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Targeted Government Spending and Political Preferences

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ABSTRACT

This article addresses the question of whether incumbents can buy political support through targeted public spending. Using a regression discontinuity approach which takes advantage of the design of a recent Romanian government program that distributed coupons worth 200 Euros to poor families towards the purchase of a computer, we find that program beneficiaries were significantly more likely to support the parties of the incumbent governing coalition. These effects occurred both through higher political mobilization and through party-switching. The article also analyzes the drivers of such political gains and we find that program beneficiaries did not trust either the central government or the governing parties any more than the control group. Instead, it appears that local governments reaped the benefits of increased trust, and the political support for incumbent parties occurred mostly in towns where the local government was controlled by one of the parties of the national ruling coalition.

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Can incumbents buy political support through targeted public spending? Judging by the widespread practice of politically motivated allocation of public funds in countries as diverse as the United States, Sweden and Brazil, most politicians seem to assume that the answer to this question is affirmative. The axiomatic acceptance of the importance of pocketbook considerations in individual voting decisions also lies at the basis of a substantial academic literature concerned with the theoretical prediction and empirical assessment of politically motivated patterns of government spending.[1] But despite this widespread (and reasonable) assumption that voters evaluate incumbents at least in part on the basis of how government policies have affected their personal economic fortunes, the existing literature has produced inconsistent findings about both the importance of pocketbook considerations in the political choices of individual citizens and about the effectiveness of political efforts to use government spending to buy political support.[2]

Beyond the primary empirical puzzle about the existence and magnitude of a government spending-driven change in political attitudes and vote intentions, this article addresses a number of questions about the mechanisms through which such an effect operates. One theoretically and normatively important question is whether the electoral support gains of incumbents are driven primarily through the mobilization of citizens, who would have stayed away from the polls in the absence of government spending benefits, or whether the spending matters because it persuades former supporters of the opposition parties/candidates to switch their political allegiances and vote for the incumbents. Given that the spending program analyzed in this article does not lend itself to the clientelist *quid pro quo* arrangements that often structure the links between government largesse and voting, the present analysis addresses broader questions about how citizens assign credit and blame for changes in their personal economic situations: do direct benefits from government spending programs translate into greater trust towards the politics and politicians in general or do they only benefit particular political institutions, parties or individual politicians? To the extent that incumbents reap disproportionate political benefits among spending beneficiaries, does

[1] For different theoretical perspectives see the debate about targeting core constituents (Cox and McCubbins, 1986) vs. swing voters (Dixit and Londregan, 1996), as well as Persson *et al.* (2000) discussion of comparative institutional effects on public finance allocation, and the extensive literature on political business cycles (e.g., Tufte, 1978).

[2] For a recent review of this literature, see Anderson (2007).

this occur because individuals update their views about the relative policy position of the incumbent parties (e.g., by concluding that parties that promote government spending on the poor in this particular instance must generally have pro-poor policies) or because the first-hand positive experience with a reasonably effective government program leads beneficiaries to update their assessment of valence issues such as incumbent competence and honesty. A final puzzle — and one which is crucial for assessing the political cost effectiveness of targeted spending programs — concerns the clarity of responsibility, i.e., the extent to which program beneficiaries recognize who was responsible for the program and therefore reward these politicians with greater political support.

The present article addresses these theoretical questions using empirical evidence from a public opinion survey of participants in a recent Romanian government program, which awarded vouchers towards the purchase of a new personal computer to low-income families with school-age children. Using a regression discontinuity approach, which takes advantage of the nature of the voucher award process, we find strong evidence that targeted government spending can have a significant impact on political attitudes and vote intentions. We find that voucher recipients were more likely to report that they intend to vote in the upcoming elections, and that governing parties reaped most of the benefit of this increased political participation. We also find some evidence of vote switching from the main opposition party to the current incumbents and this effect was substantially stronger in towns where the governing parties at the national level also controlled the local government. The crucial mediating role of local government is reinforced by the fact that program beneficiaries only displayed higher trust towards local authorities (who administered the vouchers) but not towards national institutions and politicians who initiated and funded the program.

The article is organized as follows: first we discuss the contributions of this article to the scholarly debates about the link between government spending and political attitudes and about the dynamics of pocketbook voting more broadly. Next we provide a brief description of the "*Euro 200*" program in the context of Romanian party politics and electoral competition. Then we discuss the data followed in the subsequent section by a description of the methodological approach of the article. The following section presents the statistical results and discusses their theoretical implications for our understanding of pocketbook voting and political behavior more broadly. The final section concludes.

Contributions to the Literature on Government Spending and Pocketbook Voting

Given the nature of the Euro 200 program, our survey-based evidence about its impact on the political and electoral preferences of program participants contributes both to debates about the political effects of targeted government spending programs and about the broader question of the extent and nature of pocketbook voting in democratic countries. Empirically, our article contributes to the debates about the importance of pocketbook voting considerations. While this debate has a long tradition among scholars focusing on the United States, the results have been mixed, with some studies finding strong pocketbook effects (Romero and Stambough, 1995; Nannestad and Paldam, 1995, 1997; Alvarez and Saving, 1997; Ansolabehere and Snyder, 2006), while others found modest and insignificant effects (Kiewiet, 1983; Markus, 1988; Lewis-Beck, 1988, 1997; Hibbs, 1993; Borre, 1997; Alvarez and Nagler, 1995; Lewis-Beck and Stegmaier, 2000).

The empirical evidence from new and poor democracies, such as the Romanian case analyzed in this article, has been fairly limited so far, due to the shorter democratic track record and the relative scarcity of high-quality economic data and public opinion surveys in developing countries. The few existing studies concerned directly with the electoral effects of public spending have produced mixed results: thus, Samuels (2002) found that pork barrel spending in Brazil did not translate into greater electoral support and Bruhn (1996) found similarly weak effects in Mexico. Meanwhile, Weyland (1998) finds that regions with more generous social spending were more likely to support incumbents in Argentina and Peru but not in Bolivia. For ex-communist countries, we are not aware of any studies linking government spending with voting behavior, while studies focusing on other types of pocketbook voting have yielded mixed results with Richter (2006) finding strong effects of wage arrears on vote choice in Russia while Cox and Powers (2000) and Gomez and Wilson (2006) reporting weaker effects in Poland and Hungary, respectively. Therefore, the present article's emphasis on the link between government spending and political attitudes and electoral intentions in post-communist Romania addresses an important and understudied aspect of political behavior, which should contribute to the unresolved debates about the salience of pocketbook considerations in individual voting decisions.

Some of the inconsistent findings discussed above arguably reflect the changing salience of personal economic considerations across a wide range of political contexts, as well as the fact that the mechanisms through which government policies affect individual welfare range from programmatic government spending on public goods to clientelist practices targeted at particular groups and individuals and involving a quid pro quo. (Brusco *et al.*, 2009). However, a closer look at the different findings in the existing literature suggests that some of the differences are driven by variations in methodological approach. Thus, whereas studies using aggregated data tend to find significant pocketbook effects (Alvarez and Saving, 1997; Weyland, 1998; Ansolabehere and Snyder, 2006), survey-based analyses of individual voters suggest that socio-tropic evaluations of the overall state of the economy are better predictors of voting behavior than individual economic considerations (Lewis-Beck, 1988; Powers and Cox, 2000).[3]

Most importantly, so far both types of analyses suffer from significant methodological limitations. The biggest concern is that the independent variables of interest included in the regression analyses are endogenous and therefore one cannot establish a causal link between these factors and the dependent variable (i.e., voting behavior). Thus, in studies using aggregate data, which often focus on government spending in a given district, we may worry that politicians are likely to direct spending to areas where they expect to get the most political gains from such expenditures. The resulting reverse causality problem can be only partly addressed by using lagged spending variables, because both spending levels and voting behavior tend to persist over time and may be driven by other unobserved variables. Individual-level analyses, which tend to focus either on the perceived benefits of government programs or on perceived personal economic satisfaction to explain voting behavior, suffer from a similar omitted variable problem. Thus, such perceptions are arguably influenced by some of the same variables — such as partisan ties and ideology — that also drive vote choice but may be only partially observable. Therefore, both types of studies run the risk of producing biased estimates of the effects of government spending on voting behavior. In addition, studies using aggregated data run the risk of ecological fallacy,

3 One notable exception is Nannestad and Paldam's (1995, 1997) survey-based work about the importance of pocketbook voting in Denmark but, as mentioned above, these findings have been disputed by other similar analyses.

because they try to infer individual behavior based on aggregate outcomes, and they do not lend themselves to investigating the mechanisms through which economic conditions affect individual behavior.

In this article we address such methodological concerns by using a regression-continuity approach to study the effects on political attitudes and electoral preferences of a targeted government spending program in Romania. In doing so, we join a small but growing group of studies that attempt to address the causality concerns discussed above through innovative research designs. Manacorda *et al.* (2011), for example, use a regression discontinuity approach to analyze the political effects of a Uruguayan cash-transfer program, and while they do not focus on voting behavior, they find that program beneficiaries expressed 11–14% higher support for the government than the control group and that these effects persist after the program ends. De la O (2010) takes advantage of the experimental introduction of Mexico's conditional cash transfer program (Progresa) and using aggregate data finds that in villages with longer exposure to the program was responsible for higher electoral turnout and greater support for incumbents. Finally, Elinder *et al.* (2008) compare parents with children of different ages to establish the impact of narrowly targeted spending cuts on individual voting behavior in Sweden; they find that voters react to prospective promises of social spending but are not affected retrospectively by the actual implementation of such spending programs.[4]

The Euro 200 Program: Research Design and Political Context

We use a regression discontinuity design to analyze the effects of a recent Romanian government program on individual political preferences. The program, widely known as the *Euro 200* program in Romania, was adopted in June 2004 as Law 269/2004. In the first year, the program awarded about 25,000 vouchers worth 200 Euro towards the purchase of a personal computer for students from low-income families, and in the second year, on which this study is based, the number increased to 27,000. The program allocated a fixed number of such 200 Euro coupons on the basis of a simple ranking of family income in ascending order. The income cutoff line was not

[4] Additional identification attempts in this literature have used an instrumental variable approach (Levitt and Snyder, 1997), and matching methods (Richter, 2006).

announced in advance but was determined by awarding vouchers to eligible applicants in increasing order of household income up to the budget constraint imposed by the total allocated funding. The winners were notified of having been selected and received the coupon, which could be applied towards the purchase of a personal computer at a number of participating local retailers.

The advantages of our proposed setting is that in addition to having a regression discontinuity design, we make use of a specialized survey that was designed specifically to measure individual level political attitudes and voting intentions of the citizens affected by the program. Because the lists of winners and losers were published on the website of the program initiative, we were able to use this publicly available information to run a public opinion survey of 852 randomly selected program applicants from two Romanian counties. The face-to-face interviews were conducted in May–July 2007 by the Romanian branch of Gallup International and included almost identical proportions of winners and losers. To avoid priming, respondents were not asked any questions about their participation in the Euro 200 program until the final part of the interview.

Surveying both winners and losers of this program has a number of important advantages as an empirical setting for testing the effects of targeted government spending on the political attitudes and electoral behavior of recipients. First, the abrupt and largely exogenous[5] income cutoff separating winners from losers affords a stark regression discontinuity that allows comparisons across families with very similar income and other background characteristics. Such an approach goes a long way towards eliminating concerns about omitted variables bias between recipients and non-recipients, which is one of the crucial challenges facing studies concerned with comparing the political attitudes and behavior of beneficiaries and non-beneficiaries. (Gerber and Green, 2008: p. 374)[6]

Second, our approach has the advantage that we know a priori that some respondents (i.e., the voucher recipients) benefited from an exogenous consumption boost since the last election and, therefore, we do not have to rely

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[5] At the national level the income cutoff was of course endogenous to the size of the budget, the number of applications and the income distribution of applicants. However, as far as local level politicians and bureaucrats were concerned, the income cutoff was exogenously determined by the central government after applications were submitted, which limited their ability to manipulate the program for clientelist purposes.

[6] The statistical details of this approach are discussed in greater detail below.

on reported (and potentially subjective) measures of economic well-being. This feature addresses one of the most important difficulties encountered by earlier efforts to establish the electoral impact of changes in personal economic fortunes, namely that survey-based evaluations of such changes are at best biased by individual cognitive predispositions such as partisan preferences (Conover *et al.*, 1986; Peffley *et al.*, 1987) and at worst may be largely epiphenomenal (Fiorina, 1981; Feldman, 1985). While it is still conceivable that individuals interpret similar exogenous shocks in different ways for a variety of cognitive reasons, our research design ensures that such biases are not reflected in our main explanatory variable but can instead be tested empirically.

Third, because the program was a recent government initiative and required parents to apply for the vouchers on behalf of their children, we avoid the potential risk that respondents may not be aware of the benefit or that they would not associate it with a government program. This aspect is particularly important considering that earlier studies found that in the U.S. new federal outlays resulted in stronger electoral boosts for incumbents than total spending (Alvarez and Saving, 1997) and that vote intentions for incumbents were driven by awareness of new public spending projects rather than by the actual change in such programs (Stein and Bickers, 1994).

Finally, the vouchers represented a rather large income transfer for poor families,[7] and because they resulted in the purchase of a concrete (and visible) consumption good we would expect them to trigger noticeable political responses if pocketbook considerations are indeed important. This feature is important to address concerns that even if properly perceived and credited by individual recipients, the impact of government spending may be sufficiently modest to be drowned out by the noise from the wide variety of non-governmental factors affecting individual welfare (Sigelman *et al.*, 1991).

Two additional program features are important for interpreting the findings in this article. First, despite being targeted and serving a clear electoral intent, the program did not involve the type of *quid pro quo* inherent in traditional clientelist exchanges (Brusco *et al.*, 2009). The opportunities for clientelism were limited by the fact that unlike most targeted government spending programs (such as Progresa in Mexico) the Euro 200 program was

[7] For a family of four with the highest income qualifying for a voucher in 2005, the 200 Euro voucher corresponded to more than three times the monthly family income.

explicitly set up as an — albeit substantial — one-time transfer. This one-shot nature of the interaction, combined with the fact that the income cutoffs were announced after applicants had submitted their applications, undermined the ability politicians to make the distribution of benefits conditional on political loyalty.[8]

A second important peculiarity of the Euro 200 program was that unlike most other targeted government programs, recipients received computer vouchers rather than cash transfers and our survey suggests that the vast majority of recipients actually used the vouchers to purchase computers. Therefore, it is conceivable that any political effects would not only reflect the receipt of government benefits but also the potential informational side effects of computer ownership, particularly internet access. However, based on our survey findings, only 5.3% of the poor and largely rural survey respondents had internet access and unlike for computer ownership there was no difference between voucher recipients and non-recipients.[9] In sum, our interpretation is that the "Euro 200" program was a one-time transfer that was used to buy computers that did not result in internet-based differences in political information.

Political Context

To understand the political implications of the computer voucher program, we need to place it in the context of electoral competition in Romania. The voucher program was proposed by the office of the Prime Minister at the time, Adrian Năstase, and adopted by unanimous vote in Parliament in June 2004 as Law 269/2004. In the first year, the program awarded about 25,000 vouchers worth 200 Euro towards the purchase of a personal computer for students from low-income families. The initiative of the ruling ex-communist *Partidul Social Democrat (PSD)* broadly conforms to the theoretical predictions of politically motivated government spending: first, it was timed in

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[8] The post-facto nature of the income cutoff reduces possible concerns about participants misrepresenting their income to squeeze in below the cutoff. While individual instances of underreporting are possible, it is unlikely that these would be concentrated around the income cutoff of 506,000 ROL, and should therefore have a negligible effect on our regression discontinuity findings.

[9] The impact of the Euro 200 program on computer use and child outcomes using the same survey data is explored in Malamud and Pop-Eleches (2008). Malamud and Pop-Eleches (2011) also explores the impact of home computer use on child outcomes using data from different survey collected in 2009.

such a way that the winners were announced less than two months prior to the presidential and parliamentary elections in November 2004, thereby maximizing the potential electoral impact of the initiative. Second, in line with Romania's proportional representation electoral system, the program was not geographically targeted (along the lines of US pork barrel spending) and it was large in overall terms, thereby confirming Persson *et al.*'s (2000) predictions about public spending in PR systems. Because the program's primary beneficiaries were poor rural residents, which were traditionally the backbone of support for the ex-communists, it appears that the ruling PSD intended to use the program primarily as a way of mobilizing its core supporters. Targeting the rural poor was the most effective legal vote-buying strategy, both because for them the 200 Euro vouchers represented a greater relative benefit than for wealthier urban residents, and because traditionally voter turnout in post-communist Romania was highest in rural areas.

Despite this spending spree and a reasonably successful governance record from 2000 to 2004, the incumbent PSD suffered a narrow electoral defeat in the November–December 2004 elections. Their successors at the helm of the Romanian government were a motley crew of parties, which was based primarily on the center-right *Dreptate şi Adevăr* (DA) alliance (composed of the liberal *Partidul National Liberal PNL* and the nominally social-democratic *Partidul Democrat PD*) but also included the ethnic Hungarian *Uniunea Democratică Maghiară din România* (UDMR) and a small former ally of the ex-communists, the *Partidul Umanist din România (PUR)*. Rather than eliminating or at least reducing program funding, the new governing coalition actually expanded the resources allocated to the voucher program: thus, whereas in 2004, 25,051 families received vouchers, the number of awards increased to 27,555 in 2005 (the year on whose participants the survey is based), 28,005 in 2006 and over 38,379 in 2007.[10] This decision suggests that apart from the policy merits and public image benefits associated with such an initiative, the new governing parties may have decided to use the program to challenge their ex-communists on their electoral home turf among poor rural voters. Given that in 2004 voter turnout in rural areas was for the first time lower than in urban areas, such an effort may work either by

[10] Along with the total number of vouchers, the proportion of applicants who received computers also increased dramatically from about 20% in 2004 to 53% in 2005, 96% in 2006 and 100% in 2007. As a result, the most recent two rounds of the program cannot be used for the current research design, because they do not provide meaningful control groups against which to evaluate treatment effects.

persuading former PSD voters to switch to the center-right governing parties or by mobilizing potential existing supporters who stayed away from the polls in 2004.

Data

The data come from two sources. The first is a list of families that participated in the 2005 round of the Euro 200 program in the Romanian counties of Valcea and Covasna. This list contains the names of the parent and child who applied, their place of residence, and the name of the school of the child. There is also information on the income per family member in the three months prior to the application deadline, which is crucial for implementing the regression discontinuity design of the current analysis.

The second source of data is a household survey that we conducted with the help of Gallup Romania in the summer of 2007 with the households included on the original list. Of the 1554 families included on the original list of participants in the 2005 round of the Euro 200 program, we restricted our target sample to the 1317 families that live in localities where at least four families have applied to the program.[11] Of the remaining 1317 families, 858 were successfully interviewed for a response rate of 65%, which is in line with Gallup's interview rate for this population. While the remaining sample is not representative of the program applicant pool or the population of the two counties more generally, we found no evidence that attrition is different between winners and losers of the program.

Because the program was targeted towards low income families, it is not surprising that the sample population is predominantly rural (54%) and has comparatively low levels of educational attainment (49% have less than 8 years of education). Compared to national averages, the sample contains an unusually large fraction of Hungarians (41%) reflecting the fact that one of the two counties in the study (Covasna) is a region with a Hungarian majority. Table 1 presents summary statistics for the main variables used in the study for the whole sample as well as separately for recipients and non-recipients. In our whole sample, 49% of families received a computer in the 2005 round of the Euro 200 program and computer ownership is high at around 75%.

[11] This restriction was due to the high cost of surveying individuals in areas with few program participants.

Table 1. Descriptive statistics.

	Euro 200 — whole sample			Euro 200 winners			Euro 200 losers		
Variables	Mean	SD	N	Mean	SD	N	Mean	SD	N
Winner Euro 200 coupon	0.49	0.50	852	1.00	0.00	420	0.00	0.00	432
Owns computer	0.75	0.43	850	0.95	0.22	420	0.55	0.50	430
Vote for Government	0.44	0.50	852	0.43	0.50	420	0.45	0.50	432
Vote for DA	0.22	0.42	852	0.23	0.42	420	0.21	0.41	432
Vote for UDMR	0.22	0.41	852	0.20	0.40	420	0.23	0.42	432
Vote for PSD	0.07	0.26	852	0.09	0.28	420	0.06	0.24	432
Vote for Populist Parties	0.03	0.17	852	0.04	0.19	420	0.03	0.16	432
Vote intention	0.72	0.45	852	0.73	0.45	420	0.72	0.45	432
Trust local government	6.11	3.15	802	6.11	3.18	391	6.11	3.12	411
Trust central government	4.69	2.70	732	4.55	2.82	360	4.84	2.58	372
Trust parliament	3.81	2.53	716	3.77	2.69	354	3.85	2.37	362
Trust political parties	3.48	2.42	700	3.43	2.54	347	3.52	2.30	353
Trust Nastase	3.35	2.70	630	3.33	2.71	312	3.37	2.70	318
Trust Tariceanu	3.94	2.71	645	3.84	2.73	323	4.03	2.70	322
Politician distrust index	3.54	0.58	784	3.50	0.61	388	3.58	0.56	396
Most politicians care more about power than people's interests	3.63	0.66	761	3.60	0.68	374	3.65	0.63	387
Most politicians get rich by misusing public office	3.60	0.64	744	3.56	0.68	370	3.64	0.60	374
Most politicians do their job well most of the time	1.98	0.94	728	1.93	0.94	365	2.02	0.94	363
Most politicians don't care about people like me	3.42	0.90	767	3.37	0.93	380	3.47	0.86	387
Government care for poor	0.20	0.40	852	0.23	0.42	420	0.17	0.38	432
Government performance	1.28	0.72	697	1.20	0.74	349	1.36	0.70	348

Notes: SD is the standard deviation and N is the sample size. All summary statistics are based on the parent who completed the survey.
Source: 2007 Euro 200 survey.

To establish the extent and the mechanisms of pocketbook voting, our survey also included a number of questions about political attitudes and electoral behavior, which are also summarized in Table 1. Thus, we asked respondents about their vote intention in the next elections, as well as about their likely political party choice. Because at the time of the program implementation, the national government was composed primarily of the center-right DA coalition and the ethnic Hungarian UDMR, we included these parties both separately and as a government aggregate and we expect these parties to have stronger support among voucher recipients.[12] In addition, we coded supporters for the main opposition party, the ex-communist PSD. Because the PSD had originally launched the Euro 200 program in 2004, it is possible that they would also get a popularity boost among voucher recipients but we expect such an effect to be weaker than for the current incumbents, because it requires a fair amount of political awareness and sophistication from the voters. Finally we also coded vote intentions for two small nationalist and populist parties, PRM and PNG, which were in opposition both before and after 2004 and should therefore not benefit from the program.

The second set of survey questions asked respondents to rate their trust in a series of political institutions on a scale from 1(low) to 10 (high), and we tested the program impact on those institutions, which could be expected to benefit from a trust boost among winners: the local government (which administered the program details), the central government and the national parliament, which had passed the law and funded the program, and the political parties, which could affect the program at both the national and the local levels. The higher overall ratings for local governments are consistent with national level survey findings which reflect slightly greater trust in local than in national political institutions. In addition to institutions, we asked respondents to rate a number of Romanian politicians (on a scale from 1 to 10), but for the purpose of this analysis we only focus on the prime ministers of the country at the time when the program was initiated (Adrian Năstase from PSD) and when the 2005 round was implemented (Călin Popescu-Tăriceanu from DA).

Third, we included several survey questions that tap into more general citizen attitudes about politicians, in order to test whether the first-hand experience of a tangible benefit associated with a direct government initiative can counteract the pervasive distrust many Romanians harbor against the political elite and may therefore encourage greater political participation. Respondents were asked to react to the following four statements: (1) "most politicians care more about staying in power than about the

[12] The government aggregate also includes supporters of the small centrist PUR/PC but the party's support was negligible by 2007, so we did not include it as an individual party in the regressions.

interests of the people,'' (2) ''most politicians make a lot of money by misusing public office,'' (3) ''most politicians do not care what happens to people like me'' and (4) ''most politicians do their job well most of the time.'' Judging by inter-item correlations, the last question was much more weakly correlated with the other three than they were to each other, arguably because the former captures attitudes about politicians' intentions, while the latter taps into competence. Therefore, we also created a *political distrust index* representing the average of questions 1, 2, and 3 (with an alpha reliability score of 0.66).[13] Given that the scale for these questions ranges from 1 (complete disagreement) to 4 (complete agreement), the high averages for questions 1, 2, and 3, combined with the low (but slightly less abysmal) score for 4 reflect the low esteem of Romanian citizens for their politicians. The final two survey questions analyzed, focus on the same two dimensions — intentions and competence — but this time referring to the government rather than politicians in general. Thus, because the Euro 200 program was clearly intended as a way for its political sponsors to polish their reputation for pro-poor policies, we asked respondents to state which political party (if any) showed greater concern for the country's poor, and coded those respondents who stated one of the governing parties. In this respect, it is worth noting that the proportion of respondents identifying the governing parties as pro-poor (20%) was less than half the share of likely voters for the incumbents (44%), a finding which is in line with the government's proclaimed center-right ideology (and hints at a certain amount of sophistication among survey respondents). Finally, we asked respondents to evaluate the government's overall performance on a scale from 0(very poor) to 3(very good), and the resulting average of 1.28 suggests moderate dissatisfaction but a slightly more positive evaluation than to the more generalized institutional and political trust questions.

Finally, to test the relative importance of mobilization and switching mechanisms in driving the impact of government spending on vote intentions, we asked respondents whether they had voted in the previous Romanian parliamentary elections and for which party. We then coded respondents who had not voted (to capture mobilization) and those who had voted for the main opposition party PSD to capture switching.

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[13] Including question 3 in the index reduced the reliability index considerably (to 0.54).

Empirical Strategy

As mentioned above, under the new DA government, the Romanian Ministry of Education offered approximately 27,500 computer vouchers to low-income students enrolled in Romania's public schools in 2005, the year on which our survey is based. Because these computer vouchers were allocated according to a simple income cutoff, we employ a regression discontinuity (RD) design to compare outcomes across families with similar income and other characteristics but experienced different levels of program entitlements. This enables us to address the possibility of omitted variable bias between recipients of government benefits and their counterparts who were ineligible. The basic regression model used through the analysis is as follows:

$$\text{outcome}_i = \beta' \boldsymbol{X}_i + \delta \text{ cutoff}_i + f(\text{income}_i) + \varepsilon_i \tag{1}$$

where outcome_i represents a particular political action or belief, such as voting behavior, by respondent i. $\boldsymbol{X}_i$ includes a set of control variables, such as age, ethnicity, urban/rural location, and educational attainment. In practice, these control variables have very little effect on our estimates of the discontinuity and serve mainly to increase precision. cutoff_i is a dummy variable equal to 1 if monthly household income per capita is less than the minimum cut-off for the voucher program of 506,250 lei, and 0 otherwise. The coefficient δ, our main coefficient of interest, indicates the effect of receiving a 200 euro computer voucher on the relevant outcome. Finally, $f(\text{income})$ is a smooth function of income, which is the forcing variable in the context of this regression discontinuity design. As in other recent studies employing this technique, we specify a linear model of this forcing variable, but allow it to vary on either side of the discontinuity.[14] While our primary specification uses a linear spline in income, we also estimate regressions with alternative polynomial functions for robustness. Binary outcome variables are estimated with logistic regression models, other variables are estimated with OLS regression models.

The central assumption underlying the RD design is that we have correctly specified the function of income (the forcing variable), which determines assignment of the government subsidy (the computer voucher). Another

[14] See DiNardo and Lee (2004) for use of parametric functions in regression discontinuity design. Estimating this equation using non-parametric methods, along the lines of Hahn *et al.* (2001) and Porter (2003), also leads to similar results.

important assumption is that households were not able to manipulate the forcing variable, by reporting a lower income. While it is of course possible that individual families under-reported their income, such cheating should not be a serious concern for our results for at least two reasons. First, the minimum cut-off of 506,250 lei for the voucher program was not known ex-ante. This cutoff was determined by the amount of funds available and by the number of households that applied and their corresponding income, none of which were known prior to the start of the program. Second, under-reporting would only create a problem for our identification strategy if cheaters were clustered on either side of the income cut-off. This situation could only happen in situations where families had information about the cut-off at the time they applied for the program, which is highly unlikely given that this cutoff was only determined after all the applications were received by the Ministry of Education. These expectations are confirmed by a diagnostic test (McCrary, 2007), where we plot the frequency densities by income in order to check for any irregularities around the income cutoff. The results in Appendix Figure A1 suggest that there seems to be no significant difference in the density of households around the income threshold. If anything, the densities are higher to the right of the discontinuity for program participants who did not win the voucher. If income manipulation would have played a role in this program, we would have expected a higher density among program winners who are on the left of the discontinuity.

Results

We start by showing the dramatic effect that the program income based eligibility rule had on the probability of winning a coupon worth 200 Euro towards the purchase of a computer. As mentioned previously, because the income cutoff was 506,000 lei (or about $17) per family member, children with monthly household incomes around 500,000 lei experienced significantly different probabilities of receiving a coupon. In panel A of Figure 1 we normalized the household income per family member for the families in our sample to be 0 at the 506,000 lei cutoff. Winning a coupon in 2005 had a lasting impact on the probability of owning a computer in 2007 at the time of the survey. Panel B of the same figure, which plots the probability of owning a computer based on residuals from a regression of computer ownership on a number of socioeconomic background variables (age, education, rural/urban, ethnicity), shows that families around the cutoff with very similar in family

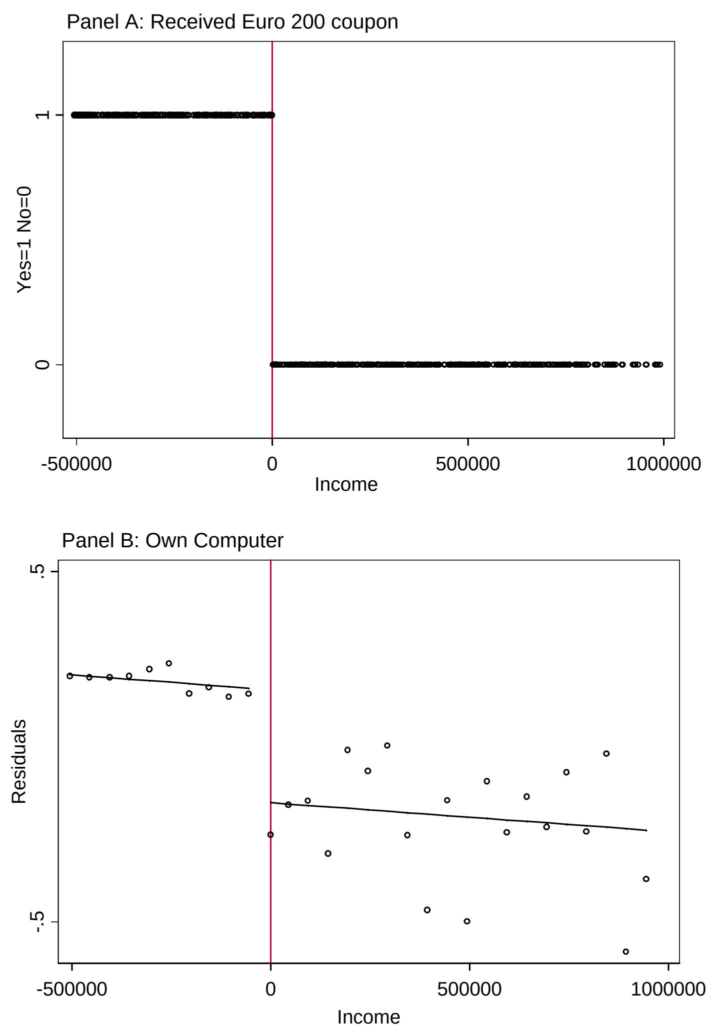

Figure 1. Panel A is a plot of the probability of winning a Euro 200 coupon as a function of reported income. In Panel B the open circles plot average residuals (for respondents in income intervals of 50,000 lei) from regressions of the computer ownership in 2007 on a number of background variables (age, education, urban/rural, ethnicity). The solid lines are fitted values to residuals from regressions of the dependent variable on a linear spline. The income variable is the monthly household income per family member used by the Euro 200 program and is normalized to be 0 at the 506,000 lei ($17) cutoff.

Source: 2007 Euro 200 Survey and Euro 200 program data.

income experienced a 34% difference in terms of having a computer at home.[15] As a further robustness check of our empirical strategy, we made sure that families around the cut-off are not only similar in terms of their reported program income but also along a number of other socio-economic background characteristics. In regressions presented in the appendix, we ran models similar to those in Equation (1), but included age, gender, education, ethnicity and urban/rural location as dependent variables. The coefficients are almost always small and statistically insignificant.[16]

Main Effects: Greater Electoral Mobilization and Incumbent Support

Having established the large and discontinuous impact around the income cut-off on coupon eligibility and computer ownership, our analysis essentially attempts to find out whether one can observe similar discontinuity in terms of political behavior around the same income cut-off. Table 2 provides regression estimates for the impact of the Euro 200 program on our main outcomes, corresponding to Equation (1) from the preceding section.

Model 1 shows that respondents from families just below the income cut-off were significantly more likely to declare an intention to vote in the next election than respondents just above the cut-off. Given the nature of the regression discontinuity approach discussed above, this finding suggests that ceteris paribus, the experience of receiving a sizeable government handout increased the probability of voting by 25.8%, a remarkably large increase ($p = 0.002$).

Model 2 shows that most of this additional voter mobilization can be expected to benefit incumbent parties, which experienced a 15.5% boost among winners compared to the control group ($p = 0.066$). While falling short of standard statistical significance thresholds, Models 3 and 4 reveal that this increase is driven by gains of the two main government coalition members, DA (10%, $p = 0.13$) and UDMR (5%, $p = 0.19$), and the relative gain was larger and more significant for the former, arguably because the ethnic Hungarian UDMR was less likely to attract ethnic Romanian voters from other parties. By contrast, Model 5 of Table 2 indicates that the Euro 200

[15] The difference increases to 51% if we exclude the 15% of respondents who reported receiving a voucher in later rounds of the program.

[16] The only exception is Roma ethnicity, but given the large number of background control variables tested, the probability is high of observing one significant result in this table even if the null hypothesis of no effect were true. Thus there is a good chance that the Roma ethnicity result represents a false significance (type I error).

Table 2. Effect of the Euro200 program — main results.

	Intention to vote (1)	Vote for current government (2)	Vote for DA (gov't) (3)	Vote for UDMR (gov't) (4)	Vote for PSD (opposition) (5)	Vote for populist parties (opposition) (6)	Undecided voters (7)
Winner of coupon	**0.258**	**0.155**	**0.095**	**0.055**	**0.016**	**−0.006**	**0.075**
	[0.079]	**[0.083]**	**[0.063]**	**[0.045]**	**[0.023]**	**[0.012]**	**[0.056]**
Specification	Linear spline	Linear spline	Linear spline	Linear spline	Linear spline	Linear spline	Linear spline
Mean of dep. variable	0.73	0.44	0.22	0.22	0.08	0.03	0.16
Sample Size	831	831	831	831	831	831	831

Notes: Robust standard errors in brackets. The dependent variables are defined in Table 1. “Winner of coupon” is defined as 1 for individuals with an income above the program cutoff of 506,000 lei ($17), 0 otherwise. All regressions include controls for age, education, urban/rural and ethnicity.
Source: 2007 Euro 200 survey.

program had only a small and insignificant effect on the intention to vote for PSD, the main opposition party. This finding suggests that despite having initiated the Euro 200 program in 2004, the PSD was not rewarded by program recipients, who instead credited the current government for their gains. As expected, in Model 6 we find a small (but statistically insignificant) negative effect on voting preferences for Romania's two main populist parties (PNG and PRM). Finally, Model 7 suggests that more than a quarter of the likely voters, which were mobilized by the experience of winning a computer voucher, were still undecided about their vote choice (but were nevertheless more likely to participate in the political process.)

Overall the findings in Table 2 provide strong evidence that government spending beneficiaries responded to this sizeable economic benefit through greater political mobilization, which mostly benefitted the political parties of the incumbent government coalition. This large impact on vote intention and vote choice can also be captured graphically. In Figure 2 we repeat the graphical analysis of Panel B of Figure 1 to look for discontinuities in these variables around the cut-off. As expected, Panels A (intention to vote) and B (intention to vote for government) show a visible discontinuity that illustrates the electoral behavior impact of receiving a voucher.

Mechanisms

Next we try to understand some of the mechanisms that might explain the higher turnout and the stronger electoral support for the governing parties. Table 3 illustrates the effect of receiving a computer voucher on the personal and institutional political trust indicators described earlier. Because the Euro 200 program was an initiative of the national government, which was unanimously approved by the parliament in a rare display of non-partisan unity, one might have expected that recipients would give some credit to national-level political institutions. However, Models 2–4 in Table 3 reveal substantively small and statistically insignificant program effects on trust in the central government, parliament or political parties, respectively. Nor did the two political leaders at the helm of the government when the program was initiated (Năstase) or implemented (Tăriceanu) fare any better, as indicated by the weak negative effects of receiving a voucher on voter evaluations of the two politicians in Models 6 and 7. Instead, winners appear to credit the local government for their personal gains, as suggested by the significant and large boost (1.07 points on a 1–10 scale) in trust towards local

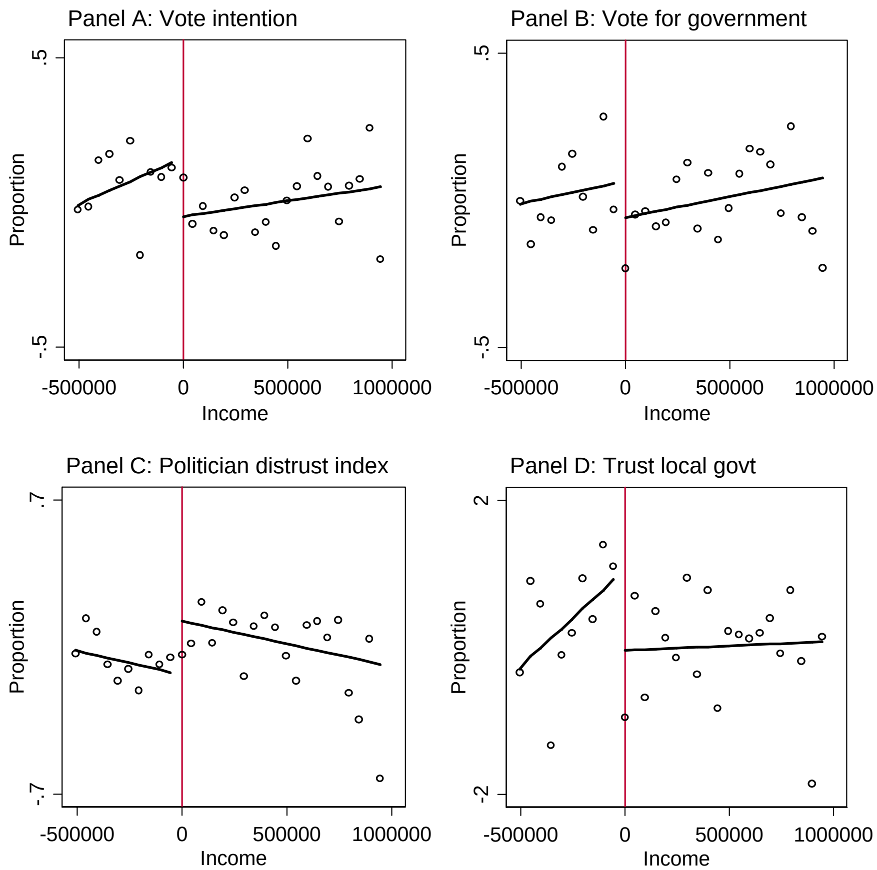

Figure 2. The dependent variables are defined in Table 1. The open circles plot average residuals (for respondents in income intervals of 50,000 lei) from regressions of the dependent variables on a number of background variables (age, education, urban/rural, ethnicity). The solid lines are fitted values to residuals from regressions of the dependent variable on a linear spline. The income variable is the monthly household income per family member used by the Euro 200 program and is normalized to be 0 at the 506,000 lei ($17) cutoff.

Source: 2007 Euro 200 Survey.

government among program beneficiaries in Model 1. The change is also clearly visible in Panel D of Figure 2 that presents the graphical equivalent of the regression results.

Table 3. Effect of the Euro200 program — mechanisms (1).

	Trust local government (1)	Trust central government (2)	Trust parliament (3)	Trust political parties (4)	Trust Năstase (former PM) (5)	Trust Tăriceanu (current PM) (6)
Winner of coupon	**1.037** [**0.520**]	**−0.058** [**0.505**]	**0.105** [**0.479**]	**0.152** [**0.469**]	**−0.059** [**0.559**]	**-0.37** [**0.540**]
Specification	Linear spline	Linear spline	Linear spline	Linear spline	Linear spline	Linear spline
Mean of dep. variable	6.12	4.69	3.81	3.46	3.36	3.95
Sample size	784	716	701	685	618	635
R-squared	0.04	0.04	0.04	0.04	0.04	0.06

Notes: Robust standard errors in brackets. The dependent variables are defined in Table 1. "Winner of coupon" is defined as 1 for individuals with an income above the program cutoff of 506,000 lei ($17), 0 otherwise. All regressions include controls for age, education, urban/rural and ethnicity.
Source: 2007 Euro 200 survey.

In Table 4 we try to understand to what extent the winners of the Euro 200 coupon change their assessment of politicians along two dimensions: their intentions and their competence. Judging by the results in Models 1–4, coupon winners were somewhat more likely to give politicians the benefit of the doubt when judging their motivations, and the effects were reasonably large and statistically significant for two of the three individual questions and the overall index.[17] By contrast, according to Model 4, the gratitude of coupon winners is not reflected in a more positive evaluation of politicians' competence, and in fact the regression coefficient points in the wrong direction.

The different effects of winning on evaluations of political intentions vs. competence are also confirmed — albeit somewhat more tentatively — by the last two regressions in Table 4. According to Model 6, coupon winners were somewhat more likely to consider that the governing parties care about the poor, but even though the substantive effect is fairly large (8% compared to a 20% average response) it falls short of achieving statistical significance and should be interpreted with some caution.[18] By contrast, the negative (but statistically insignificant) effect of winning on evaluations of overall government performance in Model 7 suggests that winners were once again unwilling to update their beliefs about the competence of public servants based on the positive outcome of the Euro 200 program for their families.

Because the analysis so far has indicated that the stronger incumbent support among coupon winners cannot be explained by higher trust towards national level politicians and institutions, the final part of our analysis attempts to understand the sources of additional support for the government and the mediating role of the local government in this process. The first two models of Table 5 attempt to separate to what extent the increase in the intention to vote for the government is driven by mobilization of voters who did not vote in previous elections or by capturing voters from the opposition PSD party. In order to do this, we interact the winner variable with a variable indicating whether a person has voted in the previous national election of 2004 (Model 1) as well as a variable indicating voting for the PSD in 2004 (Model 2). The estimated coefficients in both regressions are

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[17] The effects were smaller and at best marginally significant (at 0.16 two-tailed) for the first question (about politicians caring primarily about power), which can be interpreted as winners recognizing the electoral drivers of the program.

[18] The effects were somewhat more significant (albeit only at 0.15 two-tailed) when focusing only on the DA alliance (results omitted).

Table 4. Effect of the Euro200 program — mechanisms (2).

	Most politicians care more about power than people's interests (1)	Most politicians get rich by misusing public office (2)	Most politicians don't care about people like me (3)	Politician distrust index (4)	Most politicians do their job well most of the time (5)	Government cares for poor (6)	Government performance (7)
Winner of coupon	**−0.161** **[0.109]**	**−0.340** **[0.119]**	**−0.297** **[0.162]**	**−0.258** **[0.094]**	**−0.253** **[0.159]**	**0.081** **[0.064]**	**−0.138** **[0.131]**
Specification	Linear spline	Linear spline	Linear spline	Linear spline	Linear spline	Linear spline	Linear spline
Mean of dep. variable	3.62	3.60	3.43	3.54	1.97	0.20	1.28
Sample size	743	726	748	765	709	831	679
R-squared	0.06	0.07	0.03	0.07	0.06	0.04	0.05

Notes: Robust standard errors in brackets. The dependent variables are defined in Table 1. "Winner of coupon" is defined as 1 for individuals with an income above the program cutoff of 506,000 lei ($17), 0 otherwise. All regressions include controls for age, education, urban/rural and ethnicity.
Source: 2007 Euro 200 survey.

sizeable: thus, compared to other winners, coupon recipients who did not vote in 2004 are 5% more likely to be voting for the government and winners who voted for the PSD in 2004 are 10% more likely to vote for the government. These patterns suggest that both mobilization and party switching are important channels for incumbent electoral gains but these results need to be interpreted carefully, because prior vote choices may be endogenous and the coefficients of the interaction terms are rather imprecisely estimated and fall short of statistical significance. However, it should be noted that when analyzing the conditional effects of winning a coupon, these were statistically significant at 0.05 only for former non-voters (in Model 1) and former PSD voters (in Model 2).

Next, we turn to the role of the local government in channeling electoral support. Given that in Table 3 we found that local governments are the main beneficiaries of greater political trust among coupon winners, we would expect that the electoral gains for national incumbents should be mediated by who controls the local government. This expectation is confirmed by Model 3, which suggests that coupon winners in towns where the national incumbents do not control the local government only experienced a relatively small and statistically insignificant increase in the likelihood of voting for the incumbents in the next election. However, we find a large (14%) and statistically significant (at 0.1 two-tailed) interaction effect between winning and local government by one of the members of the national government coalition, which means that the effects of winning a coupon in such a town results in an almost 21% increase in vote intentions for the government (significant at 0.03).

Local government control also affects the ability of national incumbents to get former opposition voters to switch their political allegiances. To demonstrate this, the last two regressions in Table 5 are restricted to those individuals who live in localities where the PSD does not control the local government (column 4) or where the government controls the local government (column 5).[19] Similar to column 2, we interacted the coupon winner variable with an indicator of whether a person voted for the PSD in 2004. The estimated coefficients for the interaction effects are very large in both models[20]

[19] These two restrictions are almost identical given that very few towns are controlled by other parties than the PSD or the government coalition.

[20] The interaction effect was marginally significant (at 0.1 in Model 4 and 0.14 in Model 5) due to the smaller sample size but the conditional effects for former PSD voters in non-PSD controlled towns were significant at 0.05 in both the models. Moreover, we obtained somewhat stronger

Table 5. Effect of the Euro200 program — interaction effects.

Dependent variable	Vote for Current Government	Vote for Current Government	Vote for current government	Vote for current government	Vote for current government
Interaction term	Did not vote in 2004	Voted for PSD in 2004	Government controls local government	Voted for PSD in 2004	Voted for PSD in 2004
Restriction	None	None	None	PSD does not control local government	Government controls local government
	(1)	(2)	(3)	(4)	(5)
Winner of coupon	**0.150**	**0.142**	**0.065**	**0.155**	**0.164**
	[0.089]	**[0.089]**	**[0.106]**	**[0.105]**	**[0.107]**
Interaction	**0.046**	**0.101**	**0.142**	**0.320**	**0.29**
	[0.115]	**[0.107]**	**[0.086]**	**[0.181]**	**[0.188]**
Specification	Linear spline	Linear spline	Linear spline	Linear spline	Linear spline
Mean of dep. variable	0.44	0.44	0.44	0.44	0.44
Sample size	831	831	831	632	623

Notes: Robust standard errors in brackets. The dependent variables are defined in Table 1. "Winner of coupon" is defined as 1 for individuals with an income above the program cutoff of 506,000 lei ($17), 0 otherwise. All regressions include the main modifier variable (which varies by model) as well as controls for age, education, urban/rural and ethnicity.
Source: 2007 Euro 200 survey.

and are significantly larger than in Model 2, which placed no restrictions on local government control. These results indicate that the national government parties were more effective in attracting former PSD voters in towns where one of the national incumbent parties also controlled the local government (or at least where the PSD did not). Moreover, the findings in Models 4 and 5 suggest that the much of the greater incumbent support among coupon winners in towns governed by parties from the national governing coalition (which was revealed in Model 3) comes from previous voters of the former governing party PSD: thus, the effects of winning were moderate (around 0.16) and at best marginally significant (at 0.2) among respondents who had not supported the PSD in 2004 but were three times larger and significant (at 0.05) among former PSD voters. We return to the implications of these findings in the conclusion.

We have performed a number of additional tests to check the robustness of our results for our primary dependent variables (vote for government, intention to vote, trust local government, political distrust index). The first three rows of Table 6 consider three alternative sets of possible control variables: the standard controls used in our preferred specifications (age, education, urban, ethnicity), no control variables and an extended set of controls that include 109 locality fixed effects in addition to the standard controls. The results across the three rows are similar in terms of magnitude and statistical significance. The results that include locality fixed effects are generally weaker and are partly driven by the fact that the sample sizes for the intention to vote outcomes are smaller in these specifications because in a number of localities the dependent variable does not vary within a town. The next four models present results with the standard controls, but uses a number of different specifications for the income function (the forcing variable). The four specifications are linear, quadratic and cubic trends in income, and a quadratic spline. For the next two models we consider two alternative samples which restrict the windows around the cutoffs to 500,000 and 300,000 lei. Obviously, the precision of our estimates are bound to be lower in these narrow windows; however the magnitude of these estimates remain quite similar to those in our main specification and they are consistent with the visual jumps in the outcome variables around the discontinuity

interaction effects (significant at 0.1) using triple interactions (between winner status, vote choice in 2004 and local government control) but these results are not presented here because they are more cumbersome to interpret and present.

Table 6. Robustness checks.

	Vote for government (1)	Vote intention (2)	Trust local government (3)	Politician distrust index (4)
Linear spline, standard controls	0.155	0.258	1.037	−0.258
	[0.083]	[0.079]	[0.520]	[0.094]
Linear spline, no controls	0.141	0.233	1.186	−0.255
	[0.082]	[0.077]	[0.515]	[0.098]
Linear spline, controls plus locality fixed effects	0.109	0.279	0.911	−0.143
	[0.098]	[0.099]	[0.522]	[0.087]
Linear, standard controls	0.149	0.199	0.583	−0.257
	[0.076]	[0.064]	[0.484]	[0.089]
Quadratic, standard controls	0.176	0.251	1.108	−0.238
	[0.086]	[0.079]	[0.543]	[0.096]
Cubic, standard controls	0.239	0.199	1.143	−0.126
	[0.095]	[0.089]	[0.608]	[0.116]
Quadratic spline, standard controls	0.210	0.107	1.586	−0.078
	[0.127]	[0.124]	[0.731]	[0.132]
Linear spline, standard controls, 500,000 lei window	0.128	0.114	1.117	−0.128
	[0.100]	[0.089]	[0.614]	[0.111]
Linear spline, standard controls 300,000 lei window	0.152	0.156	2.104	−0.169
	[0.132]	[0.109]	[0.794]	[0.144]
Imbens–Kalyanarman bandwidth, standard controls	0.222	0.195	2.212	−0.103
	[0.170]	[0.132]	[0.818]	[0.208]
Mean of dep. variable	0.44	0.73	6.12	3.54
Sample size for 500,000 window	491	491	468	454
Sample size for 300,000 window	288	288	270	263
Sample for IK bandwidth	159	157	246	129
Sample size for locality fe	775	698	784	765
Sample size for all other regs	831	831	784	765

Notes: Robust standard errors in brackets. The dependent variables are defined in Table 1. "Winner of coupon" is defined as 1 for individuals with an income above the program cutoff of 506,000 lei ($17), 0 otherwise.
Source: 2007 Euro 200 survey.

presented in Figure 2. As a final robustness check we present estimates using the Imbens–Kalyanarman (IK) optimal bandwidth, as described by Imbens and Kalyanarman (2009). These results have point estimates that are similar to our main specifications but are also imprecisely estimated. Overall, the results in Table 6 confirm the robustness of our main results to a number of different specification checks.

Finally, we need to address an additional question related to the interpretation of the results. While our statistical analyses shows significant differences in voting behavior around the discontinuity, these differences could reflect either electoral gains among winners, or losses among dissatisfied program losers, or a combination of the two mechanisms. While our original survey did not include a control group of non-participants, we follow the approach in Manacorda *et al.* (2011) and use data from a similar public opinion survey that was administered to a nationally representative sample of 2000 adult Romanian respondents in October 2007. This involves using a common set of background variables that are in included in both datasets (age, education, urban residence, ethnicity as well as controls for the two counties) to extrapolate counterfactual voting intentions from the broader population to our Euro 200 sample of respondents.

In Appendix Figure A2, we plot the actual intentions to vote for the government (as in Panel B of Figure 2, but using actual levels rather than residuals) along with the predicted counterfactuals that are based on the opinions of people with similar demographic backgrounds from the national public opinion survey. As expected, we only observe the discontinuity around the cutoff for the actual intended vote choices and not for the predicted counterfactuals. More importantly, the differences between actual and predicted vote intentions are large and positive for program winners and close to zero for program losers. These results suggest that the estimate difference at the discontinuity represent electoral gains for governing parties among winners rather than losses among embittered losers.[21] However, these results need to be interpreted with care given the inherent limitations of extrapolating voting intentions based on a reduced set of observable demographic characteristics and the unobservable selection effects among Euro 200 program participants.

External Validity Considerations

As with most experimental and quasi-experimental work (Green and Gerber, 2003), there are open questions about the generalizability of our

[21] We found similar patterns looking at two other outcomes (intention to vote and trust in local government), but we do not report them here because the question wording differed somewhat across the two surveys, thereby reducing our confidence in the validity of the comparison.

findings beyond their immediate empirical context. While such questions can ultimately only be addressed by running similarly designed experiments in a variety of contexts that allow for variation in several crucial parameters, we briefly discuss how we expect the particular features of the current context to affect the nature and magnitude of our findings. On the one hand, the large impact on turnout and party choice is obviously affected by the fact that the 200 Euro voucher represented a fairly large and highly visible wealth transfer to poor voters (because the program targeted the poorest citizens in a low-middle income country). However, it should be noted that this was a one-time transfer, whose magnitude was actually significantly lower on an annual basis than that of many conditional cash transfer programs implemented in other developing countries.[22]

Another potential concern is that the relatively weak partisan ties of Romania's nascent party system may exaggerate the effectiveness of efforts to buy political allegiances through targeted government spending. While this may be true compared to established democracies with stable party systems, weak partisan ties are hardly unique to the Romanian case but apply to a large proportion of the world's population that lives in poor, new and imperfect democracies.[23]

At the same time, it is worth emphasizing that the interviews took place almost two years after the respondents received the vouchers and bought the computers, which indicates a remarkable persistence of these pocketbook effects and suggests that the short-term impact could be even greater. Another contextual aspect that probably reduced the size of our observed effects was the fairly weak clarity of responsibility arising from the fact that the computer voucher program was initiated and implemented by different political parties.

Finally, the importance of local politicians in mediating the political effects of central government spending is quite possibly a function of Romania's list-PR electoral system, which reduced the direct links between citizens and their national representatives, and therefore arguably elevated the

[22] For example, Manacorda *et al.* (2011) report that the Uruguayan PANES program made monthly transfers of \$70, which represented over 50% of the average reported household income among participants. By comparison, the \$240 computer voucher was equivalent to three times the monthly income of a family of four in the Romanian program, which means that the Uruguayan program was actually twice as generous on a *per annum* basis.

[23] In fact, De la O (2010) finds an almost identically sized aggregate-level gain for governing parties in the case of Mexico's Progresa program (though in her study the impact on turnout was lower).

importance of alternative political access points, such as local politicians. However, because list-PR is one of the most widespread electoral systems worldwide, the link between institutional variation and the mediating role of local politicians deserves more systematic attention in future research. Similarly, while the particular mix of mobilizing and switching revealed by our study is affected by the specific details of the computer voucher program, the Romanian government's policy choices are arguably representative of a much broader set of targeted public spending programs used by governments around the globe to attract electoral support, and therefore it contributes to our collective understanding of the link between public policies and individual political behavior in democracies.

Conclusion

What are the implications of our findings for the broader theoretical debates about the political impact of targeted government spending and of pocketbook voting more broadly? At the most basic level, the increased willingness among program beneficiaries to turn out in elections and support incumbent political parties confirms findings from other settings about the political effectiveness of targeted social spending programs (Manacorda *et al.*, 2011; De la O, 2010). One of the interesting new insights provided by the current study — due to the peculiar situation where the computer voucher program was initiated by the PSD in 2004 but implemented by the newly elected DA alliance in 2005 — is that the political benefits of such programs appear to accrue primarily to the politicians/parties who are in office at the time when benefits are distributed, even if the original policy had been adopted quite recently by another party. The relatively myopic view of politics suggested by this pattern is further reinforced by the fact that program beneficiaries reported increased trust only towards local politicians, who helped administer the program, but not towards national politicians, who adopted and financed the spending program. On the other hand, the fact that the political effects of the program were still very clearly visible two years after the beneficiaries had received the vouchers, suggests a surprisingly long political half-life of such initiatives and confirms Manacorda *et al.*'s (2011) finding that government spending programs can have a significant electoral impact beyond the short-term boost usually associated with electorally motivated government largesse.

From the perspective of the broader debates about the role and dynamics of pocketbook voting, our study is one of the first to provide individual-level evidence about the importance of pocketbook considerations. Moreover, our research design, which relies on observed economic benefits rather than subjective personal economic evaluations and addresses omitted variable bias through a regression discontinuity approach, gives us greater confidence in the causal validity of our findings. In addition to establishing the importance of pocketbook considerations in shaping electoral preferences, this study also offers some insights into the causal mechanisms underlying the phenomenon. One interesting and somewhat surprising finding is that program beneficiaries professed greater trust in the intentions of politicians but not in their competence. Additional future research will be necessary to establish whether this finding is generalizable or whether it is due to the particularities of the computer voucher program (which was relatively easy to administer). Another question worth considering is whether our findings could be driven by the greater durability of affective evaluations (such as trust in good intentions) compared to more objective evaluations of competence. This issue could be addressed in future work by assessing recipient attitudes both shortly after they received the benefits and after a longer time lag comparable to the present study.

The broader issue raised by our findings is the importance of local politicians in mediating the political impact of targeted government spending and more broadly of who voters reward for improvements in their economic fortunes. Thus, we find much stronger electoral gains for the national governing coalition among program recipients living in towns where the local government was also controlled by parties from that coalition. These results suggest that even outside their central role in the debates about the dynamics of patronage politics local elites represent an important causal link between individual economic welfare changes and their political repercussions. One possibility is that local elites are important in informing recipients about the source of their economic benefits thereby overcoming the clarity of responsibility problems that can plague such programs. Alternatively, local elites may be instrumental in making sure that individuals do not forget which political party was responsible for the benefit they received. However, future research will be necessary to establish the precise mechanisms underlying this process and to establish whether the role of local governments varies as a function of the availability of alternative links between political parties and individual voters (e.g. MPs in SMD systems).

Appendix

Table A1. Specification tests (effect of the Euro200 program on covariates).

Dependent variable	Year of birth (1)	Gender (2)	Junior high (3)	Vocational (4)	Lower secondary (5)
Winner	−0.594	0.096	0.047	−0.085	0.03
	[1.439]	[0.063]	[0.076]	[0.058]	[0.056]
Sample size	829	831	831	831	831
R2	0.08	0.02	0.04	0.04	0.05
Dependent variable	**Secondary or more (1)**	**Romanian (2)**	**Hungarian (3)**	**Roma (4)**	**Urban (5)**
Winner	−0.049	−0.073	−0.018	0.092	−0.122
	[0.057]	[0.079]	[0.078]	[0.042]	[0.076]
Sample size	831	831	831	831	831
R2	0.04	0.08	0.07	0.1	0.09

Notes: Robust standard errors clustered at the household level are in brackets. “Winner” is defined as 1 for individuals with an income above the program cutoff of 506,000 lei ($17), 0 otherwise. All regressions include a linear spline in income.
Source: 2007 Euro 200 survey.

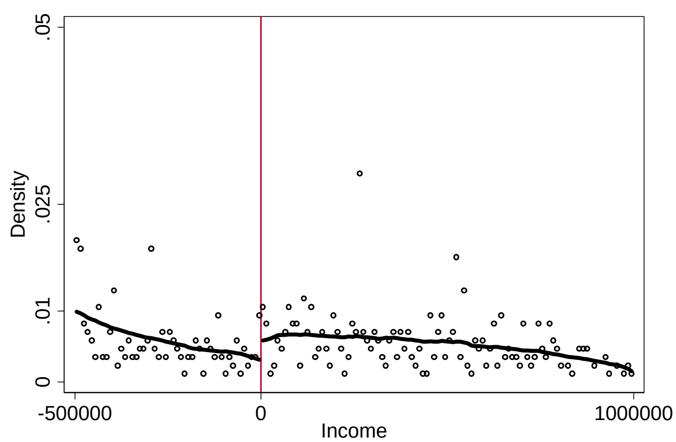

Figure A1. Frequency densities.
Notes: The open circles plot the residuals from regressions of density on our standard set of controls for 10,000 lei intervals. The solid lines are fitted values of residuals from local linear regressions of density using a rectangular kernel with a bandwidth of 30,000. The income variable is the monthly household income per family member used by the Euro 200 program and is normalized to be 0 at the 506,000 lei ($17) cutoff.
Source: 2007 Euro 200 Survey.

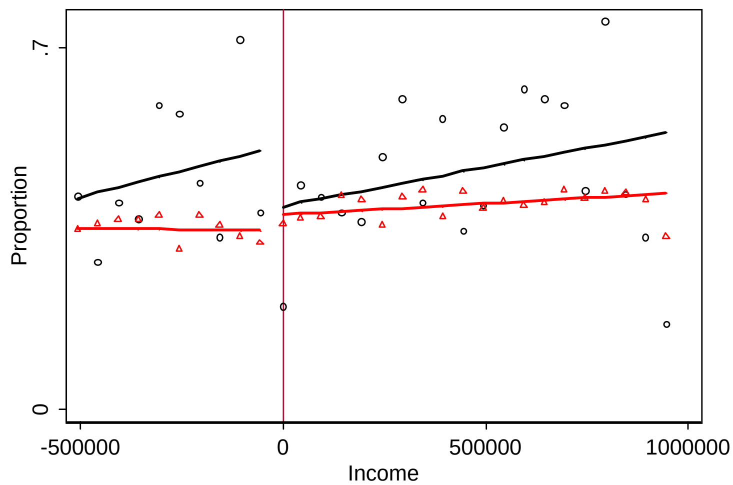

Figure A2. Vote for government.

Notes: The circles plot average predicted values for respondents in income intervals of 50,000 lei. The triangles plot average counterfactuals (in income intervals of 50,000 lei) calculated using demographic characteristics and data from the October 2007 public opinion survey. The solid lines are fitted values from regressions of the two dependent variables on linear splines. The income variable is the monthly household income per family member used by the Euro 200 program and is normalized to be 0 at the 506,000 lei ($17) cutoff.
Source: 2007 Euro 200 Survey.

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