Financial Well-Being and Voter Turnout

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The positive effect of an improvement in one’s financial well-being on their chance of voting remains one of the few areas of consensus in the voter turnout literature. However, while the literature agrees upon such an effect *between* individuals, the effect of changes in financial well-being *within* individuals has rarely been considered. I offer two competing hypotheses. First, that the within effect is the same as the between effect – positive – as suggested by the resource model of participation. Second, that the within effect is negative, as suggested by the grievance theory of the social movements literature. By using panel data that covers five UK general elections, I test the effect of variation in self-reported financial well-being and self-reported retrospective and prospective changes in financial well-being. I find strong evidence of a negative effect, which supports the grievance theory, and contradicts the between effect. However, this effect is confounded by partisan attitudes. I go on to show that, for the minority of citizens who claim to support the incumbent party, there is an opposite, positive effect of better or improving financial well-being, which cancels out the original effect. These results not only highlight the stark differences between within and between effects in political behavior but also suggest that, as the number of individuals with affinity to the governing (or any) party falls, the grievance model of voting will become more applicable.

Section I: Introduction

As a form of political participation, voting is unique because it alone directly determines who has power. Voter turnout has been used as a measure for democratic norms (Norris, 1999) and considered necessary for democratic legitimacy and representation (Franklin, 2004). Because of its importance, what determines voter turnout remains one of the most explored puzzles in political science. Despite this, answers remain elusive. One of the few widely agreed upon determinants of voter turnout is resources and, in particular, the positive effect of financial wealth (Rosenstone and Hansen, 1993; Verba, Schlozman and Brady, 1995; Leighley and Nagley, 2014). Despite numerous scholars showing the positive effect of wealth on probability of voting *between* individuals, very little work has been done to investigate the effect of variance in wealth *within* individuals over time. In this article I test the effect of individual variance in one’s financial well-being to see if, as my first hypothesis and the resource model contends, a better financial well-being increases one’s probability of voting, or, as my alternative second hypothesis contends - and is assumed by the grievance theory of the social movements literature - a worsened financial well-being increases one’s probability of voting.

Furthermore, the relatively little research on the effect of variance in financial well-being on *whether* one votes, leads me to consult the economic voting literature. Although this strand of literature considers how variation in financial well-being affects *how* one votes instead of *whether* one votes, it does offer a number of important insights to better understand the relationship between financial change and turnout. I adapt the main nuances of this literature for my dependent variable of voter turnout. These are (1) that voters’ evaluation of their financial well-being is likely to be pocketbook rather than socio-tropic (e.g. Kiewet, 1983), (2) that voters may evaluate change retrospectively and prospectively (e.g. Lockerbie, 1992) and (3) that any effect of finances on voting is likely to be confounded by partisan sympathies (e.g. Kiewet, 1981). I use a pocketbook indicator of current financial well-being to test my two basic hypotheses. I then also test the effects of retrospective and prospective self-assessed financial evaluations. Finally, I test all three of these financial indicators – current, retrospective and prospective - alongside an interaction effect that shows support for the incumbent party.

The empirical analysis that follows uses panel data that covers five UK general elections from 1992 to 2010. I find strong evidence in support of the grievance theory that citizens are more likely to vote with worse self-reported financial well-being. Again, when I test the effects of self-reported retrospective financial change and prospective financial expectations, I find that those who have undergone or predict worsening financial well-being are more likely to vote. This again lends support to the grievance theory. Finally, I test the same three financial indicators alongside an additional interaction effect between support for the incumbent party and these financial indicators. The interaction effect is consistently contrary to the effect of the financial effects, thus cancelling them out. The turnout of those who support the incumbent party is therefore unaffected by changing financial well-being. Conversely, those who do not support the incumbent party adhere to the grievance theory and are more likely to vote when they feel that their financial situation is worse, worsening or likely to worsen in future.

This paper’s contribution to the literature is three-fold. First, I test the resource model and grievance theory against each other for individual-level voter turnout, and subsequently provide evidence for the grievance theory. Second, I highlight the important distinction of within effects and between effects for political behaviour, which are opposite in this case. Third, I show that relationships between the three financial indicators and voter turnout are reversed for the minority of citizens who support the incumbent party. In the conclusion I suggest possible reasons for this.

The paper proceeds as follows. In Section II, I lay out the theoretical framework of how financial changes are dealt with in the voter turnout literature. I then show how greater contributions to the voter turnout literature may be gained by using lessons from the economic voting literature. Following this, I form hypotheses regarding how individual economic changes affect the individual’s probability of voting. In Section III, I outline the methods and data that I use to test these hypotheses. In Section IV, I use a number of models based on the methods and data previously outlined to test my hypotheses. Finally, in Section V, I conclude and offer next steps to build upon this paper.

Section II: Theoretical Framework

Voter turnout is one of the most consistently studied forms of political participation in political science. This is partly because of the normative and substantive importance of turnout. Indeed, academics have given at least three major reasons for the on-going importance of turnout for democracy. First, turnout has been argued to be a barometer of democratic norms, with higher turnout indicating a more engaged and capable citizenry and a more in-demand political elite (Norris, 1999). Second, higher turnout aids democracy in its capability to perform its functions of ensuring legitimacy, accountability and representation (Franklin, 2004: 2). Third, turnout has substantive policy effects; for example, numerous scholars have shown ‘that social spending is positively affected by aggregate turnout (Larcinese, 2007: 388).’ However, beyond the implications of turnout for democratic governance *per se*, the on-going inability of academics to produce conclusive models to explain either individual-level or aggregate-level voter turnout and the continuing emergence of contradictory test results have resulted in hundreds and possibly thousands of studies that test potential determinants of voter turnout.

Perhaps the most prominent strand of this research has been concerned with how resources such as skills, time and wealth affect an individual’s probability of voting. The most intuitively obvious and easily testable of these resources is wealth and, as one might imagine, those with more wealth have consistently been shown to be most likely to vote. Throughout the second half of the twentieth century rates of turnout in US national elections among the most affluent citizens were nearly 35 percentage points higher than the rate of turnout among the poorest (Rosenstone and Hansen, 1993: 42). Verba, Schlozman and Brady (1995: 358) show a positive effect of family income on voting even when other resources and political engagement variables are controlled for. More recently, in the 2008 US Presidential election, around 80% of those in the top income quintile voted, while around 53% of those in the bottom income quintile voted (Leighley and Nagley, 2014). Overall, it seems clear that the wealthier one is, the more likely they are to vote.

However, while the effect of wealth on probability of voting between individuals is unambiguously positive, what is much less clear is how individual *changes* in wealth – either perceived or real – make a difference to the individual’s chance of voting. This is partially the result of the widespread use of cross-sectional survey research and a lack of longitudinal research in the field of political participation (Tawfik et al, 2011: 352). Indeed, there are two theories of political participation that make directly contrary predictions about how changes in financial well-being might affect voter turnout. Rosenstone highlighted these as early as 1982, dubbing them, with respect to the effect of a negative change in one’s financial well-being, the withdrawal and mobilization hypotheses. The first of these is the logical extension of the finding that an individual’s *level* of wealth has a positive effect on voting. Consequently, we would expect a reduction in an individual’s wealth to see their likelihood of voting diminish as they *withdraw* from politics in order to focus on more pressing financial concerns. Verba, Schlozman and Brady (1995) spell this relationship out as one of the resources in their Civic Voluntarism model and it has been further evidenced by Pacek (1994), Norris (2002) and Blais and Rubenson (2013). However, these studies did not use individual longitudinal data and make inferences on there being a relationship between changes in individual wealth and voting based on cross-sectional data. This methodology is not necessary problematic for understanding change if the element of change is part of the survey question, however, in these cases it was not. As such, evidence of the Resource Model has only been shown in terms of financial resources between individuals.

Academics focusing on voter turnout and other forms of voting participation have also found evidence of a positive effect of economic hardship on probability of voting. Schlozman and Brady (1979: 12) argued that ‘people under economic strain blame the government for their situation and vote, organize, lobby, protest, and so on to redress their grievances’. Lipset, in 1960, stated that those facing economic difficulty would be likely to turn to the government for assistance and vote in higher numbers. Rosenstone (1982) found a positive effect of financial hardship on chance of voting but it was not statistically significant. Moreover, this mobilizing effect has long been a cornerstone of the social movement literature where it is known as ‘grievance theory’ (Gamson, 1968; Wilkes, 2004). However, grievances about economic distress have only been shown to have a positive effect on the probability of political participation either when measured by a political participation index-variable or as specific types of non-institutionalised political participation, which does not include the act of voting. This naturally raises questions about the aptitude of using findings from grievance theory to explain voter turnout, given that voting participation has been found to have fundamentally different determinants from other forms of political activity and cannot be considered as a factor for them or vice versa (Verba, Schlozman and Brady, 1995: 359).

Overall, we have two competing theories, each of which with certain deficiencies that the literature has not dealt with. The resource model of voter turnout has not been tested with appropriate methodology to truly see how changes in financial well-being affected voting participation. This is particularly problematic given that we can expect high levels of correlation between individual errors and financial indicators, which would push up the predicted effects of the latter because of unobserved effects of intelligence, ambition, upbringing or personality. Longitudinal studies - or cross-sectional studies in which change is inherent in the questioning (e.g. Rosenstone, 1982) - have been limited. This shortfall has also meant that the literature has failed to take into account short-term changes or the direction of change for financial indicators (i.e. whether one is *getting* richer or poorer, rather than *is*), which may produce separate psychological feelings that would affect a decision like voting. The grievance theory, on the other hand, has failed to consider voter turnout aside from other forms of political participation.

Furthermore, when these two theories have been tested against each other, the results have been either inconclusive or, by attempting to apply lessons from the aggregate level to the individual level, highly subject to the ecological fallacy. Blais (2006: 117) argues that the two effects (caused by grievance and withdrawal when faced by worsening economic conditions) are likely to cancel each other out, resulting in ‘nil overall effect’. The conclusion of Blais’ study and similar ones before it (Arcelus and Meltzer 1975, Blais and Dobrzynska 1998, Blais 2000, Kostadinova 2003, Fornos et al. 2004), that there is no effect of economic conditions on turnout, was based upon macro economic indicators. To draw lessons on individual-level political participation from this risks the ecological fallacy, not least because, as Wright (2012: 691) points out, ‘a disconnect between aggregate and individual analyses is nothing new in the study of economics and voting.’

Despite this, there is an area of political behaviour literature that has extensively tackled the question of how *changes* in economics affect the *specific* act of voting at the individuals level – the economic voting literature. Economic voting theory states that those who are dissatisfied with their economic situation are incentivised to vote against the incumbent party with the reverse true for those who are satisfied. The pioneering work of this field was Kramer (1971) who built upon previous scattered works that had used different economic indicators (wages, prices, unemployment) in simple tabulations with varying results to produce a more definitive multivariate model to predict aggregate-level voter turnout. Kramer’s assumptions set the scene for economic voting theory for the next 20 years. These were that (1) voters predict candidates’ economic capability using retrospective, not prospective, information (i.e. track-record, not manifestos) and (2) that this retrospective information was economic ‘results’ rather than intention (i.e. economic indicators, not voting record on economic policy). These assumptions were based on the ‘realistic’ belief that voters would act in accordance with low-cost ‘readily available information’ (Kramer, 1971: 134). As such, economic voting became purely a function of (dis)satisfaction with the incumbent party as judged by the state of the economy. It also effectively made the economy a valence, not partisan issue. Kramer’s model found evidence that incumbent parties are punished or rewarded in House of Representative elections for rising or falling prices and falling or rising incomes, respectively, but finds little evidence for an unemployment rate effect. Further studies bore out Kramer’s findings at the aggregate-level (e.g., Tufte 1975; Hibbs, Rivers, and Vasilatos 1982; Chappell and Keech 1988).

However, as put by Lewis-Beck and Stegmaier (2012: 521) ‘these results forced the ecological inference question: do voters really think and act this way, or is the aggregate finding simply spurious? The answer appeared to lie with investigation of individuals in election surveys.’ By moving to the individual-level, researchers were able to relax some of the assumptions of Kramer. First, researchers considered the possibility that economic voting was actually about the individual’s pocketbook rather than any socio-tropic considerations. Studies in the US found weaker pocketbook effects compared to sociotropic effects (Kiewet, 1983; Alvarez and Nagler, 1998) but those in the UK found the reverse (Sanders, 2000; Sanders et al., 1987). Second, researchers relaxed the presumption that the economy is a valence, not partisan, issue. Major works that have tested this (e.g. Kiewet, 1981; Wright, 2012) went some way to showing that partisan loyalties can either temper or exacerbate the voter’s willingness to reward or punish the incumbent. Third, researchers removed the retrospective assumption and considered that voters voted according to their future economic prospects. Indeed, Anthony Downs (1957, 39) argued that the voter ‘makes his decision by comparing future performances he expects from the competing parties.’ Numerous studies have found a prospective component to economic voting (e.g. Lockerbie, 1992; Lewis-Beck and Stegmaier, 2012).

How are the major findings and debates of the economic voting literature relevant for how the individual’s financial well-being affects their probability of voting? First, the economic voting literature has already enquired into the connection between economic voting and voter turnout. Fiorina (1978), as an addendum to his article regarding retrospective economic voting, sought to test the hypothesis put forward by Arcelus and Meltzer (1975) that economic conditions affect partisan choice only *via* the effect they have on turnout. His results were inconclusive. Second, due to the far greater attention it has received, the economic voting literature has offered nuanced approaches that have not been applied to voter turnout. These, as explained above, are (1) that the effect of economic changes on an individual’s chance of voting may be of a *pocketbook* rather than *sociotropic* nature, (2) how one perceives change in their financial well-being can be prospective as well as retrospective and (3) there may be a confounding partisan effect on how an individual’s financial well-being affects their probability of voting. This last nuance is the most complicated when applied to the effect of financial change on chance of voting. Kiewet (1981) and Wright (2012) find that the individual is less likely to punish a party they feel sympathy toward and more likely to punish one they feel antipathy toward. Given this motivation, we may predict that, for those who identify with the incumbent party, the Resource Model’s positive relationship is most likely: when they are doing well or the same, they know exactly who to reward, whereas if they become worse off, they have no one to punish because their own party is in government. Conversely, for those who do not support an incumbent party, the Grievance Model is most applicable. If they find themselves worse off, they have no partisan sympathies getting in the way of them expressing their grievance, whereas, if things improve or stay the same, they lack the partisan loyalty to reward the government. These two opposite relationships are shown in Figure 1.

Figure 1. The two hypothesised relationships between financial well-being and voter turnout

Overall, an examination of the literature on how economic changes affect voting participation shows the need to test the two competing theories of how individual-level economic *changes* affect an individual’s likelihood of voting. These are the resource model and the grievance model. As such, I form two fundamental hypotheses to reflect this:

H1: There is a positive relationship between changes in personal financial well-being and chance of voting (the resource model).

H2: There is a negative, non-linear, relationship between changes in personal financial well-being and chance of voting (the grievance model).

Once these two hypotheses have been tested, they can be expanded upon with the following sub-hypotheses:

 H1a: The positive relationship between changes in personal financial well-being and chance of voting is true both for retrospective evaluations and prospective predictions.

 H2a: The negative relationship between changes in personal financial well-being and chance of voting is true both for retrospective evaluations and prospective predictions.

Finally, the effects of financial change on probability of voting can be compared between those who support the incumbent party and those who do not.

H3: There is a positive relationship between financial change and voting for those who support the incumbent party (the resource model) and a negative relationship between financial change and voting for those who do not support the incumbent party (the grievance model).

Section III: Data, Methods and Approaches

In order to test these hypotheses, I use longitudinal individual-level data that includes questions on both whether the individual voted and their financial well-being. Furthermore, I include information on the respondent’s retrospective financial evaluations, prospective financial predictions and their partisan sympathies. Finally, I also include the standard SES indicators to act as control variables, as well as household income, political interest and political efficacy. The British Household Panel Survey (BHPS) includes the political and socio-economic questions to test our hypotheses sufficiently.

Panel data, like that in the BHPS, are made of regularly repeated observations of the same individuals. The advantages of panel data are that repeated observations of individuals allow for the possibility of isolating the effects of unobserved differences, such as intelligence, ambition, upbringing or personality, between individuals. Importantly for voter turnout, using panel data enhances the ability to make causal conclusions by allowing for temporal ordering (i.e. *ex post* reported voting participation can be regressed on variables reported before the election). Using this data source also allows me to overcome perhaps the biggest methodological problem of the economic voting literature, as diagnosed by Lewis-Beck and Stegmaier (2012: 531), which is endogeneity between partisan responses and economic responses. They state that ‘panel data, rather than cross-sectional data, are the way out of this endogeneity-exogeneity dilemma.’ Thus far, however, the use of panel data has been rare in survey-based studies of either economic voting or voter turnout.

The British Household Panel Survey (BHPS) started in 1991 and had 18 waves until it was integrated into the newer and broader Understanding Society survey. The data comes from annual interviews of all adults in a household and observed between 9,000 and 13,000 individuals per wave. The BHPS covers four general elections. The Understanding Society survey started in 2009 and has around 60,000 respondents. Of these, 6,700 continuing respondents from the BHPS were introduced into wave two. These individuals are given specific identifying variables to allow the two surveys to be linked and treated as one. The Understanding Society survey covers one general election meaning that the merged data source covers a total of five general elections and, as of 2014, 21 waves.

Because the survey responses are yearly and general elections are usually between four and five years apart, the same questions regarding voting (with supposedly the same responses) are recorded repeatedly. As such, I chose to only take the dependent variable from waves of the year immediately following the last general election. I match this dependent variable to data from the wave immediately *before* the general election. Logically, this makes sense because what is happening before the election is what influences the individual’s decision to vote. This decision to vote or not, however, can only be reported after the election. By merging the four relevant waves from the British Household Panel Survey and one relevant wave from the Understanding Society survey, my dataset has a total of 55,878 observations by 24,487 individuals over the course of five waves[[1]](#footnote-1). The panel is unbalanced, meaning that the number of time observations (Ti) for each individual varies. The mean number of waves that are observed for each individual is 2.28; so most individuals are recorded over at least two waves. This is important because the testing of within effects for any individual requires at least two observations. Furthermore, the most common patterns for observations are either to be observed in all of the last three waves (6,552 observations) or in all five waves (5,402 observations).

The dependent variable, *turnout*, is retrospective, asking respondents ‘Did you vote in the (year) UK general election?’ This is a yes or no question, making the variable dichotomous. Testing within effects is only meaningful if there are a significant number of respondents for whom *turnout* changes over time. Figure 2 shows the proportions of how individual voting participation changes between two elections. We can see that there is a reasonably high amount of variation, in terms of observations. Of those who do not vote in an election, 40% (making 2,681 observations) will vote in the following election and of those who do vote in an election 13% (or 3,154 observations) do not vote in the following election. For the purposes of this study, I recode those who report ‘refused’ or ‘don’t know’ as did not vote.

Figure 2. Individual-level voter turnout in an election and in the following election.

|  |  |  |
| --- | --- | --- |
| Voting in an election | % voting in the following election(observations) | Total |
|  | No | Yes |  |
| No | 60.34(4079) | 39.66(2681) | 100.00(6760) |
| Yes | 13.08(3154) | 86.92(20963) | 100.00(24117) |
| Total | 23.43 | 76.57 | 100.00 |

The British Household Panel Survey provides very apt data to test all of my hypotheses and sub-hypotheses. First, there are three questions to measure the respondent’s subjective personal financial well-being – current, retrospective and prospective. These survey questions are:

*Financial well-being*. How well would you say you are managing financially these days? Would you say you are: Living comfortably? Doing alright? Just about getting by? Finding it quite difficult? Finding it very difficult?

*Change in financial well-being*. Would you say that you yourself are better off or worse off financially than you were **a year ago**? Better off; worse off; or about the same

*Expected financial well-being*. Looking ahead, how do you think you will be financially **a year from now**, will you be … Better off; worse off; or about the same?

I choose to use perceived financial well-being over a more objective indicator, such as income from employment, for methodological and theoretical reasons. First, income is not a comprehensive measure of wealth. For example, students, retirees and housewives often respond as having no income but may have sufficient resources to vote and may have no financial grievance. Second, a measure such as income fails to take into account cost of living or other earnings, such as dividends. Finally, in order to test the retrospective and prospective prediction hypotheses, I need to use a subjective indicator.

The retrospective and prospective financial change variables impose a threshold into the past and future of just one year. This is both the result of data availability and also theoretical underpinnings. As stated by Hellwig (2012: 187) ‘It assumes, for one, that voters are *myopic*, or short-sighted, in that they consider only what has occurred in the immediate past […] The assumption of short-sighted rational behaviour has the virtue of setting a low hurdle for rational behaviour.’

Due to the high multi-collinearity between the three financial indicators, I will use separate models to test the effects of each of them. Because the dependent variable is dichotomous, I will use a logit estimator and report the results as odds ratios. These models will be panel data models in order to fully utilise the data and make the most efficient estimates. For each of the three financial indicators, I will test both random effects and fixed effects models.

While the random effects model gives more efficient estimates, its assumptions do not hold if there is any correlation between the individual error terms and the independent variables. Hausman Tests can be used to test whether this assumption holds and, therefore, whether using a random effects model is robust. However, there is a growing argument in the literature that Hausman tests are neither sufficient nor necessary (e.g. Clark and Linzer, 2012). Instead, it is better to use theoretical considerations. For the purposes of this research, the between effects of financial well-being that are included in the random effects model may include the effects of unobserved factors such as intelligence, ambition, upbringing or personality, which are likely to display more homogeneity *within* individuals than *between* them. Fixed effects models test purely for *within* effects, meaning that they give more robust estimates, due to the greater control for individual unobserved heterogeneity. However, those individuals whose voter turnout does not vary are dropped from the model and the model cannot include time-constant independent variables (such as gender), making the model less efficient. As such, I use both fixed and random effects models for all three of the financial indicators. This will allow me to see how the results vary, if at all, between the more robust fixed effects model and the more efficient random effects model. Theoretically, I would expect a difference in the results of the random and fixed effects models for the first financial variable of current financial well-being because of the unobserved individual heterogeneity captured by the between effects that I have already mentioned. However, I expect few differences between the random and fixed effects models for the retrospective and prospective evaluation variables because change is inherent in these questions and removes many of the aforesaid causes of such unobserved individual heterogeneity.

In order to test the hypothesis regarding partisan effects and the effect of financial well-being on voting, I test further models that include an interaction term between the financial indicator and an indicator – *govt* - that shows whether the respondent reports *either* that they ‘feel closest’ or ‘would support’ the incumbent party of the time *or* that do not. This will allow me to test whether the effects of personal financial indicators on voting participation are confounded by one’s attitude towards the incumbent party. Naturally, I am unable to use a variable that shows which party the respondent *actually* voted for *ex post* because all of those respondents will have voted.

All of these models will include standard political participation control variables of age, age squared, education and gender. I also add control variables for feelings of political efficacy and political interest, which together partially account for political engagement (Verba, Schlozman and Brady, 1995). Descriptive statistics are provided in Table 1 of the Appendices. The survey questions are in Table 2 of the Appendices.

Finally, before discussing the results of the models, it is useful to consider the mean voter turnout by the three financial indicators. These are presented in Figure 3 and Figure 4. They show that in terms of one’s current financial well-being, the resource model is clearly most applicable – the better one’s self-perceived financial well-being, the more likely the are to vote, with the mean voting participation of those who consider themselves to be ‘living comfortably’ at 80% and the mean of those who consider themselves to be ‘finding it very difficult’ at 66%. Conversely, the variables that capture *change*, which is the purpose of this paper, show a very different story. Both provide evidence for H2 and the Grievance Model. In the case of prospective financial change this relationship is negative, with those reporting that they will be ‘better off’, ‘about the same’ and ‘worse off’ having probabilities of voting of 0.69, 0.78 and 0.83 respectively. In the case of retrospective financial change, the relationship appears to be less linear though still negative with those reporting that they are ‘better than a year ago’, ‘about the same’ and ‘worse than a year ago’ having probabilities of voting of 0.71, 0.78 and 0.77 respectively.

Figure 3. Mean voting participation by current financial well-being

|  |  |
| --- | --- |
| Current financial well-being | Mean voting participation |
| Living comfortably | 0.80 |
| Doing alright | 0.75 |
| Just about getting by | 0.75 |
| Finding it quite difficult | 0.72 |
| Finding it very difficult | 0.66 |

Figure 4. Mean voting participation by past financial change and expected future financial change

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Past financial change | Mean voting participation |  | Expected future financial change | Mean voting participation |
| Better off | 0.71 |  | Better than now | 0.69 |
| Worse off | 0.77 |   | Worse than now | 0.83 |
| About the same | 0.78 |  | About the same | 0.78 |

Section IV: Results

First I deal with Hypotheses 1 and 2, as well as 1a and 2a, which question the direction of the effect between changes in personal financial well-being and probability of voting. The results are shown in Figure 5, below.

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| --- |
| Figure 5. Effect of financial well-being on voting participation. Fixed and random effects models |
| Variables | (1) Turnout (RE) | (2) Turnout (FE)  | (3) Turnout (RE) | (4) Turnout (FE) | (5) Turnout (RE) | (6) Turnout (FE) |
| Financial well-being | 1.014(0.018) | 0.933\*\*(0.025) |  |  |  |  |
| Retrospective (ref: worse off) |  |  |  |  |  |  |
| About the same |  |  | 0.939(0.039) | 0.947(0.051) |  |  |
| Better off |  |  | 0.852\*\*\*(0.039) | 0.818\*\*\*(0.048) |  |  |
| Prospective (ref: worse than now) |  |  |  |  |  |  |
| About the same |  |  |  |  | 0.749\*\*\*(0.043) | 0.808\*\*(0.059) |
| Better than now |  |  |  |  | 0.679\*\*\*(0.042) | 0.772\*\*\*(0.062) |
| Income | 1.016\*\*\*(0.002) | 1.006\*(0.003) | 1.017\*\*\*(0.002) | 1.006\*(0.003) | 1.016\*\*\*(0.002) | 1.004(0.003) |
| Income2 | 0.999\*\*\*(0.000) | 0.999(0.000) | 0.999\*\*\*(0.000) | 0.999(0.000) | 0.999\*\*\*(0.000) | 0.999(0.000) |
| Age | 1.106\*\*\*(0.006) | 1.035\*\*(0.013) | 1.104\*\*\*(0.006) | 1.031\*(0.013) | 1.105\*\*\*(0.006) | 1.034\*(0.013) |
| Age2 | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) |
| Male | 0.733\*\*\*(0.030) | (omitted) | 0.734\*\*\*(0.030) | (omitted) | 0.736\*\*\*(0.031) | (omitted) |
| Education (ref: none/primary) |  |  |  |  |  |  |
| Secondary | 1.226\*\*\*(0.068) | 0.756(0.158) | 1.232\*\*\*(0.068) | 0.729(0.154) | 1.239\*\*\*(0.070) | 0.837(0.181) |
| Tertiary | 1.152\*\*(0.0665) | 0.668(0.139) | 1.160\*\*(0.067) | 0.646\*(0.135) | 1.173\*\*(0.069) | 0.739(0.159) |
| Political efficacy | 1.079\*\*\*(0.019) | 1.018(0.026) | 1.081\*\*\*(0.020) | 1.015(0.026) | 1.081\*\*\*(0.020) | 1.007(0.026) |
| Political interest | 0.373\*\*\*(0.008) | 0.706\*\*\*(0.025) | 0.373\*\*\*(0.008) | 0.706\*\*\*(0.025) | 0.372\*\*\*(0.009) | 0.700\*\*\*(0.026) |
| Constant | 2.645\*\*\*(0.450) |  | 3.011\*\*\*(0.497) |  | 3.805\*\*\*(0.659) |  |
| Lnsig2u constant | 1.056(0.043) |  | 1.056(0.043) |  | 1.045(0.044) |  |
| Likelihood ratio | 2250.32 |  | 2237.08 |  | 2059.89 |  |
| ObservationsN | 46017 | 11737 | 45945 | 11696 | 44106 | 11003 |
| Odds Ratios are reported. Standard errors reported in brackets. \*\*\* p<0.001 \*\* p<0.01 \* p<0.05 |

Model 1, which tests self-assessed current financial well-being with a random effects model, shows that the odds of voting are 5% higher for a 1 unit increase in self-reported financial well-being. This is statistically significant at the 5% level. Given that this is a 5 unit scaled variable, the odds of voting are around 19% higher for an individual who reports himself or herself to be ‘living comfortably’ compared with one who reports himself or herself to be ‘finding it very difficult.’ Importantly, this random effects model tests for both within and between effects. A very different result is found when only within effects are tested for, as shown by Model 2. In this case, the odds of voting are 6% lower for a 1 unit increase in self-reported financial well-being. Again, this is statistically significant at the 5% level. The odds of voting are therefore around 24% lower for an individual who reports himself or herself to be ‘living comfortably’ compared one who reports himself or herself to be ‘finding it very difficult.’ The difference between the random effects and fixed effects models suggest the effects *between* individuals outweigh those *within* individuals. Conversely, we can expect an individual whose financial well-being has worsened to be more likely to vote. The resource model is therefore supported between individuals – those who are better off are certainly more likely to vote – but the grievance model (H2) is supported *within* individuals because those same individuals are also more likely to vote when in a worse financial well-being. However, my hypotheses asked about the effect of ‘changes in personal economic circumstances’, a question concerning *within* effects. As such, this evidence supports Hypothesis 2 but does not support Hypothesis 1.

The next four models test these two basic hypotheses in light of insights coming from the economic voting literature – that a relationship between perceived financial well-being and voting can be either retrospective or prospective. Because these variables use only a three-point scale, unlike the five-point scale that the current financial well-being variable uses, I treat each response as a dummy. Of the three responses of ‘worse off/than now’, ‘about the same’ and ‘better off/than now’, I treat the former as the reference category. Model 3 tests retrospective financial change using a random effects model, thus testing for *between* and *within* effects. The odds of voting are 4% lower for responses of ‘about the same’ and 10% lower for responses of ‘better off’, compared to those who respond as ‘worse than now’. Only the latter of these is statistically significant. Model 4 tests the same variable using a fixed effects model, testing only for *within* effects. The odds of voting are around 4% lower for responses of ‘about the same’ and 17% lower for responses of ‘better off’. Only the latter of these is statistically significant at the 5% level. Again, then, we find evidence that retrospective evaluations of financial well-being adhere to the Grievance Model and not the Resource Model. Hypothesis 2b is supported while Hypothesis 1b is not. The effect of retrospective evaluation of financial change is stronger when tested solely *within* individuals compared to *within* and *between* individuals – though the direction of the effect is the same in both cases. This is compatible with the findings from Models 1 and 2 because the question for Models 3 and 4 inherently includes individual change (which Model 2 tests, with similar results), rather than the static effect of financial well-being on chance of voting (which Model 1 tests).

Models 5 and 6 test the effect of prospective evaluations of financial change on voting. Like the previous models, they support Hypothesis 2b and provide further evidence of the Grievance Model. Using a random effects model and ‘worse than now’ as the base category, Model 5 shows that believing you will be financially ‘about the same’ one year from now decreases your odds of voting by 25% while believing that you will be ‘better than now’ decreases your odds of voting by around 32%. Both of these results are significant at the 5% level. Similarly, though with weaker effects, the fixed effects model shows that believing you will be financially ‘about the same’ one year from now decreases your odds of voting by 19% while believing that you will be ‘better than now’ decreases your odds of voting by around 23%. Again, both of these results are significant at the 5% level.

Overall, together these models support the Grievance Model and my second hypothesis (H2), as well as its sub-hypothesis (H2a). Though the first of these models, Model 1, supports the idea of the Resource Model that current financial well-being has a positive effect on probability of voting between *and* within individuals, the direct of this effect is reversed when *only* within effects are considered. This provides evidence of H2 that ‘there is a negative relationship between *changes* in personal economic circumstances and chance of voting (the grievance theory).’ When respondents are asked for their own perception of these changes, both retrospectively and prospectively, the same Grievance Model is supported – if you feel worse off or that things will get worse, you are more likely to vote than otherwise.

Now I will test one of the key caveats of the economic voting literature on the effect of financial change on voting participation: that an individual’s likelihood of voting is confounded by their attitude to the incumbent party. More specifically, ‘there is a positive relationship between financial change and voting for those who support the incumbent party and a negative relationship between financial change and voting for those who do not support the incumbent party.’ The same models as above are tested but with an additional variable to indicate incumbent party support as well as an interaction term between this variable and the financial indicators. Results are shown in Figure 6.

|  |
| --- |
| Figure 6. Effect of financial well-being on turnout with incumbent party support interaction effect.  |
| Variables | (7) Turnout (RE) | (8) Turnout (FE)  | (9) Turnout (RE) | (10) Turnout (FE) | (11) Turnout (RE) | (12) Turnout (FE) |
| Financial well-being | 0.977(0.020) | 0.899\*\*\*(0.027) |  |  |  |  |
| Financial well-being\*Supports the incumbent party | 1.144\*\*\*(0.044) | 1.148\*\*(0.056) |  |  |  |  |
| Retrospective (ref: worse off) |  |  |  |  |  |  |
| About the same |  |  | 0.907\*(0.042) | 0.917(0.056) |  |  |
| Better off |  |  | 0.833\*\*\*(0.044) | 0.790\*\*\*(0.053) |  |  |
| About the same\*Supports the incumbent party |  |  | 1.114(0.106) | 1.141(0.135) |  |  |
| Better off\*Supports the incumbent party |  |  | 1.013(0.105) | 1.141(0.146) |  |  |
| Prospective (ref: worse than now) |  |  |  |  |  |  |
| About the same |  |  |  |  | 0.673\*\*\*(0.043) | 0.737\*\*\*(0.062) |
| Better than now |  |  |  |  | 0.624\*\*\*(0.044) | 0.700\*\*\*(0.064) |
| About the same\*Supports the incumbent party |  |  |  |  | 1.519\*\*(0.201) | 1.448\*(0.234) |
| Better than now\*Supports the incumbent party |  |  |  |  | 1.289(0.179) | 1.473\*(0.253) |
| Supports the incumbent party | 1.037(0.156) | 0.650\*(0.124) | 1.645\*\*\*(0.130) | 0.994(0.097) | 1.264(0.155) | 0.782(0.118) |
| Income | 1.016\*\*\*(0.002) | 1.007\*(0.003) | 1.017\*\*\*(0.002) | 1.006\*(0.003) | 1.016\*\*\*(0.002) | 1.004(0.002) |
| Income2 | 0.999\*\*\*(0.000) | 0.999(0.000) | 0.999\*\*\*(0.000) | 0.999(0.000) | 0.999\*\*\*(0.000) | 0.999(0.000) |
| Age | 1.104\*\*\*(0.006) | 1.035\*\*(0.013) | 1.102\*\*\*(0.006) | 1.031\*(0.013) | 1.102\*\*\*(0.006) | 1.034\*\*(0.013) |
| Age2 | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) |
| Male | 0.727\*\*\*(0.030) | (omitted) | 0.728\*\*\*(0.030) | (omitted) | 0.731\*\*\*(0.030) | (omitted) |
| Education (ref: none/primary) |  |  |  |  |  |  |
| Secondary | 1.236\*\*\*(0.068) | 0.751(0.158) | 1.240\*\*\*(0.068) | 0.717(0.152) | 1.245\*\*\*(0.070) | 0.830(0.180) |
| Tertiary | 1.185\*\*(0.068) | 0.668(0.139) | 1.190\*\*(0.068) | 0.637\*(0.133) | 1.201\*\*\*(0.070) | 0.738(0.158) |
| Political efficacy | 1.049\*\*(0.019) | 1.012(0.026) | 1.051\*\*(0.019) | 1.001(0.026) | 1.052\*\*(0.019) | 1.002(0.026) |
| Political interest | 0.385\*\*\*(0.009) | 0.709\*\*\*(0.025) | 0.385\*\*\*(0.009) | 0.709\*\*\*(0.025) | 0.385\*\*\*(0.009) | 0.704\*\*\*(0.026) |
| Constant | 2.650\*\*\*(0.456) |  | 2.717\*\*\*(0.447) |  | 3.655\*\*\*(0.636) |  |
| Lnsig2u constant | 1.014(0.043) |  | 1.012(0.043) |  | 0.999(0.045) |  |
| Likelihood ratio | 2133.63 |  | 2117.41 |  | 1945.98 |  |
| Observations | 46017 | 11737 | 45945 | 11696 | 44106 | 11003 |
| N | 20117 | 3414 | 20102 | 3404 | 19702 | 3260 |
| Odds Ratios are reported. Standard errors reported in brackets. \*\*\* p<0.001 \*\* p<0.01 \* p<0.05 |

Model 7 uses random effects to test the effect of a one-unit increase in the current financial well-being scale on probability of voting. If the respondent does not support the incumbent party, a one-unit increase on the current financial well-being scale increases the odds of voting by around 1.5%. However, if one does support the incumbent party, the odds of voting are increased by around 12%. Only the latter of these is statistically significant. However, when between effects are removed, as in fixed effects Model 8, the results are very different. When the respondent does not support the incumbent party, the odds of voting are decreased by 10% for a one-unit increase in perceived financial well-being. Conversely, when one does support the incumbent party, the odds of voting decrease by 13% for each one unit decrease in perceived financial well-being. Both of these results are statistically significant. As discussed before, for the purposes of *current* financial well-being, the fixed effects model is what we are interested in. It shows evidence for the Resource Model for those who support the incumbent party and the Grievance Model for those who do not. Therefore, it strongly supports Hypothesis 3

Models 9 and 10 test the effect of retrospective evaluations of financial change on voting for those who support the incumbent party and those who do not. The random effects Model 9 shows similar results to Model 8, above. Feeling that things are ‘about the same’ or ‘better off’ reduce the odds of voting by 7% and 11% respectively if the respondent does not support the incumbent party. Only the latter of these relationships is statistically significant. However, if one does support the incumbent party, feeling that things are ‘about the same’ or ‘better off’ increases the odds of voting by 11% and 1% respectively. Neither of these relationships are statistically significant. Model 10 performs the same test with fixed effects. All of the four results are intensified, compared to the results of Model 9. This time, feeling that things are ‘about the same’ or ‘better off’ reduces the odds of voting by 8% and 20% respectively if the respondent does not support the incumbent party. Only the latter of these relationships is statistically significant. However, if one does support the incumbent party, feeling that things are ‘about the same’ or ‘better off’ increase the odds of voting for both by 14%. Neither of these relationships is statistically significant. These results support Hypothesis 3. However, only the negative effect on voting of feeling ‘better off’, compared to ‘worse off’ is statistically significant.

Finally, Models 11 and 12 test the effect of prospective predictions of financial change on voting for those who support and do not support the incumbent party. The results are similar to the retrospective results, only magnified and of stronger statistical significance. In the random effects Model 11, for those who do not support the incumbent party, the odds of voting are reduced by 33% and 38% respectively for those who feel that things will be ‘about the same’ or ‘better than now’, compared to those who believe things will be ‘worse than now’. Both of these results are statistically significant. Conversely, for those who support the incumbent party, feeling that things will be ‘about the same’ increases the odds of voting by 51% and feeling that things will be ‘better than now’ increases the odds of voting by 28%, relative to those who feel that things will be ‘worse than now’. Only the first of these results is statistically significant. The results of the fixed effects Model 12 are similar. For those who do not support the incumbent party, the odds of voting are reduced by 24% and 30% respectively for those who believe that things will be ‘about the same’ and ‘better than now’, compared to those who believe that things will be ‘worse than now’. Both of these results are statistically significant. Conversely, for those who do support the incumbent party, the odds of voting are increased by 49% and 47% respectively for those who believe that things will be ‘about the same’ and ‘better than now’, compared to those who think that things will be ‘worse than now’. Both of these results are also statistically significant. These results all strongly support Hypothesis 3.

Appendices 3 and 4 show the same models with highly similar results as replicated with wave 1 – which had the most variance in the financial well-being indicators - of the panel removed.

The marginal effects of the six models for the entire sample, for just those who identify with the governing party and just those who do not, are shown in Figures 7, 8 and 9, below.

Figure 7. Marginal effects – entire sample

Figure 8. Marginal effects – only governing party supporters

Figure 9. Marginal effects – non-governing party supporters

Section V: Conclusion

In this paper I have contributed to our understanding of what causes voting participation by showing that the effect of a negative change in one’s financial well-being is to increase their probability of voting. Previously, as part of the resource model, the voter turnout literature had consistently showed that wealthier individuals were more likely to vote. This paper tested whether the relationship is the same for individuals across time, i.e. are *within* effects the same as *between* effects? Two theories offered competing predictions. The Resource Model predicted a positive effect of changes in financial well-being on probability of voting, while the Grievance Model, which originates in the social movements literature, predicted a negative such effect. By using panel data that covers five UK general elections, I find consistent evidence for the Grievance Model. An individual is more likely to vote when she evaluates her financial well-being as bad rather than when that same individual evaluates it as good. This relationship persists when we test the effects of retrospective self-evaluations of financial change – those who say that things have become worse are more likely to vote than those who say things have become better. It also persists with prospective predictions – those who believe things will become worse are more likely to vote than those who believe things will get better. All of this supports the idea that having a grievance encourages voting. Overall, then, we can see that between effects and within effects of financial well-being on voting participation are not the same. How can we make sense of this? I propose that the positive between effects of financial well-being on likelihood of voting are due to unobserved individual heterogeneity, with background, upbringing and socialisation likely to have strong effects. When such effects are controlled for in the fixed effects model or when *change* as opposed to *absolute level* are inherent in the question, people are more likely to vote when they have a grievance caused by worsening financial well-being.

However, this is not the entire story. Drawing on lessons from the economic voting literature, I tested the same financial well-being indicators, again using both random and fixed effects, but this time split the effects between those who support the incumbent party and those who do not. I hypothesised that there would be an opposite relationship for the two groups and indeed the results support this hypothesis. Those who do not claim to support the incumbent party display a negative relationship between financial change and probability of voting and thus adhere to the Grievance Model. Conversely, those who support the incumbent party adhere to the opposite Resource Model. Why is this? The growing majority of citizens who do not support the incumbent party also do not support any party. Perhaps these individuals only vote when they experience a worsening in their financial well-being because they are more likely to view democracy as about government accountability and ‘kicking the rascals out’. To explain the statistically significant opposite effect among the minority of the population who claim to support the incumbent party, I consider that these people are perfectly willing to reward the government – *their* government – when it does well, but are not willing to punish it when the government does poorly, leaving them with no one to vote for. More work would need to be done to support these proposed explanations for the results of this paper.

Overall, by using 12 models that test data from five general elections, I repeatedly show that the *within* effect of change in evaluated financial well-being on likelihood of voting is negative. This effect is true for changes in self-reported financial well-being over time and when the respondents are reporting on the change themselves, either retrospectively or prospectively. The exception to this rule is for those who support the incumbent party. While the Resource Model is applicable *between* individuals, with more financially comfortable individuals being more likely to vote, when financial change affects the individual, it is negative change that increases the likelihood of voting, as individuals are incentivised to express their grievances. This is an important finding because it is at odds with one of the major presumptions of the voter turnout literature – that financial well-being increases the probability of voting. The contribution of this paper is to show that, for a growing majority of individuals, a worsening of one’s finances increases their chance of voting.

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Appendices

*Appendix 1.* Descriptive Statistics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | N | Mean | SD | Mix | Max |
| *Turnout (1=voted)* | 55878 | 0.75 | 0.43 | 0 | 1 |
| *Financial well-being* | 62974 | 2.17 | 1.00 | 1 | 5 |
| *Change in Financial well-being* | 62826 | 2.23 | 0.83 | 1 | 3 |
| *Expected Financial well-being* | 60202 | 2.32 | 0.88 | 1 | 3 |
| *Income* | 63854 | 19.00 | 14.47 | 0 | 538.5 |
| *Income*2 | 63854 | 570.5262 | 2497.897 | 0 | 290012.3 |
| *Age* | 65514 | 45.39 | 18.65 | 15 | 101 |
| *Age2* | 65514 | 2408.42 | 1846.96 | 225 | 10201 |
| *Gender (1=male)* | 64781 | 0.46 | 0.50 | 0 | 1 |
| *Education (categorical)* |  |  |  |  |  |
|  *No qualifications* | 14936 | 24.28 |  |  |  |
|  *Secondary/vocational* | 25077 | 40.76 |  |  |  |
|  *Tertiary*  | 21509 | 34.96 |  |  |  |
| *Feeling of Efficacy* | 63210 | 2.43 | 0.98 | 1 | 5 |
| *Interest in Politics* | 64983 | 2.74 | 0.91 | 1 | 4 |
| *Supports or feels closest to the incumbent party* | 78869 | 0.22 | 0.42 | 0 | 1 |

*Appendix 2*. Survey Questions

|  |  |  |
| --- | --- | --- |
| Variable | Survey Question | Responses |
| *Turnout*  | Did you vote in the (*year*) UK general election? | Yes (1)No (0)Refused (0)Don’t Know (0) |
| *Financial well-being* | How well would you say you are managing financially these days? Would you say you are? | Living comfortably (1)Doing alright (2)Just about getting by (3)Finding it quite difficult (4)Finding it very difficult (5) |
| *Change in Financial well-being* | Would you say that you yourself are better off or worse off financially than you were a year ago? | Better off (1)Worse off (2)About same (3) |
| *Expected Financial well-being* | Looking ahead, how do you think you will be financially **a year from now**, will you be … | Better than now (1)Worse than now (2)About the same (3) |
| *Feeling of Efficacy* | How much do you agree that ordinary people don’t really have a chance to influence what governments do? | Strongly agree (1)Agree (2)Neither agree nor disagree (3)Disagree (4)Strongly disagree (5) |
| *Interest in Politics* | How interested would you say you are in politics?  | Very interested (1)Fairly interested (2)Not very interested (3)Not at all interested (4) |
| *Supports or feels closest to the incumbent party* | If there were a general election tomorrow, which political party do you think you’d be likely to support?ORWhich political party do you feel closest to? | In waves 1 and 2, this was coded 1 if either of the responses were Conservative.In waves 3, 4 and 5, this was coded 1 if either of the responses were Labour. |
| *Income* | Household income, month before interview * divided by 100
* adjusted for inflation[[2]](#footnote-2) (1992:1; 1997:1.13;

2001:1.25;2005:1.38;2010:1.61) |  |

|  |
| --- |
| Appendix 3. Effect of financial well-being on voting participation. Fixed and random effects models. First Wave dropped |
| Variables | (1) Turnout (RE) | (2) Turnout (FE)  | (3) Turnout (RE) | (4) Turnout (FE) | (5) Turnout (RE) | (6) Turnout (FE) |
| Financial well-being | 1.027(0.021) | 0.912\*\*(0.029) |  |  |  |  |
| Retrospective (ref: worse off) |  |  |  |  |  |  |
| About the same |  |  | 0.971(0.045) | 0.923(0.058) |  |  |
| Better off |  |  | 0.877\*(0.045) | 0.803\*\*\*(0.054) |  |  |
| Prospective (ref: worse than now) |  |  |  |  |  |  |
| About the same |  |  |  |  | 0.767\*\*\*(0.050) | 0.817\*(0.070) |
| Better than now |  |  |  |  | 0.682\*\*\*(0.048) | 0.779\*\*(0.072) |
| Income | 1.020\*\*\*(0.002) | 1.014\*\*\*(0.004) | 1.021\*\*\*(0.002) | 1.014\*\*\*(0.004) | 1.020\*\*\*(0.002) | 1.014\*\*(0.005) |
| Income2 | 0.999\*\*\*(0.000) | 0.999\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*(0.000) |
| Age | 1.113\*\*\*(0.007) | 1.076\*\*\*(0.018) | 1.111\*\*\*(0.007) | 1.071\*\*\*(0.018) | 1.111\*\*\*(0.007) | 1.076\*\*\*(0.019) |
| Age2 | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) |
| Male | 0.716\*\*\*(0.033) | (omitted) | 0.717\*\*\*(0.033) | (omitted) | 0.719\*\*\*(0.033) | (omitted) |
| Education (ref: none/primary) |  |  |  |  |  |  |
| Secondary | 1.350\*\*\*(0.084) | 0.580\*(0.161) | 1.357\*\*\*(0.085) | 0.548\*(0.154) | 1.355\*\*\*(0.086) | 0.702(0.205) |
| Tertiary | 1.458\*\*\*(0.0948) | 0.453\*\*(0.123) | 1.470\*\*\*(0.096) | 0.428\*\*(0.118) | 1.467\*\*(0.097) | 0.543\*(0.156) |
| Political efficacy | 1.088\*\*\*(0.022) | 0.997(0.029) | 1.090\*\*\*(0.022) | 0.994(0.029) | 1.090\*\*\*(0.022) | 0.985(0.030) |
| Political interest | 0.366\*\*\*(0.009) | 0.738\*\*\*(0.031) | 0.366\*\*\*(0.009) | 0.739\*\*\*(0.031) | 0.365\*\*\*(0.009) | 0.730\*\*\*(0.031) |
| Constant | 1.447(0.284) |  | 1.695\*\*(0.320) |  | 2.215\*\*\*(0.436) |  |
| Lnsig2u constant | 1.169(0.047) |  | 1.165(0.047) |  | 1.151(0.048) |  |
| Likelihood ratio | 1862.66 |  | 1843.57 |  | 1696.04 |  |
| Observations | 37745 | 8523 | 37677 | 8496 | 36293 | 8006 |
| N | 18307 | 2874 | 18293 | 2867 | 17988 | 2740 |
| Odds Ratios are reported. Standard errors reported in brackets. \*\*\* p<0.001 \*\* p<0.01 \* p<0.05 |

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| Appendix 4. Effect of financial well-being on voting participation with incumbent party support confounding this effect. First wave dropped. |
| Variables | (7) Turnout (RE) | (8) Turnout (FE)  | (9) Turnout (RE) | (10) Turnout (FE) | (11) Turnout (RE) | (12) Turnout (FE) |
| Financial well-being | 1.003(0.023) | 0.883\*\*\*(0.031) |  |  |  |  |
| Financial well-being\*Supports the incumbent party | 1.099\*(0.049) | 1.140\*(0.065) |  |  |  |  |
| Retrospective (ref: worse off) |  |  |  |  |  |  |
| About the same |  |  | 0.940(0.049) | 0.893(0.064) |  |  |
| Better off |  |  | 0.876\*(0.051) | 0.782\*\*\*(0.061) |  |  |
| About the same\*Supports the incumbent party |  |  | 1.110(0.121) | 1.144(0.157) |  |  |
| Better off\*Supports the incumbent party |  |  | 0.932\*\*\*(0.101) | 1.119(0.165) |  |  |
| Prospective (ref: worse than now) |  |  |  |  |  |  |
| About the same |  |  |  |  | 0.682\*\*\*(0.050) | 0.721\*\*\*(0.070) |
| Better than now |  |  |  |  | 0.623\*\*\*(0.050) | 0.675\*\*\*(0.071) |
| About the same\*Supports the incumbent party |  |  |  |  | 1.631\*\*\*(0.245) | 1.697\*\*(0.322) |
| Better than now\*Supports the incumbent party |  |  |  |  | 1.361(0.216) | 1.827\*\*(0.368) |
| Supports the incumbent party | 1.154(0.201) | 0.600\*(0.135) | 1.614\*\*\*(0.147) | 0.898(0.102) | 1.129(0.158) | 0.589\*\*(0.104) |
| Income | 1.020\*\*\*(0.002) | 1.014\*\*\*(0.004) | 1.022\*\*\*(0.002) | 1.014\*\*\*(0.004) | 1.020\*\*\*(0.002) | 1.014\*\*(0.005) |
| Income2 | 0.999\*\*\*(0.000) | 0.999\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*(0.000) |
| Age | 1.110\*\*\*(0.007) | 1.076\*\*\*(0.018) | 1.109\*\*\*(0.007) | 1.071\*\*\*(0.018) | 1.109\*\*\*(0.007) | 1.077\*\*\*(0.019) |
| Age2 | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) | 0.999\*\*\*(0.000) |
| Male | 0.710\*\*\*(0.031) | (omitted) | 0.711\*\*\*(0.032) | (omitted) | 0.713\*\*\*(0.032) | (omitted) |
| Education (ref: none/primary) |  |  |  |  |  |  |
| Secondary | 1.371\*\*\*(0.085) | 0.585(0.163) | 1.379\*\*\*(0.085) | 0.547\*(0.154) | 1.379\*\*\*(0.087) | 0.706(0.206) |
| Tertiary | 1.495\*\*(0.096) | 0.458\*\*(0.125) | 1.507\*\*\*(0.097) | 0.427\*\*(0.118) | 1.508\*\*\*(0.098) | 0.545\*(0.157) |
| Political efficacy | 1.064\*\*(0.021) | 0.997(0.029) | 1.066\*\*\*(0.021) | 0.994(0.030) | 1.066\*\*(0.022) | 0.985(0.030) |
| Political interest | 0.377\*\*\*(0.010) | 0.739\*\*\*(0.031) | 0.377\*\*\*(0.010) | 0.739\*\*\*(0.031) | 0.376\*\*\*(0.010) | 0.731\*\*\*(0.032) |
| Constant | 1.416(0.280) |  | 1.547\*(0.291) |  | 2.183\*\*\*(0.431) |  |
| Lnsig2u constant | 1.122(0.047) |  | 1.116(0.047) |  | 1.100(0.049) |  |
| Likelihood ratio | 1757.13 |  | 1734.79 |  | 1595.49 |  |
| Observations | 37745 | 8523 | 37677 | 8496 | 36293 | 8006 |
| N | 18307 | 2874 | 18293 | 2867 | 17988 | 2740 |
| Odds Ratios are reported. Standard errors reported in brackets. \*\*\* p<0.001 \*\* p<0.01 \* p<0.05 |

1. The five waves refer to the 1992, 1997, 2001, 2005 and 2010 UK General Elections. [↑](#footnote-ref-1)
2. Accessed at <http://www.bankofengland.co.uk/education/Pages/resources/inflationtools/calculator/flash/default.aspx> on 13/10/2015 [↑](#footnote-ref-2)