	-21616,06		-31625,26	

Note: Heteroskedasticity robust standard errors between parentheses.
*p<0.05; **p<0.01; ***p<0.001.

Figures 10 and 11 present the relationship between marginal effect of television on trust in politicians, perceived corruption level in the country and the consumption of news from other media: newspaper and radio, for people with less than HS and more than HS education respectively. In more than HS subsample increase in news consumption from other sources leads to increase in marginal effect of television on trust and leads to change in relationship from negative to positive for all levels of corruption.
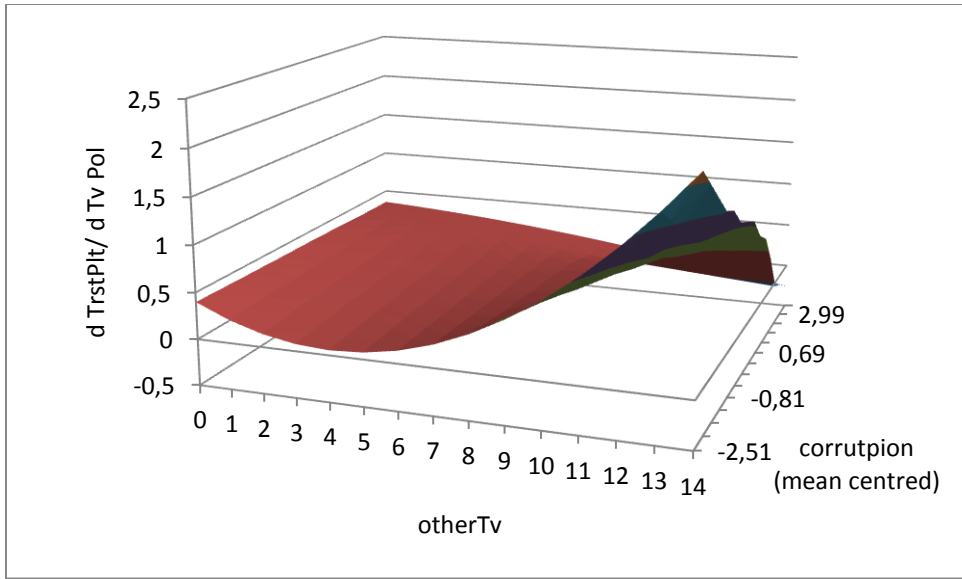
Figure 10. Marginal effect of media on trust in politicians by corruption and consumption of news from other sources in less than HS subsample

Figure 11. Marginal effect of media on trust in politicians by corruption and consumption of news from other sources in more than HS subsample

Figure 12. Marginal effect of media on trust in politicians by corruption and consumption of news from other sources in less than HS subsample
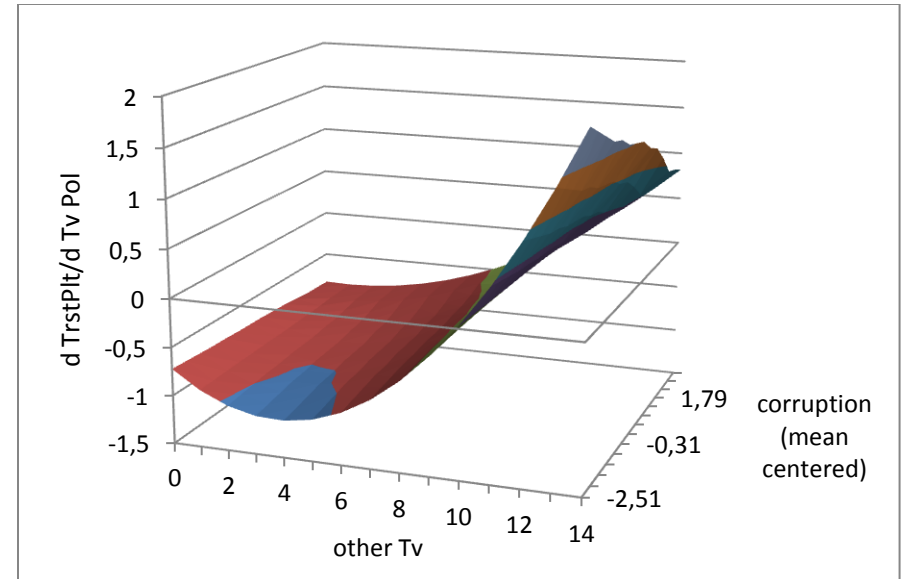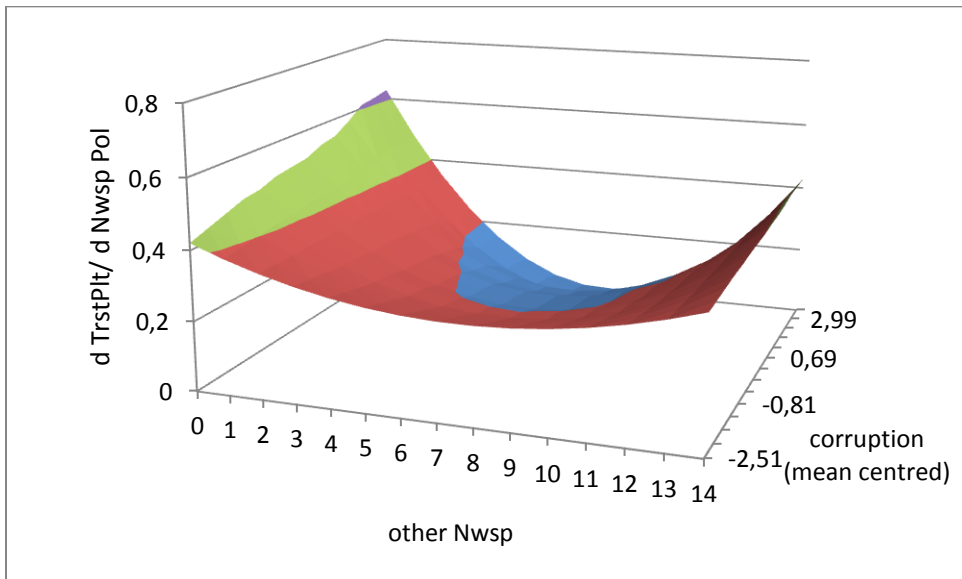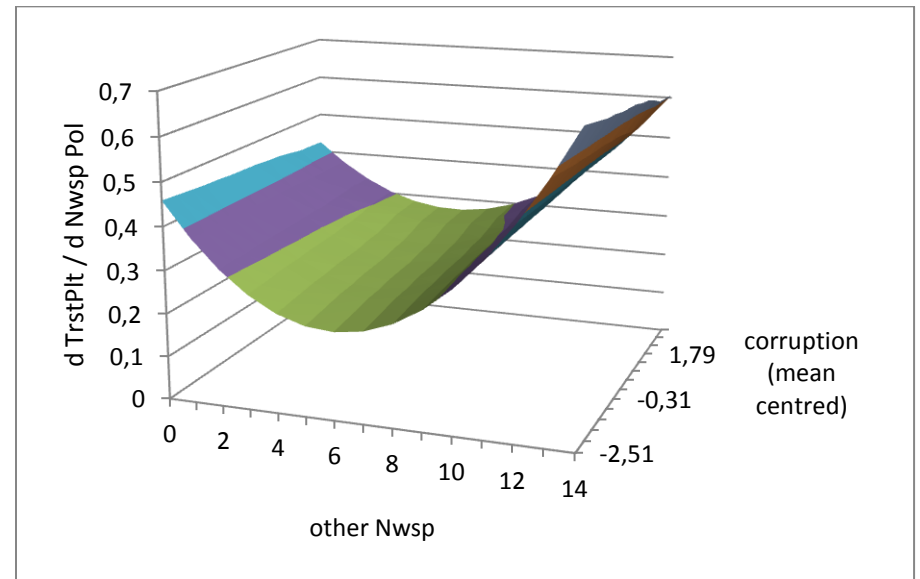

Figure 13. Marginal effect of media on trust in politicians by corruption and consumption of news from other sources in more than HS subsample

30

The marginal effect of television is negative and relatively constant across all corruption levels for low levels of news media consumption from other than TV sources; however this effect turns positive for higher levels of *otherTv* (more or equal to 10) variable with the magnitude decreasing with corruption level. Thus it seems that for people with more than HS education watching television news is associated with decrease in perceived trust in politicians, unless they have substantial overview of news from other media for all levels of corruption. Only for people with more than HS education, who follow political news closely from other sources, television news exposure is correlated with higher trust in politicians.

For the subsample of people with less than HS education I observe a different picture. Watching political news on television has positive marginal effect on trust in politicians and this effect increases with time spent on following news from other media for countries with low levels of corruption. However for highly corrupt countries television news effect from initially positive turns negative with increase in exposure to news from other sources. Thus we can see that the initial marginal effect of television news for low values of *otherTV* variable is different for more than HS and less than HS subsamples (negative and positive respectively). In addition the way this effect changes from lower to higher levels of corruption and exposure to news from other media does not follow the same pattern. For both subsamples television has the highest positive marginal effect on political trust for people living in countries with low corruption and following a lot of political news from both radio and newspaper. The highest marginal effect of television on political trust is equal to 2.16 and observed among people with less than HS education, while the lowest marginal effect is found among people with more than HS education and takes value of -0.84.

Figures 12 and 13 present the relationship between marginal effect of newspaper news consumption on political trust, corruption and amount of time spent following political news from television and radio, for people with less than HS and more than HS education respectively. For the subsample of more than HS education the marginal effect of newspaper news consumption is positive and relatively constant across all level of corruption and only varies with the *other Nwsp* variable. This marginal effect is lowest in this subgroup for people with corresponding value of six for *otherNwsp*, and it reaches highest values for people with most exposure to news from other sources than newspaper. Once again, similar to television news consumption, newspaper reading with highest marginal effect on political trust is observed among people who follow political news actively from all sources.

For the subsample of less than HS education the marginal effect of political news obtained from newspaper is positive and highest for people who do not look for political information from television and radio and live in highly corrupt countries. As the amount of time spent on political news from other sources than newspaper increases the marginal impact of newspaper reading decreases. It reaches minimum at value of 8 for *otherNwsp* variable and 2.99 for mean centered corruption. For both subsamples the marginal effect of newspaper is positive for all levels of corruption and exposure to news from other sources. The lowest marginal effect of newspaper news exposure is equal to 0.1 and is observed among people with lower than HS education that live in highly corrupt countries.

The relationship between marginal effect of radio on trust in politicians, corruption and consumption of political news obtained from other sources than radio is presented in Figures 14 and 15 for subsamples of less than HS and more than HS respectively. In Figure 14, in the subsample of people with less than HS education from highly corrupt countries the marginal effect of radio on political trust increases steadily as the amount of time spent on news from other sources increases In the least corrupt countries the marginal effect follows convex pattern with the minimum point at *other Rd* value of 7.

For the subsample of more than HS education the overall pattern of the graph is similar to less than HS subsample. For highly corrupt countries the marginal effect of radio in the subsample increases linearly with the increase in *other Rd* variable. For least corrupt countries the marginal effect follows convex pattern with the minimum point at *other Rd* value of 6. In both subsamples the marginal effect of radio on trust in politicians is highest for people from most corrupt countries with highest amount of information from other media; it takes the lowest value for people from least corrupt countries with moderate exposure to news from other sources.

After observing these results I reject second hypothesis that the effect of each individual media on trust in politicians decreases with increase in consumption of political news from other media. While in some cases the marginal effect of media decreases with news consumption from other sources, this pattern changes for people who follow a lot of news from other sources. The relationship between consumption of news from certain media, other media and trust in politicians is not linear but rather follows a variation of convex pattern. As a common trait the highest marginal effect on trust in politicians is often correlated with media news consumption among people who follow a lot of political news from various media sources. We could say that the increased knowledge on the topic may lead to higher trust in politicians; although this high marginal effect is observed to take highest value for television media in rather clean of corruption countries, while for radio in highly corrupt countries.

Figure 14. Marginal effect of radio on trust in politicians by corruption and consumption of news from sources other than media in less than HS subsample

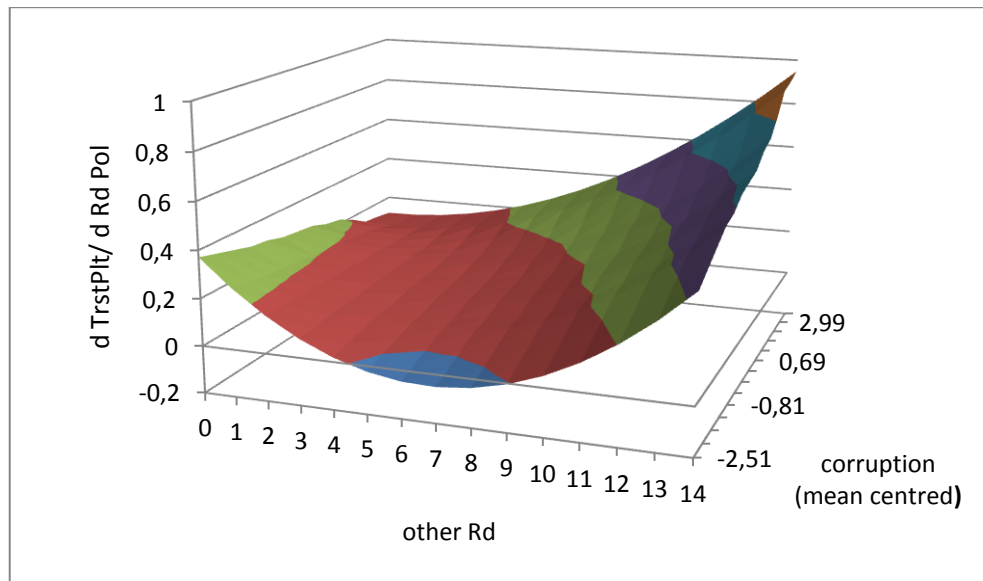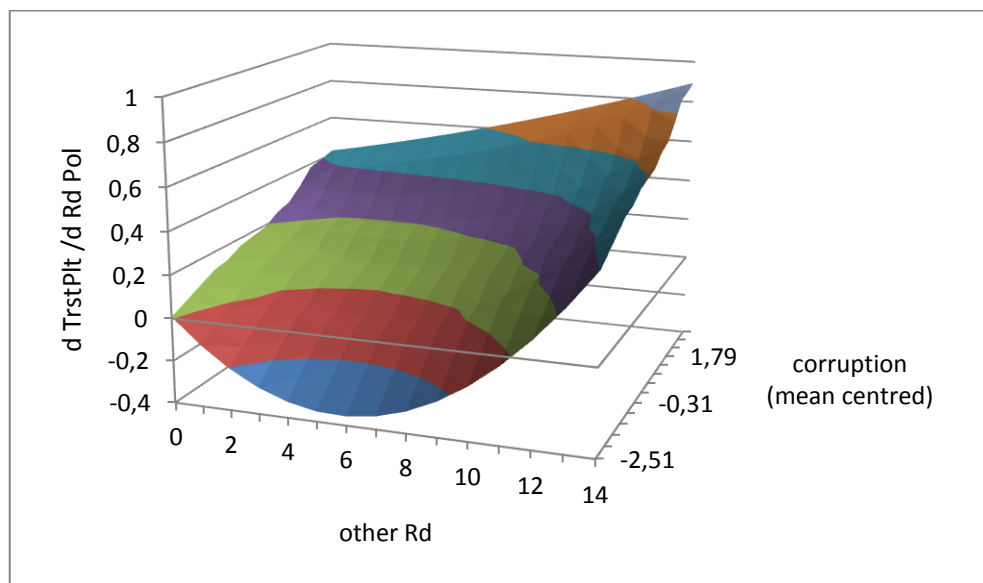**Figure 15. Marginal effect of radio on trust in politicians by corruption and consumption of news from sources other than media in more than HS subsample**

6. Limitations

While this paper contributes to the existing literature on relationship between media consumption, political trust and corruption, the current study has several limitations. First, this research does not find direct causal relationship between media news consumption and political trust, but merely a positive correlation. There is some question of causality here: whether people tend to trust politicians more when they follow a lot of political news from various media or whether people who do not trust in politicians tend to avoid and choose not to follow political news. To further improve the research finding appropriate instrumental variables would be ideal.

Secondly, in this research I focused on corruption as moderator of effect of media consumption on trust in politicians, however all interactions are symmetric (Brambor, Clark, and Golder 2006; Kam and Franzese 2007). Thus one could also interpret the media consumption as "conditioning variable" that affects relationship between perceived corruption and trust in politicians. Berry, Golder and Milton (2012) suggest that theories posting interaction should look closely at marginal effect plots with different "conditioning variables". In other words looking additionally how the marginal effect of corruption o trust in politicians varies with news consumption from media may provide interesting information on the relationship between variables.

Thirdly, while the results obtained for the year 2002 were consistent with results obtained for the years 2004-2012, testing the two-way interaction model on a different set of data that would allow for time series analysis might improve the study.

7. Discussion and Conclusions

Due to the importance of political trust for an effectively running democratic country this research focused on the ways modern news media consumption may influence people's trust in politicians. Applying OLS regression models and the ESS data from 2002-2012 I test three main predictions.

Firstly, media consumption is expected to have significant impact on people's trust in politicians. Consumption of political news from television is predicted to be negatively correlated with trust in politicians in countries with low levels of corruption and positively correlated in highly corrupt countries. The effect of following political news on newspaper and radio on trust in politicians is expected to be positive and increase with the level of corruption in the country. Indeed, I find evidence that political news consumption from any media is significantly positively correlated with trust in politicians in a country with average corruption level. In countries with low corruption level marginal effect of exposure to television news on trust in politicians is negative, albeit insignificant at 0,05 level; while in countries with high corruption this effect is positive and significant. It seems the corrupt governments may be able to influence the content or framing of political news on television to induce higher levels of political trust. On the other hand, marginal effect of newspaper is positive and is either constant or decreases with corruption level of the country. Radio news consumption is associated with small positive rise in trust in politicians and this effect increases with corruption level. Overall these results are consistent across all years. Additionally, similar to research results of Aarts and Semetko(2003) as well as Moy and Pfau (2000), I observe that the marginal effect of political news consumption from reading newspaper is the largest, followed by television, while radio news consumption has little or no influence on trust in politicians.

Secondly, the marginal effects of television, radio and newspaper on political news consumption are expected to decrease as the time spent on following news from other sources increases. The relationship between certain media exposure, other media exposure, perceived corruption level and trust in politicians is however often does not follow a simple linear pattern. The marginal effect of television news exposure on trust in politicians increases with consumption of news from other sources for more than HS subsample for all levels of corruption, but in less than HS subsample it increases only for countries with low levels of corruption. In highly corrupt countries marginal effect of television news consumption decreases with exposure to political news from sources other than TV. As a common

factor, for both subsamples, television has the highest marginal effect on political trust for people from countries with low corruption who follow a lot of political news from both radio and newspaper.

The marginal effect of newspaper and radio on trust in politicians follows a convex pattern. The marginal effect of newspaper and radio seems to decrease with initial increase of news consumption from other sources, but after certain point this effect increases again. The marginal effect of radio on political trust is highest for people from highly corrupt countries with highest amount of information from other media for both less than HS and more than HS subsamples. Overall, it is clear that the relationship between consumption of political news from any media and trust in politicians changes in magnitude significantly with increase in the consumption of the news from other sources. In general, it seems that the consumption of great amount of political news from various sources is often correlated with higher trust in politicians.

Thirdly, people with higher education are expected to have lower levels of trust in politicians due to increased level of cynicism from higher knowledge and understanding of political process. I test the education impact on trust in politicians in full sample and sample split on education level. The regression analysis shows that education, contrary to expectations, is positively correlated with trust in politicians. This correlation is not significant only for the subsample of people with less than HS education. It may be that additional year of education is more influential for people with college degree due to their increased expertise, increase in interest towards politics or wider range of interest in general.

To summarize, I observe that older people tend to trust less in politicians, while more educated people have higher levels of political trust. Similarly to the research by Zmerli and Newton (2008), I notice that social trust is positively correlated with trust in politicians. For my research, however, the most important finding is that while these control variables decreased the impact of media news consumption, they do not cancel the media effects out. After controlling for the age, education and social trust of respondents, media are still found to have a significant impact on trust in politicians.

8. Appendix

Question Wording

Political trust (trstplt): "Using this card, please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust. Firstly... Trust in politicians".

Political news on television (tvpol): "And again on an average weekday, how much of your time watching television is spent watching news or programmes about politics and current affairs?" Response categories are "no time at all" (0), "less than 0.5 hour"(1), "0.5 hour to 1 hour"(2), "more than 1 hour, up to 1,5 hours"(3), "more than 1,5 hours, up to 2 hours"(4), "more than 2 hours, up to 2,5 hours"(5), "more than 2,5 hours, up to 3 hours"(6), "more than 3 hours"(7).

Political news in newspaper (nwsppol): First the interviewer asks about general newspaper reading habits: "On an average weekday, how much time, in total, do you spend reading the newspapers?" And then specifies for newspaper reading including political information: "And how much of this time is spent reading about politics and current affairs?" Response categories are "no time at all" (0), "less than 0.5 hour"(1), "0.5 hour to 1 hour"(2), "more than 1 hour, up to 1,5 hours"(3), "more than 1,5 hours, up to 2 hours"(4), "more than 2 hours, up to 2,5 hours"(5), "more than 2,5 hours, up to 3 hours"(6), "more than 3 hours"(7). In the analysis only the reply to the second question is included.

Political news on radio (rdpol): First the interviewer asks: "On an average weekday, how much time, in total, do you spend listening to the radio?"Subsequently he asks about the specific content exposure: "And again on an average weekday, how much of your time listening to the radio is spent listening to news or programmes about politics and current affairs?" I only use the reply to the later question. Response categories are "no time at all" (0), "less than 0.5 hour"(1), "0.5 hour to 1 hour"(2), "more than 1 hour, up to 1,5 hours"(3), "more than 1,5 hours, up to 2 hours"(4), "more than 2 hours, up to 2,5 hours"(5), "more than 2,5 hours, up to 3 hours"(6), "more than 3 hours"(7).

Age: "And in what year were you born?"

Years of full-time education completed (eduyrs): "How many years of full-time education have you completed?" Open ended question.

Social trust (ppltrst): "Using this card, generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please tell me on a score of 0 to 10, where 0 means you can't be too careful and10 means that most people can be trusted".

Table 1. Descriptive statistics.

Variable	Min	Max	Mean	Std. Dev.
Trust in politicians	0	10	4,13	2,23
Corruption	0,5	6,3	2,70	1,68
Newspaper political news	0	7	1,26	0,93
Television political news	0	7	2,13	1,27
Radio political news	0	7	1,72	1,54
Age	14	110	46,10	17,42
Female	0	1	0,49	0,50
Education in years	0	40	12,47	3,67
Social trust	0	10	5,28	2,38

Table 2. Descriptive statistics of sample split on education level

Variable	Min	Max	Mean	Std.Dev.
Less HS				
Trust in politicians	0	10	4,03	2,3
Corruption	0,5	6,3	2,65	1,68
Newspaper political news	0	7	1,17	0,94
Television political news	0	7	2,2	1,37
Radio political news	0	7	1,73	1,56
Other TV	0	14	2,9	2,04
Other Nwsp	0	14	3,93	2,37
Other RD	0	14	3,38	1,91
Age	14	102	51,29	18,85
Female	0	1	0,5	0,5
Education in years	0	11	9,04	1,87
Social trust	0	10	4,99	2,48
More HS				
Trust in politicians	0	10	4,19	2,17
Corruption	0,5	6,3	2,73	1,68
Newspaper political news	0	7	1,32	0,92
Television political news	0	7	2,08	1,19
Radio political news	0	7	1,71	1,52
Other TV	0	14	3,04	1,97
Other Nwsp	0	14	3,79	2,17
Other RD	0	14	3,40	1,73
Age	15	110	42,68	15,5
Female	0	1	0,48	0,49
Education in years	12	40	14,7	2,69
Social trust	0	10	5,47	2,3

9. References

Aarts, K., & Semetko, H. A. (2003). The divided electorate: Media use and political involvement. *Journal of Politics*, *65*(3), 759-784.

Anderson, C. J., & Tverdova, Y. V. (2003). Corruption, political allegiances, and attitudes toward government in contemporary democracies. *American Journal of Political Science*, *47*(1), 91-109.

Avery, J. M. (2009). Videomalaise or virtuous circle? The influence of the news media on political trust. *The International Journal of Press/Politics*, *14*(4), 410-433.

Bardhan, P. (1997). Corruption and development: a review of issues. *Journal of economic literature*, *35*(3), 1320-1346.

Berry, W. D., Golder, M., & Milton, D. (2012). Improving tests of theories positing interaction. *The Journal of Politics*, *74*(03), 653-671.

Brambor, T., Clark, W. R., & Golder, M. (2006). Understanding interaction models: Improving empirical analyses. *Political analysis*, *14*(1), 63-82.

Castells, M. (2007). Communication, power and counter-power in the network society. *International journal of communication*, *1*(1), 238-266.

Catterberg, G., & Moreno, A. (2006). The individual bases of political trust: Trends in new and established democracies. *International Journal of Public Opinion Research*, *18*(1), 31-48.

Chang, E. C., & Chu, Y. H. (2006). Corruption and trust: exceptionalism in Asian democracies? *Journal of Politics*, *68*(2), 259-271.

Chen, X., & Shi, T. (2001). Media effects on political confidence and trust in the People's Republic of China in the post-Tiananmen period. *East Asia*, *19*(3), 84-118.

Chomsky, N., & Herman, E. (1988). Manufacturing Consent .New York. *Pantheon*.

Clarke, P., & Fredin, E. (1978). Newspapers, television and political reasoning. *Public Opinion Quarterly*, *42*(2), 143-160.

Cohen, B. (1994). The View from the Academy, pp 8-11 in W.L. Bennett and D.L. Paletz (eds) *Taken by Storm: The Media, Public Opinion and US Foreign Policy in the Gulf War.* Chicago, IL: University of Chicago Press.

Converse, R. (1972). Change in the American electorate. In *The Human Meaning of Social Change*, ed. A. Campbell, P. Converse. NY: Russell Sage Foundation, 263-337.

Djankov, S., McLiesh, C., Nenova, T., & Shleifer, A. (2003). Who Owns the Media?*. *The Journal of Law and Economics, 46,* 2, 341-382.

ESS Round 1: European Social Survey Round 1 Data (2002). Data file edition 6.3. Norwegian Social Science Data Services, Norway – Data Archive and distributor of ESS data.

ESS Round 2: European Social Survey Round 2 Data (2004). Data file edition 3.3. Norwegian Social Science Data Services, Norway – Data Archive and distributor of ESS data.

ESS Round 3: European Social Survey Round 3 Data (2006). Data file edition 3.4. Norwegian Social Science Data Services, Norway – Data Archive and distributor of ESS data.

ESS Round 4: European Social Survey Round 4 Data (2008). Data file edition 4.1. Norwegian Social Science Data Services, Norway – Data Archive and distributor of ESS data.

ESS Round 5: European Social Survey Round 5 Data (2010). Data file edition 3.0. Norwegian Social Science Data Services, Norway – Data Archive and distributor of ESS data.

ESS Round 6: European Social Survey Round 6 Data (2012). Data file edition 1.2. Norwegian Social Science Data Services, Norway – Data Archive and distributor of ESS data.

Feldman, O. (1995). Political attitudes and the news media in Japan: Effects of exposure and attention to the news media on political involvement and disapprobation. *Howard Journal of Communications*, *6*(3), 206-225.

Franzese, R., & Kam, C. (2009). *Modeling and interpreting interactive hypotheses in regression analysis*. University of Michigan Press.

Galtung, J., & Ruge, M. H. (1965). The structure of foreign news: The presentation of the Congo, Cuba and Cyprus crises in four Norwegian newspapers. *Journal of Peace Research, 2*, 65–91.

Gibson, J. L. (2001). Social networks, civil society, and the prospects for consolidating Russia's democratic transition. *American Journal of Political Science*, 51-68.

Graber, D. A. (2001). *Processing politics: Learning from television in the Internet age*. University of Chicago Press.

Guo, Z., & Moy, P. (1998). Medium or message? Predicting dimensions of political sophistication. *International Journal of Public Opinion Research*, *10*(1), 25-50.

Hammond, P., & Herman, E. S. (Eds.). (2000). *Degraded capability: The media and the Kosovo crisis*. PlutoPr.

Hawkins, R. P., & Pingree, S. (1981). Uniform messages and habitual viewing: Unnecessary assumptions in social reality effects. *Human Communication Research*, *7*(4), 291-301.

Hetherington, M. J. (1998). The political relevance of political trust. *American Political Science Review*, 791-808.

Jones, D. A. (2004). Why Americans Don't Trust the Media A Preliminary Analysis. *The Harvard International Journal of Press/Politics*, *9*(2), 60-75.

Guilford, J. P. (1954). Psychometric Methods. MacGraw-Hill, New York.

Kam, C., & Franzese, R. (2009). *Modeling and interpreting interactive hypotheses in regression analysis*. University of Michigan Press.

Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research*. Fort Worth: Harcourt College Publishers.

King, G., Keohane, R. O., & Verba, S. (1994). *Designing social inquiry: Scientific inference in qualitative research*. Princeton University Press.

Koch, A., Blom, A. G., Stoop, I., & Kappelhof, J. (2009). Data collection quality assurance in cross-national surveys: The example of the ESS. *Methoden Daten Analysen. Zeitschrift für Empirische Sozialforschung*, *3*(2), 219-247.

Kohler, U. (2007). Surveys from inside: An assessment of unit nonresponse bias with internal criteria. *Survey Research Methods*, *1*(2), 55-67.

Lambsdorff, J. G. (2002). Background Paper to the 2002 Corruption Perceptions Index–Framework Document 2002. *Transparency International and University of Göttingen.(http://www. transparency. org)*.

Levi, M., & Stoker, L. (2000). Political trust and trustworthiness. *Annual Review of Political Science*, *3*(1), 475-507.

Mazzoleni, G., & Schulz, W. (1999). " Mediatization" of politics: A challenge for democracy?. *Political Communication*, *16*(3), 247-261.

McCombs, M. (2013). *Setting the agenda: The mass media and public opinion*. Polity.

McLeod, J. M., & McDonald, D. G. (1985). Beyond simple exposure media orientations and their impact on political processes. *Communication Research*, *12*(1), 3-33.

Miller, A. H. (1974). Political issues and trust in government: 1964–1970. *American Political Science Review*, *68*(03), 951-972.

Miller, A., Lipset, S. M., & Schneider, W. (1984). Review of the confidence gap: business, labor, and government in the public mind. *Public Opinion Quarterly*, *48*, 838-840.

Miller, A. H., & Listhaug, O. (1990). Political parties and confidence in government: A comparison of Norway, Sweden and the United States. *British Journal of Political Science*, *20*(3), 357-386.

Mishler, W., & Rose, R. (2001). What are the origins of political trust? Testing institutional and cultural theories in post-communist societies. *Comparative political studies*, *34*(1), 30-62.

Moy, P., & Pfau, M. (2000). *With malice toward all?: The media and public confidence in democratic institutions*. Greenwood Publishing Group.

Moy, P., & Scheufele, D. A. (2000). Media effects on political and social trust. *Journalism & Mass Communication Quarterly*, *77*(4), 744-759.

Neuman, W. R., Just, M., & Crigler, A. (1992). Common knowledge: News and the construction of social meaning. Chicago: University of Chicago Press.

Newton, K. (1999). Mass media effects: mobilization or media malaise? *British Journal of Political Science*, *29*(04), 577-599.

Nie, N. H., Verba, S., & Petrocik, J. R. (1979). *The changing American voter* (Vol. 116). Cambridge: Harvard University Press.

Norris, P. (2000). *A virtuous circle: Political communications in postindustrial societies*. Cambridge, UK: Cambridge University Press.

Nur-Tegin, K., & Czap, H. J. (2012). Corruption: Democracy, autocracy, and political stability. *Economic Analysis and Policy*, *42*(1), 51.

Ostrom, E., Cox, J. Walker, J. Castillo, A.J., Coleman, E., Holahan, R., Schoon,M., Steed, B. (2009),Trust in Private and Common Property Experiments, Southern Economic Journal 75: 957–975.

Robinson, M. J. (1976). Public Affairs Television and the Growth of Political Malaise: The Case of "The Selling of the Pentagon". *The American Political Science Review*, *70*(2), 409-432.

Robinson, P. (2001). Theorizing the Influence of Media on World Politics Models of Media Influence on Foreign Policy. *European Journal of Communication*, *16*(4), 523-544.

Rosenstone, S., & Hansen, J. M. (1993). Mobilization, participation and democracy in America.

Rothstein, B. (2000). Trust, social dilemmas and collective memories. *Journal of Theoretical Politics*, *12*(4), 477-501.

Rothstein, B., & Eek, D. (2009). Political corruption and social trust an experimental approach. *Rationality and Society*, *21*(1), 81-112.

Sapienza, P., Toldra, A., Zingales, L., (2007),Understanding trust, NBER Working Paper No. 13387.

Seligson, M. A. (2002). The impact of corruption on regime legitimacy: A comparative study of four Latin American countries. *Journal of Politics*, *64*(2), 408-433.

Stokes, D. E. (1962). Popular evaluations of government: an empirical assessment. *Ethics and Bigness: Scientific, Academic, Religious, Political, and Military*, 61-72.

Treisman, D. (2000). The causes of corruption: a cross-national study. *Journal of public economics*, *76*(3), 399-457.

Tyler, T. R. (1990). *Why People Obey The Law*. New Haven, CT: Yale University Press.

Uslaner, E. M. (2004). Trust and corruption. *The new institutional economics of corruption*, *64*, 76.

Wilhelm, P. G. (2002). International validation of the corruption perceptions index: Implications for business ethics and entrepreneurship education. *Journal of Business Ethics*, *35*(3), 177-189.

Zmerli, S., & Newton, K. (2008). Social trust and attitudes toward democracy. *Public opinion quarterly*, *72*(4), 706-724.