

---

**WORKING PAPER  
N. 96  
NOVEMBER 2018**

**Never Forget the First Time: The Persistent  
Effects of Corruption and the Rise of Populism  
in Italy**

By Arnstein Aassve, Gianmarco Daniele and Marco  
Le Moglie

This Paper can be downloaded without charge from The Social Science  
Research Network Electronic Paper Collection:  
<http://ssrn.com/abstract=3293794>

# Never Forget the First Time: The Persistent Effects of Corruption and the Rise of Populism in Italy<sup>☆</sup>

Arnstein Aassve<sup>a</sup>, Gianmarco Daniele<sup>b,\*</sup>, Marco Le Moglie<sup>a</sup>

<sup>a</sup>*Bocconi University (DONDENA Center for Research on Social Dynamics and Public Policy)*

<sup>b</sup>*Bocconi University (Baffi Carefin)*

---

## Abstract

The paper studies the long term impact of corruption on trust towards institutions. Previous studies have demonstrated that exposure to corruption may lower institutional trust in the short run. Whether those short term effects translate into a persistent effect is not known. We study the onset of a corruption shock that took place in Italy between 1992 and 1994. Using recent data from the Trustlab project, coordinated by the OECD, we find that young first time voters exposed to the corruption scandal still today, 25 years later, exert significantly lower institutional trust. A follow up survey reveals that their exposure to corruption also affected their current voting behavior and political preferences. In particular, those young first time voters exposed to the corruption were more likely to vote for populist parties at the 2018 national elections and to have less favourable attitudes towards immigrants and refugees.

**JEL Classification:** P16, D72, D73

**Keywords:** Corruption, Institutional trust, Populism, First-time voter, Italy

---

---

<sup>☆</sup>We are grateful to Jeanet Bentzen, Michela Carlana, Francesco De Carolis, Livio Di Lonardo, Gemma Dipoppa, Thiemo Fetzer, Vincenzo Galasso, Sergio Galletta, Nicola Gennaioli, Benny Geys, Rossella Greco, Miriam Golden, Daniel Hidalgo, Roland Hodler, Federico Masera, Massimo Morelli, Hannes Mueller, Tommaso Nannicini, Paolo Pinotti, Pablo Querubin, Shanker Satyanath, Albert Solé-Ollé, Giuseppe Sorrenti, Piero Stanig, Guido Tabellini, Hans-Joachim Voth, Yuhua Wang, Stephan Wolton and David Yang for valuable comments and suggestions. We have also benefited from comments by participants at the DONDENA Research Seminars, the Lisbon Meeting on Economics and Political Science.

\*Corresponding author.

Email addresses: [arnstein.aassve@unibocconi.it](mailto:arnstein.aassve@unibocconi.it) (Arnstein Aassve), [gianmarco.daniele@unibocconi.it](mailto:gianmarco.daniele@unibocconi.it) (Gianmarco Daniele), [marco.lemoglie@unibocconi.it](mailto:marco.lemoglie@unibocconi.it) (Marco Le Moglie)

*“There’s a reason for the lack of trust in government and business: corruption”*

Christine Lagarde

Managing Director at IMF

*The Guardian*, March 4th, 2018

## 1. Introduction

Populist political parties appear to enjoy ever greater support throughout the Western World - a trend manifested by anti-establishment attitudes, and in many cases, a drift towards authoritarian rule (Mudde, 2007).<sup>1</sup> At the same time, a host of indicators suggest that trust to the "establishment" and its institutions, are in decline, and for many nations, the decline has been profound and long lasting. Some argue that Liberal Democracy is facing a severe crisis, and that the old Western order potentially stands to fall. Unsurprisingly, academics and experts alike, now ask why we are seeing such a broad attitudinal shift. Many possible explanations are put on the table. Globalization is one. International trade disrupted traditional industries in the Western World (Colantone and Stanig, 2017; Rodrik, 2018), a trend that many associate with greater social inequality (Dotti Sani and Magistro, 2016). Under this landscape, many populists leveraged on the steady increase of migration flows (Brunner and Kuhn, 2018; Halla et al., 2017; Barone et al., 2016; Hainmueller and Hischox, 2010), in part generated by the refugee crisis triggered by the conflict in Syria (Dustmann et al., 2018; Vertier and Viskanic, 2018). Others have argued that there is a backlash against cosmopolitan values, typically associated with the establishment and an elite class (Inglehart and Norris, 2016). However, this backlash cannot be considered in isolation of recent economic events. Following the financial crisis in 2007, and the ensuing economic recession in Europe, combined with austerity in the countries hit hardest by the crisis, unemployment rose to unprecedented levels (Algan et al., 2017). Moreover, the economic recession and its austerity measures were accompanied by labour market reforms, implying weaker protection for many European workers and an increasing degree of economic insecurity (Guiso et al., 2017). Consequently, the onset of austerity would quite naturally be interpreted as institutional failure (Guiso et al., 2018), and therefore bring about a worsening

---

<sup>1</sup>For instance by looking at the Authoritarian Populism Index produced by the think tank Timbro for 2017, available at Timbro Authoritarian Populism Index 2017.

of the public's perception of politicians' abilities, both in terms managing public finances (Daniele et al., 2018) and their loyalty (Di Tella and Rotemberg, 2018). In a similar vein, Armingeon and Guthmann (2014) argue that the economic crisis made voters realize that their own institutions were no longer effectively protecting them, which must have lead to a decline in trust (Armingeon and Ceka, 2014).

These arguments bear resemblance to an older claim, namely that perceived corruption (which is perhaps the most common indicator of government performance), brings down institutional trust (e.g. see Figures A.1 and A.2 for the trends in Appendix A.1). In the current scenario, this reasoning implies that perceived corruption might be a determinant of the increasing resentment against the establishment and representative democracy. This would not be so unexpected, since there are several excellent examples of political leaders (e.g. Trump in the US), political arenas (e.g. the recent political crisis in Brazil) and political parties (e.g. Podemos in Spain and the Five Star Movement in Italy), in which the anti-establishment view draws a picture of a "corrupt political elite" that ought to be stopped. However, measurement errors and endogeneity make it difficult to establish causal estimates of corruption on populist voting, and might explain why scholars have paid limited attention to the role of corruption in explaining the ongoing wave of populism.<sup>2</sup> In this paper, we exploit the differential effects of a big corruption scandal across different cohorts and type of voters to assess the persistent effects of corruption on support for democratic institutions and moderate parties.

An extensive literature argues that corruption is detrimental for the legitimacy of representative democracy, through its negative effect on attitudes towards institutions (Ares and Hernández, 2017; Solé-Ollé and Sorribas-Navarro, 2017; Morris and Klesner,

---

<sup>2</sup>The 2018 Brazilian election is a telling example of how difficult it is to assess the electoral effects of corruption. On the one hand, Bolsonaro, the winning populist and extreme right candidate, ran an anti-corruption platform against the previous government, which was widely perceived as being corrupt (<https://www.reuters.com/article/us-brazil-election/far-right-bolsonaro-rides-anti-corruption-rage-to-brazil-presidency-idUSKCN1N203K>); and this is in line with survey evidence showing that corruption is often the most salient issue among the Brazilians public (Datafolha, 2015). On the other hand, a recent study by Claudio Ferraz ([https://www.nexojornal.com.br/columnistas/2018/0-que-causou-o-furac%C3%A3o-da-extrema-direita-nas-eleic%C3%B5es?utm\\_source=socialbttns&utm\\_medium=article\\_share&utm\\_campaign=self](https://www.nexojornal.com.br/columnistas/2018/0-que-causou-o-furac%C3%A3o-da-extrema-direita-nas-eleic%C3%B5es?utm_source=socialbttns&utm_medium=article_share&utm_campaign=self)) does not find any effect of corruption on voting for Jair Bolsonaro. Even in a context, in which corruption appears a crucial electoral topic, measurement errors restrict ones capacity to estimate to what extent this is really the case.

2010; Bowler and Karp, 2004; Anderson and Tverdova, 2003; Della Porta and Vannucci, 1997), electoral outcomes (De Vries and Solaz, 2017; Cobb and Taylor, 2015; Chong et al., 2015; Nannicini et al., 2013; Stockemer et al., 2013; Costas-Pérez et al., 2012; Hirano and Snyder Jr, 2012; Ferraz and Finan, 2008) and quality of politicians (Cavalcanti et al., 2018; Bernheim and Kartik, 2014). However, these studies only demonstrate short run effects, or, less frequently, medium term effects. Whether corruption has long term effects is largely unknown. In so far corruption affects attitudes and beliefs in the short run, those effects may either fade as individuals adapt to new regimes of corruption, or they may persist.

Whereas there are no empirical studies showing that corruption can have a long term impact on trust and political behaviors, there are good theoretical arguments for why this may indeed happen. Tirole (1996) shows how collective reputation may generate historical path dependence in the incentives affecting the members of a group, leading new members to possibly suffer from bad behaviors of their older peers long after these lasts are gone. A further key element concerns the age of the individuals exposed to corruption, as the malleability of beliefs and attitudes changes over the life course, a feature also known as the “sensitive age hypothesis”. This is a well established argument in psychology, in which youngsters tend to be more impressionable than elders (Lau and Redlawsk, 2008; Borghans et al., 2008; Sears and Funk, 1999; Sears and Valentino, 1997; Krosnick and Alwin, 1989). In particular, first time voters are possibly the most impressionable among younger individuals, as eligibility to vote entails an unprecedented exposure to politics and political news (Zeglovits and Aichholzer, 2014; Bhatti and Hansen, 2014; Dinas, 2012; Wagner et al., 2012; Franklin and Hobolt, 2011). Moreover, patterns of beliefs may also be distinctive across generations due to cohort-specific differences in economic, social and institutional environment (Roth and Wohlfart, 2018; Alison et al., 2018; Giuliano and Spilimbergo, 2014; Dinas, 2013; Madestam and Yanagizawa-Drott, 2012; Schuman and Corning, 2012; Erikson and Stoker, 2011; Osborne et al., 2011; Firebaugh and Chen, 1995; Russell et al., 1992). In fact, Bartels and Jackman (2013) provided a theoretical framework in which the political attitudes and beliefs of specific birth cohorts may vary, and change differently across time, due to the interaction of age-specific weights with period-specific shocks.

By permanently affecting individuals’ attitudes, the effect of youth exposure to corruption might eventually extend to individuals’ current voting behavior. In so far mainstream moderate parties hold the political power, lower institutional trust will necessarily

be harmful to them, whereas those advocating skepticism towards representative democracies might benefit, thereby reaping a larger share of the votes (Algan et al., 2017). By focusing on voting, we aim at establishing a long term effect, in which youth exposure to corruption might permanently drive voters' disaffection toward democratic institutions and moderate parties.

We consider a natural experiment manifested through an unprecedented corruption scandal in Italy that took place in the years 1992 to 1994. The so called "Clean Hands" scandal completely disrupted the Italian political system, leading to the dissolution of the main incumbent parties, and gave rise to corruption charges for about 23% of national parliamentarians. Importantly, it sparked an unprecedented electoral campaign in 1994, which focused heavily on the corruption of the political elite. Using a recent survey launched in 2017 (Trustlab, OECD), which includes a broad set of trust measures, we focus in on the cohort of first time voters when this corruption scandal broke. By comparing this particular cohort with the other cohorts, we find robust evidence that being made aware of corruption has a long-term impact on individuals' trust in government, parliament and bureaucracy. The effect is also substantial, as they have between 22 to 35 percent standard deviation lower trust in such institutions.

These findings are robust to a wide range of specifications and alternative explanations. We also find suggestive evidence about heterogeneity in the effects related to media exposure and education, as the effects are strengthened for those who lived in areas more exposed to the scandal and for less educated individuals. Moreover, consistent with the established long term effect of the corruption scandal, we find that the same cohort had lower institutional trust both in the short and medium run, a feature we are able to uncover by exploiting alternative surveys undertaken in 1996 and 2001 respectively.

Our original survey does not include data on voting behavior. However, immediately after the Italian 2018 national election, we collected a follow-up survey on the Trustlab sample for Italy, which reached a considerably high take up rate (above 70% of the original sample). We find that first time voters at the time of the "Clean Hands" scandal are more likely to vote for populist parties, especially those at the right side of the political spectrum. This effect has to be interpreted in the light of the Italian political arena, in which populist-right wing parties have successfully gathered the consensus lost by mainstream-moderate parties. The probability of voting for a populist party at the 2018 elections is 9% higher for first time voters at the time of the scandal. Therefore, youth

exposure to corruption seems to affect also current political preferences, as measured by current voting choice. Interestingly, this change in current political preferences extends to other dimensions of the right-populist parties' manifesto. In fact, we find that first time voters at the time of the scandal have less favorable attitudes towards immigrants and refugees. This suggests that scandal not only shifted away support for moderate parties, but also for policies generally supported by the current mainstream agenda.

In the next section we describe the natural experiment, the data and the methodology. In Section 3 we report our main findings on institutional trust, a complete set of robustness tests and we shed light on the role played by media exposure and education. In Section 4 we analyze the effect of corruption in the short and medium term, whereas in Section 5 we focus on the effect on voting behaviors in 2018 and other political preferences. Finally, Section 6 concludes.

## 2. A Natural Experiment: "Clean Hands"

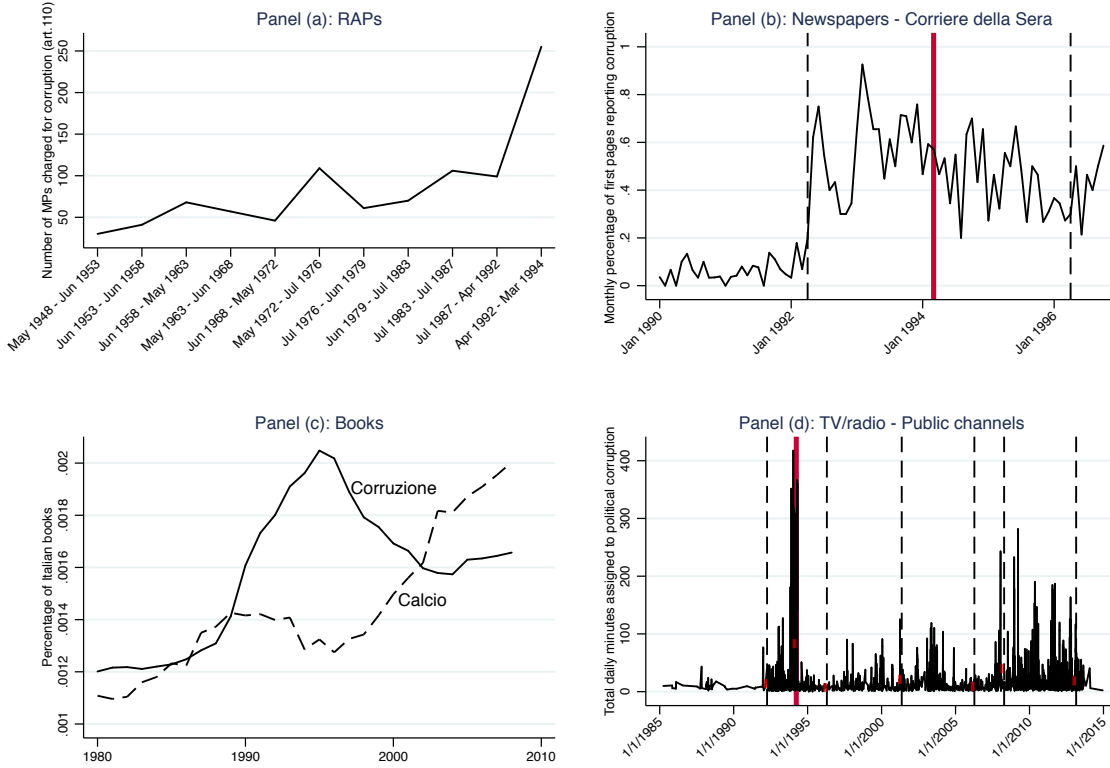
### 2.1. *The Natural Experiment*

At the beginning of the 90s' the "Clean Hands" investigation revealed the biggest corruption scandal in Italian modern history, consisting in a vast and established corruption scheme, in which public procurement were systematically assigned in exchange for illegal contributions to political parties (Newell, 2000). About 23% of the Italian parliamentarians were charged with corruption or other related crimes and national politicians were charged in 19 out of 20 regions (Figure 1, panel (a) shows the increase in charges compared to previous electoral terms). The two incumbent parties, the Christian Democrats (DC) and the Italian Socialist Party (PSI) were particularly exposed and hard hit (i.e. around 75% of the MPs were involved in the corruption scheme, see Figure A.3). The scandal lead in fact to the dissolution of both parties. The Christian Democrat party had ruled Italy since 1948, and historians refer to this event as the end of the Italian First Republic (Gundle and Parker, 1996). It was also a scandal that was extensively covered by all the main media outlets at the national and at the local level, as shown in Figure 1. Figure 1, panel (b) shows the number of front pages of the most read Italian newspaper (*Corriere della Sera*) devoted to corruption from 1990 to 1997. During the peak of the scandal in 1993, almost 90% of all front pages covered the "Clean Hands" scandal. To put it into perspective, Panel (c) compares the share of Italian books mentioning corruption (*Corruzione*) and football (*Calcio*), by far the most popular sport in Italy. Here the

popularity of corruption as a topic, clearly outweighs that of football during the height of the corruption scandal. Finally, panel (d) includes the daily number of minutes devoted to political corruption on Italian Public TV and radio channels (i.e. RAI) from 1985 to 2015. Importantly, RAI was the main TV broadcaster in this period. The figure shows a striking pattern: political corruption was completely missing on Italian TV up until the "Clean Hands" scandal. For the first time, corruption became, not only an important topic, but the most salient topic in the media. Over the following years, and even up until the current time, political corruption has remained a salient topic, although it has never again reached the same popularity as during the "Clean Hands" period. In our setting, this scandal represents an ideal natural experiment, since the probability to be a first-time voter just at the time of the scandal, which corresponds to our treatment, can fairly be considered as drawn by nature as depending exclusively on the year of birth and the age requirement to be eligible to vote.



Figure 1: Media Coverage of Corruption in Italy



**Note:** Panel (a) shows the number of *Requests for the Authorization to Proceed (RAPs)* regarding cases of corruption submitted to the vote of Parliament by the judicial authority in each of the first eleven legislative terms of the Italian Parliament. Panel (b) shows the monthly percentage of articles about corruption appearing in the first page of *Corriere della Sera* during the period 1990-1996. The red vertical line signals the date of the national election following the discovery of the scandal, while the other two vertical black-dashed lines indicate the times of the other electoral dates within the period 1992-1996. Using information drawn from digitized books by *Google*, panel (c) shows the yearly percentage of Italian books mentioning “Corruzione” (i.e. Corruption, the continuous line) and “Calcio” (i.e. soccer, the dashed line) for the period 1985-2008. Panel (d) shows the total daily minutes assigned to political corruption within the broadcasts of Italian public television and radio channels (i.e. RAI) during the period 1985-2014. The red vertical line represents the date of the national election following the onset of the scandal, while the vertical black-dashed lines all the other electoral dates within the period 1992-2014. The short red horizontal lines provide the average number of minutes assigned to political corruption by public TV/radio broadcasts within 90 days before each national electoral date.

## *2.2. Data*

Our empirical analysis relies on the Trustlab dataset. TrustLab is a coordinated effort by OECD to collect nationally representative data of trust and political beliefs in a comparative setting. It relies on a web platform, which includes a battery of survey questions concerning trust and other attitudes (for details see Figure A.4 in Appendix A.2). The first round of data collection was done for France, Korea, US, Germany, Slovenia, UK and Italy. For this analysis, we use the Italian sample of 1442 respondents, which was surveyed during October 2017, and completed in early November. This dataset contains several key advantages for our analysis: i) it was run 25 years after the beginning of "Clean Hands", allowing us to assess if the scandal has long terms consequences; ii) it includes a representative sample of the Italian population for different age groups; iii) it provides a wide set of variables capturing attitudes towards institutions and political beliefs (see the next section) and a comprehensive set of control variables, many of which are not typically available in surveys measuring trust (e.g. personality traits); iv) it allows testing the robustness of our findings since similar surveys are available for other OECD countries that did not experience a corruption scandal. Moreover, a follow-up survey of the Italian sample was undertaken in March 2018, just following the Italian election, which led to the coalition government between the two populist parties, the Five Star Movement, and the Lega. Taking advantage of the electoral timing, the follow-up survey collects self-reported data on voting at such election, which allows us testing the effect of corruption on actual political behaviors. We provide more details on this survey in Section 5.

Finally, since the Trustlab survey was conducted in 2017, and hence enables a test for long term consequences, a crucial test is to see if the cohort of first time voters during the corruption scandal also had lower trust in the short and the medium terms. For this purpose we additionally use data from the Italian National Election Studies in 1996 and 2001. Details of these surveys are provided in the Appendix A.3.

## *2.3. Estimation*

The treatment group for our analysis is the cohort of those individuals who were first time voters during the "Clean Hands" corruption scandal. Importantly for our estimation, two national elections took place in this period, one right at the beginning of "Clean Hands" scandal, when its consequences were still inconceivable (on 5th April 1992), and another at the peak of the scandal on 27th March 1994. We therefore exploit

this window to test whether the scandal affects the political beliefs of first-time voters at the 1994 national election. Our reasoning is based on two ideas which provide us with a possible source of exogeneous variation at individual level both in the sensitivity and the exposure to the scandal. The “sensitive age hypothesis” argues that the capacity of beliefs and attitudes to change differs according to age, highlighting the potential long lasting impact of specific events experienced during childhood or young adulthood (Roth and Wohlfart, 2018; Alison et al., 2018; Giuliano and Spilimbergo, 2014; Dinas, 2013; Madestam and Yanagizawa-Drott, 2012; Schuman and Corning, 2012; Erikson and Stoker, 2011; Osborne et al., 2011; Firebaugh and Chen, 1995; Russell et al., 1992). Yet, among young individuals, the “first time voter hypothesis” points that such cohort receives an informational political shock at the time of their first election, making them more exposed to important political events occurring at that time (Ohme et al., 2017; Zeglovits and Aichholzer, 2014; Bhatti and Hansen, 2014; Wagner et al., 2012). The combination of these two ideas leads to our expectation that the “Clean Hands” scandal permanently affected first-time voters at the 1994 election by depressing their support for liberal institutions (government, parliament and State bureaucracy). Importantly, we are not assuming that the scandal only affected first-time voters, as the effects might have extended to the entire population, but rather that they were the most affected by the scandal and those who were more likely to persistently change their attitudes towards institutions accordingly.

Our main set of outcomes includes three dependent variables. Specifically, we consider individuals self-declared levels of trust in the National Parliament, in the National Government and towards Civil Servants. The scale of these variables runs from 0 (lowest trust) to 10 (highest trust). Appendix A.2 contains further details on the exact wording of each of these variables.

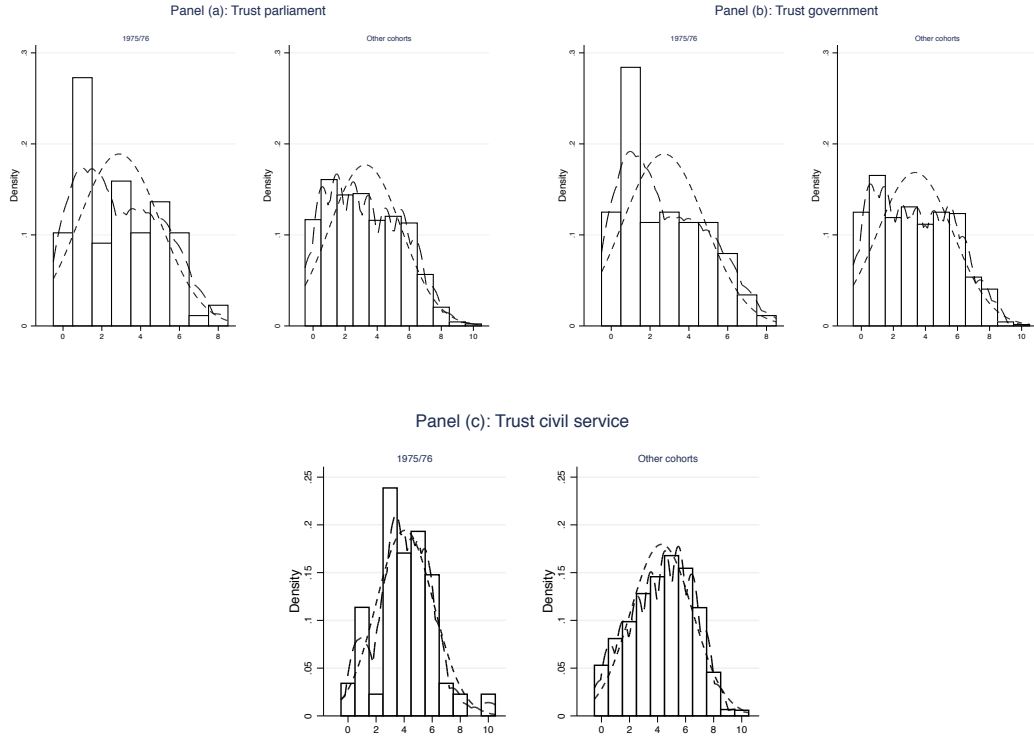
We run a linear regression model to estimate via OLS the following equation:

$$Y_i = \alpha + \beta T_i + \nu \mathbf{X}_i + u_i \quad (1)$$

where  $Y$  is one of the three dependent variables for individual  $i$ ,  $\mathbf{X}$  is a set of control variables which are listed in Table 1.  $T$  is our variable of interest, a binary variable that equals 1 for all individual born in 1975 or 1976, who were 18 or 19 years old in 1994, at the time of the first national election after the discovery of the corruption wave. Figure 2 reports the density distribution of the dependent variables for  $T$  and for the other

cohorts, while Table 1 the summary statistics for the entire sample.

Figure 2: Density Distribution of the Outcome Variables



**Note:** The figure shows the density distribution of trust in parliament (Panel (a)), trust in government (Panel (b)) and trust in civil servants (Panel (c)) within the T cohort (i.e. left side of each panel) and the other cohorts (i.e. right side of each panel).

Table 1: Summary Statistics

|                    | Obs.  | Mean | Std. Dev. | Min | Max | Other coh. | T coh. | Diff. | t-test (P-val.) |
|--------------------|-------|------|-----------|-----|-----|------------|--------|-------|-----------------|
| Trust Parl.        | 1,442 | 3.23 | 2.25      | 0   | 10  | 3.25       | 2.90   | 0.35  | 0.158           |
| Trust Gov.         | 1,441 | 3.32 | 2.36      | 0   | 10  | 3.35       | 2.72   | 0.64  | 0.014           |
| Trust Civ. Serv.   | 1,439 | 4.27 | 2.21      | 0   | 10  | 4.28       | 4.06   | 0.23  | 0.350           |
| Turnout            | 1,056 | 0.85 | 0.36      | 0   | 1   | 0.08       | 0.25   | -0.17 | 0.000           |
| Populist parties   | 853   | 0.65 | 0.48      | 0   | 1   | 0.64       | 0.76   | -0.11 | 0.101           |
| Trust imm.         | 1,431 | 5.11 | 2.81      | 0   | 10  | 4.80       | 4.41   | 0.39  | 0.112           |
| Trust ref.         | 1,398 | 4.78 | 2.23      | 0   | 10  | 4.68       | 4.25   | 0.43  | 0.096           |
| Imm. int.          | 1,391 | 4.65 | 2.32      | 0   | 10  | 5.15       | 4.46   | 0.69  | 0.024           |
| Female             | 1,450 | 0.66 | 0.47      | 0   | 1   | 0.66       | 0.61   | 0.05  | 0.359           |
| Catholic           | 1,450 | 0.75 | 0.43      | 0   | 1   | 0.75       | 0.78   | -0.04 | 0.460           |
| Income (quintiles) | 1,450 | 2.75 | 1.52      | 1   | 5   | 2.73       | 3.08   | -0.35 | 0.037           |
| TV                 | 1,450 | 0.79 | 0.40      | 0   | 1   | 0.80       | 0.78   | 0.01  | 0.804           |
| Education          | 1,450 | 2.26 | 0.58      | 1   | 3   | 2.27       | 2.26   | 0.00  | 0.954           |
| N. children        | 1,450 | 0.83 | 0.99      | 0   | 8   | 0.81       | 1.08   | -0.27 | 0.014           |
| Employed           | 1,450 | 0.55 | 0.50      | 0   | 1   | 0.54       | 0.69   | -0.15 | 0.006           |
| Emp. priv. sec.    | 1,450 | 0.48 | 0.50      | 0   | 1   | 0.47       | 0.58   | -0.11 | 0.051           |
| Married            | 1,450 | 0.54 | 0.50      | 0   | 1   | 0.53       | 0.73   | -0.20 | 0.000           |
| Agreeableness      | 1,449 | 3.90 | 0.68      | 1   | 5   | 3.91       | 3.90   | 0.01  | 0.920           |
| Consciousness      | 1,448 | 3.80 | 0.67      | 1   | 5   | 3.79       | 3.88   | -0.08 | 0.267           |
| Extroversion       | 1,449 | 2.95 | 0.82      | 1   | 5   | 2.95       | 3.03   | -0.08 | 0.395           |
| Openness           | 1,447 | 3.62 | 0.77      | 1   | 5   | 3.63       | 3.52   | 0.11  | 0.185           |
| Neuroticism        | 1,449 | 3.14 | 0.85      | 1   | 5   | 3.14       | 3.03   | 0.11  | 0.240           |

**Note:** The table shows the summary statistics for the general sample employed in the analysis. In particular for each dependent and independent variable it provides the general mean, the standard deviation, the minimum, the maximum, the mean for the T cohort, the mean for the other cohorts, the difference between the two means and the p-value of a t-test on such difference.

As showed in Equation 2 below, the specification presented above can be extended by a vector of binary variables where each is defined by individuals' birth dates over two consecutive years, and therefore assigned to the same cohort. This design allows comparing the cohort of first-time voters in 1994 with each of the other cohorts. For this specification we use as base category the previous cohort, i.e. individuals born in the period 1973-1974 who went voting for the first time in 1992. Since our treatment group is defined by age, we cannot control for this variable in our specifications. Conversely, we can control for generational effects: we introduce a variable *Generation*, which takes the same value for individuals born in the same decade. This is in line with the idea that attitudes tend to change across generations rather than within them. Different definitions of this control variable (or its exclusion) do not affect our findings however.

$$Y_i = \alpha + \beta \text{Birth Cohort}_i + \nu \mathbf{X}_i + u_i \quad (2)$$

A causal interpretation of our findings would rely on a set of assumptions. First, we can quite safely assume the exogeneity of the scandal with respect to first-time voters at the time of the scandal. Second, based on our theory, we expect the shock to have a differential but persistent shift in attitudes towards institutions. Third, we assume that any effect on this cohort would be due to this scandal, which took place 25 years earlier. To corroborate this hypothesis we will show that the effects are traceable over time, immediately after the scandal and in the medium run. We also assess whether other events could have affected this cohort. While we directly control in our specification for generational effects, we will empirically test for the most likely alternative events.

### 3. The Long-Term Effect of Corruption on Institutional Attitudes

#### 3.1. Main Results

Table 2 shows the estimates of Equation 1, which includes the complete set of controls and province fixed effects. Columns 1 to 3 show that first-time voters during "Clean Hands" have substantially less trust towards institutions 25 years after the scandal. The effect is sizable, going from 22% of a standard deviation for trust in parliament to 35% of a standard deviation for trust in government.

Figure 3 shows estimates for each of the cohorts in our dataset. The reference category is the cohort of individuals born in the period 1973-1974. Panels (a) (trust in parliament), (b) (trust in government) show in a rather striking way that the treatment cohort (i.e. those born in 1975-1976) is an outlier compared to all previous and most of the following cohorts<sup>3</sup>. Panel (c) shows that starting from the previous cohort (1973-1974) there has been a permanent drop in trust towards civil servants. Overall, these findings strongly suggest that "Clean Hands" represents a breaking point for the generation of first-time voters ( $T$ ) at the time of the scandal, permanently depressing institutional trust.

---

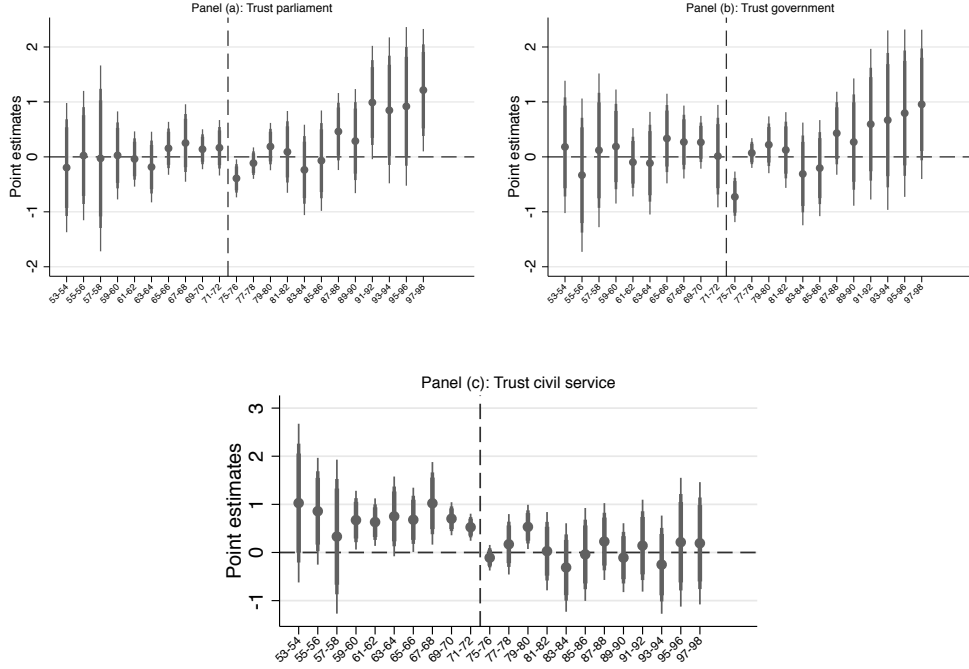
<sup>3</sup>An exception is represented by the gradual increase for the youngest cohorts in panels (a) and (b). This trend is less of a concern however for the validity of our finding. First, several other events might have determined a change in preferences for individuals born 20 years after our treated cohort, while it would have been worrisome to observe a similar trend among cohorts close to the treated one; second, the youngest cohorts are slightly underrepresented in our sample, leading to a noisy estimation of these coefficients.

Table 2: The Impact of “Clean Hands”

|          | (1)                  | (2)                  | (3)                  |
|----------|----------------------|----------------------|----------------------|
|          | Parl.                | Gov.                 | Civ. Serv.           |
| 1975/76  | -0.490***<br>(0.113) | -0.835***<br>(0.144) | -0.425***<br>(0.115) |
| Contr.   | YES                  | YES                  | YES                  |
| Prov. FE | YES                  | YES                  | YES                  |
| Obs.     | 1,438                | 1,437                | 1,435                |
| $R^2$    | 0.105                | 0.111                | 0.154                |

**Dependent variable:** Trust in parliament (col. (1)), trust in government (col. (2)) and trust in civil servants (col. (3)). The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls and provincial fixed effect. The controls are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Figure 3: The Effect of “Clean Hands” by Two-Years Birth Cohorts



**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variables are trust in parliament (Panel (a)), trust in government (Panel (b)) and trust in civil servants (Panel (c)).

### 3.2. Robustness Tests

First, in Table 3, we test for a more precise definition of  $T$ . In this case, we consider a categorical variable taking distinct values for different groups of individuals: i) a first group includes all cohorts up to April 1974; ii) a second one considers individuals born between April 1974 and December 1974. They are individuals who turn 18 years of age after the 1992 national election and were eligible to vote for the first time at the 1994 election. They represent a cohort that could be influenced by the “Clean Hands” scandal, since, on the one hand, they were eligible to vote for the first time in 1994, on the other hand, they might have been already exposed to the 1992 electoral campaign through several channels, such as peer-effects at school; iii) a third group includes our key treated group, i.e. individuals born in 1975 and before March 1976, who were 18-19



in 1994 and therefore could vote for the first in this election; iv) a fourth one consists of individuals born between April 1974 and December 1974, who turn 18 in 1994 after the national election (who took place on 27th March). They represent another group that could be influenced since on the one hand, they were not eligible to vote at the 1994 election, but could as well been exposed to the shock through other channels similarly to group ii); v) a last group includes all the next cohorts, i.e. all individuals born after 1977. Table 3 shows that our findings are predominantly driven by our central cohort, i.e. individuals born in the period 1975-March 1976, who were 18-19 in 1994 and therefore could vote for the first at this election. We also find a weaker effect for individuals born in 1976 who were not eligible to vote at the 1994 election, suggesting the presence of peer-effects among individuals born in the same year (group iv).

Second, in Figure 4, instead of considering two-years birth cohorts, we gather individuals based on the first election in which they were eligible to vote. Therefore, each group includes first-time voters at a specific national election. The reference category includes first-time voters at the election before the scandal, i.e. at the 1992 national election. Our findings are strongly confirmed by this different specification on all three dependent variables.

Third, in Table 4 and Figure 5, we find similar results when looking at alternative measures of institutional attitudes, i.e. opinions towards institutions' efficiency, objectiveness, integrity and transparency. Conversely, as a Placebo test, we do not find any effect on trust towards other institutions not immediately related to the "Clean Hands" scandal (Table 5), such as the police, the media, the financial institutions and other individuals (social trust).

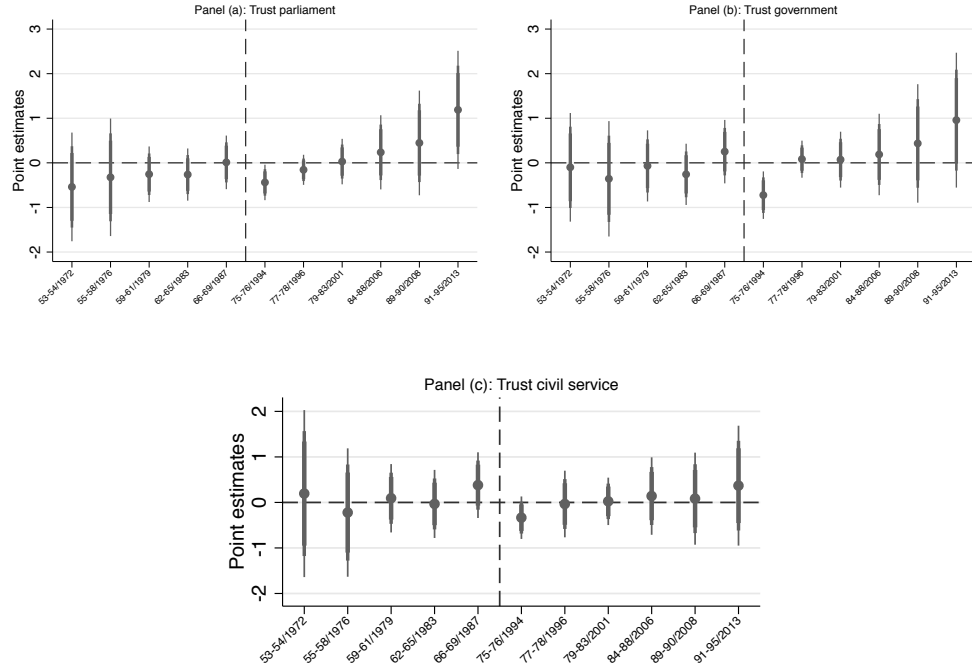
Fourth, we incorporate additional Trustlab samples from France, Korea, US, UK, Germany, and Slovenia and re-estimate our main models. In this case, while our treated group is unchanged ( $T$ ), we can now precisely control for year of birth fixed effects, considering individuals born in 1975-1976 in other countries. Our main findings are substantially unaffected, although these estimates are more noisy (Table 6 and Figure 6).

Table 3: The Impact of “Clean Hands”: Different Definitions of the Treatment Group

|                 | (1)                  | (2)                  | (3)                  |
|-----------------|----------------------|----------------------|----------------------|
|                 | Parl.                | Gov.                 | Civ. Serv.           |
| Apr1974/Dec1974 | 0.0129<br>(0.124)    | 0.0784<br>(0.143)    | -0.0889<br>(0.143)   |
| 1975/Mar1976    | -0.679***<br>(0.233) | -0.905***<br>(0.261) | -0.549***<br>(0.166) |
| Apr1976/Dec1976 | -0.505***<br>(0.171) | -0.850***<br>(0.212) | -0.431**<br>(0.172)  |
| 1977+           | -0.279<br>(0.203)    | -0.140<br>(0.228)    | -0.160<br>(0.218)    |
| Contr.          | YES                  | YES                  | YES                  |
| Prov. FE        | YES                  | YES                  | YES                  |
| Obs.            | 1,438                | 1,437                | 1,435                |
| $R^2$           | 0.106                | 0.111                | 0.154                |

**Dependent variable: Trust in parliament (col. (1)), trust in government (col. (2)) and trust in civil servants (col. (3)).** The main independent variables are a set of four dummy variables: *Apr1974/Dec1974* which takes the value 1 for individuals born between April 1974 and December 1974 and 0 otherwise; *1975/Mar1976* which takes the value 1 for individuals born between 1975 and March 1976 and 0 otherwise; *Apr1976/Dec1976* which takes the value 1 for individuals born between April 1976 and December 1976 and 0 otherwise; *1977+* which takes the value 1 for individuals born after 1976 and 0 otherwise. The reference group are those individuals born before April 1974. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls and provincial fixed effect. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Figure 4: Comparing Different Cohorts of First-time Voters



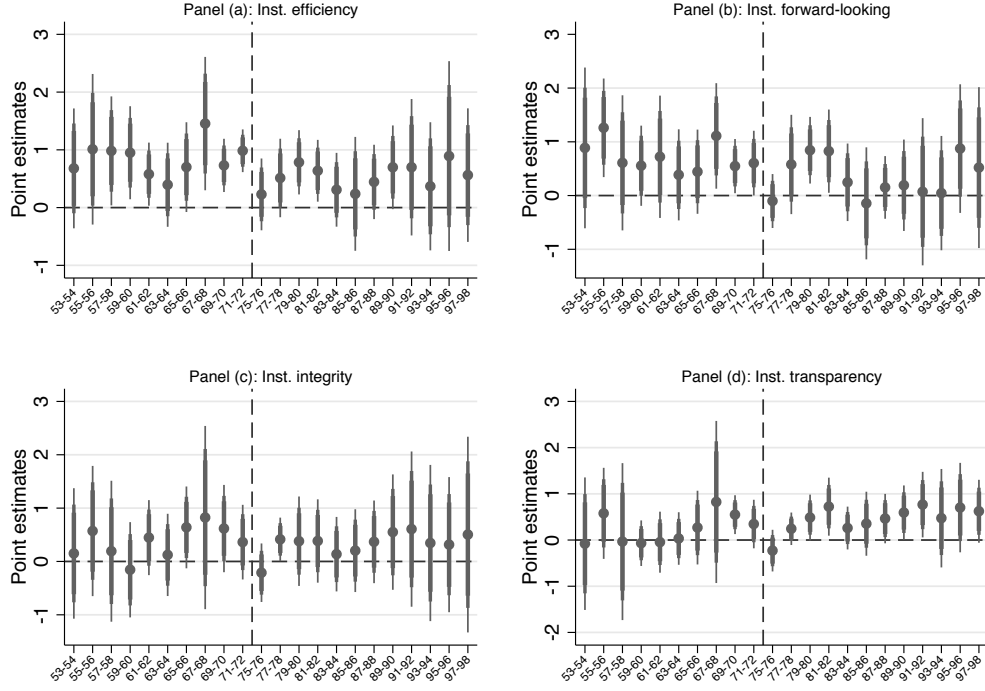
**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variables are trust in parliament (Panel (a)), trust in government (Panel (b)) and trust in civil servants (Panel (c)).

Table 4: Validation tests: Opinions Towards Institutions

|              | (1)<br>Efficiency  | (2)<br>Forward-looking | (3)<br>Integrity     | (4)<br>Transparency  |
|--------------|--------------------|------------------------|----------------------|----------------------|
| 1975/76      | -0.368*<br>(0.212) | -0.578***<br>(0.138)   | -0.529***<br>(0.170) | -0.545***<br>(0.118) |
| Contr.       | YES                | YES                    | YES                  | YES                  |
| Prov. FE     | YES                | YES                    | YES                  | YES                  |
| Observations | 1,432              | 1,355                  | 1,401                | 1,408                |
| $R^2$        | 0.125              | 0.113                  | 0.141                | 0.143                |

**Dependent variable:** Opinions towards institutions' efficiency (col. (1)), opinions towards institutions' objectiveness (col. (2)), opinions towards institutions' integrity (col. (3)) and opinions towards institutions' transparency (col. (4)). The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls and provincial fixed effect. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Figure 5: Validation Tests: Opinions Towards Institutions by Two-Years Birth Cohorts



**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variables are opinions on institutional efficiency (Panel (a)), opinions on institutional forward-looking (Panel (b)), opinions on institutional integrity (Panel (c)) and opinions on institutional transparency (Panel (d)).

Table 5: Placebo Tests: Trust in Non-Political Institutions

|          | (1)               | (2)                | (3)               | (4)                 |
|----------|-------------------|--------------------|-------------------|---------------------|
|          | Police            | Media              | Fin.Inst.         | Gen. Trust          |
| 1975/76  | -0.189<br>(0.263) | -0.0999<br>(0.204) | -0.445<br>(0.315) | -0.0826<br>(0.0948) |
| Contr.   | YES               | YES                | YES               | YES                 |
| Prov. FE | YES               | YES                | YES               | YES                 |
| Obs.     | 1,439             | 1,438              | 1,439             | 1,438               |
| $R^2$    | 0.167             | 0.104              | 0.119             | 0.180               |

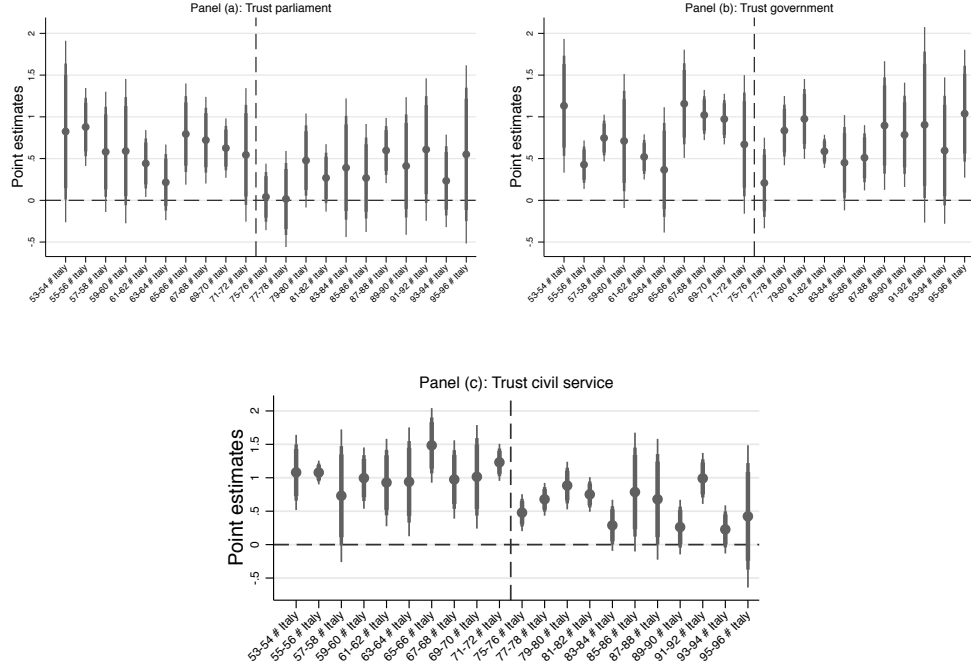
**Dependent variable: Trust in police (col. (1)), trust in media (col. (2)), trust in financial institutions (col. (3)) and generalized social trust (col. (4)).** The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls and provincial fixed effect. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 6: The Impact of “Clean Hands”: Cross-Country Analysis

|               | (1)                   | (2)                  | (3)                 |
|---------------|-----------------------|----------------------|---------------------|
|               | Parl.                 | Gov.                 | Civ. Serv.          |
| 1975/76       | -0.161<br>(0.0978)    | 0.102<br>(0.138)     | 0.108<br>(0.0690)   |
| 1975/76*Italy | -0.355***<br>(0.0822) | -0.323***<br>(0.185) | -0.454**<br>(0.125) |
| Contr.        | YES                   | YES                  | YES                 |
| Country FE    | YES                   | YES                  | YES                 |
| Obs.          | 7,176                 | 7,217                | 5,000               |
| $R^2$         | 0.106                 | 0.085                | 0.098               |

**Dependent variable: Trust in parliament (col. (1)), trust in government (col. (2)) and trust in civil servants (col. (3)).** *1975/76* is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. *Italy* is a dummy taking the value 1 for individuals surveyed within the Italian sample. All specifications do not include the boosted sample for Italy. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls and country fixed effect. Among the set of controls there are gender, age, decade of birth, religion, education, income, marital status, labor force status and if the individual works in the private sector. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Figure 6: The Effect of “Clean Hands” by Two-Years Birth Cohorts: Cross Country Analysis



**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variables are trust in parliament (Panel (a)), trust in government (Panel (b)) and trust in civil servants (Panel (c)).



### 3.3. Heterogeneity Analysis

As explained in Section 2, “Clean Hands” was an extremely salient topic in Italian media during the first half of the 90s’. We should therefore expect a stronger effect on first-time voters who were more exposed to media (Ohme et al., 2017; Rizzica and Tonello, 2015; Hill et al., 2013; Gerber et al., 2009, 2011; O’Keefe and Liu, 1980). We empirically tackle this hypothesis by exploiting data on local public TV news and information on individuals’ current TV exposure. Concerning the former, Italian public TV (RAI) provides daily local news at the regional level, representing a key resource of local news. We code the daily number of news devoted to political corruption on the local public news in each Italian region in the period 1992-1996. To merge information on local news about political corruption in each region at the time of the scandal with the TrustLab database we use the individuals’ region of childhood residence rather than the current one<sup>4</sup>. Regarding TV exposure, Trustlab provides such information. Specifically, we create a binary variable,  $TV$ , equal to 1 (0, otherwise) for individuals stating to currently watch “a lot of TV” or “some TV” (see Appendix 1 for details on this question)<sup>5</sup>. We then interact  $T$  with both the logarithm of the number of local TV news and the dummy for TV consumption.

Our hypothesis is that within  $T$ , individuals watching more TV, who spent their childhood in areas with more extensive coverage of the “Clean Hands” scandal in public local TV news, should be the most sensitive to this shock.

Table 7 shows these estimates, in which the main effect of interest is the one of the triple interaction  $1975-1976 \times Coverage \text{ Corr.} \times TV$ . The key result here is that for those more heavily exposed to TV in areas with a high coverage of “Clean Hands” in local TV news, the effect of the clean hands scandal is stronger. This is true for two of our three outcomes. Conversely, there is no effect when the outcome concerns trust in Civil Servants (Column 3).

In a second heterogeneity analysis, we focus on education. Previous studies showed that less educated voters are more likely to express anti-immigrants attitudes, to be

---

<sup>4</sup>For childhood is meant the region in which someone lived up to 16 years old. Unfortunately, this variable is not available for the entire sample but only for the follow-up survey. As here we exploit regional variation in media exposure, we do not include province fixed effects.

<sup>5</sup>An obvious limitation of this test is that our data on TV exposure are recorded at present and not at the time of the scandal.

polarized and to be attracted by populist platforms (Algan et al., 2017; Becker et al., 2017; Tyson and Maniam, 2016). The argument is that unskilled workers are more vulnerable to the crisis, technical progress, and globalization. In our context, corruption might play a similar role, linking low-skilled individuals' anger and frustration about worsening economic conditions to a dishonest and unfit political elite. Moreover, low-skilled individuals are also more dependent upon the welfare state and possibly more sensitive to any public goods failure caused by corruption. This could potentially increase the impact of the latter on its actual perception by this group, as shown by studies reporting higher levels of perceived corruption by lower educated individuals (Zmerli and Van der Meer, 2017; Maeda and Ziegfeld, 2015). Therefore, the scarring effect of corruption exposure might have deeper consequences in terms of the attitudes and beliefs of this group. In Table 8, we test whether first-time voters at the time of the scandal, who do not hold a high-school degree today are more likely to show lower levels of institutional trust. Overall, we find that previous effects are strongly reinforced for low educated first-time voters at the time of the scandal when looking at trust towards the national parliament and the State bureaucracy.

Table 7: The Impact of “Clean Hands”: The Role of TV

|                           | (1)                  | (2)                  | (3)               |
|---------------------------|----------------------|----------------------|-------------------|
|                           | Parl.                | Gov.                 | Civil Serv.       |
| 1975/76                   | -1.176***<br>(0.422) | -2.565***<br>(0.437) | 1.171<br>(1.095)  |
| Coverage Corr.            | 0.183<br>(0.124)     | 0.142<br>(0.131)     | 0.216*<br>(0.113) |
| 1975/76*Coverage Corr.    | 0.370*<br>(0.204)    | 0.722***<br>(0.193)  | -0.302<br>(0.304) |
| TV                        | 0.972**<br>(0.471)   | 0.653<br>(0.444)     | 0.776*<br>(0.431) |
| 1975/76*TV                | 0.960<br>(0.993)     | 1.801*<br>(1.034)    | -1.081<br>(0.873) |
| Coverage Corr.*TV         | -0.122<br>(0.158)    | -0.031<br>(0.155)    | -0.176<br>(0.140) |
| 1975/76*Coverage Corr.*TV | -0.497**<br>(0.204)  | -0.809***<br>(0.201) | -0.008<br>(0.217) |
| Contr.                    | YES                  | YES                  | YES               |
| Obs.                      | 1,016                | 1,016                | 1,014             |
| $R^2$                     | 0.069                | 0.082                | 0.112             |

**Dependent variable:** Trust in parliament (col. (1)), trust in government (col. (2)) and trust in civil servants (col. (3)). The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. *Coverage Corr.* records the logarithm of the number local TV news about political corruption in each region during the period 1992-1996. *TV* is a dummy variable equal to 1 if the individual watch “a lot of TV” or “some TV” and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 8: The Impact of “Clean Hands”: The Role of Education

|                       | (1)                  | (2)                  | (3)                  |
|-----------------------|----------------------|----------------------|----------------------|
|                       | Parl.                | Gov.                 | Civil Serv.          |
| 1975/76               | -0.411***<br>(0.118) | -0.797***<br>(0.140) | -0.335***<br>(1.119) |
| Not educated          | -0.583**<br>(0.243)  | -0.605**<br>(0.280)  | -0.412<br>(0.271)    |
| 1975/76* Not educated | -1.436***<br>(0.436) | -0.730<br>(0.441)    | -1.601***<br>(0.552) |
| Contr.                | YES                  | YES                  | YES                  |
| Obs.                  | 1,438                | 1,437                | 1,435                |
| $R^2$                 | 0.103                | 0.109                | 0.153                |

**Dependent variable:** Trust in parliament (col. (1)), trust in government (col. (2)) and trust in civil servants (col. (3)). The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. *Not educated* is a dummy variable equal to 1 if the individual has less than secondary education and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

### 3.4. *Alternative Explanations*

In this section, we discuss two alternative scenarios which could potentially affect our findings. Contemporaneously with “Clean Hands” two other important events took place in Italy: several terrorist attacks perpetrated by the mafia, among which the murder of two leading Italian prosecutors (Paolo Borsellino and Giovanni Falcone), and, a period of severe economic crisis. Both events might have led to a permanent change in institutional trust, and especially so among young individuals, again because of the sensitive age hypothesis.

In order to assess these possibilities, we start by looking at the degree of media coverage of the economic crisis and mafia during the same period. Figures 7 and 8 show that compared to other events, the corruption scandal is by far the most important one. Figure 7, Panel (a), shows that exposure to mafia on TV and radio was strongly limited to the days after the attacks. Moreover, the graphical analysis suggests that the news about the mafia, was quickly taken over by news about corruption. Panel (b) suggests that economic crisis was in fact a salient topic before the 1994 election, even though it received definitively less coverage by public TV and radio channels compared to the “Clean Hands” scandal. Figure 8, instead, focuses on the front pages of the *Corriere della Sera*. Here, we can directly compare the share of front pages devoted to the three different topics, again highlighting the strong prevalence of “Clean Hands” over the other two main events.

As a further test, we explore whether first-time voters who were more exposed to local news regarding such events, are also more likely to change their institutional attitudes, as in Section 3.3. Concerning mafia, in Table 9, we interact our treated group with the logarithm of the number of local TV news on mafia produced by RAI in each region of individuals’ childhood (during the period 1992-1996) and the dummy ( $TV$ ). In Table 10, we interact the coefficient of interest with the logarithm of the number of local TV news on economic crisis produced by RAI in each region of individuals’ childhood (during the period 1992-1996) and the dummy for current TV exposure introduced in Section 3.3 (i.e.  $TV$ ).<sup>6</sup>

In almost all cases, we do not find a stronger decrease in institutional trust for first-time voters that are more exposed to these events through local TV news, a feature which

---

<sup>6</sup>Similarly to the previous test on media exposure, data on childhood are available only for the follow up respondents and the models do not include province fixed effects as we exploit regional variation.

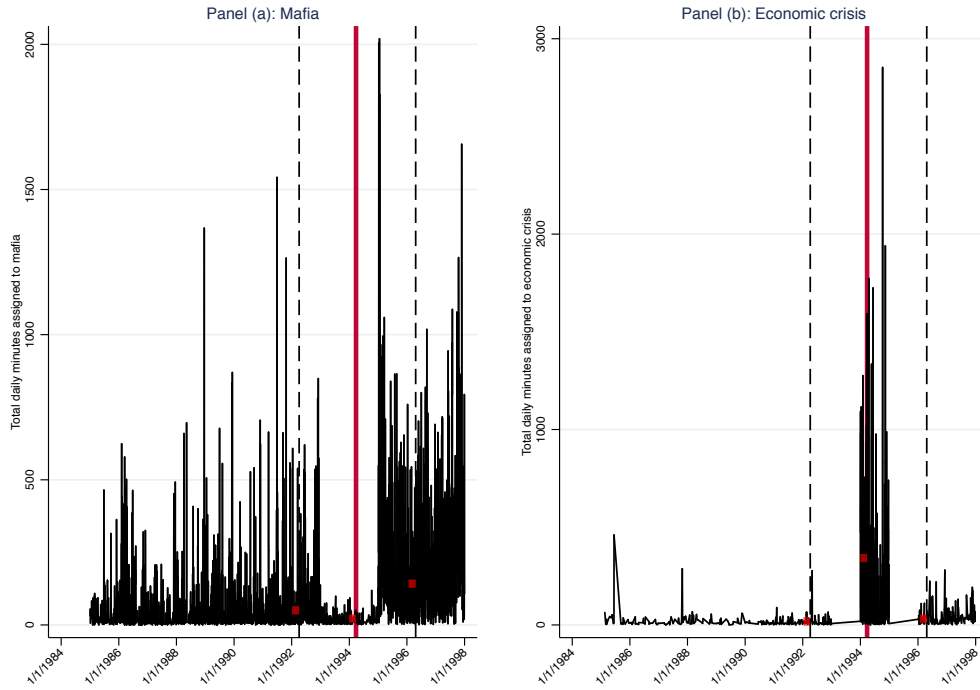
weakens the relevance of these alternative explanations. The only exception concerns trust in civil servants which significantly decreases in our treated birth cohort as the coverage of both mafia and economic crisis by local TV news increases.

Finally, concerning the economic-crisis argument, Trustlab includes also a set of questions on the satisfaction towards the welfare system. If the main channel of lower institutional trust is the economic downturn, we would expect a drop also for measures of satisfaction with the public service. Conversely, Table 11 and Figure 9 dismiss this channel. Specifically, Trustlab reports questions on the satisfaction towards welfare, education, transports, housing, security and culture (details on these variables are provided in Appendix A.3). While Table 11 highlights a drop for  $T$  on several dimensions, Figure 9 dismisses this conclusion, as  $T$  does not systematically differ from other coefficients <sup>7</sup>.

---

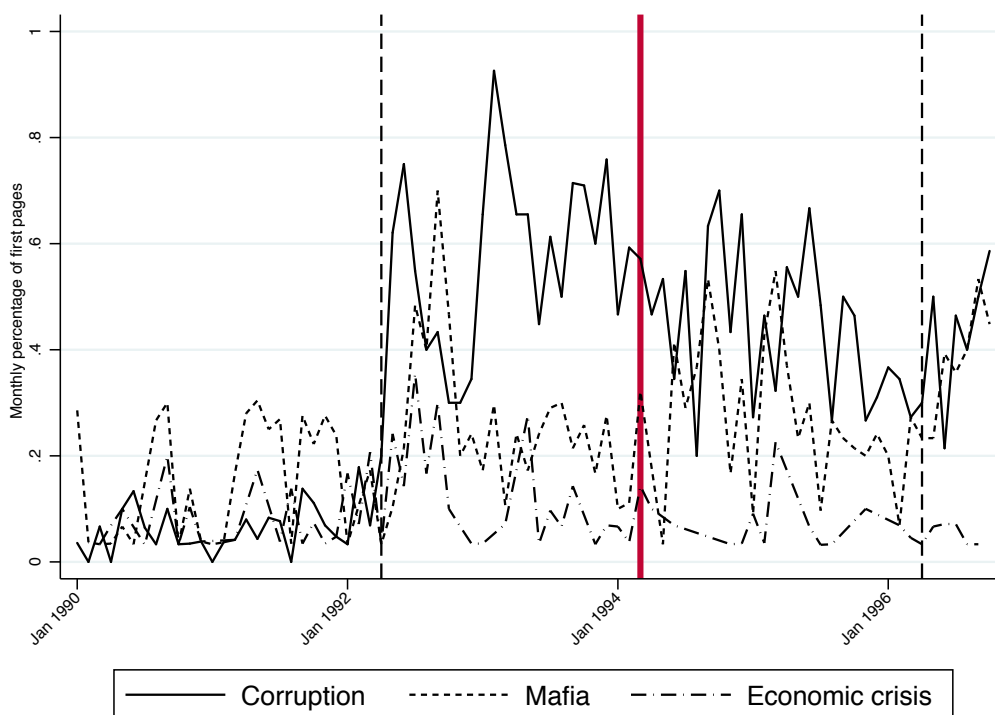
<sup>7</sup>The 1994 national elections saw both the collapse of the parties (e.g. DC), which ruled Italy up to the "Clean Hands" scandal and the entry of Silvio Berlusconi in the political arena. One could argue that our findings might be linked to these events. The disruptive and sudden reshape of the political party system and the presence within the political scenario of an "ambiguous" individual as Berlusconi, in terms of corruption attitude, might then have led to lower institutional trust. While we do not neglect the importance of these hypothesis, we consider them part of our argument, since the collapse of the DC and the entry of Berlusconi in politics were essentially driven by the "Clean Hands" scandal. As such, we might have estimated the overall effect of a large corruption scandal and its broader implications. Similarly, someone could argue that exposure to Berlusconi's TV during the 1990s is a crucial mechanism explaining long term changes in institutional trust. While we do not neglect either this mechanism, as shown by Durante et al. (2017), we consider that this channel should generally affect young individuals at the time of the scandal and not specifically only those born in 1975-1976, as suggested by our theory.

Figure 7: Alternative explanations: TV/Radio coverage of Mafia and Economic Crisis



**Note:** The figure shows the total daily minutes assigned to mafia (Panel (a)) and economic crisis (Panel (b)) within the broadcasts of Italian public TV and radio channels (i.e. RAI) during the period 1985-1997. The red vertical line represents the date of the national election following the discovery of the scandal, while the vertical black-dashed lines all the other electoral dates within the period 1992-1997. The short red horizontal lines provide the average number of minutes assigned to each topic by public TV/radio broadcasts within 90 days before each national electoral date.

Figure 8: Alternative explanations: Newspapers coverage of Mafia and Economic Crisis



**Note:** shows the monthly percentage of articles about corruption, mafia and economic crisis appearing in the first page of *Corriere della Sera* during the period 1990-1996. The red vertical line represents the date of the national election following the discovery of the scandal, while the vertical black-dashed lines all the other electoral dates within the period 1992-1997.



Table 9: Alternative explanations: Mafia

|                           | (1)               | (2)               | (3)                  |
|---------------------------|-------------------|-------------------|----------------------|
|                           | Parl.             | Gov.              | Civ. Serv.           |
| 1975/76                   | 1.442<br>(3.012)  | -0.426<br>(1.882) | -4.951***<br>(0.851) |
| Coverage Mafia            | 0.147<br>(0.153)  | 0.179<br>(0.149)  | 0.232<br>(0.142)     |
| 1975/76*Coverage Mafia    | -0.250<br>(0.699) | 0.089<br>(0.478)  | 0.995***<br>(0.173)  |
| TV                        | 0.763<br>(0.763)  | 0.798<br>(0.750)  | 0.835<br>(0.687)     |
| 1975/76*TV                | -0.834<br>(1.954) | 0.027<br>(0.891)  | 4.783***<br>(1.649)  |
| TV*Coverage Mafia         | -0.042<br>(0.165) | -0.054<br>(0.167) | -0.131<br>(0.149)    |
| 1975/76*TV*Coverage Mafia | 0.004<br>(0.524)  | -0.222<br>(0.301) | -1.135***<br>(0.306) |
| Contr.                    | YES               | YES               | YES                  |
| Obs.                      | 1,024             | 1,024             | 1,022                |
| $R^2$                     | 0.067             | 0.078             | 0.114                |

**Dependent variable:** Trust in parliament (col. (1)), trust in government (col. (2)) and trust in civil servants (col. (3)). *1975/76* is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. *Coverage Mafia* records the logarithm of the number local TV news about mafia in each region during the period 1992-1996. *TV* is a dummy variable equal to 1 if the individual watch "a lot of TV" or "some TV" and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 10: Alternative explanations: Economic Crisis

|                            | (1)               | (2)                | (3)                  |
|----------------------------|-------------------|--------------------|----------------------|
|                            | Parl.             | Gov.               | Civ. Serv.           |
| 1975/76                    | 0.224<br>(2.473)  | -1.755<br>(1.558)  | -3.382***<br>(0.864) |
| Coverage Crisis            | 0.134<br>(0.141)  | 0.183<br>(0.141)   | 0.265**<br>(0.131)   |
| 1975/76*Coverage Crisis    | -0.016<br>(0.765) | 0.450<br>(0.521)   | 0.879***<br>(0.198)  |
| TV                         | 0.573<br>(0.535)  | 0.677<br>(0.486)   | 0.703<br>(0.458)     |
| 1975/76*Coverage Crisis    | 0.086<br>(1.684)  | 1.317*<br>(0.731)  | 2.650*<br>(1.413)    |
| TV*Coverage Crisis         | -0.002<br>(0.157) | -0.039<br>(0.154)  | -0.139<br>(0.136)    |
| 1975/76*TV*Coverage Crisis | -0.239<br>(0.597) | -0.621*<br>(0.332) | -0.915***<br>(0.313) |
| Contr.                     | YES               | YES                | YES                  |
| Obs.                       | 1,024             | 1,024              | 1,022                |
| $R^2$                      | 0.068             | 0.080              | 0.116                |

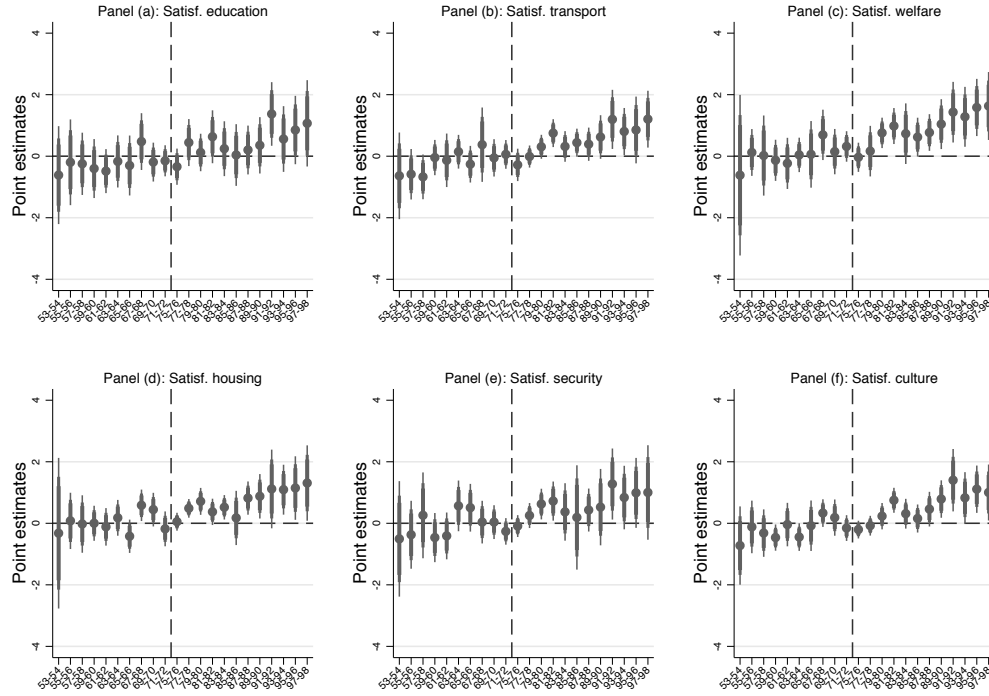
**Dependent variable:** Trust in parliament (col. (1)), trust in government (col. (2)) and trust in civil servants (col. (3)). *1975/76* is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. *Coverage Crisis* records the logarithm of the number local TV news about economic crisis in each region during the period 1992-1996. *TV* is a dummy variable equal to 1 if the individual watch "a lot of TV" or "some TV" and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 11: Placebo Tests: Welfare Country Assessment

|          | (1)                  | (2)                  | (3)                  | (4)                   | (5)                  | (6)                   |
|----------|----------------------|----------------------|----------------------|-----------------------|----------------------|-----------------------|
|          | Sat. Educ.           | Sat. Trans.          | Sat. Welfare         | Sat. Housing          | Sat. Sec.            | Sat. Cul.             |
| 1975/76  | -0.433***<br>(0.142) | -0.455***<br>(0.162) | -0.449***<br>(0.143) | -0.274***<br>(0.0952) | -0.320***<br>(0.113) | -0.348***<br>(0.0787) |
| Contr.   | YES                  | YES                  | YES                  | YES                   | YES                  | YES                   |
| Prov. FE | YES                  | YES                  | YES                  | YES                   | YES                  | YES                   |
| Obs.     | 1,432                | 1,432                | 1,385                | 1,374                 | 1,433                | 1,426                 |
| $R^2$    | 0.127                | 0.207                | 0.140                | 0.149                 | 0.131                | 0.146                 |

**Dependent variable:** Satisfaction with education (col. (1)), satisfaction with transport system (col. (2)), satisfaction with welfare (col. (3)), satisfaction with housing (col. (4)), satisfaction with security (col. (5)) and satisfaction with culture (col. (6)). The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. All columns include time-varying controls and provincial fixed effect. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Figure 9: Placebo Tests: Welfare Country Assessment by Two-Years Birth Cohorts



**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variables are satisfaction with educational system (Panel (a)), satisfaction with transport system (Panel (b)), satisfaction with welfare (Panel (c)), satisfaction with housing (Panel (d)), satisfaction with security (Panel (e)) and satisfaction with culture (Panel (f)).

#### 4. Short-term dynamics

Our hypothesis concerns the long term consequences of corruption. If there are long terms effects, it would indeed be intuitive that there are both short run and medium run effects for this cohort as well. In other words, it would be implausible if the long run effect is not preceded by short and medium run effects. To get insight into this aspect, we use data from the Italian National Election Studies, which included questions on trust towards institutions in 1996 and 2001 on a representative sample of Italians. We provide more details on this survey in Appendix A.3. In this case, we focus on the most similar outcomes available in the 1996 edition of this survey, i.e. i) interest in politics, ii) readership of political news, iii) distrust toward democracy, and iv) trust in parliament, which is available in the 2001 edition. An important aspect when considering the short run however, is that any negative effect of corruption tend to capture a broader set of individuals than those defined by the “sensitive age hypothesis” or those being first time voters. Table 12 and Figure 10 report the results.<sup>8</sup> As expected, when looking at these outcomes, we find comparable coefficients in terms of size but not limited to  $T$ : the effects are broader in the sense that also other cohorts close to  $T$  react to the scandal. We find that right after “Clean Hands”, young people are more interested in politics (in line with the salience of this topic) and less trustful towards democracy. Moreover, the results from the 2001 edition show that young individuals are less likely to trust the national parliament. Overall, these findings show that for  $T$ , we are capturing a long lasting change in political beliefs, which arose right after the scandal and persisted over time. Conversely, “Clean Hands” had only a transitory effect on the cohorts close to  $T$ . The fact that the long term effects persist only for  $T$  corroborates our theory that young individuals were exposed to the shock but to a lesser extent compared to young individuals belonging to the first-time voters group.

---

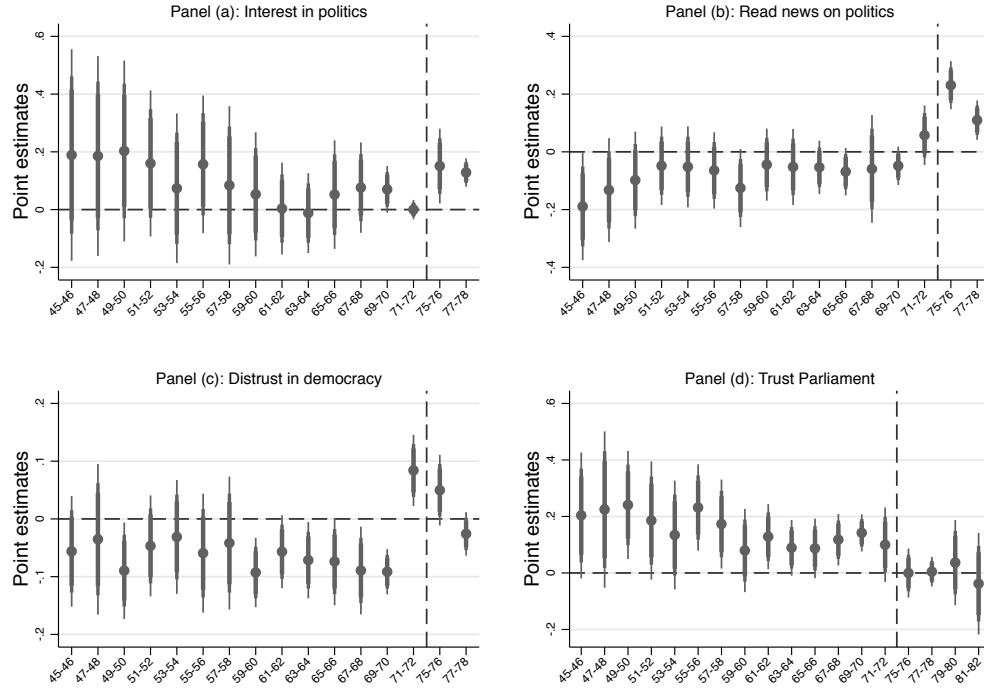
<sup>8</sup>The results obtained by Logit estimation are similar to those obtained by OLS, so for sake of brevity we do not show them here, but they are available upon request.

Table 12: Short-Term Effect of “Clean Hands”

|          | (1)                 | (2)                 | (3)                 | (4)                |
|----------|---------------------|---------------------|---------------------|--------------------|
|          | Pol. Int.           | Pol. News           | Distrust Dem.       | Trust Parl.        |
| 1975/76  | 0.145***<br>(0.051) | 0.214***<br>(0.031) | 0.0715**<br>(0.029) | -0.0469<br>(0.032) |
| Wave     | 1996                | 1996                | 1996                | 2001               |
| Contr.   | YES                 | YES                 | YES                 | YES                |
| Prov. FE | YES                 | YES                 | YES                 | YES                |
| Obs.     | 1,882               | 1,883               | 1,850               | 2,048              |
| $R^2$    | 0.105               | 0.149               | 0.058               | 0.063              |

**Dependent variable:** Interested in politics (col. (1)), read news about politics during the last election campaign (col. (2)), Sometimes/always dictatorship is better than democracy (col. (3)), Trust the Parliament (col (4)). The results showed in columns (1)-(3) rely on the 1996-wave of ITANES, while column (4) on the 2001-wave. *1975/76* is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls and regional fixed effect. Among the set of controls there are gender, decade of birth, religion, education, social class, marital status, number of children and the labor force status. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Figure 10: The Effect of “Clean Hands” in the Short and Medium Run by Two-Years Birth Cohorts



**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variables are interest in politics (Panel (a)), if individuals read news about politics (Panel (b)), Sometimes/always dictatorship is better then democracy (Panel (c)) and trust in Parliament (Panel (d)).

## 5. The Effect of “Clean Hands” on Current Political Preferences

### 5.1. The Vote for Populist Parties

In this Section we investigate whether the first-time voters at the time of “Clean Hands” are currently more likely to vote for populist parties. As explained in the introduction, the effects of the scandal, undermining institutional trust might extend to distrust and ailing support for mainstream political parties. We use the information from the follow-up survey conducted on the Italian Trustlab sample after the national electoral round in March 2018. The survey asks the respondents whether they voted or not, and for which party they voted for, at the national election, which took place only a few days before the follow-up survey was conducted. From this information, we construct a dummy which is equal to 1 if the individual voted at the election and 0 otherwise. In addition, we construct a further dummy capturing whether an individual voted for a populist party in general. To distinguish between populist and mainstream parties we rely on the Chapel Hill Expert Survey of 2017.<sup>9</sup> Unfortunately, the Chapel Hill Expert Survey does not cover all parties running at the 2018 elections. We have thus classified the remaining parties based on electoral platforms available on their websites.<sup>10</sup> Finally, for each of the seven most voted parties, we construct another dummy variable which equals 1 if an individual reported to have voted for that party and 0 otherwise<sup>11</sup>.

Although the take up rate of the follow-up survey was high (above 70%), the representativeness of the sample might no longer hold. To check whether this is the case, we compare people who responded to the follow-up survey with those who did not. Specifically, we run a set of t-tests on the difference in each covariate between the two groups.

---

<sup>9</sup>In particular, we use the information coded in the “People vs. Elite” question, which asks the experts to evaluate the parties’ position on direct vs. representative democracy issue on a scale going from 0 (i.e. *Elected office holders should make the most important decisions*) to 10 (i.e. *“The people”, not politicians, should make the most important decisions*). We consider as populist all the parties scoring equal or higher than 6, that is *Lega*, *Movimento 5 Stelle*, *Fratelli d’Italia*, *Casapound*, *Potere al Popolo* and *Il Popolo della Famiglia*.

<sup>10</sup>These parties are: *+Europa*, *Civica Popolare*, *Italia Europa Insieme*, *Liberi ed Uguali*, *Potere al Popolo*, *Casapound* and *Popolo della Famiglia*. For their classification see Appendix A.3.

<sup>11</sup>Our choice to only focus on the most voted parties is driven by the absence of a sufficient number of observations (i.e. less than 10) to properly run the regressions on minor parties. Among the most voted parties there are *Liberi ed Uguali*, *Partito Democratico*, *Movimento 5 Stelle*, *Lega*, *Forza Italia*, *Fratelli d’Italia* and *+Europa*



The results of this check are presented in Table 13, and show very few significant differences between the two groups. Specifically, our treated group is not disproportionately represented in the follow up, as well as most of the covariates. Individuals are somewhat older in the follow up, in turn, more likely to be married, and with more children<sup>12</sup>.

By using the dummies previously introduced as dependent variables, we run a set of OLS regressions including the same control variables of Equation 1.<sup>13</sup> The results of these estimations are presented in Table 14, while Figure 11 graphically reports the coefficients for each of the two-years cohorts in our dataset with respect to the vote for populist parties. Concerning individual turnout in column 1 of Table 14, we do not find any effect. Conversely, according to column 2, our cohort of first time voters, displays a higher probability of voting for a populist party. We find a 9% higher probability of voting for populists for those born in the 1975-1976. This finding is confirmed by Figure 11, in which the treated cohort is the only statistically significant one.

Lastly, the analysis presented from columns 3 to 9 aims to identify which populist party received more votes from the treatment cohort. At the same time, we also look at which of the mainstream parties lost more in terms of the share of votes. Table 14 reports the vote for populist parties in columns 5, 6 and 8 while that for mainstream parties in columns 3, 4, 7 and 9. The effect is partly driven by the populist right party, *Lega*, which won the 2018 elections. Among the mainstream ones, the one leaning most strongly to the left, i.e. *Liberi ed Uguali*, is the ones that were most negatively affected. The support for right-populist parties reflects the current Italian political scenario, in which *Lega* gathered a substantial share of voters shifting away from moderate parties.<sup>14</sup>

Interestingly, we do not find an effect on voting for the *Five Star Movement* (*Movimento Cinque Stelle*). This is surprising since it was the fiercest party in terms of emphasizing and attacking the corrupt political elite (Franzosi et al., 2015). This might

---

<sup>12</sup>This is not a concern as the difference is driven by an under-representation of the youngest cohorts, which are far from our treated group.

<sup>13</sup>Given the binary nature of these dummies, in Appendix A.4 we also provide the estimates obtained using a Logit regression model. In addition to that, we also run a Multinomial Logit regression model using as outcome a categorical variable indicating the party voted. In both cases the results are almost identical to those produced by OLS.

<sup>14</sup>Interestingly, *Lega* is not a new born party as other populists ones. Matteo Salvini, the *Lega* national secretary since 2013, undertook a complete re-branding of the party, which changed it from a secessionist to nationalist-populist one (Albertazzi et al., 2018).

partially be due to the fact that the two main populist parties, *Five Star Movement* and *Lega*, differed in terms of their electoral bases at the 2018 elections. The *Five Star Movement* was more popular in the South of Italy (collecting about 50% of votes across several regions). The *Lega*, in contrast, was more popular in Northern Italy. In Table 15, we look at this heterogeneity by interacting  $T$  with a dummy equals to one for individuals from Southern regions. We find an interesting geographical pattern, in which first-time voters are attracted by the main populist player in their area: first-time voters from the South voted more for *Five Star Movement*, while those from the North voted more *Lega*.

Lastly, in Figure 12 we try to rule out the possibility that the increasing share of votes received by *Lega* from the treated cohort at the 2018 election could be due to persistence in party identification (Dinas, 2014b; Goren, 2005; Schickler and Green, 1997; Green and Palmquist, 1994; Miller, 1991; Green and Palmquist, 1990) rather than to a switch in current voting preferences induced by the long-term effect of the exposure to the scandal on institutional attitudes. In other words, first-time voters during the scandal might have started to vote more for *Lega* already in the 1994 election, for then to stick with this voting behaviour until the present day (regardless of their level of trust towards institutions). Similarly, they might have shifted political views towards the right side of the political spectrum immediately after the scandal and persistently voted for right political parties.

In Figure 12, still using data from the 1996 wave of ITANES, we test whether our treated cohort felt ideologically close to *Lega*, if it had a higher probability to vote for *Lega* at the 1994 and 1996 elections, and if it had a more favorable opinion of the leader of *Lega* at that time (Umberto Bossi). All these tests do not show any significant difference in the political preferences towards *Lega* at the time of the scandal between the treated cohort and all the others, thus suggesting that the current vote for *Lega* is not driven by persistent party identification.

Finally, in Figure 13, we look at another right-wing party running at the elections in 1994 in 1996, i.e. *Alleanza Nazionale/Movimento Sociale Italiano*. We do in order to test whether there was an ideological shift towards the right side of the political spectrum after the scandal, that goes beyond voting for *Lega*. In Figure 13 we focus on the ideological closeness to this party, on the self-declared voting for this party at the two electoral rounds right after the scandal and on the opinion toward its leader Gianfranco Fini. Again, we do not find any significant difference in the political preferences towards

$AN/MSI$  at the time of the scandal by those born in 1975-1976.

Table 13: Summary Statistics: Respondents vs No Respondents

| Covariates                 | N. respondents | Mean res. | N. drops | Mean dr. | Diff      |
|----------------------------|----------------|-----------|----------|----------|-----------|
| 1975/76                    | 1057           | 0.063     | 401      | 0.052    | 0.011     |
| Female                     | 1057           | 0.66      | 401      | 0.648    | 0.012     |
| Age                        | 1057           | 40.486    | 401      | 36.140   | 4.346***  |
| Birth decade               | 1057           | 3.194     | 401      | 3.626    | -0.432*** |
| Catholic                   | 1057           | 0.756     | 401      | 0.733    | 0.023     |
| Boost                      | 1057           | 0.292     | 401      | 0.332    | -0.039    |
| Income (quintiles)         | 1057           | 2.773     | 401      | 2.666    | 0.107     |
| Education                  | 1057           | 2.269     | 401      | 2.239    | 0.029     |
| N. children                | 1057           | 0.866     | 401      | 0.713    | 0.152***  |
| Employed                   | 1057           | 0.559     | 401      | 0.526    | 0.033     |
| Employed in private sector | 1057           | 0.476     | 401      | 0.479    | -0.003    |
| Married                    | 1057           | 0.577     | 401      | 0.439    | 0.138***  |
| Agreeableness              | 1057           | 3.901     | 401      | 3.915    | -0.014    |
| Consciousness              | 1057           | 3.808     | 401      | 3.754    | 0.053     |
| Extroversion               | 1057           | 2.943     | 401      | 2.983    | -0.040    |
| Openness                   | 1057           | 3.605     | 401      | 3.673    | -0.068    |
| Neuroticism                | 1057           | 3.138     | 401      | 3.140    | 0.003     |

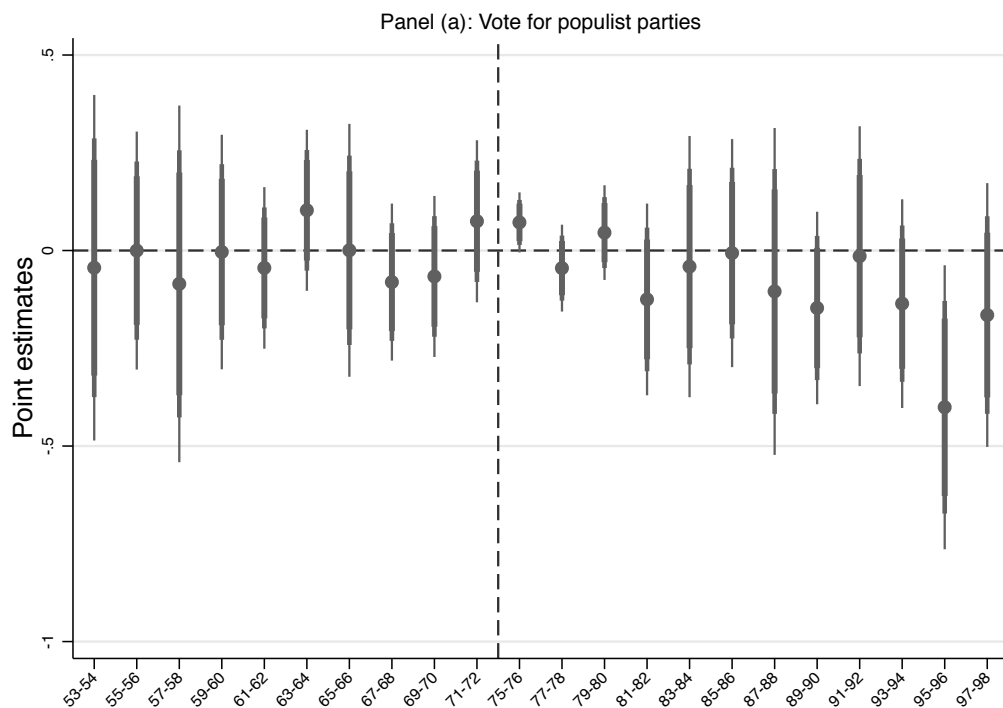
**Note:** The table shows the summary statistics for the group of people who respond both to the main and follow-up survey and for those responding only to the former. In particular for each variable and for each group it provides the number of observations and the mean, together with the difference between the two means. A t-test is run on this latter and \*, \*\*, \*\*\* indicate statistical significance of such difference at the 10%, 5%, and 1% levels, respectively.

Table 14: Effect of "Clean Hands" on the 2018 Vote

|          | (1)               | (2)                | (3)                 | (4)               | (5)               | (6)                | (7)               | (8)              | (9)                 |
|----------|-------------------|--------------------|---------------------|-------------------|-------------------|--------------------|-------------------|------------------|---------------------|
|          | Turnout           | Pop. Parties       | LEU                 | PD                | M5S               | LEGA               | FI                | FDI              | +Europa             |
| 1975/76  | -0.022<br>(0.062) | 0.093**<br>(0.044) | -0.041**<br>(0.018) | -0.013<br>(0.040) | -0.008<br>(0.078) | 0.072**<br>(0.027) | -0.036<br>(0.024) | 0.030<br>(0.020) | -0.002<br>(1.0.016) |
| Contr.   | YES               | YES                | YES                 | YES               | YES               | YES                | YES               | YES              | YES                 |
| Prov. FE | YES               | YES                | YES                 | YES               | YES               | YES                | YES               | YES              | YES                 |
| Obs.     | 1,052             | 851                | 855                 | 855               | 855               | 855                | 855               | 855              | 855                 |
| $R^2$    | 0.136             | 0.158              | 0.188               | 0.122             | 0.175             | 0.236              | 0.152             | 0.152            | 0.146               |

Dependent variable: Individual turnout (col. (1)), vote for populist parties (col. (2)), vote for *Liberi ed Uguali* (col. (3)), *Partito Democratico* (col. (4)), *Movimento 5 Stelle* (col. (5)), *Lega* (col. (6)), *Forza Italia* (col. (7)), *Fratelli d'Italia* (col. (8)), +*Europa* (col. (9)). The vote refers to the national Italian electoral round of 2018. Among populist parties we include *Movimento 5 Stelle*, *Lega*, *Fratelli d'Italia*, *Casapound*, *Potere al Popolo*, *Popolo della Famiglia*. The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls and provincial fixed effect. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Figure 11: Effect of “Clean Hands” on the 2018 Vote for Populist Parties by Two-Years Birth Cohorts



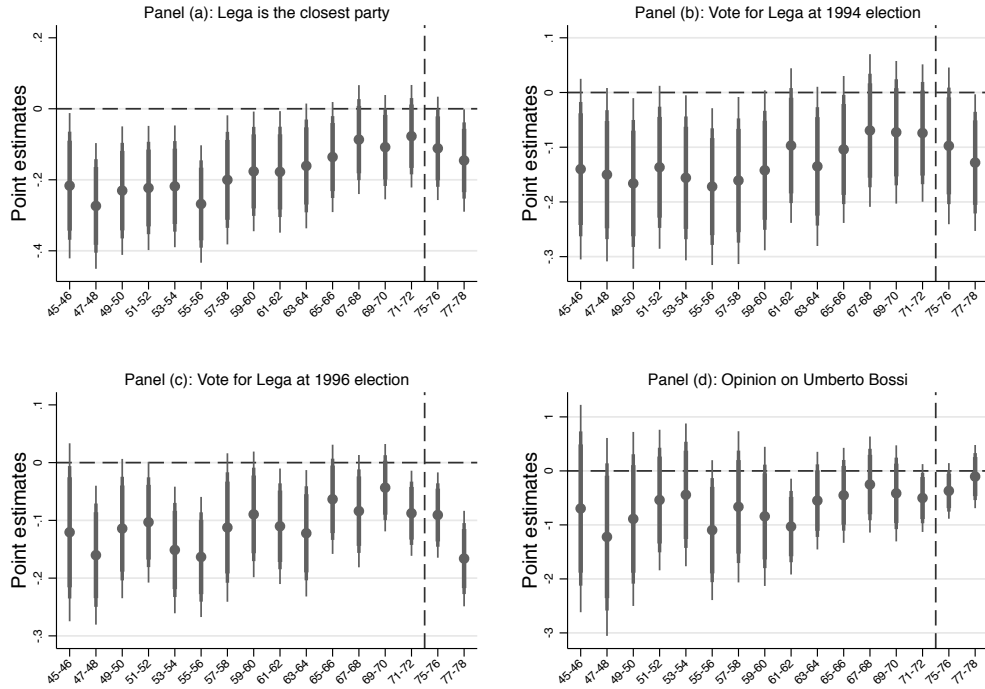
**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variable is Vote for populist parties at the Italian national electoral round of 2018.

Table 15: Effect of “Clean Hands” on the 2018 Vote: North vs South

|                | (1)                 | (2)                 |
|----------------|---------------------|---------------------|
|                | M5S                 | LEGA                |
| 1975/76        | -0.088<br>(0.119)   | 0.164***<br>(0.060) |
| South          | 0.277***<br>(0.057) | -0.232**<br>(0.045) |
| 1975/76* South | 0.139*<br>(0.077)   | -0.166**<br>(0.075) |
| Contr.         | YES                 | YES                 |
| Obs.           | 855                 | 855                 |
| $R^2$          | 0.197               | 0.264               |

**Dependent variable:** Vote for *Movimento 5 Stelle* (col. (1)) and vote for *Lega* (col. (2)). The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. *South* is a dummy variable equal to 1 if the individual spent his childhood in a Southern Italian region and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

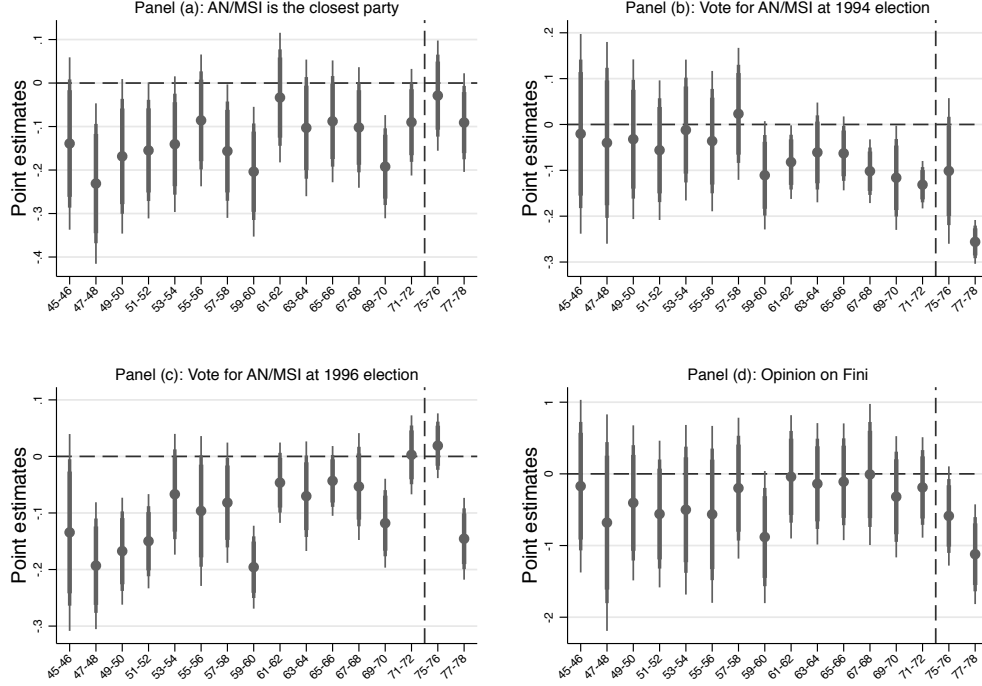
Figure 12: Effect of “Clean Hands” on the Partisanship for *Lega* at the Time of the Scandal by Two-Years Birth Cohorts



**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variables are being ideologically close to *Lega* (Panel (a)), vote for *Lega* at 1994 election (Panel (b)), vote for *Lega* at 1996 election (Panel (c)) and opinion toward Umberto Bossi (Panel (d)).



Figure 13: Effect of “Clean Hands” on the Partisanship for *Alleanza Nazionale/Movimento Sociale Italiano* at the Time of the Scandal by Two-Years Birth Cohorts



**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variables are being ideologically close to *AN/MSI* (Panel (a)), vote for *AN/MSI* at 1994 election (Panel (b)), vote for *AN/MSI* at 1996 election (Panel (c)) and opinion toward Gianfranco Fini (Panel (d)).

### 5.2. *Immigrants attitudes*

Our findings suggest that corruption might lead to a drop in institutional trust, which shifts individuals' voting behaviors towards populist parties advocating anti-establishment views and skepticism towards representative democracies. A further question is whether this shift is consistent with policies advocated by these parties. Specifically, previous results on voting appear to be driven by higher preferences for right-populist parties, that also advance nativist and anti-immigrant policies, as opposition to the influx of non-European immigrants. These positions are typically rejected by moderate and mainstream parties. Therefore, if voters shift away from mainstream parties and embrace right-populist ones, they might as well reject the mainstream political agenda and embrace the populist one.

To explore this idea we consider attitudes towards immigration. We use three different measures which are included in the TrustLab dataset: whether immigrants are well integrated or not (which ranges from zero to ten), trust towards immigrants and trust towards refugees, both measured on a scale from zero to ten.<sup>15</sup> All these questions were included in the baseline survey, and are consequently available for the entire sample. Table 16 and Figure 14 show that first time voters at the time of the scandal have stronger anti-immigrant attitudes. Overall, this suggests a fascinating spill over effect, whereby the detrimental effects of corruption might not be limited to trust and voting, but they might extend to policies supported by populist parties.

---

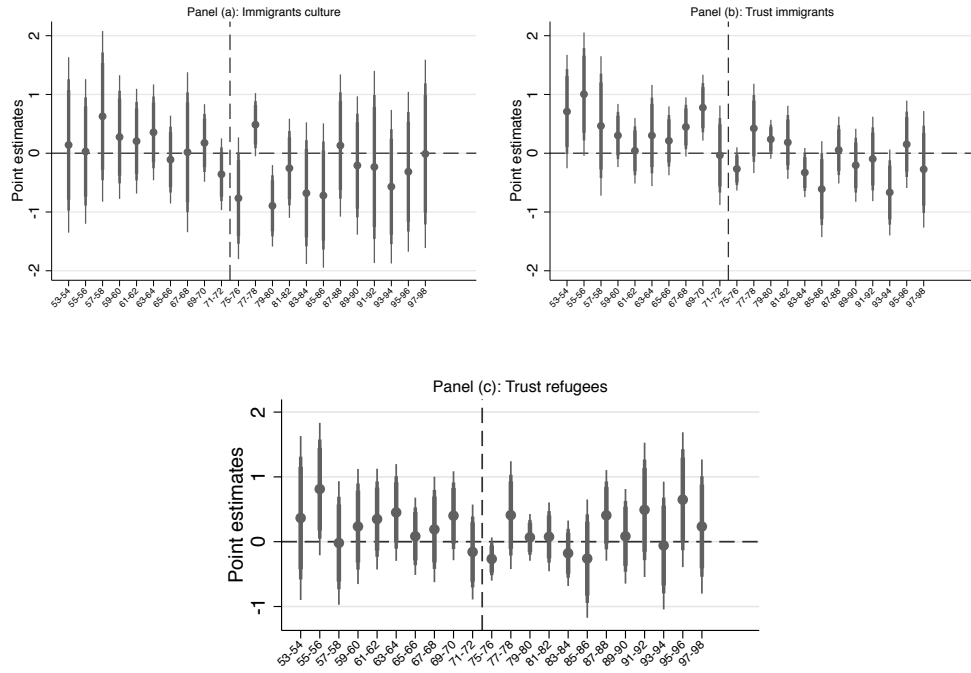
<sup>15</sup>Note that we are assuming that trust towards immigrants is not a stable attitude. We believe this is consistent with the politicization of the migrants crisis in the Italian political arena, which has strongly influenced Italians' opinions on this matter.

Table 16: The Impact of “Clean Hands” on Immigration Attitudes and Ideology

|          | (1)       | (2)         | (3)         |
|----------|-----------|-------------|-------------|
|          | Imm. Int. | Trust Imm.. | Trust. Ref. |
| 1975/76  | -0.655*   | -0.381***   | -0.405***   |
|          | (0.371)   | (0.116)     | (0.106)     |
| Contr.   | YES       | YES         | YES         |
| Prov. FE | YES       | YES         | YES         |
| Obs.     | 1,429     | 1,394       | 1,387       |
| $R^2$    | 0.116     | 0.137       | 0.134       |

**Dependent variable:** Immigrant integration (col. (1)), trust in immigrants (col. (2)) and trust in refugees (col. (3)). The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. All columns use an Ordinary Least Square (OLS) regression model to estimate Equation 1. All columns include time-varying controls and provincial fixed effect. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Figure 14: Effect of “Clean Hands” on Immigration Attitudes and Ideology by Two-Years Birth Cohorts



**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variables are immigrant integration (Panel (a)), trust in immigrants (Panel (b)) and trust in refugees (Panel (c)).

## 6. Conclusions

The paper has established that corruption has a long term scarring effect. Those more exposed to corrupt behaviour exert lower trust. Compared to the short run effects of corruption, where its impact typically hits a broader strata of the population, age matters for potential long term effects. We find here a substantial scarring effect for the younger individuals, i.e. those going through important formative years, a finding that is consistent with the “sensitive age hypothesis”. In particular, young first time voters exposed to a corruption scandal react through exerting lower trust - a change that appears permanent. The fact that corruption can have a permanent impact on trust is an important finding, which enriches our perspective on how state regimes and institutions, as well as their failures, affect beliefs and attitudes (e.g. (Becker et al., 2016; Nunn and Wantchekon, 2011; Grosjean and Senik, 2011; Alesina and Fuchs-Schündeln, 2007)). A second important finding is that the loss in trust induced by corruption may also affect current voting behaviour, and in particular, contributing to the rise and perhaps even entrenchment of populism. Our study provides rather robust evidence that corruption has contributed to the rise of populism in Italy.

Admittedly, the effects of this corruption scandal might have generally affected the entire Italian population. While we cannot test whether this is the case, our contribution relies in identifying the causal effect of the corruption scandal at least for a narrow cohort of individuals, i.e. the first time voters during the corruption scandal. Moreover, this cohort represents today the median voter in terms of age, and thus their influence is not necessarily small. Our findings also raise concerns about policy efficacy. Clearly, greater transparency in governance is the number one remedy of corruption, but this study cast doubt as to whether improvements in transparency is sufficient. Even if improvements are made in terms of transparency, the scarring effect does not go away - at least for those exposed to corruption at an early age.

## References

- Acconcia, A. and C. Cantabene (2008). A big push to deter corruption: Evidence from italy. *Giornale degli Economisti e Annali di Economia* 67 (Anno 121)(1), 75–102.
- Albertazzi, D., A. Giovannini, and A. Seddone (2018). ‘no regionalism please, we are leghisti!’ the transformation of the italian lega nord under the leadership of matteo salvini. *Regional & Federal Studies* 28(5), 645–671.
- Alesina, A. and N. Fuchs-Schündeln (2007). Goodbye lenin (or not?): The effect of communism on people’s preferences. *American Economic Review* 97(4), 1507–1528.
- Algan, Y., S. Guriev, E. Papaioannou, and E. Passari (2017). The european trust crisis and the rise of populism. *CEPR, Discussion Paper* (12444).
- Alison, B., F. Elliott, M. Xin, and Z. Dandan (2018). Gender differences in willingness to compete: The role of culture and institutions. *The Economic Journal*.
- Anderson, C. J. and Y. V. Tverdova (2003). Corruption, political allegiances, and attitudes toward government in contemporary democracies. *American Journal of Political Science* 47(1), 91–109.
- Ares, M. and E. Hernández (2017). The corrosive effect of corruption on trust in politicians: Evidence from a natural experiment. *Research & Politics* 4(2), 1–8.
- Armington, K. and B. Ceka (2014). The loss of trust in the european union during the great recession since 2007: The role of heuristics from the national political system. *European Union Politics* 15(1), 82–107.
- Armington, K. and K. Guthmann (2014). Democracy in crisis? the declining support for national democracy in european countries, 2007–2011. *European Journal of Political Research* 53(3), 423–442.
- Barone, G., A. D’Ignazio, G. de Blasio, and P. Naticchioni (2016). Mr. rossi, mr. hu and politics. the role of immigration in shaping natives’ voting behavior. *Journal of Public Economics* 136, 1–13.
- Bartels, L. M. and S. Jackman (2013). A generational model of political learning. *Electoral Studies* 33, 7–18.

- Becker, S. O., K. Boeckh, C. Hainz, and L. Woessmann (2016). The empire is dead, long live the empire! long-run persistence of trust and corruption in the bureaucracy. *The Economic Journal* 126(590), 40–74.
- Becker, S. O., T. Fetzner, and D. Novy (2017). Who voted for brexit? a comprehensive district-level analysis. *Economic Policy* 32(92), 601–650.
- Bernheim, B. D. and N. Kartik (2014). Candidates, character, and corruption. *American Economic Journal: Microeconomics* 6(2), 205–46.
- Bhatti, Y. and K. Hansen (2014). Leaving the nest and the social act of voting: Turnout among first-time voters. *Journal of Elections, Public Opinion and Parties* 22(4), 380–406.
- Boeri, T., P. Mishra, C. Papageorgiou, and A. Spilimbergo (2018). A dialogue between a populist and an economist. *AEA Papers and Proceedings* 108, 191–95.
- Borghans, L., A. L. Duckworth, and B. ter Weel (2008). The economics and psychology of personality traits. *Journal of Human Resources* 43, 972–1059.
- Bowler, S. and J. A. Karp (2004). Politicians, scandals, and trust in government. *Political Behavior* 26(3), 271–287.
- Brunner, B. and A. Kuhn (2018). Immigration, cultural distance and natives’ attitudes towards immigrants: Evidence from swiss voting results. *Kyklos* 71(1), 28–58.
- Caillier, J. (2010). Citizen trust, political corruption, and voting behavior: Connecting the dots. *Politics & Policy* 38(5), 1015–1035.
- Cavalcanti, F. L., G. Daniele, and S. Galletta (2018). Popularity shocks and political selection. *The Journal of Public Economics* 165.
- Ceron, A. and M. Mainenti (2015). Toga party: The political basis of judicial investigations against mps in italy (1983–2013). *South European Society and Politics* 20(2), 223–242.
- Chen, Y. and D. Yang (2015). Historical traumas and the roots of political distrust: Political inference from the great chinese famine.

- Chong, A., A. L. De La O, D. Karlan, and L. Wantchekon (2015). Does corruption information inspire the fight or quash the hope? a field experiment in mexico on voter turnout, choice, and party identification. *The Journal of Politics* 77(1), 55–71.
- Cobb, M. D. and A. J. Taylor (2015). An absence of malice: The limited utility of campaigning against party corruption. *American Politics Research* 43(6), 923–951.
- Colantone, I. and P. Stanig (2017). The trade origins of economic nationalism: Import competition and voting behavior in western europe. *American Journal of Political Science*.
- Costas-Pérez, E., A. Solé-Ollé, and P. Sorribas-Navarro (2012). Corruption scandals, voter information, and accountability. *European Journal of Political Economy* 28(4), 469 – 484.
- Dalton, R. J. (2005). The social transformation of trust in government. *International Review of Sociology* 15(1), 133–154.
- Dancey, L. (2012). The consequences of political cynicism: How cynicism shapes citizens’ reactions to political scandals. *Political Behavior* 34(3), 411–423.
- Daniele, G., S. Galletta, and B. Geys (2017). Abandon ship? party brands and politicians’ responses to a political scandal. *IdEP Economic Papers*.
- Daniele, G., E. Sartre, and P. Vertier (2018). Toxic loans and the entry of extreme candidates. *Mimeo*.
- Datafolha (2015). Avaliação da presidente dilma rousseff.
- De Vries, C. E. and H. Solaz (2017). The electoral consequences of corruption. *Annual Review of Political Science* 20(1), 391–408.
- Della Porta, D. and A. Vannucci (1997). The ‘perverse effects’ of political corruption. *Political Studies* 45(3), 516–538.
- Di Tella, R. and J. Rotemberg (2018). Populism and the return of the ‘paranoid style’: Some evidence and a simple model of demand for incompetence as insurance against elite betrayal. *Journal of Comparative Economics*.



- Dinas, E. (2012). The formation of voting habits. *Journal of Elections, Public Opinion and Parties* 22(4), 431–456.
- Dinas, E. (2013). Opening “openness to change”: Political events and the increased sensitivity of young adults. *Political Research Quarterly* 66(4), 868–882.
- Dinas, E. (2014a). Does choice bring loyalty? electoral participation and the development of party identification. *American Journal of Political Science* 58(2), 449–465.
- Dinas, E. (2014b). Why does the apple fall far from the tree? how early political socialization prompts parent-child dissimilarity. *British Journal of Political Science* 44, 827–852.
- Dotti Sani, G. M. and B. Magistro (2016). Increasingly unequal? the economic crisis, social inequalities and trust in the european parliament in 20 european countries. *European Journal of Political Research* 55(2), 246–264.
- Durante, R., P. Pinotti, and A. Tesei (2017). The political legacy of entertainment tv. *CEP Discussion Paper* (1475).
- Dustmann, C., K. Vasiljeva, and A. Piil Damm (2018). Refugee migration and electoral outcomes. *The Review of Economic Studies*, rdy047.
- Enke, B. (2018). Moral values and voting: Trump and beyond. *NBER Working Paper* (24268).
- Erikson, R. S. and L. Stoker (2011). Caught in the draft: The effects of vietnam draft lottery status on political attitudes. *American Political Science Review* 105(2), 221–237.
- Ferraz, C. and F. Finan (2008). Exposing corrupt politicians: the effects of brazil’s publicly released audits on electoral outcomes. *The Quarterly Journal of Economics* 123(2), 703–745.
- Firebaugh, G. and K. Chen (1995). Vote turnout of nineteenth amendment women: The enduring effect of disenfranchisement. *American Journal of Sociology* 100(4), 972–996.
- Fraley, R. C., B. N. Griffin, J. Belsky, and G. I. Roisman (2012). Developmental antecedents of political ideology: A longitudinal investigation from birth to age 18 years. *Psychological Science* 23(11), 1425–1431.

- Franklin, M. N. and S. B. Hobolt (2011). The legacy of lethargy: How elections to the european parliament depress turnout. *Electoral Studies* 30(1), 67–76.
- Franzosi, P., F. Marone, and E. Salvati (2015). Populism and euroscepticism in the italian five star movement. *The International Spectator* 50(2), 109–124.
- Fujiwara, T., K. Meng, and T. Vogl (2016). Habit formation in voting: Evidence from rainy elections. *American Economic Journal: Applied Economics* 8(4), 160–88.
- Gerber, A., J. Gimpel, D. Green, and D. Shaw (2011). How large and long-lasting are the persuasive effects of televised campaign ads? results from a randomized field experiment. *American Political Science Review* 105(1), 135—150.
- Gerber, A. S., D. Karlan, and D. Bergan (2009). Does the media matter? a field experiment measuring the effect of newspapers on voting behavior and political opinions. *American Economic Journal: Applied Economics* 1(2), 35–52.
- Giglioli, P. P. (2008). Political corruption and the media: the tangentopoli affair. *International Social Science Journal* 48(149), 381–394.
- Giuliano, P. and A. Spilimbergo (2014). Growing up in a recession. *The Review of Economic Studies* 81(2), 787–817.
- Goren, P. (2005). Party identification and core political values. *American Journal of Political Science* 49(4), 881–896.
- Green, D. P. and B. Palmquist (1990). Of artifacts and partisan instability. *American Journal of Political Science* 34(3), 872–902.
- Green, D. P. and B. Palmquist (1994). How stable is party identification? *Political Behavior* 16(4), 437–466.
- Grosjean, P. and C. Senik (2011). Democracy, market liberalization, and political preferences. *The Review of Economics and Statistics* 93(1), 365–381.
- Guiso, L., H. Herrera, M. Morelli, T. Sonno, et al. (2017). Demand and supply of populism. *IGIER Working Paper* (610).

- Guiso, L., H. Herrera, M. Morelli, T. Sonno, et al. (2018). Global crisis and populism: The role of eurozone institutions. *Centre for Economic Policy Research Discussion Paper* (1069).
- Gundle, S. and S. Parker (Eds.) (1996). *The new Italian Republic : from the fall of the Berlin Wall to Berlusconi*. London: Routledge.
- Guriev, S. (2018). Economic drivers of populism. *AEA Papers and Proceedings* 108, 200–203.
- Hainmueller, J. and M. Hischox (2010). Attitudes toward Highly Skilled and Low-skilled Immigration: Evidence from a Survey Experiment. *American Political Science Review* 104(1), 61–84.
- Halla, M., A. F. Wagner, and J. Zweimuller (2017). Immigration and voting for the far right. *Journal of the European Economic Association* 15(6), 1341–1385.
- Hill, S., J. Lo, L. Vavreck, and J. Zaller (2013). How quickly we forget: The duration of persuasion effects from mass communication. *Political Communication* 30(4), 521–547.
- Hirano, S. and J. M. Snyder Jr (2012). Primary elections and political accountability: What happens to incumbents in scandals? *Quarterly Journal of Political Science* 7(4), 447–456.
- Inglehart, R. and P. Norris (2016). Trump, brexit, and the rise of populism: Economic have-nots and cultural backlash. *Harvard Kennedy School Working Paper* (RWP 016-026).
- Kinder, D. R. (2006). Politics and the life cycle. *Science* 312(5782), 1905–1908.
- Kinder, D. R. and N. P. Kalmoe (2017). *Neither liberal nor conservative: Ideological innocence in the American public*. University of Chicago Press.
- Krosnick, J. and D. Alwin (1989). Aging and susceptibility to attitude change. *Journal of Personality and Social Psychology* 57, 416–425.
- Lau, R. R. and D. P. Redlawsk (2008). Older but wiser? effects of age on political cognition. *The Journal of Politics* 70(1), 168–185.

- Madestam, A. and D. Yanagizawa-Drott (2012). Shaping the nation: The effect of fourth of july on political preferences and behavior in the united states. *Harvard John F. Kennedy School of Government Research Working Paper RWP12-034*.
- Maeda, K. and A. Ziegfeld (2015). Socioeconomic status and corruption perceptions around the world. *Research & Politics* 2(2), 2053168015580838.
- Mason, L. (2014). “i disrespectfully agree”: The differential effects of partisan sorting on social and issue polarization. *American Journal of Political Science* 59(1), 128–145.
- Mason, L. (2018). Ideologues without issues: The polarizing consequences of ideological identities. *Public Opinion Quarterly* 82(S1), 280–301.
- Miller, W. E. (1991). Party identification, realignment, and party voting: Back to the basics. *American Political Science Review* 85(2), 557—568.
- Morris, S. D. and J. L. Klesner (2010). Corruption and trust: Theoretical considerations and evidence from mexico. *Comparative Political Studies* 43(10), 1258–1285.
- Mudde, C. (2007). *Populist radical right parties in Europe*, Volume 22. Cambridge University Press Cambridge.
- Nannicini, T., A. Stella, G. Tabellini, and U. Troiano (2013). Social capital and political accountability. *American Economic Journal: Economic Policy* 5(2), 222–50.
- Newell, J. (2000). *Parties and democracy in Italy*. Parties and Democracy. Dartmouth Publishing.
- Nunn, N. and L. Wantchekon (2011, December). The slave trade and the origins of mistrust in africa. *American Economic Review* 101(7), 3221–52.
- Ohme, J., C. H. de Vreese, and E. Albaek (2017). The uncertain first-time voter: Effects of political media exposure on young citizens’ formation of vote choice in a digital media environment. *New Media & Society* 0(0), 1–23.
- O’Keefe, G. J. and J. Liu (1980). First-time voters: Do media matter? *Journal of Communication* 30(4), 122–129.
- Osborne, D., D. O. Sears, and N. A. Valentino (2011). The end of the solidly democratic south: The impressionable-years hypothesis. *Political Psychology* 32(1), 81–108.

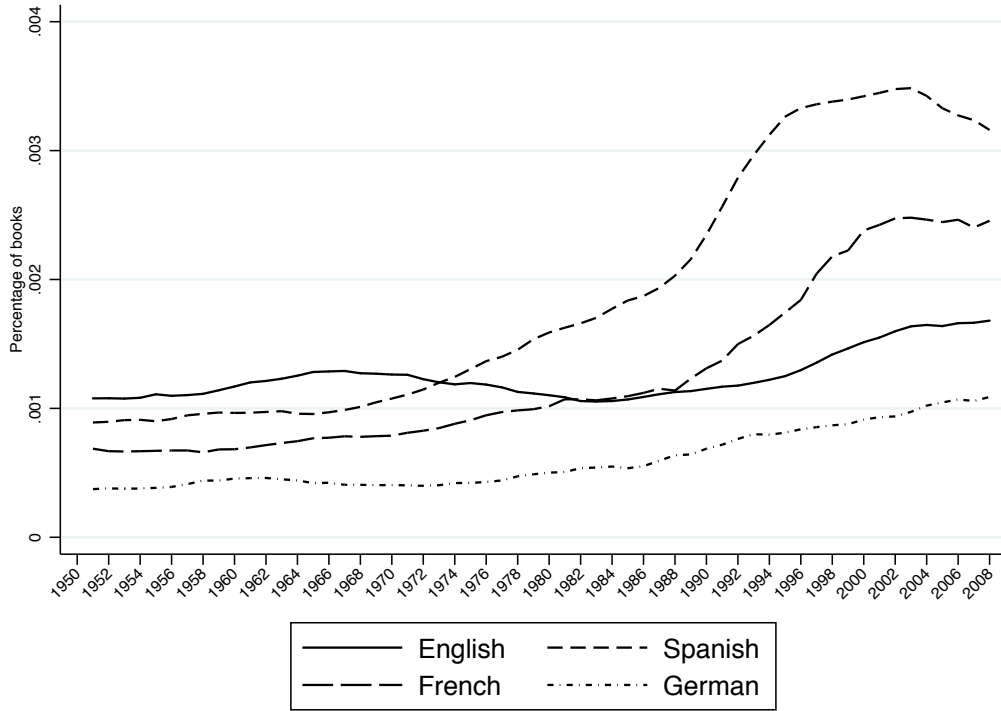
- Peters, J. G. and S. Welch (1980). The effects of charges of corruption on voting behavior in congressional elections. *American Political Science Review* 74(3), 697–708.
- Richey, S. (2010). The impact of corruption on social trust. *American Politics Research* 38(4), 676–690.
- Riera, P., P. Barberá, R. Gómez, J. A. Mayoral, and J. R. Montero (2013). The electoral consequences of corruption scandals in Spain. *Crime, Law and Social Change* 60(5), 515–534.
- Rizzica, L. and M. Tonello (2015). Exposure to media and corruption perceptions. *Bank of Italy Discussion papers*.
- Rodrik, D. (2018). Populism and the economics of globalization. *Journal of International Business Policy*, 1–22.
- Roth, C. and J. Wohlfart (2018). Experienced inequality and preferences for redistribution. *Journal of Public Economics* 167, 251–262.
- Russell, A. T., R. J. Johnston, and C. J. Pattie (1992). Thatcher’s children: Exploring the links between age and political attitudes. *Political Studies* 40(4), 742–756.
- Schickler, E. and D. P. Green (1997). The stability of party identification in western democracies: Results from eight panel surveys. *Comparative Political Studies* 30(4), 450–483.
- Schuman, H. and A. Corning (2012). Generational memory and the critical period evidence for national and world events. *Public Opinion Quarterly* 76(1), 1–31.
- Sears, D. O. and C. L. Funk (1999). Evidence of the long-term persistence of adults’ political predispositions. *The Journal of Politics* 61(1), 1–28.
- Sears, D. O. and N. A. Valentino (1997). Politics matters: Political events as catalysts for pre-adult socialization. *American Political Science Review* 91, 45–65.
- Sidorkin, O. and D. Vorobyev (2018). Political cycles and corruption in Russian regions. *European Journal of Political Economy* 52, 55–74.
- Solé-Ollé, A. and P. Sorribas-Navarro (2017). Trust no more? on the lasting effects of corruption scandals. *European Journal of Political Economy* Forthcoming.

- Stockemer, D., B. LaMontagne, and L. Scruggs (2013). Bribes and ballots: The impact of corruption on voter turnout in democracies. *International Political Science Review* 34(1), 74–90.
- Tirole, J. (1996). A theory of collective reputations (with applications to the persistence of corruption and to firm quality). *The Review of Economic Studies* 63(1), 1–22.
- Tyler, T. and R. Schuller (1991). Politics matters: Political events as catalysts for pre-adult socialization. *Journal of Personality and Social Psychology* 61, 689–697.
- Tyson, A. and S. Maniam (2016). Behind trump’s victory: Divisions by race, gender, education. *Pew Research Center* 9.
- Vertier, P. and M. Viskanic (2018). Dismantling the ‘jungle’: Migrant relocation and extreme voting in france. Available at SSRN: <https://ssrn.com/abstract=2963641> or <http://dx.doi.org/10.2139/ssrn.2963641>.
- Wagner, M., D. Johann, and S. Kritzingner (2012). Voting at 16: Turnout and the quality of vote choice. *Electoral Studies* 31(2), 372–383.
- Zeglovits, E. and J. Aichholzer (2014). Are people more inclined to vote at 16 than at 18? evidence for the first-time voting boost among 16- to 25-year-olds in austria. *Journal of Elections, Public Opinion and Parties* 24(3), 351–361.
- Zmerli, S. and T. W. Van der Meer (2017). *Handbook on political trust*. Edward Elgar Publishing.

## Appendix

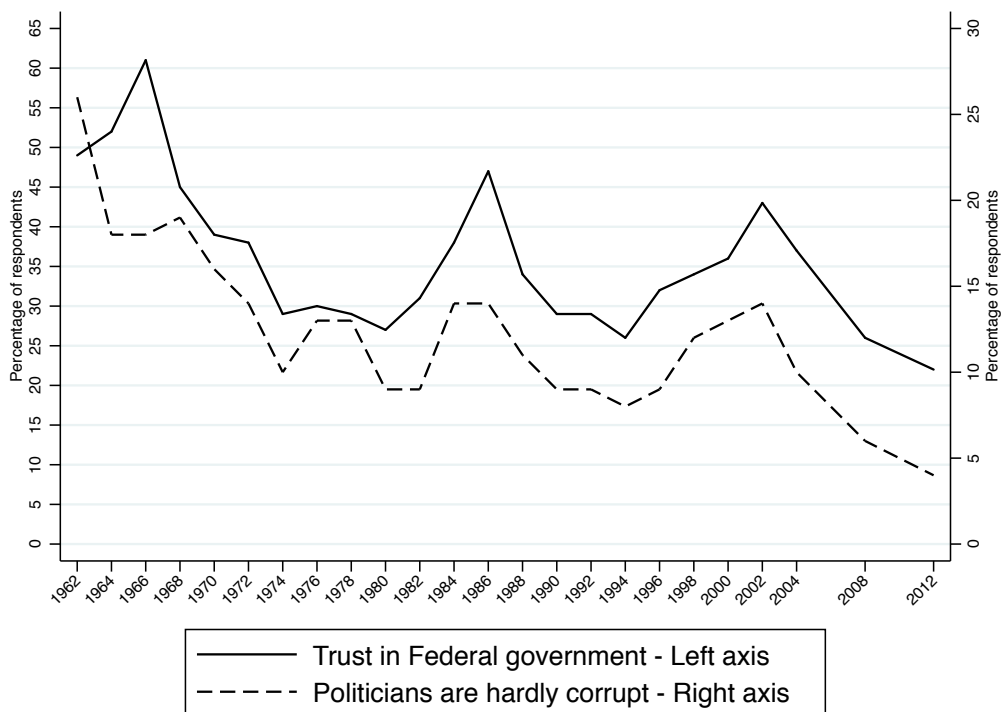
### A.1. Qualitative evidence

Figure A.1: Long Term increase in Corruption Perceptions (Google Books)



**Note:** The figure shows the yearly percentage of English, Spanish, French and German books digitalized by *Google* and talking about corruption during the period 1950-2008.

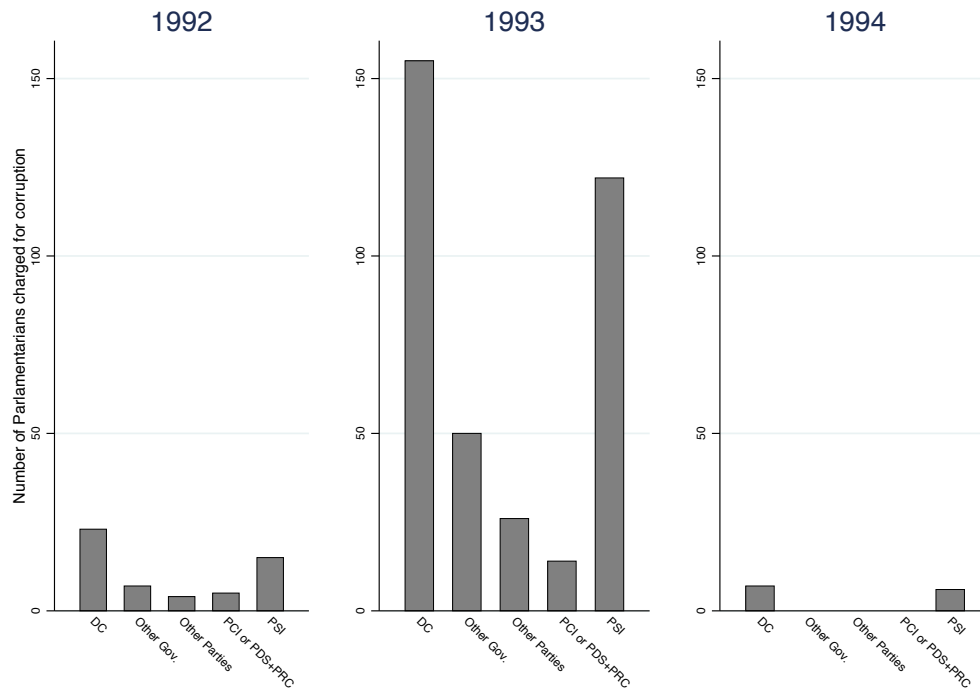
Figure A.2: Long Term decline in Trust in Institutions and increase in Corruption perceptions (US)



**Note:** The figure shows the trend of trust in federal government and corruption perception in US during the period 1958-2012. Corruption perception is represented by the percentage of respondents thinking that politicians are hardly corrupt. Source: American National Election Studies.



Figure A.3: Charged Parliamentarians by Year and Party Affiliation



**Note:** The figure reports the number of national parliamentarians charged with corruption (or corruption-related offences) by year and party affiliation. Own calculation based on data from Ceron and Mainenti (2015).

## A.2. The Trustlab Database

Figure A.4: The Trustlab Questionnaire

### [SCREEN 29 – TRUST IN INSTITUTIONS]

When answering the following questions, please think about [enter country here] institutions. How much trust do you have in the following?

|                   | I don't trust them at all |   |   |   |   | I completely trust them |   |   |   |   |    |    |
|-------------------|---------------------------|---|---|---|---|-------------------------|---|---|---|---|----|----|
| The government    | 0                         | 1 | 2 | 3 | 4 | 5                       | 6 | 7 | 8 | 9 | 10 | DK |
| The civil service | 0                         | 1 | 2 | 3 | 4 | 5                       | 6 | 7 | 8 | 9 | 10 | DK |
| The parliament    | 0                         | 1 | 2 | 3 | 4 | 5                       | 6 | 7 | 8 | 9 | 10 | DK |

**Note:** The figure shows the screens appearing online to the respondents of the Trustlab survey and containing the questions about institutional trust.

### *A.3. A complete list of all variables*

Our analysis relies on two main sources of data. The first one is the Trustlab database, while the second one is Italian National Election Studies survey (ITANES). In this Appendix we provide a list of all variables employed in this work from each source, together with a brief description of information used to build them up.

#### **TrustLab Database**

- Trust in parliament: To what extent an individual trusts the national Parliament on a 0-10 scale.
- Trust in government: To what extent an individual trusts the national Government on a 0-10 scale.
- Trust in civil servants: To what extent an individual trusts civil servants in own country on a 0-10 scale.
- Trust in police: To what extent an individual trusts police in own country on a 0-10 scale.
- Trust in media: To what extent an individual trusts media in own country on a 0-10 scale.
- Trust in financial institutions: To what extent an individual trusts financial institutions (e.g. banks) in own country on a 0-10 scale.
- Generalized trust: To what extent an individual trusts the others on a 0-10 scale.
- Immigrants integration: To what extent an individual think that cultural intergation of immigrant is feasible in own country on a 0-10 scale.
- Trust in immigrants: To what extent an individual trusts immigrants in own country on a 0-10 scale.
- Trust in refugees: To what extent an individual trusts refugees in own country on a 0-10 scale.
- Efficiency: To what extent an individual thinks that public institutions are efficient on a 0-10 scale.

- Forward-Looking: To what extent an individual thinks that public institutions are forward-looking on a 0-10 scale.
- Integrity: To what extent an individual thinks that public institutions are integer on a 0-10 scale.
- Transparency: To what extent an individual thinks that public institutions are transparent on a 0-10 scale.
- Satisfaction with education: To what extent an individual is satisfied with public education on a 0-10 scale.
- Satisfaction with transports: To what extent an individual is satisfied with public transports on a 0-10 scale.
- Satisfaction with welfare: To what extent an individual is satisfied with public welfare on a 0-10 scale.
- Satisfaction with housing: To what extent an individual is satisfied with public housing on a 0-10 scale.
- Satisfaction with security: To what extent an individual is satisfied with public security on a 0-10 scale.
- Satisfaction with culture: To what extent an individual is satisfied with public cultural events on a 0-10 scale.
- Turnout: A dummy variable equal to 1 if an individual voted at the 2018 election and 0 otherwise. The information for constructing the variable is collected by the follow-up survey on the Italian Trustlab sample.
- LEU: A dummy variable equal to 1 if an individual voted for *Liberi e Uguali* at the national electoral round of 2018 and 0 otherwise. The information for constructing the variable is collected by the follow-up survey on the Italian Trustlab sample.
- PD: A dummy variable equal to 1 if an individual voted for *Partito Democratico* at the national electoral round of 2018 and 0 otherwise. The information for constructing the variable is collected by the follow-up survey on the Italian Trustlab sample.

- M5S: A dummy variable equal to 1 if an individual voted for *Movimento 5 Stelle* at the national electoral round of 2018 and 0 otherwise. The information for constructing the variable is collected by the follow-up survey on the Italian Trustlab sample.
- LEGA: A dummy variable equal to 1 if an individual voted for *Lega* at the national electoral round of 2018 and 0 otherwise. The information for constructing the variable is collected by the follow-up survey on the Italian Trustlab sample.
- FI: A dummy variable equal to 1 if an individual voted for *Forza Italia* at the national electoral round of 2018 and 0 otherwise. The information for constructing the variable is collected by the follow-up survey on the Italian Trustlab sample.
- FDI: A dummy variable equal to 1 if an individual voted for *Fratelli d'Italia* at the national electoral round of 2018 and 0 otherwise. The information for constructing the variable is collected by the follow-up survey on the Italian Trustlab sample.
- +Europa: A dummy variable equal to 1 if an individual voted for *+Europa* at the national electoral round of 2018 and 0 otherwise. The information for constructing the variable is collected by the follow-up survey on the Italian Trustlab sample.
- Populist: A dummy variable equal to 1 if an individual voted for a populist party at the national electoral round of 2018 and 0 otherwise. Among populist parties we include *Lega*, *Movimento 5 Stelle*, *Fratelli d'Italia*, *Casapound*, *Potere al Popolo* and *Il Popolo della Famiglia*. Among mainstream parties we include *Partito Democratico*, *Liberi ed Uguali*, *Forza Italia*, *+Europa*, *Civica Popolare* and *Italia Europa Unita*. The information for constructing the variable is collected by the follow-up survey on the Italian Trustlab sample.
- Female: A dummy variable equal to 1 if an individual is woman and 0 otherwise.
- Catholic: A dummy variable equal to 1 if an individual is catholic and 0 otherwise.
- Income: Quintile of distribution of total gross income which individuals belong to
- TV: A dummy variable equal to 1 if an individual watches "a lot of TV" or "some TV" and 0 otherwise.

- Education: The highest level of education achieved by individuals. It equals 1 for those having no education or only primary school, 2 for those with secondary school degree and 3 for people completing tertiary education.
- Not educated: A dummy variable equal to 1 if an individual achieved less than secondary education and 0 otherwise.
- Number of children: Total number of own children. Information for constructing this variable is provided only within the Italian sample of Trustlab.
- Employed: A dummy variable equal to 1 if an individual is currently employed and 0 otherwise.
- Employed in private sector: A dummy variable equal to 1 if an individual is currently employed in the private sector and 0 otherwise.
- Married: A dummy variable equal to 1 if an individual is currently married and 0 otherwise. Information for constructing this variable is provided only within the Italian sample of Trustlab.
- Agreeableness: One of the five trait of individual personality. The score for this trait is calculated as the average of the answers to the questions about individual's rudeness, forgiveness and empathy with the others. The answers are provided along a 1-7 scale where 1 indicates complete disagreement and 7 complete agreement. Given the negative sense of the question on rudeness with respect to the other two elements, we revert the order of the responses to this question before taking the average. Information for constructing this variable is provided only within the Italian sample of Trustlab.
- Consciousness: One of the five trait of individual personality. The score for this trait is calculated as the average of the answers to the questions about individual's laziness, efficiency at work and if she is a thorough worker. The answers are provided along a 1-7 scale where 1 indicates complete disagreement and 7 complete agreement. Given the negative sense of the question on laziness with respect to the other two elements, we revert the order of the responses to this question before taking the average. Information for constructing this variable is provided only within the Italian sample of Trustlab.

- **Extroversion:** One of the five trait of individual personality. The score for this trait is calculated as the average of the answers to the questions about individual's talkativeness, discretion and sociability. The answers are provided along a 1-7 scale where 1 indicates complete disagreement and 7 complete agreement. Given the negative sense of the question on discretion with respect to the other two elements, we revert the order of the responses to this question before taking the average. Information for constructing this variable is provided only within the Italian sample of Trustlab.
- **Openness:** One of the five trait of individual personality. The score for this trait is calculated as the average of the answers to the questions about individual's artistic view, imagination and originality. The answers are provided along a 1-7 scale where 1 indicates complete disagreement and 7 complete agreement. Information for constructing this variable is provided only within the Italian sample of Trustlab.
- **Neuroticism:** One of the five trait of individual personality. The score for this trait is calculated as the average of the answers to the questions about individual's neuroticism, wariness and capacity to relax. The answers are provided along a 1-7 scale where 1 indicates complete disagreement and 7 complete agreement. Given the positive sense of the question on the capacity to relax with respect to the other two elements, we revert the order of the responses to this question before taking the average. Information for constructing this variable is provided only within the Italian sample of Trustlab.
- **Province of residence:** The Italian province where the individuals currently reside (2017).
- **Region of childhood:** The Italian region where the individuals lived up to 16 years old. Such information is collected in the follow-up survey for the Italian TrustLab.
- **South:** A dummy equal to 1 if the region where the individuals lived up to 16 years old is in Southern Italy and 0 otherwise. We consider southern regions Sicilia, Sardegna, Calabria, Puglia, Molise, Campania, Basilicata, Abruzzo and Lazio.

## Italian National Election Studies

- Interest in politics: A dummy variable equal to 1 if an individual declares to be generally interested in politics and 0 otherwise. This variable is provided only within the 1996-wave of ITANES.
- Read news on politics: A dummy variable equal to 1 if an individual read news on politics during the last national electoral campaign and 0 otherwise. This variable is provided only within the 1996-wave of ITANES.
- Distrust in democracy: A dummy variable equal to 1 if an individual declares that sometimes or always dictatorship is better than democracy and 0 otherwise. This variable is provided only within the 1996-wave of ITANES.
- Trust in Parliament: A dummy variable equal to 1 if an individual trusts the national Parliament and 0 otherwise. This variable is provided only within the 2001-wave of ITANES.
- Closeness to *Lega*: A dummy variable equal to 1 if an individual feels *Lega* as the ideologically closest party to him and 0 otherwise. This variable is provided within the 1996-wave of ITANES.
- Vote for *Lega* 1994: A dummy variable equal to 1 if an individual voted for *Lega* at the 1994 national election and 0 otherwise. This variable is provided within the 1996-wave of ITANES.
- Vote for *Lega* 1996: A dummy variable equal to 1 if an individual voted for *Lega* at the 1996 national election and 0 otherwise. This variable is provided within the 1996-wave of ITANES.
- Opinion on Bossi: To what extent an individual retains Umberto Bossi, the former *Lega*'s secretary, was doing well as political leader from 1 to 10. This variable is provided within the 1996-wave of ITANES.
- Closeness to *Alleanza Nazionale/Movimento Sociale Italiano*: A dummy variable equal to 1 if an individual feels *Alleanza Nazionale/Movimento Sociale Italiano* as the ideologically closest party to him and 0 otherwise. This variable is provided within the 1996-wave of ITANES.



- Vote for *Alleanza Nazionale/Movimento Sociale Italiano* 1994: A dummy variable equal to 1 if an individual voted for *Alleanza Nazionale/Movimento sociale Italiano* at the 1994 national election and 0 otherwise. This variable is provided within the 1996-wave of ITANES.
- Vote for *Alleanza Nazionale/Movimento Sociale Italiano* 1996: A dummy variable equal to 1 if an individual voted for *Alleanza Nazionale/Movimento Sociale Italiano* at the 1996 national election and 0 otherwise. This variable is provided within the 1996-wave of ITANES.
- Opinion on Fini: To what extent an individual retains Gianfranco Fini, the former *Alleanza Nazionale/Movimento Sociale Italiano*'s secretary, was doing well as political leader from 1 to 10. This variable is provided within the 1996-wave of ITANES.
- Female: A dummy variable equal to 1 if an individual is woman and 0 otherwise.
- Catholic: A dummy variable equal to 1 if an individual is catholic and 0 otherwise.
- Social class: The social class which the individuals (or their household in the case of not working individuals) belong to. It is differentiated in urban middle-class, agrarian middle-class and working-class.
- Education: The highest level of education achieved by individuals. It goes from 1 (i.e. Never went to school) to 7 (i.e. having an university degree).
- Employed: A dummy variable equal to 1 if an individual is currently employed and 0 otherwise.
- Number of children: Total number of own children.
- Married: A dummy variable equal to 1 if an individual is currently married and 0 otherwise.

#### A.4. Non-linear Estimates

Table A.1: Effect of "Clean Hands" on the 2018 Vote: Logit Regression Model

|          | (1)               | (2)                 | (3)                 | (4)               | (5)              | (6)                | (7)               | (8)              | (9)               |
|----------|-------------------|---------------------|---------------------|-------------------|------------------|--------------------|-------------------|------------------|-------------------|
|          | Turnout           | Pop. Parties        | LEU                 | PD                | M5S              | LEGA               | FI                | FDI              | +Europa           |
| 1975/76  | -0.246<br>(0.425) | 0.636***<br>(0.177) | -1.695**<br>(0.796) | -0.176<br>(0.264) | 0.014<br>(0.310) | 0.444**<br>(0.207) | -0.436<br>(0.430) | 0.925<br>(0.574) | -1.017<br>(1.073) |
| Contr.   | YES               | YES                 | YES                 | YES               | YES              | YES                | YES               | YES              | YES               |
| Prov. FE | YES               | YES                 | YES                 | YES               | YES              | YES                | YES               | YES              | YES               |
| Obs.     | 902               | 784                 | 485                 | 724               | 787              | 621                | 559               | 382              | 440               |

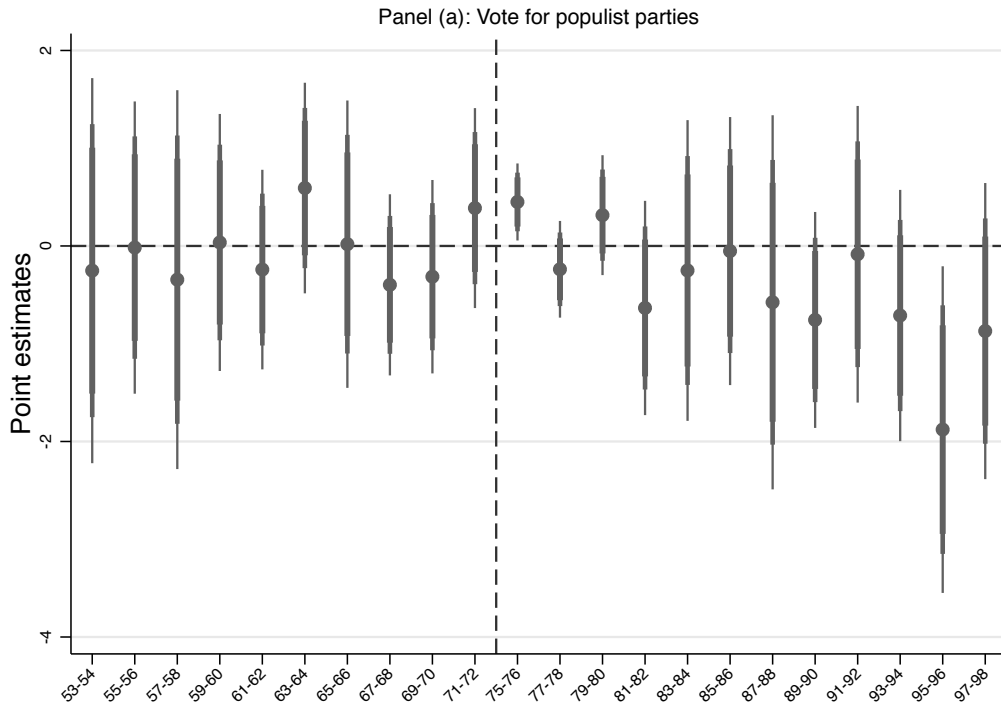
Dependent variable: Individual turnout (col. (1)), vote for populist parties (col. (2)), vote for *Liberi ed Uguali* (col. (3)), *Partito Democratico* (col. (4)), *Movimento 5 Stelle* (col. (5)), *Lega* (col. (6)), *Forza Italia* (col. (7)), *Fratelli d'Italia* (col. (8)), *+Europa* (col. (9)). The vote refers to the national Italian electoral round of 2018. Among populist parties we include *Movimento 5 Stelle*, *Lega*, *Fratelli d'Italia*, *Casapound*, *Potere al Popolo*, *Popolo della Famiglia*. The main independent variable is a dummy taking the value 1 for individuals born in 1975 or 1976 and 0 otherwise. All columns use a Logit regression model to estimate Equation 1. All columns include time-varying controls and provincial fixed effect. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Standard errors are robust to heteroskedasticity and clustered at the year of birth level. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Table A.2: Effect of “Clean Hands” on the 2018 Vote: Multinomial Logit Regression Model

|         | (1)      | (2)     | (3)     | (4)       | (5)     | (6)     | (7)     |
|---------|----------|---------|---------|-----------|---------|---------|---------|
|         | LEU      | PD      | M5S     | LEGA      | FI      | FDI     | +Europa |
| 1975/76 | -0.048** | -0.026  | -0.020  | -0.075*** | 0.002   | 0.027   | -0.009  |
|         | (0.020)  | (0.033) | (0.076) | (0.017)   | (0.022) | (0.025) | (0.024) |
| Contr.  | YES      | YES     | YES     | YES       | YES     | YES     | YES     |
| Obs.    | 831      | 831     | 831     | 831       | 831     | 831     | 831     |

**Note:** The table shows the marginal effect of being born in 1975 or 1976 on the probability to vote for *Liberi ed Uguali* (col. (1)), *Partito Democratico* (col. (2)), *Movimento 5 Stelle* (col. (3)), *Lega* (col. (4)), *Forza Italia* (col. (5)), *Fratelli d'Italia* (col. (6)), +*Europa* (col. (7)). The vote refers to the national Italian electoral round of 2018. Marginal effect are calculated starting from a Multinomial Logit regression model in which the dependent variable is a categorical variable recording the party voted at such election. The model includes time-varying controls. Among the set of controls there are gender, decade of birth, religion, education, income, personality traits, marital status, number of children, labor force status, if the individual works in the private sector and if the individual belongs to the boosted sample. Note that in this case we do not include province fixed effects since the model does not converge with their inclusion. Standard errors of the Multinomial Logit are robust to heteroskedasticity and clustered at the year of birth level, while the standard errors of the marginal effects are obtained by Delta-method. \*, \*\*, \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Figure A.5: Effect of “Clean Hands” on the 2018 Vote for Populist Parties by Two-Years Birth Cohorts: Logit Regression Model



**Note:** The figure shows the point estimates and the confidence intervals at 90% (i.e. least-wide spikes), at 95% (i.e. medium-wide spikes) and at 99% (i.e. widest spikes) of Equation 2. The dependent variable is Vote for populist parties at the Italian national electoral round of 2018.