The Political Economy of Stimulus Transfers

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Abstract

Stimulus payments are a frequent tool used by governments during economic downturns. While transfers should be targeted towards individuals with the highest marginal propensity to consume, the design of benefits might also be driven by political economy considerations. This paper investigates the electoral effects of stimulus payments. I leverage quasi-exogenous local variation in exposure to a large stimulus tax credit introduced in Italy in 2014 by the Democratic Party and targeted towards the median earner. I document that a 1 percentage point increase in the share of recipients leads to a 0.18 percentage point increase in the Democratic Party's vote share in the subsequent election. I then explore the mechanisms through which stimulus transfers deliver electoral benefits and show that it is the direct receipt of the transfers, and not its indirect stimulus impact on the local economy, that drives the positive electoral response. I also provide evidence that rewards persist in the long run, even after the party loses control of the government, and that revoking the transfer from non-eligible beneficiaries leads to electoral punishment. These results help explain why politicians might be reluctant to repeal stimulus transfers, despite their large economic costs. Finally, I provide unique survey evidence confirming how stimulus checks lead to sudden shifts in voters' choices, further confirming a direct link between transfer receipt and voting behavior. JEL: D72, H23, H53, I38, O15.

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1 Introduction

Stimulus payments are a frequent tool used by governments during economic downturns.From a macro-economic perspective, effective stimulus transfers should be timely, targeted and temporary (Summers 2008). Payments should be delivered as quickly as possible and should be targeted towards low-income, liquidity-constrained households, who are most likely to spend the money and thus stimulate the economy. Finally, transfers should be temporary, so as to avoid long-term budget deficits and maintain fiscal credibility. However, decisions about the adoption (and repeal) of stimulus transfers are usually made by elected officials. Political economy considerations are thus likely to influence and potentially distort transfers' design.¹ If politicians maximize their expected electoral benefits, as opposed to the consumption stimulus impacts, stimulus payments might be targeted towards the median voter, as opposed to the lowest-income individuals. Furthermore, if transfers indeed create electoral rewards, elected officials might be reluctant to repeal them.

Despite their potential importance, political economy considerations received limited attention by research studying fiscal stimulus. I fill this gap by providing the first causal evidence on the electoral effects of stimulus transfers. Estimating the electoral consequences of stimulus transfers presents two empirical challenges. First, previous work has been limited by the lack of detailed data on both transfer recipients and voting behavior. Second, the empirical estimation requires an identification strategy that addresses the potential endogenous targeting of transfers.

I overcome these challenges by exploiting a unique natural experiment arising from the adoption of the so-called "80 Euro Bonus", the largest stimulus transfer ever adopted in Italy. The Democratic Party government, led by the newly-appointed prime minister Matteo Renzi, adopted the policy as one of its first measures in April 2014, to stimulate consumption after the long-lasting recession that started in 2011.² While initially adopted as a temporary measure only for 2014, the Bonus became permanent in 2015 and since then has never been abolished by any of the five different governments that took office since its adoption.

The program entailed a monthly transfer of $\in 80$ (approximately \$100 at the time) for all payroll employees having a gross annual income between $\in 8,145$ and $\in 26,000$. At the time, individual median (average) income was around $\in 16,000$ ($\in 19,000$), so the transfer targeted mostly middle-income individuals (see Figure 1). Over 10 million payroll employees, corresponding to 20% of the voting-eligible population received the Bonus. Employers were required to assess employees' eligibility based on their annual payroll income and to credit

¹For instance, for the first time in U.S. history, President Donald J. Trump's name appears on the CARES Act stimulus checks. Many observers criticized the move as being a clear electoral tactic, aiming at claiming credit with voters for delivering benefits (Rappeport 2020, Gittleson 2021).

²At the time, Italy had suffered 11 consecutive quarters of economic downturns (Bank of Italy, 2015).

the Bonus in their paycheck. Eligible beneficiaries started receiving the money at the end of May 2014, the week of the national-level elections for the European Parliament.

To evaluate the electoral effects of the policy, I combine detailed administrative data on the number of bonus beneficiaries, the income and employment distribution, as well as electoral records for the universe of Italian municipalities. I then exploit the quasi-random geographic variation in program intensity at the municipality level, induced by pre-determined variation in the income and payroll employment distribution, and apply a difference-indifferences design comparing the change in electoral performance over time in municipalities with more vs. fewer beneficiaries among the voting-eligible population.

The key threat to this design is the possibility that time-varying, municipality-specific shocks are correlated with program intensity. I overcome this threat in four ways. First, I include a wide range of pre-determined municipal characteristics interacted with time effects that allow me to flexibly control for any potential differential trend or shock affecting municipalities with different characteristics. Most importantly, I control non-parametrically for the two eligibility criteria of the bonus, i.e. the overall share of payroll employees as well as for the share of total taxpayers in each income bin, so that my identification only relies on the residual variation in the distribution of payroll employees within income bins. Thus, any other potential confounding shock should differentially affect municipalities that have the same income and same payroll distribution over time, but different relative share of payroll employees in any specific bin. Second, pre-event placebo tests show that the estimated effects are not driven by pre-existing trends across municipalities with different treatment intensities. Third, I show that the results are robust to a series of alternative specifications, such as the inclusion of region-by-year fixed effects, and the use of different weighting schemes. Fourth, I exploit the granularity of the data to identify the effects by relying only on variation in the share of marginal beneficiaries around the eligibility thresholds in otherwise identical municipalities.

Results show evidence of large short-run electoral rewards: a 1 percentage point increase in the share of recipients leads to a 0.18 percentage points increase in the incumbent party's vote share in 2014, from a pre-treatment mean of 27%. For the average municipality (20.15% beneficiaries), the introduction of the program increased the incumbent vote share by around 4 percentage points. This corresponds to 35% of the national change in the Democratic Party's performance between 2013 (pre) and 2014 (post) elections: from 27% to 40.8%.

I also document that the positive electoral rewards persist over time, up to 5 years from the policy adoption, when the Democratic Party still exhibits a 0.06 percentage point increase in vote share in places with a higher share of recipients. This is a striking result, considering that the prime minister who adopted the policy, Matteo Renzi, resigned in 2016.

While results indeed show that places that benefited most from the policy exhibit higher

support for the Democratic Party, estimated effects are potentially consistent with alternative explanations, which speak to different theories of voters' behavior and have distinct implications for electoral accountability. On the one hand, it could be that individuals respond directly to the improvement in their own economic conditions, for either instrumental (Healy, Persson and Snowberg 2017) or reciprocal motives (Finan and Schechter 2012). On the other hand, if the policy achieved the intended economy-wide stimulus effects, voters might be rewarding the incumbent for the improvement in overall economic conditions, a phenomenon known as sociotropic economic voting (Ansolabehere, Meredith and Snowberg 2014, Lewis-Beck and Stegmaier 2018).³ Distinguishing between these explanations is important as they have distinct implications for politicians' behavior in policy design. If voters only reward politicians that directly benefit them, then electoral concerns might bias politicians towards designing transfers targeting the most *electorally responsive* voters. On the other hand, if voters reward incumbents for overall improvements in economic conditions, then electoral and economic incentives are aligned and politicians should aim at maximizing the amount of economic stimulus when designing transfers by targeting the most *consumption-responsive* voters. To disentangle between these alternative explanations, I proceed in two steps. First, I argue that the timing and persistence of effects allow me to partially learn about the potential mechanisms at play. In particular, the sudden emergence of positive rewards in the very first election of May 2014 is unlikely to be explained by a *sociotropic* response, as the first bonus payments arrived in the days around the elections and the positive stimulus effects had yet to materialize. The long-run persistent effects are also inconsistent with a *sociotropic* response, as the theory suggests that voters would reward the current incumbent for the improvement in economic conditions, but in 2019 the Democratic Party was no longer part of the government. The persistence of electoral rewards in favor of the Democratic Party thus suggests that voters are rationally attributing credit to the party that directly benefited them, a result in contrast with some previous evidence from other countries documenting errors and irrationality in voters' credit attribution (Bagues and Esteve-Volart 2016, Wolfers 2007, Pop-Eleches and Pop-Eleches 2012).⁴

To further disentangle the direct effect of the policy from the indirect effect of potential consumption stimulus, I leverage two different types of plausibly exogenous variations. First, I compare municipalities that have the same number of program beneficiaries but receive a different total amount per capita. Second, I exploit the Bonus misattribution by employers, giving rise to an ex-post negative income shock. Due to these attribution errors, about

 $^{^{3}}$ A large political science literature has devoted attention to testing these different theories, finding different results depending on the context and the type of policy at stake. See Healy and Malhotra (2013) for a broad review of issues related to retrospective voting.

⁴On the other hand, these results are consistent with the evidence provided by Drago, Galbiati and Sobbrio (2020), who document that Italian voters correctly attribute responsibility and electorally punish the incumbent party for the negative effects of criminal justice policies.

1.5 million people had to give back the Bonus when they filed tax returns in April 2015. I find evidence of significant ex-post electoral punishment among excluded recipients, but no significant difference among places where recipients received or had to give back larger average amounts per capita.

The persistence of the electoral rewards and the presence of punishment among excluded recipients also allow us to understand why what was supposed to be a temporary stimulus policy became a permanent tax cut, and provide important evidence of the presence of dynamic inconsistency problems in fiscal spending decisions. Finally, I exploit rich individuallevel survey data on a panel of voters interviewed right before and after the Bonus receipt. I find evidence of a substantial increase in the probability of switching to support the Democratic Party among likely Bonus recipients. This further suggests that the stimulus played a key role in shifting attitudes toward the incumbent.

Overall, results suggest that the electoral rewards are driven by the direct positive reciprocal evaluations of recipients and not by the indirect response to the positive fiscal stimulus induced by the Bonus. I also provide suggestive evidence that the salience of the Bonus and its strong association with the incumbent likely played an important role, a result that is consistent with recent evidence on the role of visibility in explaining the electoral response of voters in the context of public works (Huet-Vaughn 2019, Marx 2018).

While delivering substantial electoral gains, the stimulus failed at inducing the desired fiscal multiplier effects: beneficiaries spent around 20% (30%) of the bonus on non-durables (durables) and saved the rest (Neri and Rondinelli 2017). The limited consumption responses are potentially due to the poor targeting of the policy, as over 25% of payroll employees earned less than $\in 10,000$ and were thus mostly excluded from the policy. Indeed, Andini et al. (2018) show that consumption responses could have been significantly higher had the lowest-income workers been targeted, a result that is in line with the findings of Nygaard, Sorensen and Wang (2020) for the US Covid-19 stimulus checks. Why did politicians choose not to target the most *consumption-responsive* individuals? I provide two additional pieces of evidence that suggest that electoral incentives distorted the allocation away from poor voters, who would be the most *consumption responsive* ones, and in favor of the middle-income voters, who seem to be the most *electorally responsive*. First, I exploit variation across localities in the share of excluded recipients, either because they fall below the minimum or above the maximum threshold. Here, I find evidence that the incumbent suffers only mild punishment from low-income excluded recipients, but much stronger sanctions from the high-income excluded ones. Second, I explore heterogeneity in the relative distribution of beneficiaries within the eligibility window, conditional on the share of overall beneficiaries. Here I find that the electoral effects are attenuated in places that tend to have relatively poorer beneficiaries, and significantly magnified in localities with relatively richer ones. Overall, these analyses confirm that beneficiaries closer to the median income are significantly more responsive from an electoral perspective, a result which is consistent with the median voter hypothesis, and that might help explain why politicians tend to target stimulus transfers towards the middle, as opposed to the bottom of the income distribution.

Contribution to the literature: These findings provide new insights to three strands of the literature. First, this paper contributes to the large literature on the effects of stimulus payments (e.g. Johnson, Parker and Souleles (2006), Parker et al. (2013), Kaplan and Violante (2014), Parker (2017), Coibion, Gorodnichenko and Weber (2020), Baker et al. (2020), Chetty et al. (2020), Kaplan, Moll and Violante (2020), Parker et al. (2022)). This literature has mostly focused on estimating the economic and consumption responses to payments, but has never looked at either the political determinants or consequences of transfers. A stable finding of this research is that consumption responses are larger among low-income and liquidity-constrained individuals, while higher-income individuals are more likely to save funds or use them to repay debt. Taking into account political economy considerations can help understand the design of fiscal stimulus programs and why sometimes adopted programs diverge from what would be predicted to be the most effective program from a stimulus point of view, as well as heterogeneity in the types of programs adopted across countries.⁵

Second, I contribute to the literature investigating the political economy of government spending, by providing the first causal estimates of the electoral effects of direct transfer receipt in the context of a mature democracy. Previous studies finding pro-incumbent rewards for distributive allocations mostly focused on young democracies (Manacorda, Miguel and Vigorito 2011, De La O 2013, Zucco 2013, Pop-Eleches and Pop-Eleches 2012, Labonne 2013) or, for the US, on allocations of funds to locations, rather than individuals (Healy and Malhotra 2009, Huet-Vaughn 2019). While electoral rewards are more likely to be seen as a clientelistic "exchange of favors" in contexts with weak institutions – where voters might be induced to think they would lose benefit eligibility or their locality would receive less funds in the future if they don't vote for the incumbent – it is not clear whether we should expect the same type of reciprocal exchange in contexts with stronger institutions or when benefits' receipt is based on clear and transparent rules, and benefit receipt does not require any political intermediation. I provide new evidence that, indeed, a similar type of dynamic emerges in mature democracies and for allocations that can be seen as fully independent from voters' behavior.

Third, and more generally, this paper relates to the broad literature on economic voting,

⁵For example, Ding et al. (2022) find sizeable effects of Chinese government-issued digital coupons designed to encourage spending in certain categories during Covid-19. While highly effective in stimulating consumption in targeted sectors, the program induced welfare gains for consumers that were only 50 percent of the ones they would have gained from receiving cash. This casts doubts on the political feasibility of similar programs in countries with electorally-motivated officials.

documenting a robust relationship between economic conditions and incumbent electoral performance. Some recent papers have highlighted the presence of voters' attribution errors when rewards are present for improvements in economic conditions that are unrelated to the incumbent's actions (Bagues and Esteve-Volart 2016, Healy and Malhotra 2009, Wolfers 2007). My results provide evidence against the hypothesis of attribution errors, and suggest that voters are fairly sophisticated and respond to policies benefitting them in a way that is consistent with models of retrospective voting and electoral accountability.

2 Institutional Background

2.1 The 80 Euro Bonus

Among European countries, Italy was one of the mostly severely affected by the 2008 global financial crisis and the subsequent Eurozone sovereign debt crisis. From 2007 to 2013, Italian GDP experienced a contraction of 8.7%, a decline four times as large as the average one experienced by the euro area. Total consumption dropped by over 6% and the recession was prolonged by internal demand stagnation (Andini et al. 2018). Given the economic context, in 2014 one of the first announcements of the new Democratic Party's Prime Minister, Matteo Renzi, was the creation of a large stimulus transfer to redistribute income towards poor workers and foster the recovery by boosting consumption. The policy was first announced as the "80 Euro Bonus" on March 12th 2014 and formally adopted on April 24th (Law Decree 66/2014).

The Bonus is a monthly tax-credit of $\in 80$ for *payroll employees* with a total gross annual income between $\in 8,145$ and $\in 26,000$.⁶ The transfer represents an increase of 6 to 12% in the monthly wage bill. For comparison, average wage growth in 2014 was around 1.4%. Enrollment in the transfer is automatic: the employer is required to assess eligibility based on the individual's earnings and reduce withheld tax contributions, thus increasing the monthly pay-check by $\in 80$. Eligibility is determined based on the individual's total annual income, and is assessed by employers based on an incomplete information set, as workers might receive taxable income from other sources. As a consequence, some individuals were initially misclassified as eligible, and thus had to reimburse the Bonus received when they filed taxes the next year. Overall, 9.7 million individuals were granted the Bonus in 2014, but about 1.5 million people had to return it in 2015. While initially funded only for 2014, the Bonus became permanent in 2015 and is still in place.⁷

⁶There is a small phase-out region for earnings between $\in 24,000$ and $\in 26,000$, where the amount of the Bonus is reduced linearly with income.

⁷Beginning January 2018, the maximum income threshold was slightly raised from $\in 26,000$ to $\in 26,600$. In January 2020, the amount was raised to $100 \in \text{per month}$.

Administrative and economic factors help explain the structure of the policy and the eligibility criteria. The choice of giving the Bonus only to payroll employees was motivated by the objective to make the implementation fast and automatic, with the Bonus credited by the employer. Any alternative structure of the measure, entailing an application would have required months for implementation. The income eligibility, and in particular the lower threshold, is partially related to the fact that the policy was designed as a tax credit, and the government decided to grant it only to those having earnings greater than the tax deduction amount, $\in 8,145.^8$ The choice to exclude tax-exempt individuals had important implications in terms of policy targeting and effectiveness: the impacts on consumption were in fact below the government's expectations, and could have been higher had the lowest-income workers been included, as they were likely to be the ones with the highest propensity to consume. According to government estimates, the policy in 2014 induced a fiscal transfer of 7 billion, equivalent to 0.4% of GDP. The Parliamentary Budget Office - the Italian analog to the Congressional Budget Office - estimated a positive impact of the policy on GDP of around 0.2% for 2015. Using data from the Bank of Italy's Survey of Household Income and Wealth, the Parliamentary Budget office estimated that only 39% of families in the first income decile benefited from the Bonus. These families had an estimated average propensity to consume of 60%, while the average propensity to consume of the beneficiaries was esitmated to be 46%, in line with the national average. On the other hand, over 45% of families in the 7th and 8th decile of the income distribution benefited from the Bonus, the share going down to 35% for the 9th and 20 % for the top decile (UPB 2015).

In a study conducted by the Bank of Italy, Neri and Rondinelli 2017 exploit the panel component of the Survey of Household Income and Wealth and estimate a marginal propensity to consume out of the Bonus of around 0.5 in terms of overall consumption, and of 0.25 when focusing only on non-durables. They also estimate that the consumption response was twice as large among lower-income, liquidity constrained households. Using the same data, Andini et al. (2018) find similar estimates of the marginal propensity to consume and show that 30% of the total stimulus spending was allocated to recipients that are not consumption constrained. Using machine learning tecniques, they show that the effectiveness of the program could have been substantially increased if the allocation had been decided using a simple machine learning agorithm trained to identify individuals with the highest propensity to consume based on observable characteristics available in the politician's information set.

⁸The threshold of $\in 8,145$ applies to individuals who worked the entire year, but it might be lower for workers who have been employed for less than 365 days.

2.2 Elections

Italy is a parliamentary Republic that operates with a multi-party system. National parliamentary elections take place every 5 years using a modified proportional system, while European parliamentary elections are held every 5 years.

In Italy, European elections are particularly significant because they are held a year after national elections and are considered a crucial moment to show approval or discontent with the incumbent government, without compromising its survival. This was particularly true in the 2014 European Elections, as in 2013, the Italian parliamentary elections resulted in a problematic three-party split between the center-left coalition (led by the Democratic Party - PD), the center-right coalition (led by Silvio Berlusconi's party PDL), and the 5-Star Movement. The PD and PDL eventually formed a coalition government led by Enrico Letta after complex negotiations. However, in late 2013, Matteo Renzi won the PD's primary elections and formed a new government in February 2014 without being formally elected in Parliament. This made the European elections of 2014 a crucial test for Renzi to prove his national consensus. It is thus unsurprising, given the pivotal role of the election, that the adoption of the 80 Euro Bonus right before the election was criticized by the 5 Star Movement - the main opposition party - as a mere electoral tactic to gain votes in the European elections.

Indeed, the European elections of 2014 turned out to be a success for the Democratic Party. While voters in other European countries expressed support for populist and euroskeptic parties, the Italian electorate gave a huge endorsement to the pro-European Democratic Party (PD) guided by Matteo Renzi. The PD took 40,8 % of the votes, the best result ever received by a single party in a national election since 1958. Subsequently, in December 2016, voters were called to vote in a Referendum to approve a large package of constitutional reforms promoted by the government. The significance of the reforms was emphasized by Renzi's promise to resign as Prime Minister if the referendum was rejected. Thus, the referendum became a vote on the incumbent's permanence in office, making it as salient as a national parliamentary election. The 'No' vote won with 60% of the votes, leading to Renzi's resignation as Prime Minister, but the Democratic Party remained the main party guiding the government. New parliamentary elections took place in March 2018, which led to the creation of a coalition government between the 5 Star Movement and the Northern League. Finally, new European elections were held in 2019. The timeline of relevant events is depicted in Appendix Figure A1.

3 Data and Empirical Strategy

I combine municipal-level data from four sources. The first dataset contains information on the annual income distribution of the universe of Italian municipalities, based on individual Tax Returns, provided by the Ministry of Treasury, for the years from 2008 to 2019. Datareport the total amount of income declared and the total number of individuals declaring income in each of the following seven income groups: 0-10,000; 10,000-15,000; 15,000-26000;26000-55,000; 55,000-75,000; 75,000-120,000; and above 120,000. Since 2014, the data also contains information about the number of 80 Euro Bonus recipients and the average amount per capita. The second dataset contains information on national and European elections from 2008 to 2019 for each municipality, provided by the Italian Ministry of the Interior. Third, I use data on municipal characteristics from the the Italian Statistical Office (ISTAT) on factors that might influence voting behavior to be used as controls. These include the educational level of the municipal population, the share of foreign-born individuals⁹, the share of women, and the local unemployment rate. Fourth, I complement the aggregate-level information with individual-level data from the Italian National Elections Study Survey (ITANES), for the years 2013-2014. The data contains information on individuals' demographics and political orientation, voting behavior, subjective evaluation of the economic situation as well as overall evaluation of government actions. Additional details on the survey design and on the specific questions used are available in Appendix B.

Figure 1, panel A, shows the taxable income distribution of Italy in 2013 using data from official tax records, for both the universe of taxpayers (blue) - almost 41 million individuals - and the sub-sample of payroll employees (red), which represent 50% of total taxpayers. The figure delivers two main messages. First, the transfer has a very wide coverage: 44% (46%) of Italian taxpayers (payroll employees) reported annual tax earnings between $\in 10,000$ and $\epsilon 26,000$ in 2013¹⁰, and thus could be eligible for the Bonus. Second, the transfer targets exactly the middle of the income distribution: 32% (25%) of taxpayers (payroll employees) earn less than $\epsilon 10,000$, and thus were likely excluded from the Bonus. Moving from individual to household data, according to the Bank of Italy SHIW data, 21.9% of Italian households receive the Bonus. Given the absence of family means-testing, the share of recipients increase among households with more than one income recipients: 28.2% of households with 2 income recipients belong to the bottom (top) 5th of the distribution (Neri and Rondinelli 2017).

To analyze the electoral response to the 80 Euro Bonus, I construct a measure of treatment

⁹Foreign-born individuals are eligible to receive the Bonus if they are payroll employees, but they are not eligible to vote in National elections, unless they become citizens.

¹⁰I cannot exactly know the number of individuals earning between $\in 8145$ and $\in 10,000$ as the 7 income brackets reported in the Tax Returns data are:

intensity at the municipality level, measured by the number of Bonus recipients in 2014 over the voting-eligible population in 2014^{11} :

$$Recipients_{m,2014} = \frac{N.Recipients_{m,2014}}{VotingEligiblePopulation_{m,2014}}$$

My empirical strategy exploits cross-sectional variation across municipalities in the share of recipients, which is driven by pre-determined variation in the income and occupation distribution. Municipalities with relatively lower share of recipients serve as a "control group" for the behavior of municipalities with relatively higher share of recipients. Under the identifying assumption that absent the policy municipalities with high vs. low intensity of treatment would have followed parallel trends in the period from 2014 onwards, I would be able to capture the effect of the policy on electoral outcomes. A natural concern with this strategy is that municipalities with a high share of recipients may also differ in other important ways that independently influence the evolution of their electoral outcomes over time. For example, places with a large number of recipients might simply be relatively poorer, and be more likely to experience a shift towards the left for reasons unrelated to the policy. I address this concern by exploiting the particular eligibility requirements of the policy. In order to be eligible, a worker needs to: a) be a payroll employee and b) earn between $\in 8,145$ and $\in 26,000$. Therefore, I can control separately for the two requirements, namely the share of payroll employees and the share of workers whose income falls in the eligibility range, while still having variation in the actual share of recipients, which stems from the interaction of the two. In particular, in my specifications with controls, I include the overall share of payroll employees, as well as flexible controls for the share of taxpayers falling in each of the 7 income groups. This allows me to compare municipalities that had differential exposure to the treatment because of the intersection between the two relevant dimensions for eligibility (income and payroll employment), but that were otherwise similar along the two dimensions. This specification recovers causal estimates of the effect of variation in treatment intensity on electoral outcomes, provided that no other confounding shock or omitted variable that varies differentially by the share payroll employees earning between $\in 8,000$ and $\in 26,000$ in a municipality, conditional on the overall income distribution and the overall share of payroll employees. A graphical intuition of the variation exploited for identification can be grasped by looking at Panel B of figure 1. On the left, I plot the raw variation in the share of Bonus recipients at the municipality level, while in the right panel I plot the residual variation, after controlling for the income distribution and the share of payroll employees. While the left panel displays a strong geographic pattern in the share of recipients, this disappears on

 $^{^{11}\}mathrm{Results}$ are unaffected if I use the voting-eligible population in 2013, as opposed to 2014, as a denominator.

the right, suggesting the importance of including income and payroll distribution controls.

My baseline specification estimates the short-run effect of the introduction of the Bonus on the incumbent party vote-share, as follows:

$$\Delta Y_{m,2013-2014} = \beta Recipients_{m,2014} + X'_m \zeta + \delta_t + \epsilon_{mt} \tag{1}$$

where $\Delta Y_{2013-2014}$ denotes the change in the number of votes for the Democratic Party over total voters, in municipality m, between the elections in year 2014 and 2013, $Recipients_{m,2014}$ is my main treatment intensity variable, measuring the number of Bonus recipients in 2014 over the voting eligible population¹², X_m is a matrix of controls measured at baseline, including % of payroll employees in the municipality and the % of individuals in each of the 7 income groups, % who attained high-school, % with college degree, % of foreign-born, % of women, and the local unemployment rate, and δ_t is a year fixed-effect, allowing me to control for year-specific shocks commonly affecting all municipalities. The coefficient of interest is β , capturing the differential impact of the 80 Euro Bonus' treatment intensity on incumbent's vote share. Standard errors are clustered at the municipality level.

As it is standard in difference-in-differences estimation, the identification of my coefficient of interest relies on two assumptions. The first is the absence of contemporary shocks that differentially affect municipalities with more vs. fewer recipients. I am not aware of other policies targeting payroll employees in the eligible income range that occurred concurrently with the 80 Euro Bonus. Furthermore, this was the very first policy announced and adopted by the newly formed government of Matteo Renzi, in a sudden and unexpected way. The second is the presence of counter-factual parallel trends between high and low intensity municipalities. This assumption is fundamentally untestable, but could be proxied by looking at pre-event trends, which should be informative of post-event trends. To estimate pre-event trends, as well as to inspect long-run persistence of the treatment effect, I extend the horizon of analysis and run the following regressions:

$$\Delta Y_{m,2013,k} = \beta Recipients_{m,2014} + X'_m \zeta + \gamma_t + \delta_t + \epsilon_{mt} \tag{2}$$

Where $\Delta Y_{m,2013,k}$ denotes the variation in the vote share for the Democratic Party between 2013 and year k, with k=2008, 2009, 2018, 2019. So, for example, when k=2008, I estimate the placebo effect of the 80 Euro Bonus intensity on the electoral performance of the Democratic Party between 2008 and 2013.

¹²In Italy, as in many other European countries, there is no voter registration requirement. The voting eligible population thus coincides with the population of registered voters.

4 Results

4.1 Short-run Effects

The key results of the paper are summarized in the two graphs of Figure 2. The left graph provides a visual analysis of the short-run relationship between treatment intensity and the change in the share of votes for the incumbent party (the PD) between 2013 and 2014. The binned scatterplot displays a clear positive relationship. Table 1 formalizes the analysis and presents results of the difference-in-differences estimation highlighted in equation 1 and allows me to assess stability across different specifications. The effect is positive and significant. A 1 percentage point increase in the share of Bonus recipients raises the vote share of the Democratic Party by 0.15 percentage points. The magnitude of the effect increases to 0.18after including controls in column (2). The estimates indicate that, in a city with average Bonus exposure (21.5%) of recipients), the reward for the incumbent party is approximately 4 percentage points, an increase of 17% relative to 2013. Results are robust to the clustering of standard errors at the province level in column (3), and including region-times-year fixed effects (4), and become even larger when weighting the regression by the size of the electorate in 2013, as shown in column (5), suggesting that effects are stronger in larger municipalities.¹³ As a further robustness check, in column (6), I inspect the change in the vote share relative to the past European election in 2009, and obtain very similar results. This alleviates concerns related to the fact that European elections might not be comparable with national ones. Results of the pre-event placebo regressions, displayed in Panel B of figure 2, confirm the robustness of the estimates, as I cannot detect any significant effect of the policy intensity on the pre-policy trends in votes of the Democratic Party. A natural question to ask is whether the gains in Democratic Party's performance are due to changes in the extensive margin, i.e. related to who decides to turnout to vote, or in the vote choices of existing voters. While it is difficult to fully disentangle these effects looking at aggregate-level data, I provide some evidence of the two concurring mechanisms by looking at the impacts, respectively, on votes to other parties and turnout. Results are reported in Appendix Table A3. Overall, I find little evidence that the Bonus affected negatively votes towards other parties, while most of the effects seem to operate via a significant increase in turnout. Consistent with this evidence, I find even larger effects when using the share of votes for the Democratic Party divided by the share of the voting-eligible population (column 5 of the Table).

 $^{^{13}}$ In fact, by splitting the sample between large and small municipalities, the coefficient is 0.47 (0.18) for municipalities above (below) 10,000 inhabitants.

4.2 Robustness

Up to now, results display a significant positive impact of the 80 Euro Policy on the change in the Democratic Party vote share between 2013 and 2014. The identification of these effects rely on variation in the share of payroll relative to self-employed employees with earnings between 8,000 and 26,000 euro. Results could be biased in presence of unobserved time-varying factors that differentially affect municipalities with high vs. low share of eligible employees and are also correlated with voting behavior. Therefore, I exploit restricted-access detailed data on the income distribution for the year 2014, to achieve a more local identification. The data are analogous to the ones used in the main analysis, giving information on the income distribution in the universe of Italian municipalities, based on individual tax records, but they are disaggregated in bins of 1,000 euro size. This allows me to focus the attention on the "marginal beneficiaries", namely those who are close to the eligibility thresholds. For the lower threhold, these individuals are the ones who benefit the most from the policy, as for them the size of the transfer relative to their annual income is largest. Therefore, they are also the ones from which we might expect a larger electoral response. Conditional on the share of total beneficiaries, I exploit variation in the share of marginal beneficiaries around the eligibility thresholds. The thought experiment is as follows: I compare places that have the same share of beneficiaries in the population, as well as the same share of payroll employees in a bandwidth around eligibility threshold, but different relative share above vs. below it. Figure A2 provides a visual example of the empirical strategy. I repeat the same experiment for both the lower and upper threhold, keeping constant the size of the bandwidth around the threholds. The empirical specifications are the following:

$$\Delta Y_{m,2013,2014} = \beta Recipients_{m,2014} + \beta_1 Around Threshold_{m,2014} + \beta_2 RelAbove_{m,2014} + X'_m \zeta + \gamma_t + \delta_t + \epsilon_{mt}$$

$$(3)$$

$$\Delta Y_{m,2013,2014} = \beta Recipients_{m,2014} + \beta_1 AroundThreshold_{m,2014} + \beta_2 RelBelow_{m,2014} + X'_m \zeta + \gamma_t + \delta_t + \epsilon_{mt}$$

$$(4)$$

If the Bonus is really responsible for producing electoral effects, then we would expect β_2 to be positive.

Appendix Table A1 present the results, where I use three different bandwidths of, respectively, 2,000, 4,000 and 8,000 \in for both threholds. For example, for the lower threshold and the bandwidth of 4,000, *RelAbove* is the share of payroll employees earning between 8,000 and 10,000 among those earning between 6,000 and 10,000 euro (*AroundBelow*). Similarly,

for the upper threshold, RelBelow is the share of payroll employees earning between 24,000 and 26,000 among those earning between 24,000 and 28,000 euro. The key take-away is that, consistently across different bandwidths, the coefficients for the variables representing the RelAbove and RelBelow, corresponding to β_2 , are positive and of similar magnitude across specifications.

4.3 Long-run Persistence

So far, I have documented a strong, positive short-run effect of the 80 Euro Bonus on incumbent electoral performance. But how persistent are electoral rewards? Theoretically, models of rational, retrospective voting would predict long-lasting electoral rewards, given that the policy remained in place in the long run. On the other hand, voters might not be perfectly rational. Cognitive biases like reference dependence, voters' myopia, or "peakand-end" heuristic might lead to the fast dissipation of electoral rewards. The persistence of electoral rewards has been somewhat overlooked empirically, either for data limitation or identification challenges. Previous papers have mostly documented short-run beneficial electoral effects, with the xception of Bechtel and Hainmueller (2011), who show that 25%of the electoral rewards from flooding disaster relief persist three years later in Germany. The right panel of Figure 2 displays the results for the long-run effects of the policy. The electoral rewards persist, but are attenuated in magnitude over time. Looking at the effect on 2018 national elections, the coefficient is 0.067, less than half the size of the short-run effect in 2014, while the one for the European elections in 2019 is even smaller, 0.05. It is somewhat surprising to observe persistence of the effects up to 5 years later, particularly given the fact that Matteo Renzi, the incumbent who adopted the policy, resigned at the end of 2016 as Prime Minister, and, in the 2018 elections, the Democratic Party reached a historic minimum of 18%, while two populist parties, the 5 Star Movement and the Northern League, form a coalition government. The persistence of the effect in 2019 is therefore even more notable, given that the Democratic Party is no longer the incumbent. There are two things to note to better understand the results. First, the 80 Euro Bonus is still currently in place, and the number of beneficiaries has been slightly increasing over time, as the upper threshold has been raised in 2018 and 2020. Second, and most importantly, even after stepping down as Prime Minister, Matteo Renzi remained a central character of the Italian political arena, and he constantly highlighted that he was the "father" of the 80 Euro Bonus. Therefore, the policy remained strongly associated with him: when searching on Google for "Bonus 80 Euro", 8 out of the 10 top search outcomes contain the name of "Renzi". This is further confirmed by looking at media articles: after an initial drop between 2014 and 2015, the number of articles mentioning the 80 Euro with and without the name of Renzi both remain constant over time, suggesting a persistent pattern association of the policy with his creator, as shown in Appendix Figure A3).

4.4 Mechanisms

4.4.1 What Explains Persistence?

There are two potential alternative mechanisms that can explain the persistence result. On one hand, beneficiaries might be effectively rewarding the incumbent for the policy. On the other hand, if the 80 Euro Bonus achieved the intended consumption stimulatory effect, and this, in turn, improved GDP growth, then places with a higher share of beneficiaries might have experienced a stronger improvement in economic conditions. This second effect cannot explain the very short-run response (as most beneficiaries received the first Bonus payment in the days around the elections), but it is more likely to play a role in the longer run. Previous empirical work shows that voters reward incumbents for general improvement in economic conditions (Bagues and Esteve-Volart 2016, Wolfers 2007). However, research has shown that the incumbent reward mechanism should extend to any type of incumbent. This story is inconsistent with the observed, positive result in 2019, when the center-left coalition was no longer the governing incumbent.

To disentangle the direct effect of the policy from the indirect effect of potential consumption stimulus, I leverage two different types of plausibly exogenous variations. First, I compare municipalities that had the same number of program beneficiaries but received different total amounts per capita. Specifically, I exploit the variation arising from the fact that a) the Bonus is awarded based on the number of "full-time" days worked, so workers who worked part-time or only for a few months received lower total amounts; b) workers who earn between $\in 24,000$ and $\in 26,000$ are subject to linear Bonus phase-out. The thought experiments is as follows: consider two municipalities, in which 25% of the electorate receives the Bonus. In municipality A, most beneficiaries are full-time payroll employees who earn around $\in 20,000$, thus in 2014 they received the full Bonus amount of $\in 640$ per capita. In municipality B, half of the beneficiaries are richer, earning $\in 25,000$, and thus receiving only \in 40 per month, or a total of \in 320 in 2014. If the electoral rewards are driven by reciprocity motives/retrospective evaluations that do not depend on the level of income received, then, conditional on the total share of recipients, the per capita amount should have no additional explanatory power. On the other hand, if the electoral rewards in the long run are due to the observation of an economic boom, which might be partly due to the fiscal stimulus induced by the Bonus, then we should observe an additional positive effect of the per-capita amount of the Bonus, as municipalities where the average amount per recipient is higher were subject to a stronger fiscal stimulus. Results are displayed in the odd columns of Table 2. In column (1), I repeat the same regression of column (3) of Table 1, but now also include the variable AmountPerCapita, which is equal to the municipal average amount received per recipient.¹⁴ The coefficient is very close to zero in magnitude and insignificant, consistent with the fact that, in 2014, the policy couldn't have displayed any fiscal stimulus effect, as most of the recipients hadn't received the first payment yet. In columns (3) and (5), I inspect the long-run effect of the policy, thus the dependent variables are the change in the vote share for the democratic party between 2013 and 2018, and between 2013 and 2019 respectively. Results show that, even in the long run, when the fiscal stimulus effect of the policy should have already taken place, there is no significant effect of having a higher AmountPerCapita of the Bonus. Moreover, notably across all three columns, the coefficient on %Recipients remains unchanged.

As a further check, I exploit the Bonus misattribution by employers, giving rise to an ex-post negative income shock.¹⁵ About 1.5 million people had to give back the Bonus when they filed tax returns in April 2015. This potentially induces two effects. First, individuals who had to give back the Bonus might resent the incumbent, and thus vote against him, independently of how much money they had to return. Second, even conditional on the share of recipients who had to give back the money, there could be an additional negative effect due to the negative income shock caused by the sudden restitution. In the even columns of Table 2 I investigate the effect of Bonus restitutions. In particular, I introduce two additional explanatory variables to my main estimating equation: % RecipientsGiveBack, which is simply the share of individuals who had to return the Bonus among Bonus recipients; and % AmountPerCapitaGiveBack, which is the average amount that individuals had to give back.¹⁶

In column (1) of Table 2, I look at the short-run effect on Democratic Party performance in 2014 elections. Interestingly, at this time, conditional on the overall share of Bonus recipients, in municipalities where a higher share of people will turn out to be wrongly given the credit, the incumbent party received 0.04 percentage points more votes. This positive effect suggests that those who received the Bonus and then had to give it back are probably more likely to be "marginal voters", meaning that they are more likely to be on the fence of voting vs. not voting for the incumbent, or are more likely to be positively surprised by the unexpected "gift" received by the incumbent. This might be reasonable if one considers that those who are more likely to be wrongly given the Bonus are poorer individuals who do not have any

¹⁴See Appendix Figure A4 for the distribution of the variable across municipalities.

¹⁵In particular, employers assessed the beneficiaries' eligibility based on the observed total annual income under the employee's contract, but Bonus eligibility is based on total payroll annual income, and this gave rise to incorrect Bonus assignment. For example, individuals who held multiple contracts were sometimes wrongly given the credit by multiple employers. Alternatively, individuals who work only a few months over the year were sometimes given the credit, even though their total annual income ended up being within the tax-exempt amount, so they were not entitled to the Bonus

¹⁶Appendix Figure A5 display the distribution of these two variables.

positive taxable income at the end of the year, for whom the marginal value of the Bonus is higher relative to the rest of the population.

When looking at the long-run effect of the policy, the coefficient in column (4) on %*RecipientsGiveBack* remains essentially identical in magnitude, but flips sign. Notably, the election in 2018 is the first national election taking place after the recipients had to give back the money. The sign flip suggests that the recipients punish the incumbent for the mis-attribution committed by their employers. The size of the effect is smaller, but should be rescaled by the fact that the two variables have different variations in the sample (the S.D. for % Recipients is 5.6 while % Recipients, GiveBack is 3.6). If one rescales both coefficients by the standard deviations of the variables, the two coefficients are in fact very similar in magnitude (0.0138 vs 0.0121).¹⁷ Notably, if one doesn't take into account the Bonus restitutions and their punishment effect, the coefficient on %*Recipients* is biased downward, as one can see comparing the coefficient estimate in column (4) with the one in column (3)and Figure 2. The punishment effect vanishes over time, as suggested by results in column (6), where the coefficient on % *Recipients*, *GiveBack* is not only insignificant, but also much closer to zero in magnitude. On the other hand, the amount per capita of Bonus that recipients have to give back does not have any significant effect across all the columns. Overall, results suggest that the electoral rewards are driven by the direct positive reciprocal evaluations of recipients and not by the indirect response to positive fiscal stimulus induced by the policy.

4.4.2 Which recipients react more?

Up to now, I focused on the average electoral response to the Bonus, exploiting variation in the overall share of beneficiaries. However, conditional on the overall share of recipients, municipalities vary in the distribution of recipients within the eligibility thresholds. Here, there are two potential forces that might play in opposite directions. On the one hand, the transfer represents a more sizeable income shock for relatively poorer voters. Thus, we might expect a stronger response in places with relatively poorer beneficiaries. On the other hand, these voters are more likely to be infra-marginal, meaning that they were already voting for the Democratic Party before. If this is the case, then we should expect to observe stronger effects in places with relatively richer beneficiaries, which are closer to the median income, and thus more likely to be marginal voters. In Table 4, I thus investigate whether the electoral response varies depending on the type of beneficiaries. I am going to compare municipalities that have the same share of overall beneficiaries, but that vary in the relative distribution of beneficiaries within the eligibility window. To do so, I construct two addi-

 $^{^{17}\}mathrm{In}$ Appendix Table A2 , I repeat the same analysis but rescaling the number of recipients that had to give back the policy by the number of eligible voters. I obtain very similar results.

tional variables, which reflect the share of recipients closer to the two eligibility thresholds % Recipients8 - 12k and % Recipients20 - 24k.¹⁸ Given that I am going to look at interaction effects among continuous, all variables are standardized. For reference, In column (1), I reproduce the analysis of column (1) but using the standardized share of bonus recipients, % Recipients(std). In columns (2) and (4), I reproduce these main results but introduce, respectively, % Recipients8 - 12k and % Recipients20 - 24k as additional explanatory variables. Results are unaffected and neither of the two variables has any significant impact per se. In columns (3) and (5), I look at the differential effect of having one standard deviation higher relative share of, respectively, Recipients8 - 12k and Recipients8 - 24k. Here, two opposite patterns emerge. On the one hand, conditional on the overall share of recipients, having a relatively higher share of Recipients8 - 12k attenuates the electoral response by about 10%. On the other hand, having a relatively higher share of Recipients8 - 12k attenuates the same exercise but include both variables at the same time, obtaining very similar results.

Overall, this analysis confirms that beneficiaries closer to the median income are significantly more responsive from an electoral perspective, a result which is consistent with the median voter hypothesis, and that might help explain why politicians tend to target stimulus transfers towards the middle, as opposed to the bottom of the income distribution.

5 Survey Evidence

Up to now, results show that in municipalities where a larger share of the voting-eligible population receive the Bonus, the incumbent received significantly more votes. To provide additional insights on the effects of the Bonus on voting decisions, I turn from aggregate to individual-level data. I exploit the availability of a unique survey data, the Itanes-University of Milan electoral cycle online panel. The dataset includes four waves: 2 pre-electoral surveys and 2 post-electoral surveys, for the 2013 General Election and the 2014 European election respectively. Therefore, for each individual, it is possible to observe her attitudes before and after the elections, for both elections of interest. Importantly, the pre-electoral survey for 2014 was conducted between May 5th and May 19th, when the 80 Euro Bonus policy had been already announced but not yet distributed; while the post-election survey was conducted between June 10th and June 18th, when the Bonus had been distributed to all recipients. While the data do not include precise information on whether the individual receives the Bonus or not, questions about employment and occupation allow me to proxy for eligibility.

 $^{^{18}}$ For the upper threshold, I focus on the share of recipients between 20,000 and 24,000, as opposed to those between 22,000 and 26,000, so as to avoid the potentially confounding role played by the fact that recipients between 24,000 and 26,000 receive progressively decreasing amounts due to the transfer phase-out region.

In particular, I classify individuals as payroll or not payroll and as earning "eligible income" or not, and I proxy for Bonus eligibility as the interaction of the two.¹⁹ There are 3 types of dependent variables of interest. The first involves self-reported support for the Democratic Party and voting behavior; the second involves self-reported assessment on the quality of the government and of the incumbent; the third involves self-reported assessment of the national and personal economic situation, both in the past year and in the future year.²⁰ In particular, I want to investigate whether individuals who receive the Bonus are more likely to vote for the incumbent, and if this is accompanied by a shift in incumbent quality assessment (retrospective voting), or by a shift in the assessment of the national economic situation (sociotropic voting) or of the personal economic situation (pocketbook voting).

For each individual, I compare the change in the dependent variable between the pre and post 2014 survey. This is essentially equivalent to including an individual fixed effect. The regression is as follows:

$$\Delta Y_{Pre-Post,2014} = \beta_1 Payroll_{2013} + \beta_2 Eligible Income_{2013} + \beta_3 80 EuroRecipient_{2013} + X'_m \zeta + +\delta_p + \epsilon_{mt}$$
(5)

Where $\Delta Y_{Pre-Post,2014}$ denotes the variation in the respondent view between the Preelectoral and the Post-electoral survey. The main coefficient of interest is β_3 , capturing the effect of being a Bonus recipients. The regression includes a number of individual-level demographic controls (gender, age, marital status), as well as province fixed effects.

In column (1) of Table 5, the dependent variable is a dummy equal to 1 if the respondent switched to support the Democratic Party in the post-election survey, equal to -1 for those that reported to support the Democratic Party in the pre-election survey, but not in the post-election survey, and it is equal to 0 for those that did not change.²¹ Results show that Bonus recipients are 11 percentage points more likely to shift towards supporting the Democratic Party. This is essentially the same magnitude found by Manacorda, Miguel and Vigorito (2011). Importantly, I cannot detect any shift when looking at the same variable, but for the pre-post 2013 elections, in column (2). This provides further evidence of the robustness of the main effect, and of the absence of pre-existing trends. In column (3) and (4) I investigate whether the shift in support is accompanied by a shift in the evaluation of the Democratic Party leader, Matteo Renzi, or on the evaluation of the incumbent government activity.

¹⁹The following occupations are considered to be "eligible income": artisan, shopkeeper, self-employed agent or sales representative, teacher, blue-collar employee, white-collar employee, agricultural worker.

 $^{^{20}\}mathrm{See}$ Appendix 6 for a list of the questions used.

 $^{^{21}}$ In order to maintain a constant sample size, I set to 0 also the cases in which the information is missing. These represent a very limited number of instances, less than 9 % of the sample. Results are robust to the exclusion of these observations.

In both cases, the respondent is asked to give an evaluation on a scale from 1 to 10. The dependent variable is equal to 1 (-1) if the evaluation increased (decreased), and equal to 0 if the evaluation stayed the same. In both cases, I can't detect any significant effect of the individual Bonus nor of the aggregate recipients' share.

In columns (5) to (8), I investigate the effect of the policy on the respondent's assessment of the economic situation. Across all specifications, the dependent variable is equal to 1 (-1) if the individual's assessment improved (worsened) and to 0 if it stayed the same or no answer was given. Columns (5) and (6) look at the assessment of the national economic situation, both in the past and in the future year, while columns (7) and (8) look at the respondent's own economic situation. Interestingly, Bonus recipients display a large and significant positive shift in their retrospective assessment of the national economic situation, while no similar effect can be detected on all other variables.

To have a sense of how much of the shift in voting is due to the shift in views of the national economy, in column (9), I repeat the same specification of column (1), but now including also two additional dummies, *EconomicAssessmentWorsened* and *EconomicAssessmentImproved*, capturing the change in views on the national economy before and after the elections in 2013. The coefficient on β_3 remains very similar in magnitude, but slightly loses significance, while the direct effect of the improved economic assessment is about half the size of the effect of the Bonus. Overall, survey data confirm that Bonus recipients are more likely to switch to support the incumbent.

6 Discussion and conclusion

This study provides the first causal evidence of the effect of stimulus tax transfers on incumbent electoral performance. I find that municipalities with a larger share of beneficiaries among the voting eligible population experience a large and persistent increase in the share of votes for the party who adopted the policy. The effect is not driven by the indirect impact of the stimulus payment on the local economy. The results suggest that incumbent can reap significant electoral benefits through automatic payments benefitting a large share of the population and targeting middle-income voters. This might help explain why we frequently observe the afoption of stimulus spending programs targeted towards the median voter, as opposed to the lowest-income individuals, who would have a higher propensity to consume but are also harder to mobilize and less likely to be pivotal in the political process.

To have a better sense of the magnitude of my estimates and of their policy implications, a useful thing to do is to calculate the average cost of a vote. Given the total annual cost of the Bonus or roughly $640 \in (80 \in \text{for 8 months}, \text{ until December 2014})$ for the first year, and the total number of beneficiaries of 9.7 million, the average short-run cost of a vote equals $5,440 \in (\$6,000)$. However, if one takes into account the persistence of the electoral effects, as well as the fact that the Bonus remained in place, the estimates change. By summing up the percentage point increase in Democratic Party vote share across the elections, one gets a cumulative effect of 0.32 percentage point increase for a 1 pp increase in Bonus recipients. Given the national average of 20.15% recipients' share, this converts to a cumulative effect of 6.4 percentage points. Given the average total number of voters between 2014 and 2018 of 30.3 million, this roughly amounts to 2 million votes gained. The cumulative total cost of the Bonus per capita, from 2014 to 2019, is around 5,400, and given the 10 million total beneficiaries, this amounts to an average long-run cost of a vote of over $27,000 \in$. This number is close n magnitude to existing estimates of vote costs for aggregate local spending in the U.S²², but is orders of magnitudes larger than estimates from the campaign spending literature (Bombardini and Trebbi 2011, Bekkouche, Cagé and Dewitte 2022). Had it been only a temporary measure, as it was announced to be, the 80 Euro Bonus would have been a pretty good deal in terms of vote cost. However, while short-run vote costs might be relatively low, they become significantly higher when the Bonus payments are made permanent. The persistence of the Bonus can also be explained by electoral tactics, given that the incumbent suffers significant electoral punishment when former recipients are excluded from the policy. This points towards the importance of taking into account dynamic inconsistency problems and the political difficulty to cut back spending.

²²For example, Healy and Malhotra 2009 found it costed exactly \$27,000 to buy an additional vote through disaster relief, Levitt and Snyder 1997 estimates a cost of \$14,000 per vote through pork-barrel federal dollars.

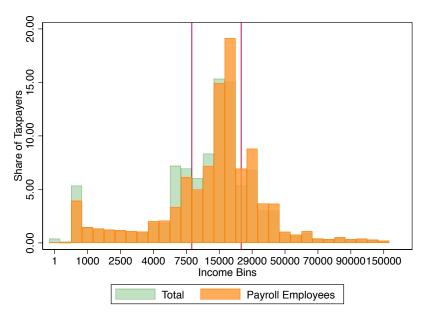
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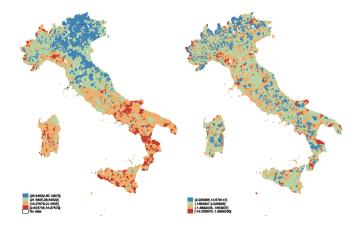
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Figure 1 PANEL A: Taxable Income Distribution 2013 (Official Tax Records)

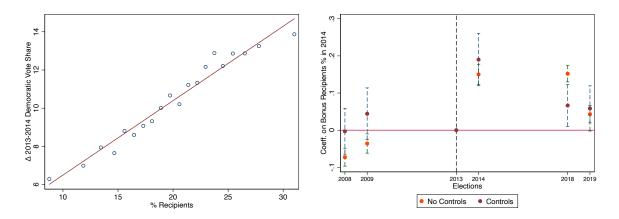


PANEL B: Variation in Policy Intensity Across Municipalities



Notes: Panel A of the figure plots the distribution of taxable income in 2013 of the universe of taxpayers (green) and of payroll employees only (orange). The red vertical lines indicate, respectively, the lower and upper threshold of eligibility for the 80 \in Bonus. Panel B shows two maps of the share of recipients across Italian municipalities, providing intuitions for the variation used in the identification. In particular, the left map shows the map of the actual share of recipients, while the right map shows the residuals from the following regression: $Recipients_{m,2014} = \% Payroll_{m,2013} + \% 8 - 26k_{m,2013} + \delta_p + \epsilon_m$ where $\% Payroll_{m,2013}$ is the share of payroll employees in the municipality in 2014, $\% 8 - 26k_{m,2013}$ is the share of individuals declaring income between 8 and 26,000 euro and δ_p are 110 province fixed-effects.

Figure 2 Incumbent's Electoral Performance and Policy Intensity



Notes: The left panel shows the unconditional binscatter displaying the relationship between the change in the vote share of the Democratic party between 2013 and 2014 (Y axis) and the share of Bonus recipients (X axis). From the full sample of 7697 municipalities, 20 equal-sized bins are created, and the points represent the X and Y averages within each bin, while the line represents the slope of the OLS bivariate regression. The right panel plots the coefficients of the regression as highlighted in equation 2.

		$\Delta 2013 - 2014$ Share PD					
	(1)	(2)	(3)	(4)	(5)	(6)	
% Recipients	0.149^{***} [0.0139]	0.178^{***} [0.0353]	0.178^{***} [0.0594]	0.280*** [0.0532]	0.0821^{**} [0.0363]	0.138*** [0.0407]	
Pre-T Mean	22.90	22.90	22.90	22.90	22.90	21.40	
Observations	7712	7712	7712	7712	7712	7697	
R2	0.814	0.822	0.822	0.922	0.839	0.822	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	
RegXYear FE	No	No	No	No	Yes	No	
Controls	No	Yes	Yes	Yes	Yes	Yes	
Weighted	No	Yes	Yes	Yes	Yes	No	

Table 1The Effect of the 80 Euro Bonus on Democratic Party Electoral Performance, Short Run

Notes: Standard errors clustered at the municipality level in brackets. *p < 0.1, **p < 0.05, ***p < 0.01. The dependent variable in Columns (1)-(4) is the change in the vote share of the Democratic party between the 2013 and 2014 elections, while in column (5) it is the change in the vote share of the Democratic party between the 2009 and the 2014 elections, and in column(6) is the change in total votes for the Democratic party between 2013 and 2014. The 2013 election was a national parliamentary election, while 2009 and 2014 elections were European parliamentary elections. % Recipients is the number of Bonus recipients in the municipality in 2014 over the voting eligible population. NRecipients is the absolute number of Bonus recipients. Columns (2) to (6) include the following controls: % of payroll employees in the municipality and the % of individuals in each of the 7 income groups, % who attained high-school, % with college degree, % of foreign-born, % of women, and the local unemployment rate, all measured at baseline.

Table 2	
The Effect of the 80 Euro Bonus on Democratic Party Electoral Performance, Persistence	

	$\Delta 2013 - 2$	014 Votes PD	$\Delta 2013 - 2$	018 Votes PD	$\Delta 2013 - 2$	019 Votes PD
	(1)	(2)	(3)	(4)	(5)	(6)
% Recipients	0.189^{***} [0.0359]	0.189^{***} [0.0361]	0.0664^{**} [0.0287]	0.0688^{**} [0.0289]	0.0583^{*} [0.0310]	0.0604^{*} [0.0310]
AmountPerCapita	-0.00358 [0.00311]		0.000122 [0.00238]		-0.00237 [0.00253]	
% Recipients, Give Back		0.0653^{***} [0.0248]		-0.0489** [0.0194]		0.000998 [0.0208]
AmountPerCapita, Give Back		-0.0172^{*} [0.00918]		0.00577 [0.00741]		-0.00819 [0.00774]
Pre-T Mean	22.90	22.90	22.90	22.90	22.90	22.90
Observations	7697	7697	7696	7696	7630	7630
R2	0.0594	0.0604	0.112	0.113	0.112	0.112
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls Weighted	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Standard errors clustered at the municipality level in brackets. *p < 0.1, *p < 0.05, **p < 0.01. The dependent variable in columns (1)-(2) is the change in the vote share of the Democratic party between the 2013 and 2014 elections, in columns (3)-(4) it is the change in the vote share of the Democratic party between the 2013 and the 2018 elections, and in columns (5)-(6) it is the change in the vote share of the Democratic party between the 2013 and the 2014 and 2019 elections. The 2013 and 2018 elections were national parliamentary elections, while 2014 and 2019 elections were European parliamentary elections. % Recipients is the number of Bonus recipients in the municipality in 2014 over the voting eligible population. % Recipients, Give Back is the share of Bonus recipients that had to return the Bonus in 2015 because they turned out to be ineligible. Amount Per Capita is the average Bonus amount per recipient, in a given municipality. % AmountPerCapita, GiveBack is the average amount that individuals had to give back. All columns include the following controls: % of payroll employees in the municipality and the % of individuals in each of the 7 income groups, % who attained high-school, % with college degree, % of foreign-born, % of women, and the local unemployment rate, all measured at baseline.

Table 3 The Effect of the 80 Euro Bonus on Democratic Party Electoral Performance, Pumishment Among Excluded Recipients

	(1) $\Delta 2013 - 2014$ Share PD	(2) $\Delta 2013 - 2014$ Share PD	(3) $\Delta 2013 - 2014$ Share PD	(4) $\Delta 2013 - 2014$ Share PD
% Recipients (STD)	1.093^{***} [0.202]	1.001*** [0.202]	$\frac{1.047^{***}}{[0.203]}$	1.035*** [0.203]
Excluded Below (STD)	-0.168 [0.113]		-0.287** [0.118]	-0.314^{***} [0.119]
Excluded Above (STD)		-0.788*** [0.187]	-0.904*** [0.192]	-0.869^{***} [0.194]
% Recipients, Give Back (STD)				0.161^{*} [0.0874]
Pre-T Mean	12.51	12.51	12.51	12.51
SD Bonus	5.59	5.59	5.59	5.59
SD Excl.Below	2.96		2.96	2.96
SD Excl.Above		2.03	2.03	2.03
SD Give Back				3.60
Observations	7697	7697	7697	7697
R2	0.06	0.06	0.06	0.06

Notes: Standard errors clustered at the municipality level in brackets. *p < 0.1, **p < 0.05, ***p < 0.01. The dependent variable is the change in the vote share of the Democratic party between the 2013 and 2014 elections. % Recipients is the number of Bonus recipients in the municipality in 2014 over the voting eligible population. Excluded Below is the share of individuals ineligible because earning less than 8,000 Euro. Excluded Above is the share of individuals ineligible because earning more than 26,000 Euro. % Recipients, Give Back is the share of Bonus recipients that had to return the Bonus in 2015 because they turned out to be ineligible. All columns include the following controls: % of payroll employees in the municipality and the % of individuals in each of the 7 income groups, % who attained high-school, % with college degree, % of foreign-born, % of women, and the local unemployment rate, all measured at baseline.

Table 4 The Effect of the 80 Euro Bonus on Democratic Party Electoral Performance, Heterogeneity by Recipients' Income

	$\Delta 2013 - 2014$ Share PD								
	(1) (2) (3) (4) (5) (6)								
% Recipients (std)	0.984^{***} [0.198]	0.984^{***} [0.203]	1.047^{***} [0.202]	0.990^{***} [0.198]	0.984^{***} [0.199]	1.031^{***} [0.204]			
% Recipients 8-12k (std)		-0.000295 [0.110]	0.0458 [0.114]			0.0523 [0.115]			
$\%$ Recipients (std) \times % Recipients 8-12k (std)			-0.0985^{**} [0.0405]			-0.0821^{**} [0.0415]			
% Recipients 20-24k (std)				-0.0425 [0.116]	0.0586 [0.116]	0.0495 [0.117]			
$\%$ Recipients (std) \times % Recipients 20-24k (std)					0.275^{***} [0.0852]	0.256^{***} [0.0848]			
Pre-T Mean Observations	7684	7684	7684	7684	7684	7684			

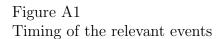
Notes: Standard errors clustered at the municipality level in brackets. *p < 0.1, **p < 0.05, ***p < 0.01. The dependent variable in columns (1)-(2) is the change in the vote share of the Democratic party between the 2013 and 2014 elections, in columns (3)-(4) it is the change in the vote share of the Democratic party between the 2013 and the 2018 elections, and in columns (5)-(6) it is the change in the vote share of the Democratic party between the 2013 and the 2014 and 2019 elections. The 2013 and 2018 elections were national parliamentary elections, while 2014 and 2019 elections were European parliamentary elections. % Recipients is the number of Bonus recipients in the municipality in 2014 over the voting eligible population. % Recipients, Give Back is the share of Bonus recipients that had to return the Bonus in 2015 because they turned out to be ineligible. Amount Per Capita is the average Bonus amount per recipient, in a given municipality. %AmountPerCapita, GiveBack is the average amount that individuals had to give back. All columns include the following controls: % of payroll employees in the municipality and the % of individuals in each of the 7 income groups, % who attained high-school, % with college degree, % of foreign-born, % of women, and the local unemployment rate, all measured at baseline.

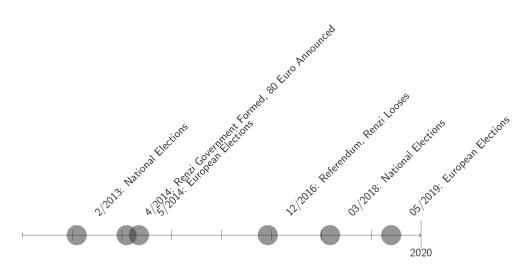
Table 5The Effect of the 80 Euro Bonus on Democratic Electoral Performance, Survey Evidence

	Switch Su	upport to PD		Improved Assessment					Switch Support to PI
	(1) 2014	(2) 2013	(3) Renzi	(4) Government	(5) Past Econ.	(6) Own Past Econ.	(7) Future Econ.	(8) Own Future Econ.	(9) 2014
Payroll	-0.0815 [0.0500]	-0.00165 [0.0527]	$0.160 \\ [0.100]$	0.0327 [0.0997]	-0.221*** [0.0784]	-0.0433 [0.0740]	-0.0385 [0.0718]	0.0226 [0.0698]	-0.0733 [0.0498]
Eligible Income	-0.0491 [0.0312]	0.0441 [0.0424]	0.0561 [0.0780]	0.0225 [0.0770]	-0.0915 [0.0682]	-0.00966 $[0.0565]$	0.0194 [0.0592]	0.0347 [0.0487]	-0.0440 [0.0311]
80Euro Recipient	0.110^{**} [0.0548]	-0.0337 $[0.0571]$	-0.139 [0.104]	-0.0683 [0.104]	0.166^{**} [0.0828]	-0.0270 [0.0756]	0.0545 [0.0768]	-0.0952 [0.0719]	0.101^{*} [0.0542]
Econ. Assessment Worsened									0.0321 [0.0278]
Econ. Assessment Improved									0.0569^{**} [0.0263]
Observations R-sq	$3026 \\ 0.0756$	$\begin{array}{c} 3026\\ 0.0830\end{array}$	$3026 \\ 0.0798$	$3026 \\ 0.0754$	$3026 \\ 0.0774$	3026 0.0711	$3026 \\ 0.0711$	$3026 \\ 0.0695$	3026 0.0784

Notes: Robust standard errors in parenthesis. p < 0.1, p < 0.05, p < 0.01. Data are individual-level observations from the Itanes-University of Milan electoral cycle online panel survey. The dataset includes four waves: 2 pre-electoral surveys and 2 post-electoral surveys, both for the 2013 and the 2014 elections. All dependent variables denote the variation in the respondent view between the Pre-electoral and the Post-electoral survey. In particular, the dependent variable is equal to 1 (-1) if the evaluation increased (decreased), and equal to 0 if the evaluation stayed the same or the information is missing. All regressions includes individual-level demographic controls (gender, age, marital status), as well as province fixed effects. Columns (1) and (2) inspect changes in support for the Democratic Party, respectively for the pre-post 2014 and 2013 election. Columns (3) and (4) look at shifts in the evaluation of the Democratic Party leader, Matteo Renzi, or on the evaluation of the incumbent government activity, in the pre vs. post election survey of 2014. In both cases, the responsent is asked to give an evaluation in a scale from 1 to 10. In columns (5) to (8), I look at the assessment of the economic situation. Columns (5) and (6) look at the assessment of the national economic situation, both in the past and in the future year, while columns (7) and (8) look at the own economic situation. Finally, column (9), repeats the same specification of column (1), but including also two dummies, *EconomicAssessmentWorsened* and *EconomicAssessmentImproved*, capturing the change in views on the national economy.

Appendix A: Additional Tables and Figures





Timing of the relevant electoral events.

Figure A2 Local identification - thought experiment

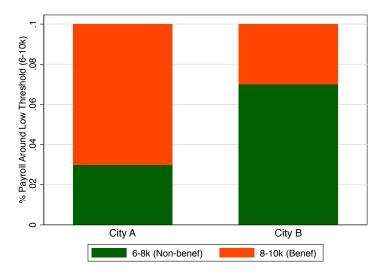
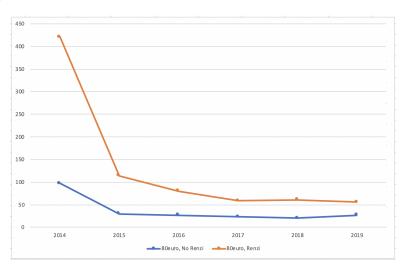


Figure A3 News containing "80 Euro" and "Renzi"



Number of articles containing the words "80 Euro" and "Renzi" from a Factiva search of the main Italian newspaper, Corriere della Sera, between January 2014 and December 2019. The blue line represents the volume of news titles including only the word "80 Euro", while the orange line represents the volume of news titles including both the term "80 Euro" and the term "Renzi".

Figure A4 Distribution of average Bonus amount per capita

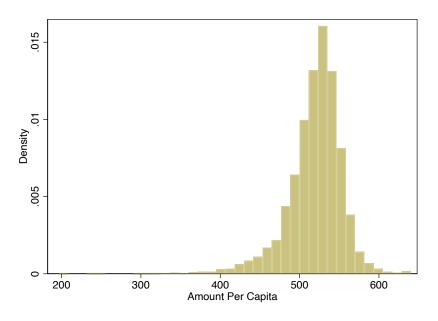
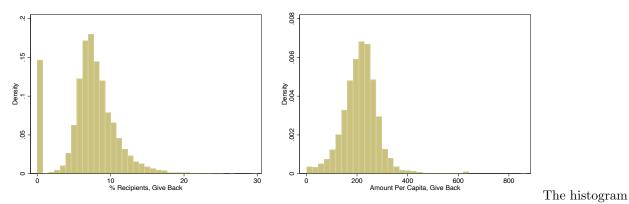


Figure A5 Distribution of the share of restitutions and average restitution amount per capita across municipalities



on the left represents the distribution of the average share of recipients who have to give back the bonus in the municipality, while the one on the right represents the distribution of the average amount that each recipient had to give back, for the subsample of municipalities in which at least one recipients had to give back some share of the bonus.

Table A1

	Dependent	Variable: $\Delta 2013 - 20$	14 Share PD	
	(1) PANEL A: Lower Threshold	(2)	(3)	(4)
% Recipients	0.0877^{**} [0.0391]	0.0847** [0.0387]	0.0814^{**} [0.0387]	0.0868^{**} [0.0386]
% Pop 7-9k	-0.207 [0.170]			
Rel. Share Above Min. Threshold	0.0103^{*} [0.00614]			
6 Pop 6-10k		-0.0700 [0.121]		
el. Share Above Min. Threshold		0.0104 [0.00834]		
6 Pop 5-11k			0.0154 [0.0981]	
Rel. Share Above Min. Threshold			0.0212^{**} [0.0103]	
% Pop 4-12k				0.0102 [0.0830]
Rel. Share Above Min. Threshold				0.0145 [0.0112]
Aean Bonus80 Aean Upper Density Aean Rel. Density Below	20.13 1.595 53.55	20.09 3.142 53.63	20.08 4.679 54.07	20.07 6.200 53.52
	(1) PANEL B: Upper Threshold	(2)	(3)	(4)
6 Recipients	0.0906^{**} [0.0391]	0.0871^{**} [0.0391]	0.0878^{**} [0.0393]	0.0875** [0.0392]
6 Pop 23-29k	-0.108 [0.0773]			
el. Share Below Max. Threshold	$0.0105 \\ [0.0106]$			
6 Pop 22-30k		-0.0575 [0.0631]		
el. Share Below Max. Threshold		0.0181 [0.0119]		
6 Pop 21-31k			-0.0483 [0.0542]	
el. Share Below Max. Threshold			0.0186 [0.0140]	
6 Pop 20-32k				-0.0356 [0.0486]
tel. Share Below Max. Threshold				0.0202 [0.0159]
Aean Dep. Var.	12.52	12.52	12.52	12.52
Mean Bonus80 Mean Upper Density	20.06 5.756	20.06	20.06	20.06
Mean Upper Density Mean Rel. Density Below	5.756 55.73	$7.755 \\ 58.57$	$9.661 \\ 60.70$	11.57 62.92
N	7000	7049	7062	7069
R2	0.149	0.147		

The Effect of the 80 Euro Bonus on Democratic Party Electoral Performance, Local Difference-in-Differences Design

Notes: Standard errors clustered at the municipality level in brackets. *p < 0.1, **p < 0.05, ***p < 0.01. All columns include the full set of controls as well as region FE. % Recipients is the number of Bonus recipients in the municipality in 2014 over the voting eligible population. Each of the different variables % Pop. represent the share of taxpayers with incomes within the chosen bandwidth, while the variables % Rel.ShareAboveMin.Threshold and % Rel.ShareBelowMax.Threshold represent, respectively, the relative share of taxpayers within the bandwidth with income just above or just below the threshold for Bonus eligibility.

Table A2 The Effect of the 80 Euro Bonus on Democratic Party Electoral Performance, Mechanisms, Alternative Definition of Restitutions

	$\Delta 2013 - 2$	014 Votes PD	$\Delta 2013 - 2$	2018 Votes PD	$\Delta 2013 - 2$	019 Votes PD
	(1)	(2)	(3)	(4)	(5)	(6)
% Recipients	0.189^{***} [0.0359]	0.176^{***} [0.0365]	0.0664^{**} [0.0287]	0.0736^{**} [0.0293]	0.0583^{*} [0.0310]	0.0570^{*} [0.0313]
Amount Per Capita	-0.00358 [0.00311]		0.000122 [0.00238]		-0.00237 [0.00253]	
% Recipients, Give Back		0.187^{***} [0.0608]		-0.0804^{*} [0.0464]		0.0391 [0.0484]
Amount Per Capita, Give Back		-0.0172^{*} [0.00914]		0.00331 [0.00737]		-0.00967 [0.00768]
Pre-T Mean	22.90	22.90	22.90	22.90	22.90	22.90
Observations	7697	7697	7696	7696	7630	7630
R2	0.0594	0.0607	0.112	0.113	0.112	0.112
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls Weighted	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Standard errors clustered at the municipality level in brackets. *p < 0.1, **p < 0.05, ***p < 0.01. The dependent variable in columns (1)-(2) is the change in the vote share of the Democratic party between the 2013 and 2014 elections, in columns (3)-(4) it is the change in the vote share of the Democratic party between the 2013 and the 2018 elections, and in columns (5)-(6) it is the change in the vote share of the Democratic party between the 2013 and the 2019 elections. The 2013 and 2018 elections were national parliamentary elections, while 2014 and 2019 elections were European parliamentary elections. % Recipients is the number of Bonus recipients in the municipality in 2014 over the voting eligible population. % Recipients (VEP), Give Back is the number of Bonus recipients that had to return the Bonus in 2015 because they turned out to be ineligible, divided by the voting eligible population. Amount Per Capita is the average Bonus amount per recipient, in a given municipality. %AmountPerCapita, GiveBack is the average amount that individuals had to give back. All columns include the following controls: % of payroll employees in the municipality and the % of individuals in each of the 7 income groups, % who attained high-school, % with college degree, % of foreign-born, % of women, and the local unemployment rate, all measured at baseline.

	$\Delta 2013 - 2014$				
	Share 5Stars	Share Right	Share NorthernLeague	Turnout	Share PD (overVEP)
	(1)	(2)	(3)	(4)	(5)
% Recipients	0.000854	-0.0176	-0.0350*	0.570^{***}	0.356^{***}
	[0.0247]	[0.0321]	[0.0185]	[0.0789]	[0.0282]
Pre-T Mean	22.68	21.79	5.777	74.92	$17.17 \\ 0.609$
R2	0.601	0.528	0.425	0.603	

Table A3 The Effect of the 80 Euro Bonus on Turnout and Votes to Other Parties

Notes: Standard errors clustered at the municipality level in brackets. *p < 0.1, **p < 0.05, ***p < 0.01. All columns include the full set of controls as well as region FE. %*Recipients* is the number of Bonus recipients in the municipality in 2014 over the voting eligible population.

Appendix B: Survey Details

The Italian National Elections Study Survey (ITANES)- University of Milan electoral cycle panel is a large representative survey including four waves: a pre-post data collection for the 2013 national election and a pre-post data collection for the 2014 European election. Data collection is based on on-line interviews of a sample of respondents from an opt-in on-line community of a private research company (SWG). The pre-electoral wave for the 2013 national election is a rolling cross section conducted between January and February 2013 with daily samples of 200 respondents, for a total of over 8000 interviews. Out of these respondents, 3026 have been selected for the second wave. In my analysis, I focus only on the reduced sample of 3026 respondents. Further details can be found here http://www.itanes.org/en/. Below is a translated list of questions used in the analysis

- If the national elections were to be held tomorrow, which party would you vote for?
- Which party did you vote for in the last (national/European) elections?
- In any case, which of the following parties do you sympathize with more, or which of the following parties do you consider closer to your own ideas?
- In general, how would you describe the overall action taken by the incumbent government, in a scale from 0 (very bad) to 10 (very good)?
- In general, what is your judgement of Matteo Renzi on a scale from 0 (very bad) to 10 (very good)?
- Regarding Italy's overall economic situation in the past year, how would you describe it: particularly improved, improved, unchanged, worsened, particularly worsened?
- Regarding Italy's overall economic situation in the future year, how would you describe it: will be much better, will be better, will remain unchanged, will be worse, will be much worse?
- Regarding your personal overall economic situation in the past year, how would you describe it: particularly improved, improved, unchanged, worsened, particularly worsened?
- Regarding I your personal economic situation in the future year, how would you describe it: will be much better, will be better, will remain unchanged, will be worse, will be much worse?