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## **Estimating the effect of campaign spending of political parties in Western Europe: A case study of the Netherlands from 1998 to 2021**

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# Estimating the effect of campaign spending of political parties in Western Europe: A case study of the Netherlands from 1998 to 2021

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## Introduction

Literature on the effect of campaign spending by political parties is heavily focused on the US context (Brady et al., 2006; Campbell et al., 1960; Kalla & Broockman, 2018; Lazarsfeld et al., 1944; Jacobson, 2015). The prevailing paradigm in this literature suggests that political campaigns have minimal impact on voting behaviour (Lazarsfeld et al., 1944; Campbell et al., 1960; Kalla & Broockman, 2018). Campaigns can merely reaffirm the voters' initial party vote choice by stimulating pre-existing party identification and disposition.

Within the academic debate, relatively little attention has been paid to the effects of campaign spending in Western Europe (Bekkouche et al., 2022, p.1; Farrell & Schmitt-Beck, 2002). Although there is reason to believe that the effects of campaign spending in Western Europe are different from those in the US. In Western Europe, voters exhibit higher electoral volatility and there are more effective political parties, which increases the potential effectiveness of political campaigns in persuading voters (Bekkouche et al., 2022; McAllister, 2002; Farrell & Schmitt-Beck, 2002). Indeed, Bekkouche et al. (2022) show that increased campaign expenditure in multiparty systems in France and the UK, improves the vote share at the candidate and at the party level relative to its competitors. The campaign messages not only mobilise voters with initial party preferences, but could actually persuade voters (Bekkouche et al., 2022, p. 2). However, this study is limited to single member district systems, whereas the vast majority of Western European countries have a proportional electoral system without single member districts (Inter-Parliamentary Union, 2023). This difference in electoral system is relevant because it changes the incentives for campaign spending considerably (Erikson & Palfrey, 2000; Demirkaya, et al. 2022).

This thesis aims to fill the gap for non-district systems. Therefore, this study focuses on estimating the effect of campaign spending for national elections in the Netherlands from 1998 to 2021. The Netherlands employs a purely proportional electoral system, rendering electoral districts irrelevant. Moreover, the Netherlands is a perfect case because of its relatively high average electoral volatility and average effective number of electoral parties in an election compared to the Western European average (see Table 1). Therefore, the impact of campaign spending should be most apparent in the Netherlands. Furthermore, Dutch political parties' campaign spending during national elections has increased from 1998 to 2021 (see Appendix A.1). The relevance of this increase in campaign spending can be put into context by the results of this study. The following research question is formulated: *does campaign spending by Dutch political parties for national elections between 1998 and 2021 lead to higher electoral gain?*

The thesis proceeds as follows: first, it presents a theoretical framework, analysing the potential effects of political campaigns and their expenditure. Given the heavy focus of the literature on campaign effects and spending in the US context, the theoretical discussion will start by reviewing American literature. Next, the discussion turns to difference between Western Europe and the United States. Afterwards, a hypothesis is formulated. The theoretical framework is followed by a more detailed justification of why the Netherlands is an intriguing case. This thesis uses a novel dataset. The data collection and methodology are explained in the methods section. A section outlining the results follows, culminating in a conclusion that further clarifies the implications and limitations of this study.

## **Theoretical framework**

### **Minimal effects thesis**

Early studies on voting behaviour in the United States indicate that election campaigns have a minimal effect. The campaigns merely reinforce voters' existing political orientations and mobilise them to vote (Lazarsfeld et al., 1944). As a result, persuasion is minimal because campaigns rarely change voters' minds due to voter prejudices (Ansolabehere, 2006, p. 4). As voters' party preferences remained fairly stable from election to election, there was no scope for political campaigns to persuade voters (Campbell et al., 1960). In sum, the minimal effects thesis attaches great importance to social background, party identification, and broader economic and political conditions that influence individual voting choices and aggregate electoral outcomes (Brady, 2006, p. 8). As it is difficult for campaigns to influence these factors, there is little room for campaign effects.

By the mid-1960s, however, scholars started to question the minimal effects thesis. The potential for political campaigning increased as voters shifted away from strong partisanship and young voters with weaker partisan attachments entered the electorate (Finkel, 1993, pp. 2-3). Additionally, the professionalization of campaigns and the growing influence of mass media augmented the campaign's effect on voters (Swanson & Mancini, 1996). Despite the growing reliance of voters on campaign messages, the outcome of elections remained largely predetermined by pre-existing partisan identities and socio-economic factors external to the political campaign (Finkel, 1993; Ansolabehere, 2006). This can be explained by the fact that the electorate is biased in its interpretation of campaign messages based on individual beliefs and experiences, levels of political knowledge and interest in politics (Zaller, 1992). The processing of campaign messages, based on prior partisan identification and socio-economic characteristics, leads to predictable election outcomes. This suggests that campaign effects still have minimal effects.

A recent meta-analysis conducted in the US demonstrates the continued validity of the minimal effect thesis for campaigns: "the best estimate for the persuasive effects of campaign contact and advertising - such as mail, phone calls, and canvassing - on Americans' candidate choices in general elections is zero" (Kalla & Broockman, 2018, p. 112). Still, in the absence of party cues or well before election day, it appears that campaign contact or advertising can influence voters' choices (Kalla & Broockman, 2018, p. 163). However, any early campaign effects have faded when looking at voters' choices on election day. Exposure to both sides of the political

debate eliminates early campaign effects; partisan cues then predominate (Druckman, 2004, p. 683).

### **Learning, priming and framing**

Nonetheless, many scholars are convinced that political campaigns do have an effect on voter behaviour (Brady et al., 2006; Farrell & Schmitt-Beck, 2002; Jacobson, 2015; Branham & Wlezien, 2019). Campaigns educate voters, prime certain issues that influence issue salience, and frame issues to persuade voters. Voters rely on information provided by campaigns on issues such as the state of the economy and government performance to make political choices. During an election campaign, voters accumulate more information about the positions of parties and candidates, which makes them more certain about their voting preferences (Branham & Wlezien, 2019, p. 192). As voters gather information, their voting preferences crystallise over the course of the election, reducing the influence of campaign messages on their final vote as election day approaches (Branham & Wlezien, 2019, p. 196). Related to learning effects are priming effects of political campaigns. Political parties influence voters by emphasising certain political issues and disregarding others, thereby influencing voters' issue saliency. Still, the effectiveness of priming varies based on the context, since it greatly depends on the balance of partisan identities prior to an election and on the particular issue that is primed (Bartels, 2006, p. 90; Jacobson, 2015, p. 10). A final effect of political campaigns is framing. Since it is challenging to alter the basic predispositions of voters, attempts are made instead to draw voters into a particular image of what the election is about. Kenski et al. (2010) demonstrated that increased exposure of Obama's campaign through advertising led voters to believe that electing John McCain was equivalent to electing George W. Bush for a third term. This image significantly increased the likelihood of voting for Obama. Such an example clearly shows that framing can be effective in persuading voters, although the effects of most frames are short-lived (Druckman, 2001).

### **Campaign spending effects**

Although these results demonstrate the potential effect of political campaigns on voter behaviour, they do not provide a definitive answer to the question of whether increased campaign spending leads to electoral gain. This is a critical point since the main reason why political parties spend money on campaigns is to gain an electoral advantage (Farrell & Schmitt-Beck, 2002, pp. 1-3). Research conducted in the US suggests that higher campaign spending does lead to more votes, but this effect is different for the incumbent and challenger parties.

There is disagreement in the academic discourse regarding this differentiated effect, as challenger parties increase their campaign expenditure when anticipated to perform well, while the incumbent parties increase theirs when facing greater electoral threats. This has led to the conclusion that increased spending by challenger parties results in greater electoral gain (Jacobson, 2015, p. 6). Yet, the most probable explanation is that the efficacy of campaign expenditure is subject to diminishing marginal returns. The incumbent party's marginal returns are smaller because it has built on previous campaigns and the cultivation of the public during its time in government (Jacobson, 2015, p. 7). Incumbent parties can rely on a strong level of familiarity, while challenger parties need to inform and convince voters of an alternative. Thus, expenditure on election campaigns by opposition parties would have a larger marginal impact as compared to the incumbent parties.

### **Differences in campaign effects between the US and Western Europe**

However, it should be noted that the observed campaign effects originate solely from the US literature, and thus their applicability is limited to the US context. While the US studies provide a valuable starting point for the theoretical discussion, it is essential for this thesis to investigate whether similar findings can be observed in the West European context. There are a number of factors that may contribute to the different effects of campaign spending between US and Western Europe. According to Farrell & Schmitt-Beck (2002), on the one hand, there are factors that political actors can influence, such as mass media and organisational resources such as staff, candidates and hiring consultants. On the other hand, there are contextual factors over which political actors have little control. These are the institutional setting, the political culture, the socio-economic conditions and random events. For the purposes of feasibility, this thesis focuses on two main distinctions between the Western European and US settings giving rise to differential campaign effects. The first difference is the institutional setting, specifically the number of parties as it strongly influences the behaviour of voters, candidates and related campaign effects (Bekkouche, 2020, p. 1; Brady et al., 2006, p. 12). The second difference lies in the level of electoral volatility, which is much higher in Western Europe, leading to a greater susceptibility of voters to political campaigns (Geers, 2017, pp. 8-10).

### **Number of parties**

According to Brady et al. (2006), the number of parties can lead to different campaign effects both qualitatively and quantitatively. Qualitatively, in the sense that the nature of campaign messages may differ as political parties compete for the same electorate, while at the same time

cooperating with each other to form a governing coalition or a joint opposition (Hansen & Kosiara-Pedersen, 2017, p. 182). In two-party systems, campaign messages regarding political opponents become harsher, as there are no incentives for electoral alliances between parties (Hansen & Kosiara-Pedersen, 2017, p. 182; Walter, 2012, p. 109). Further, ideology-based coalitions in multiparty systems have the potential to dilute voters' loyalty to a single party and weaken partisan ties (Meffert, et al. 2009). Reduced partisan ties increase voter susceptibility to campaign messages, making voters more persuadable.

Campaign messaging in multi-party systems may vary in quantity because more parties present more voting options for citizens. Consequently, voters are exposed to a larger number of campaign messages in comparison with two-party systems. Because ideologically proximate parties target the same group of voters, the processing of campaign messages becomes even more complex for voters (Hansen & Kosiara-Pedersen, 2017, p. 2). As several parties try to mobilise the same voter group, vote switching between proximate parties can take place more easily thus the potential to persuade a voter with a political campaign is easier than in two-party systems (Bekkouche et al., 2022, p. 16). Still, Hansen & Kosiara-Pedersen (2017) state that the effect of campaigns in multiparty systems is minimal: during the election period, voters solidify their initial party preferences. Voters experience an increase in preference for the most preferred party and a decrease for the least preferred party. Consequently, the primary function of campaigns is to mobilise voters who already lean towards a certain party rather than shifting their opinions, thus validating the minimal effects thesis. However, Hansen & Kosiara-Pedersen (2017) base this conclusion only on the change in preferences for the most and least preferred party, ignoring the increase or decrease in preferences for proximate parties. It may well be that parties ideologically close to the initial most preferred party also experience an increase in preferences over the course of the campaign resulting in voters still being subject to vote switching. Consequently, the minimal effects thesis may not be applicable in multiparty systems. Indeed, Bekkouche et al. (2022) shows that increased campaign expenditure in multiparty systems in France and the UK results in more votes for a particular party relative to its competitors. The campaign messages not only mobilise voters with initial party preferences, but could actually persuade voters (Bekkouche et al., 2022, p. 2). Because of the two-party system in the US, the ideological differences between the two parties are stark. Campaign spending therefore focuses on voter mobilisation rather than persuasion. But in multi-party systems, a left-wing political campaign, for example, can target all left-wing voters, allowing for vote switching between parties that share a proximate ideology (Bekkouche et al., 2022, p.



25). In this sense, campaign spending has the potential to divert votes away from ideologically proximate parties within a party bloc. This is referred to as the negative cross effects of spending on proximate parties. Again, the two-party system in the US precludes the existence of negative cross effects (Bekkouche, 2022, p. 16). There are, however, diminishing marginal returns to scale in spending. Each additional euro of campaign spending has a diminishing effect on persuading voters. These diminishing marginal returns explain the contrasting effects of campaign spending in the US and Europe. The scale of campaign spending in the US is much larger than in European countries. Spending per voter in the 2016 US federal elections was 4-8 times higher than in French national elections. It is even 16-20 times higher compared to UK national elections. So, US campaign spending has limited impact because it has reached a level where the marginal return of an additional dollar is close to zero (Bekkouche et al., 2022, p. 33).

### **Electoral volatility**

Since 1970, party system instability has been on the rise in Western Europe, which is reflected in lower turnout, declining membership and increased electoral volatility (Drummond, 2006; Mair, 2006). Increased electoral volatility is frequently explained in terms of partisan dealignment: "with fewer voters possessing affective loyalties to the major parties, they enter the campaign undecided about their vote and therefore more susceptible to the issues, appeals and themes which emerge during the course of the campaign" (McAllister, 2002, p. 21). Increased electoral volatility and a decrease in party affiliations have led to the rise of the late-deciding voter phenomenon (McAllister, 2002). This increases the leverage of political campaigns as they can remove the uncertainty of late deciders by informing and possibly persuading them. Especially in multi-party systems, voters have to learn a lot to align their votes with their interests and are highly dependent on campaign information to do so (Jensen et al., 2012).

In the United States, the trend in electoral volatility is exactly the opposite. For decades, electoral volatility has been declining, limiting the impact of political campaigns. The causes for this trend include an increase in political polarisation, heightened voter enthusiasm, and improved access to political information, along with growing income inequality (Lacy & Markovich, 2016, p. 22). Fundamental to this issue is the uncertainty felt by voters. When individuals are certain about the differences between parties and candidates, their voting choice becomes clear. The increasing political polarisation and income inequality further accentuate

the distinctions between the two major parties, ultimately leading to reduced volatility (Lacy & Markovich, 2016, p. 15). Greater voter enthusiasm and access to information also allows for better understanding of political ideologies (Lacy & Markovich, 2016, p. 12). And since the ideologies of the two parties in the US remain fairly stable between elections, voters do not easily switch parties (Lacy & Markovich, 2016).

### **Proportional representation versus district systems**

Bekkouche et al. (2022) is a valuable addition to the literature on the effects of campaign spending in Western Europe. However, the study is limited to two case studies that have a district system. The UK has a plurality system and France a majoritarian system. Comparing the effectiveness of campaign spending between single member district systems and proportional systems is challenging, the difference between electoral systems alter the incentives for campaign spending. In plurality/majoritarian systems, the effectiveness of campaign spending is contingent on the competitiveness of the election; the more competitive the election, the greater the incentive to raise campaign expenditure. In contrast, less competitive elections provide fewer incentives to spend on political campaigns (Erikson & Palfrey, 2000). However, proportional systems create strong incentives to increase campaign spending, as it can directly influence the distribution of seats (Demirkaya et al., 2022). In this sense, campaign spending, especially for smaller parties may prove a lot more effective in proportional systems compared to district systems.

The above theoretical framework leads to the following hypothesis:

H1: Higher campaign spending by parties in proportional systems in Western Europe will lead to higher electoral gain.

## **Case selection**

From the theoretical framework, this thesis has derived a hypothesis on the effectiveness of campaign spending for proportional systems in Western Europe. This hypothesis is tested by analysing campaign spending of Dutch political parties in national elections from 1998 to 2021. The period from 1998 to 2021 is chosen because of availability of data. More on this can be found in the research methods section. The Netherlands is chosen as a case study because of its proportional system, its higher-than-average electoral volatility since 1960 and high average effective number of electoral parties (Geers, 2017, p. 7). Table 1 shows that the average electoral volatility in the Netherlands is high compared to other Western European countries. Only France and Italy have a higher electoral volatility. The high electoral volatility indicates that any effects of campaign spending should be more evident in the Netherlands.

**Table 1.**

*Average electoral volatility, average effective number of electoral parties, the number of elections and electoral system for Western European countries and the United States from 1998 to 2021*

Party	Average electoral volatility	Average effective number of electoral parties	Number of elections	Electoral system
<b>Country</b>				
The Netherlands	20.3	6.6	8	PR
United States	3.5	2.2	12	Plurality/Majority
<b>Other Western European countries</b>				
Austria	15.6	4.1	7	PR
Belgium	13.7	9.8	6	PR
Cyprus	10.5	4.7	5	PR
Denmark	13.0	5.4	7	PR
Finland	10.2	6.4	6	PR
France	24.6	5.4	5	Plurality/Majority
Germany	12.6	5.1	7	Mixed
Greece	16.7	2.9	7	PR
Iceland	19.1	5.2	7	PR
Ireland	17.9	5.0	5	PR
Italy	20.6	5.2	5	Mixed
Luxembourg	8.2	4.8	5	PR
Malta	2.7	2.0	6	PR
Norway	12.6	5.5	6	PR
Portugal	11.1	3.5	8	PR
Spain	14.6	4.4	4	PR
Sweden	12.0	5.0	7	PR
Switzerland	7.9	5.9	6	PR
United Kingdom	10.5	3.4	6	Plurality/Majority

*Note:* Data on electoral volatility and effective number of electoral parties have been rounded to one decimal place. Further, the number of elections is given as a frame of reference in order to assess the electoral volatility and the effective number of parties. Data for Western-Europe is adapted from “Dataset of Electoral Volatility and its internal components in Western Europe

since 1945” by V. Emanuele, 2015. The update for the years 2017 to 2021 is available at <http://www.vincenzoemanuele.com/dataset-of-electoral-volatility.html>. US data are adapted from “Election statistics: 1920 to present”, by History, Art & Archives, 2023 available at <https://history.house.gov/Institution/Election-Statistics/Election-Statistics/>. Data on the effective number of parties is adapted from “Who governs in Europe and beyond” by F.C. Bértoa, 2023. Retrieved from <https://whogoverns.eu/party-systems/effective-number-of-parties/>. Data on the electoral system is retrieved from “Electoral system”, by Inter-Parliamentary Union, 2023, available at [https://data.ipu.org/compare?field=chamber%3A%3Afield\\_electoral\\_system&region=europe&structure=any\\_\\_lower\\_chamber#pie](https://data.ipu.org/compare?field=chamber%3A%3Afield_electoral_system&region=europe&structure=any__lower_chamber#pie)

### **Effective number of electoral parties**

In terms of the number of effective electoral parties competing in each election, the Netherlands is also unique in Western Europe. The effective number of electoral parties, which represents the number of parties weighted by size in an election, is consistently higher than the European average as depicted in Table 1. Only Belgium has a higher number of effective parties. A greater number of parties can result in a larger impact on campaigns, this makes the Netherlands a rather exceptional case as the electoral volatility is high as well as the number of effective parties. Table 1 also provides an extra argument for finding minimal effects of campaigning in the US, given that electoral volatility and the effective number of parties is low.

### **Proportional representation**

Bekkouche et al. (2022) provide valuable insights on campaign spending effects based on the UK and France. Table 1 shows that cases are the only two countries in Western Europe that have a plurality/majority electoral system. Whereas the difference between systems is relevant for the effects of campaign spending (Erikson & Parfey, 2000; Demirkaya et al. 2022). By contrast, the Netherlands, like most Western European countries, has a proportional electoral system. This system, together with the high average electoral volatility and high average number of electoral parties, makes the Netherlands a suitable case for observing the effects of campaign spending.

## Research methods

This section outlines and justifies the research methods employed and additional methodological considerations. First, it is useful to examine the causal mechanism of the study in order to support the methodological choices. The primary independent variable in this study is the total campaign spending by Dutch parties in national elections from 1998 to 2021. The total campaign spending is adjusted for inflation with 2015 as a base year. The dependent variable is the electoral shift of Dutch parties within these election years during the campaign periods. Opinion polls are used to measure electoral shift within a campaign period. This is a common way to measure campaign effects. The underlying assumption is that, from the start of the campaign period  $t_0$  to election day  $t_1$ , numerous factors influence voters' vote choice, but the political campaign is the most influential (Farrell & Schmitt-Beck, 2002, p. 17). In this thesis, the start of the campaign period  $t_0$  is taken to be two months before election day. This period is selected to capture the most intense campaign effects. Data on public opinion polls for the Netherlands are accessible up to 1997. The Political Barometer (2023) provides data from polls between 1997 and 2010. Thereafter, data provided by the Louwse (2023) will be used, which is an aggregation of existing polls.

### Coding campaign expenditure

The coding of the campaign budgets of the various parties is primarily based on the annual accounts of the political parties. These can be accessed at the Documentation Centre for Dutch Political Parties (DNPP) of the University of Groningen. This thesis only focuses on parties that won a seat in the House of Representatives after the election results. In order to determine the expenditure on election campaigns for the general elections, the search was narrowed down using specific keywords such as 'Tweede Kamer' [House of Representatives], 'costs', 'campaign', 'elections' and combinations thereof, including 'election campaign'. The DNPP was helpful and were able to retrieve some missing financial statements on request. However, it is essential to note that DNPP still did not have annual accounts for all election years, in particular for 1998, 2002 and 2003. For the 1998 elections, de Boer et al. (1999) offer an estimate of the campaign expenditure for all political parties. This estimation is incorporated in the analysis. Unfortunately, the analysis excludes the election years 2002 and 2003 due to a lack of data and the fact that many parties did not make a clear distinction between European, national and provincial campaign spending until 2006. Also, there were some missing accounts for 2006 and 2010. Fortunately, a dataset from the research platform Follow the Money was able to provide

campaign spending for many of the missing parties in 2006 and 2010. Many thanks to Follow the Money for releasing the dataset. More data on campaign spending can be found in Appendix A.1.

### **Linear regression with clustered standard errors**

Conducting a linear regression requires the observations to be independent of each other. However, in this study, party-level observations are dependent on the election year in which they fall. The interdependence between election year and party performance means that election results cannot be considered independent observations. A multilevel analysis could correct for data dependence, but in order to conduct this type of analysis more level 2 variables (election years) are required. This dataset only contains six election years, which makes multilevel regression not appropriate. In order to correct for the data dependency, a linear regression with clustered standard errors is used. The standard errors are clustered by election year, resulting in robust estimates. In addition, election years are controlled for with dummy variables. In this way, data dependency is taken into account.

### **Problems with election year dummies**

The consequence of correcting for election years via dummies, is that the interpretation of other year-specific control variables becomes difficult. This is due to problems related to multicollinearity; multiple independent variables become correlated (Field, 2018). Consequently, it is challenging to interpret a control variable such as real GDP per capita, which is year-specific and does not vary at the party level. Therefore, year specific variables other than the election year dummies have been left out of the analysis.

### **Control variables**

The inclusion of control variables is of great importance, as it enhances the predictive capacity of the model and reduces the possibility that the observed effect between campaign spending and electoral change is due to omitted variables. The first control variable added in the analysis is party membership. It is argued that the more members a political party has, the greater the potential for campaigns to mobilise voters (McAllister, 2002). Furthermore, an increase in members results in a higher number of potential volunteers. This could lead to an overestimation of the campaign effect resulting from campaign expenditure. Thus, party membership has to be taken into account. Data on party membership can be found in Appendix A.2.

### **Coalition and opposition parties**

Another control variable to consider is whether a party belongs to a coalition or opposition. As shown in the theory section, the marginal effects of campaign spending would be larger for opposition parties than for incumbent parties (Jacobson, 2015, p. 7). While Jacobson's (2015) study was conducted in the US, the differentiation between coalition and opposition parties is deemed relevant. In a multi-party context, coalition parties are also more familiar, while opposition parties need to inform and convince voters of an alternative. The classification of a party as coalition/opposition depends on the cabinet in office during the election campaign. For example, D66 was part of the Balkenende II cabinet after the 2003 elections, but did not participate in the Balkenende III cabinet (Parlement.com, 2023a). This made D66 a de facto opposition party during the 2006 election campaign. If a cabinet has fallen but a new cabinet has not yet been formed, the members of the outgoing cabinet are still counted as coalition parties. The classification of parties as coalition or opposition parties can be found in Appendix A.3.

### **Share of votes two months before election day**

It has already been mentioned that the dependent variable, the electoral shift of the parties during the election campaign, is measured by subtracting the election result from the poll result. Since the dependent variable is constructed on the basis of election polls, it is to be expected that the electoral shift of parties is closely related to election polls. Furthermore, this control variable corrects for electoral size of parties during the election campaign. It is therefore useful to include share of votes two months before the election day as a control variable. The share of votes two months before the election day and the election results in terms of percentage of the vote are shown in Appendix A.4. This data was also used to construct the dependent variable.

### **Seats in the House of Representatives**

In the Netherlands, party income in the form of state subsidies is divided into a general and special part. The general part is the same for each party, but the special part depends for 80 per cent on the number of seats a party has in the House of Representatives (Parliament.com, 2023b). This means that parties with more seats can potentially have higher campaign spending, which could lead to differential effects for different parties. Note, that a party's seat count during an election campaign is based on the penultimate election result. The number of seats held by each party during a given election campaign period can be found in Appendix A.5.



## Results

This section presents and interprets the results of the analysis. Table 2 provides more context of the variables, by presenting the descriptive statistics.

**Table 2.**

*Descriptive statistics*

Variables	Observations (N = 57)	Minimum	Maximum	Mean	Std. Deviation
<b>Dependent variable</b>					
Difference between election results and polls (%)	57	-10.500	11.800	0.096	3.299
<b>Explanatory variable</b>					
Campaign spending based at 2015 prices (in thousands of euros)	57	89.362	3335.035	1238.756	931.988
<b>Control variables</b>					
Election year	57	-	-	-	-
2021	15 (17)	-	-	-	-
2017	12 (13)	-	-	-	-
2012	8 (11)	-	-	-	-
2010	7 (10)	-	-	-	-
2006	6 (10)	-	-	-	-
1998	9 (9)	-	-	-	-
Party membership (in thousands of members)	57	1.385	89.000	29.565	19.760
Party type	57	-	-	-	-
Coalition party	15	-	-	-	-
Opposition party	42	-	-	-	-
Share of votes two months before election day (%)	57	0.400	28.400	8.860	7.919
Seats in House of Representatives	57	0	44	13.597	13.616

*Note.* In most election years, some parties have missing observations on campaign spending, and are therefore excluded from the analysis. The variable 'election year' shows the total number of parties that won a seat in brackets, which represents the number of parties that would have been included if there were no missing data.

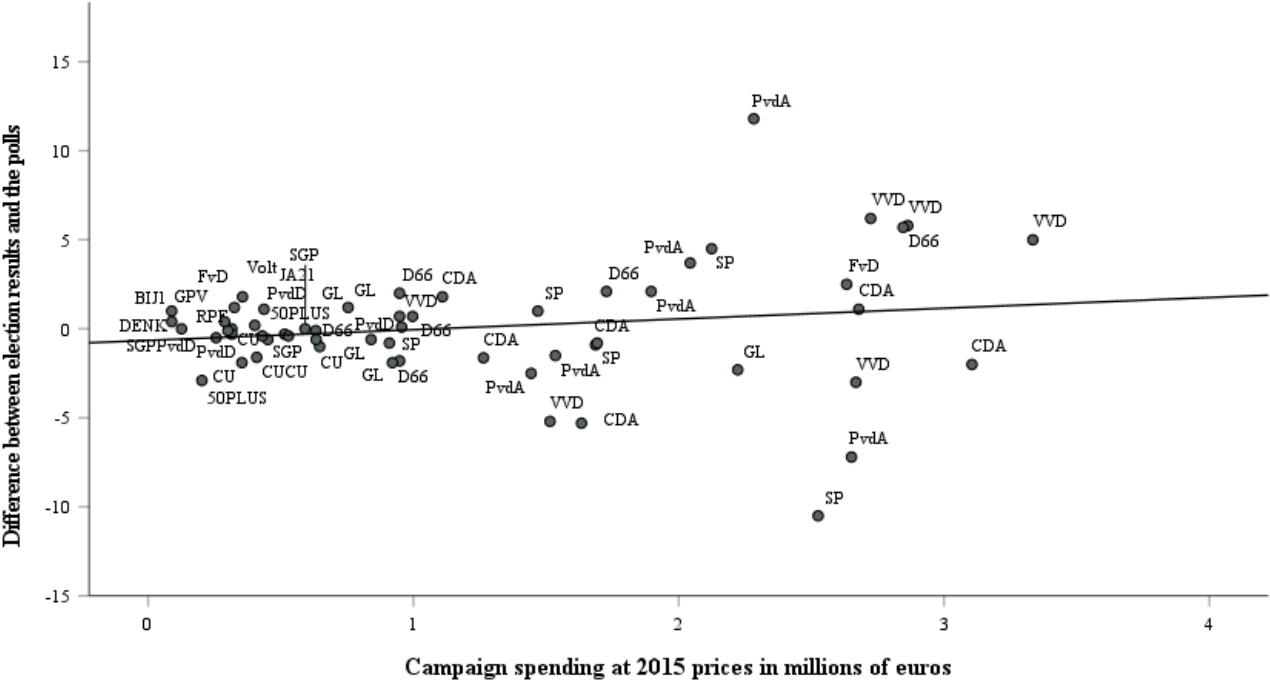
Because the variable seats is based on the penultimate election, some parties may not have had seats yet. In that case, zero seats are reported. This is the case for FvD and DENK in 2017, and for JA21 and Volt in 2021.

An interesting finding from Table 2 is that there is quite a difference between the minimum and maximum number of party members. This difference is due to the fact that the number of party members in 1998 is considerably higher than in more recent years. The maximum can be found for CDA in 1998. It should be noted that this is a rounded membership count; only CDA uses rounded membership counts in 1998 and 2006. The minimum can be explained by the fact that many new parties entered the House of Representatives in 2017 and 2021. In this case, the minimum applies to the party Volt in 2021. The declining party membership is an indicator of increasing electoral volatility and is well reflected in the data (Mair, 2006).

Figure 1 presents a simple model visualising whether higher campaign spending by political parties, without correcting for control variables, leads to greater electoral gain relative to polls.

**Figure 1.**

*Scatter plot of ‘difference between elections results and the polls’ by ‘campaign spending at 2015 prices in millions of euros’*



*Note.* To simplify the interpretation of campaign spending in the regression analysis, the variable is shown in millions of euros. The linear trend line is represented by the following formula:  $y = -0.65 + 0.6x$ ;  $R^2 = 0.029$ .

Figure 1 shows that the dispersion of data points on the y-axis increases with campaign spending. Although a moderately positive trend line is shown, the high degree of dispersion makes this trend difficult to interpret. The spread occurs when parties spend more than 1 million euros on political campaigning, resulting in both larger electoral gains and losses relative to the polls. Figure 1 demonstrates that the spread primarily occurs among the established, electorally larger parties, such as CDA, D66, PvdA, SP, and VVD. The dispersion indicates heteroscedasticity, which means that the variance of the residuals is not constant at each level of the independent variable (Field, 2018). Heteroscedasticity is characterized by a fan-like distribution of the data points, which is even better illustrated in Appendix B.1. Heteroscedasticity is a problem in general linear models because the variance of the residuals is assumed to remain constant. To overcome this issue, control variables can be added to correct

for possible omitted variable bias, which may cause heteroscedasticity. For a valid analysis, election years should be controlled for anyway. Therefore, caution should be exercised when interpreting Figure 1.

Table 3 shows how the relationship between campaign spending and the dependent variable changes when control variables are added. This is shown on the basis of seven regression models. The first model is a simple bivariate regression between campaign spending and the dependent variable. The second model adds the dummy variables that correct for different election years. After all, parties' campaign spending is clustered within election years and this needs to be corrected for. The third, fourth, fifth and sixth models each include an alternative control variable on top of the election year control variables. These additional variables control for party membership, whether a party is a coalition party as opposed to an opposition party, vote share two months before the election, and seats in the House of Representatives, respectively. In this way, the effect of adding a control variable on the relationship between campaign spending and the dependent variable can be examined precisely. The seventh model presents all variables, including the explanatory variable campaign spending and the control variables, except for seats in the House of Representatives. The latter variable was excluded from the final model due to a high Variance Inflation Factor (VIF) (see Appendix B.2). A high VIF value indicates excessive correlation between the predictor variables, or multicollinearity. This is undesirable because it increases the standard error of the coefficients, or overinflating the standard errors, thereby making some variables insignificant when they are actually significant (Daoud, 2017).

**Table 3.***Regression analysis with clustered standard errors*

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>	<b>Model 6</b>	<b>Model 7</b>
<i>Coefficients</i>							
Intercept	-0.650 0.408	-0.531 (0.258)	0.532 (0.711)	-0.511 (0.408)	0.939 (0.790)	-0.270 (0.805)	1.097 (1.018)
<b>Explanatory variable</b>							
Campaign spending of parties at 2015 prices (in millions of euros)	0.602 (0.441)	0.777 (0.480)	1.413* (0.609)	0.820 (0.619)	2.269* (0.939)	1.244 (1.090)	2.201* (1.019)
<b>Control variables</b>							
Election year [Ref. = 1998]							
2021		-0.499 (0.258)	-1.386* (0.567)	-0.533 (0.392)	-2.552* (1.020)	-1.036 (1.191)	-2.613* (1.090)
2017		0.678*** (0.107)	0.091 (0.349)	0.641 (0.319)	-0.791 (0.698)	0.396 (0.626)	-0.750 (0.791)
2012		-0.400 (0.320)	-0.728 (0.376)	-0.442 (0.487)	-1.464* (0.651)	-0.714 (0.730)	-1.321 (0.735)
2010		-0.747*** (0.148)	-0.952*** (0.191)	-0.768** (0.234)	-1.204*** (0.288)	-0.860** (0.277)	-1.138** (0.344)
2006		-1.893*** (0.444)	-2.082*** (0.464)	-1.933** (0.572)	-2.119** (0.559)	-2.059** (0.565)	-1.926** (0.652)
Party membership (in thousands of members)			-0.047 (0.027)				-0.009 (0.025)
Party type [Ref. = Opposition]							
Coalition party				-0.165 (1.282)			0.991 (0.883)
Share of votes two months the before election day (%)					-0.253* (0.116)		-0.264 * (0.112)
Seats in House of Representatives						-0.041 (0.094)	
R <sup>2</sup>	0.029	0.075	0.117	0.075	0.224	0.086	0.237
N	57	57	57	57	57	57	57

*Note.* General linear model regression coefficients with standard errors in brackets. Dependent variable: difference between the election result in terms of vote share and the poll result in terms of vote share two months before the election. \*\*\*p < 0.01, \*\*p < 0.05, \* p < 0.10

**Table 4.**

*Pearson correlations and confidence intervals of campaign spending, party membership and the share of votes two months before the election day and seats in the House of Representatives*

Variable	Campaign spending of parties at 2015 prices	Party membership	Share of votes two months before election day
Campaign spending of parties at 2015 prices (in millions of euros)	-	-	-
Party membership (in thousands of members)	0.606** [0.410; 0.748]	-	-
Share of votes two months before election day	0.668* [0.494; 0.791]	0.736** [0.588; 0.836]	-
Seats in the House of Representatives	0.726** [0.574; 0.830]	0.760** [0.623; 0.852]	0.847** [0.752; 0.970]

*Note.* The correlation coefficients range on a scale from -1 to 1, where -1 indicates a perfect negative correlation. A 1 indicates a perfect positive correlation and 0 indicates no correlation.

\* $p < 0.05$ , \*\*  $p < 0.01$

### **Campaign spending of parties**

Table 3 shows that campaign spending is not significant in all models. Therefore, caution should be exercised when interpreting the relationship between campaign spending and the dependent variable. However, campaign spending does become significant at a 90% confidence interval when controlling for party membership and vote share two months before election day. These control variables absorb some of the residual variance, making the campaign spending estimate significant. Both control variables in this study are indicators of party size, suggesting that party size may have an impact on the effect of campaign spending. The strong correlation between the two control variables ( $r = 0.736$ ) confirms that they are both indicators of party size (see Table 4). However, Model 6 indicates that the variable 'seats in the House of Representatives' does not result in a significant effect of campaign spending, despite being an indicator of party size. This is supported by strong correlations with party membership ( $r = 0.760$ ) and the share of votes two months before the election day ( $r = 0.847$ ) (Schober, Boer & Schwarte, 2018, p. 1765). Also, the  $R^2$  or predictive power of a model improves the least when seats are included, compared to models that correct for membership and vote share two months before election day. This may be due to the fact that the seats variable is based on penultimate election results,

while the effect of campaign spending during campaign time depends on more recent indicators that indicate party size. The most recent indicator of party size is the share of votes two months before the election day. The membership number is based on annual figures, and the seats variable is based on the penultimate election. The average interval between elections is 3.4 years.

The final interpretation of the effect of campaign spending in model 7 is as follows: when an opposition party spends one million euros more on campaign spending in 1998, the difference between the election result and the polls becomes more positive by 2.201 percentage points, keeping all other variables constant. In other words, more campaign spending leads to an electoral gain compared to the polls two months before election day of 2.201 percentage points. As mentioned previously, this effect only occurs after adjusting for party size. This implies that votes are relatively less expensive for larger parties compared to smaller ones. A possible explanation for this finding is the phenomenon of strategic voting (Riambou, 2018). In proportional systems, approximately 10% of voters cast their vote for a party that could potentially form a coalition. Another 5% vote for the expected winner, which is captured by the bandwagon effect (Riambou, 2018). Both voting considerations are mainly based on party size, which ensures that larger parties can recruit votes more cost-effectively. Bekkouche et al. (2022) also demonstrate that the cost of a vote in terms of campaign spending can vary across parties (pp. 26-27). But they express this difference mainly in ideological terms rather than party size, by emphasising that there are negative cross effects of spending on ideological proximate parties.

### **Control variables**

Upon examining the significant control variables, it is evident that certain election dummy variables and the polls variable hold significance. Below, an interpretation is provided for both variables. The interpretation of dummy variables varies depending on the model and year. In model 7 for the year 2021, the difference between the election result and the polls for all opposition parties is 2.613 percentage points more negative compared to opposition parties in 1998, while keeping all other variables constant. The reasons for the differing coefficients across years are beyond the scope of this study.

The interpretation of the polls variable is as follows: when a party gains 1 per cent in the 1998 polls, the difference between the election result and the polls becomes more negative by 0.253

per cent, holding all other variables constant. This effect, although significant, is very small and therefore difficult to interpret.

Interestingly, the addition of the coalition variable in model 4 does not result in a significant relationship between campaign spending and the dependent variable. Furthermore, the variable itself remains insignificant. It is worth noting that the predictive power, measured by the  $R^2$ , remains unchanged in both model 4 and model 2. This suggests that including the control variables does not enhance the model fit. In practice, the distinction between coalition and opposition parties is unlikely to significantly affect election results and polls, not even through campaign spending. On the basis of the results, the coalition/opposition distinction seems to matter less in proportional systems than in majoritarian systems.

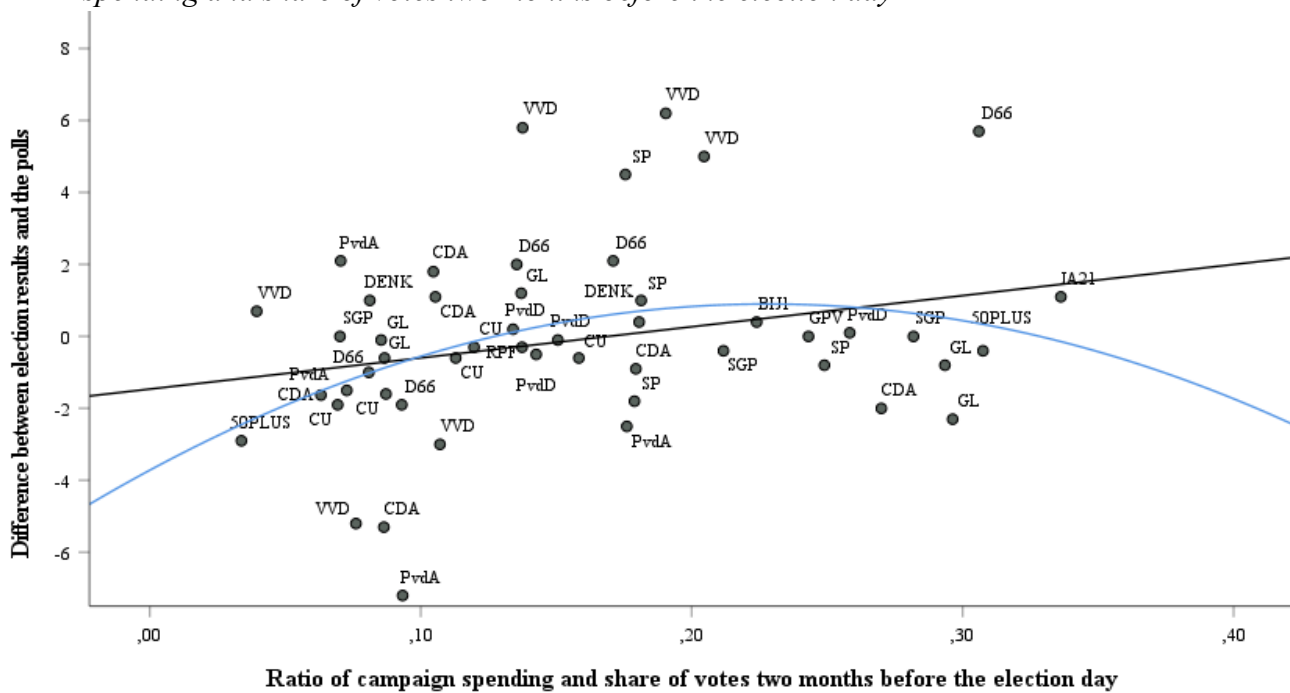
### **Ratio of campaign spending and share of votes two months before election day**

While the previous section tested the hypothesis in detail, the next section takes a closer look at the relationship between campaign spending and polls variable with respect to the dependent variable. The addition of the polls variable led to the largest increase in  $R^2$  compared to the other models, apart from model 7. The polls variable has a positive, moderate to strong correlation with campaign spending ( $r = 0.668$ ). But the control variable also has an indirect relationship via campaign spending on the dependent variable. Figure 2 elaborates on this indirect relationship.



**Figure 2.**

*Scatter plot of 'difference between election results and the polls' by 'ratio of campaign spending and share of votes two months before the election day'*



*Note.* Some outliers have been removed from the figure: D66 from 2006, SP from 2012, PvdA from 2012 and 2017, FvD from 2017 and 2021, and Volt from 2021. The linear trend line is represented by  $y = -1.463 + 8.658x$ ;  $R^2 = 0.070$ . The quadratic line is represented by  $y = -3.720 + 40.542x - 88.928x^2$ ;  $R^2 = 0.114$ . The corresponding regressions are shown in Appendix B.3.

As Figure 2 does not show a regression based on clustered standard errors, nor does it adjust for election years, the results cannot be discussed with too much certainty. At first glance, it appears that there may be some non-linearity in the effect of campaign spending after adjusting for party size in the polls. There is an upward trend from 0.3 to 0.20. During this range, higher campaign spending, adjusted for party size in the polls, results in greater electoral gain relative to the polls. However, between 0.20 and 0.35, higher campaign spending, corrected for party size in the polls, generally leads to electoral loss. The regression table in Appendix B.3 shows that this non-linear trend is not significant, but the linear trend is. However, these results are still considered invalid due to the earlier discussed shortcomings. Nonetheless, Figure 2 and Table 3 together provide indications that correcting for party size at the polls is relevant to the effect of campaign spending.

## Conclusion

Literature on the effect of campaign spending by political parties mainly focuses on the US context. This thesis attempts to examine the effect of campaign spending by political parties on proportional systems in Western Europe, with a case study of the Netherlands. The Netherlands was chosen because of its proportional system and high electoral volatility and effective number of electoral parties compared to other Western European countries. This allows the effects of campaign spending to be more apparent relative to other Western European countries (Bekkouche et al., 2022; McAllister, 2002). This thesis focuses on campaign spending by Dutch political parties during national elections from 1998 to 2021. The results section indicates that higher campaign spending by political parties results in greater electoral gain compared to the polls two months before election day. When an opposition party spends one million euros more in 1998, the difference between the election result and the polls becomes 2,201 percentage points more positive, holding all other variables constant. However, this result is only valid after adjusting for party size by either correcting for the position in the polls or correcting for membership. This implies that votes are relatively less expensive for larger parties compared to smaller ones. A potential explanation for this could be that some voters strategically vote for larger parties regardless of the campaign, making the price of a vote relatively cheaper for larger parties (Riambou, 2018).

However, it remains uncertain whether the hypothesis can be confirmed with certainty. In other words, can it be confirmed on the basis of the Netherlands that higher campaign spending leads to greater electoral gain in Western Europe. It is important to note that this study has several limitations, and therefore, the results should be interpreted with caution. Firstly, the study suffers from a severe lack of data. Parties either did not distinguish clearly between campaign funds and other cost items or did not provide any data at all. As a result, both the 2002 and 2003 election years were excluded from the analysis. Even among the years included in the analysis, some parties were missing due to a lack of information on campaign spending. The second limitation is an extension of this, the study has only 57 cases in total, which affects the precision of the results. The last limitation concerns the correlation between the predictor variables. Table B.2 shows that there is still some moderate correlation between the predictor variables, which in turn may affect the estimates of the variables. In conclusion, the hypothesis can be conditionally confirmed based on the results. At least some indications have been presented that campaign spending may lead to electoral gains, which could be relevant for further research.

Specifically, investigating the relationship between the effectiveness of campaign spending and party size would be interesting. In this way, this study provides a basis for future research.

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## Appendix A

**Table A.1.**

*Campaign spending of parties at the national election from 1998 to 2021 at 2015 prices*

Party	1998	2006	2010	2012	2017	2021
BIJ1	-	-	-	-	-	896056
CDA	1264364	2678814	1633803	1686713	1109856	3105412
CU	-	514819	353928	409894	451807	633617
DENK	-	-	-	-	89362	289033
D66	948273	997300	647172	921171	1727752	2846082
FvD	-	-	-	-	325503	2633066
GL	632182	-	754283	909862	840910	2222647
GPV	316091	-	-	-	-	-
JA21	-	-	-	-	-	437178
PvdA	1896546	2651398	15352856	2283050	2043493	1444072
PvdD	-	-	256786	301278	402307	955946
RPF	316091	-	-	-	-	-
SGP	126436	-	-	-	529388	591971
SP	948273	2124447	-	2525614	1469234	1693312
Volt	-	-	-	-	-	356217
VVD	948273	1515110	2723767	2863384	3335035	2668091
50PLUS	-	-	-	-	203206	430552

*Note.* Amounts are rounded to euros and adjusted for inflation. The CPI index for all years starting from 2015 can be found at <https://opendata.cbs.nl/#/CBS/nl/dataset/83131NED/table>. For 1998, the amounts were first converted from guilders to euros and then adjusted for inflation. It is often the case that campaign expenditure for a particular election year has already been booked in a previous year. In this case, the previous year's expenditure is also included. A few parties have not made a clear distinction between campaign expenditure and other categories. This is the case for BBB from 2021; 50PLUS and SGP from 2012; SGP and SP from 2010; SGP from 2006. Some accounts were also not available: GL from 2006 and PVV for all election years. All aforementioned cases were excluded from the analysis.



**Table A.2.***Party membership of political parties from 1998 to 2021*

Party	1998	2006	2010	2012	2017	2021
BBB	-	-	-	-	-	241
BIJ1	-	-	-	-	-	2875
CDA	89000	69000	67592	61294	48775	37375
CU	-	24156	24776	26140	23695	25495
DENK	-	-	-	-	3425	2938
D66	13747	11059	18507	21319	26284	27121
FvD	-	-	-	-	1863	45322
GL	11873	21383	21315	25711	23390	32685
GPV	14366	-	-	-	-	-
JA21	-	-	-	-	-	3748
PvdA	61720	61913	54504	54279	46162	40953
PvdD	-	2408	10310	12250	12866	19173
RPF	12132	-	-	-	-	-
SGP	23800	26400	27196	28048	30122	29345
SP	21975	44853	46507	44186	39550	31960
Volt	-	-	-	-	-	1385
VVD	52197	40157	35465	38228	26497	25035
50PLUS	-	-	-	1289	5735	3659

*Note.* Data is extracted from DNPP (2023). The above table presents information on all parties that won a seat in a given election year, except for the PVV, which has no members. In this study, only information for parties with data on campaign spending are used.

**Table A.3.***Classification of parties as coalition or opposition party*

Party	1998	2006	2010	2012	2017	2021
BBB	-	-	-	-	-	Opposition
BIJ1	-	-	-	-	-	Opposition
CDA	Opposition	Coalition	Coalition	Coalition	Opposition	Coalition
CU	-	Opposition	Opposition	Opposition	Opposition	Coalition
DENK	-	-	-	-	Opposition	Opposition
D66	Coalition	Opposition	Opposition	Opposition	Opposition	Coalition
FvD	-	-	-	-	Opposition	Opposition
GL	Opposition	Opposition	Opposition	Opposition	Opposition	Opposition
GPV	Opposition	-	-	-	-	-
JA21	-	-	-	-	-	Opposition
PvdA	Coalition	Opposition	Coalition	Opposition	Coalition	Opposition
PvdD	-	Opposition	Opposition	Opposition	Opposition	Opposition
PVV	-	Opposition	Opposition	Opposition	Opposition	Opposition
RPF	Opposition	-	-	-	-	-
SGP	Opposition	Opposition	Opposition	Opposition	Opposition	Opposition
SP	Opposition	Opposition	Opposition	Opposition	Opposition	Opposition
Volt	-	-	-	-	-	Opposition
VVD	Coalition	Coalition	Opposition	Coalition	Coalition	Coalition
50PLUS	-	-	-	Opposition	Opposition	Opposition

*Note.* The classification of a party as coalition/opposition depends on the cabinet in office during the election campaign. The above table presents information on all parties that won a seat in a given election year. In this study, only information for parties with data on campaign spending are used.

**Table A.4.***Share of votes in percentages two months before the election day and election results*

Party	1998		2006		2010		2012		2017		2021	
	Polls	Results	Polls	Results	Polls	Results	Polls	Results	Polls	Results	Polls	Results
BBB	-	-	-	-	-	-	-	-	-	-	0.0	1.0
BIJ1	-	-	-	-	-	-	-	-	-	-	0.0	0.8
CDA	20.0	18.37	25.4	26.5	18.9	13.6	9.4	8.51	10.6	12.4	11.5	9.5
CU	-	-	4.3	4.0	5.1	3.2	4.7	3.1	4.0	3.4	4.0	3.37
DENK	-	-	-	-	-	-	-	-	1.1	2.1	1.6	2.0
D66	7.0	9.0	1.3	2.0	8.0	7.0	9.9	8.0	10.1	12.2	9.3	15.0
FvD	-	-	-	-	-	-	-	-	0.6	1.8	2.5	5.0
GL	7.4	7.3	4.1	4.6	5.5	6.7	3.1	2.3	9.7	9.1	7.5	5.2
GPV	1.3	1.3	-	-	-	-	-	-	-	-	-	-
JA21	-	-	-	-	-	-	-	-	-	-	1.3	2.4
PvdA	26.9	29.0	28.4	21.2	21.1	19.6	13.0	24.8	2.0	5.70	8.2	5.7
PvdD	-	-	0.6	1.8	1.8	1.3	2.0	1.9	3.0	3.2	3.7	3.8
PVV	-	-	1.1	5.9	15.2	15.5	11.7	10.1	18.9	13.1	12.2	10.8
RPF	2.3	2.0	-	-	-	-	-	-	-	-	-	-
SGP	1.8	1.8	1.8	2.0	1.8	1.7	1.9	2.1	2.5	2.1	2.1	2.1
SP	5.3	3.5	12.1	16.6	7.1	9.8	20.2	9.7	8.1	9.1	6.8	6.0
Volt	-	-	-	-	-	-	-	-	-	-	0.6	2.4
VVD	24.0	24.7	19.9	14.7	14.3	20.5	20.8	26.6	16.3	21.3	24.9	21.9
50PLUS	-	-	-	-	-	-	1.2	1.9	6.0	3.1	1.4	1.0

*Note.* The above table presents information on all parties that won a seat in a given election year. In this study, only information for parties with data on campaign spending are used.

**Table A.5.***Number of seats held by parties in the House of Representatives during an election campaign*

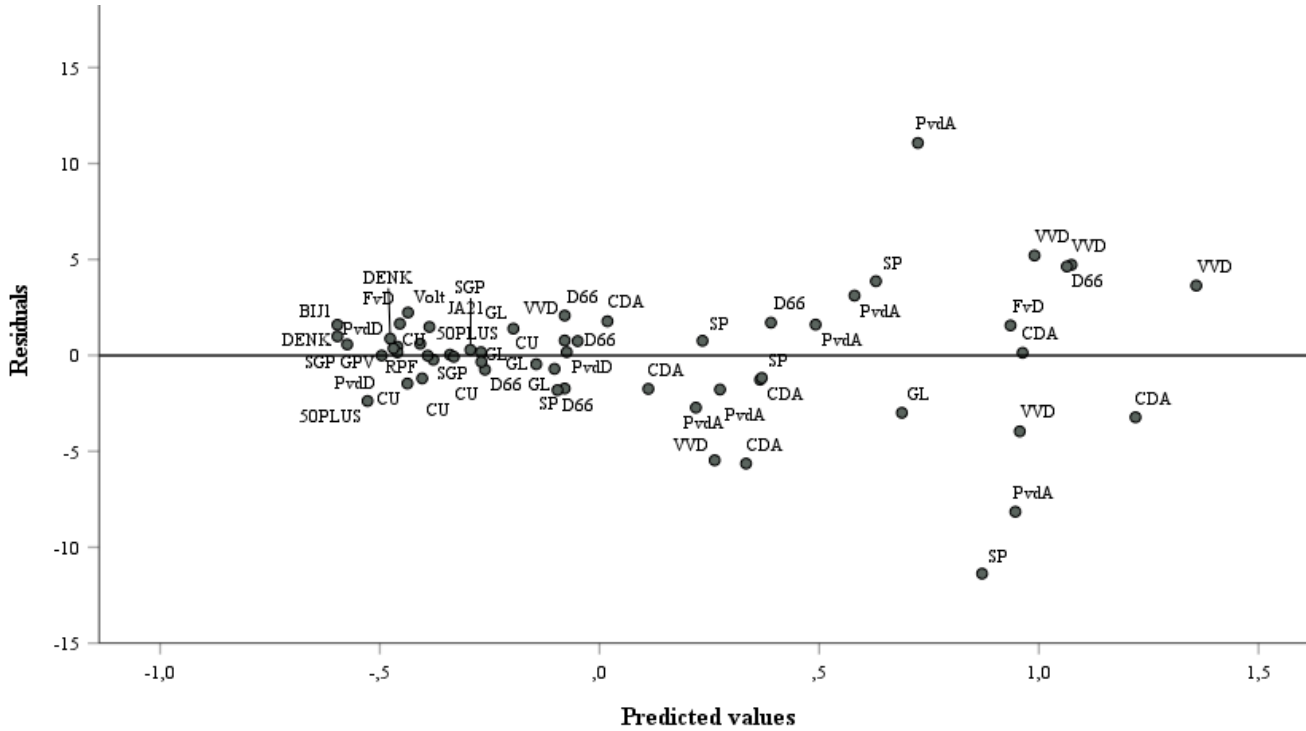
Party	1998	2006	2010	2012	2017	2021
BBB	-	-	-	-	-	0
BIJ1	-	-	-	-	-	0
CDA	34	44	41	21	13	19
CU	-	3	6	5	5	5
DENK	-	-	-	-	0	3
D66	24	6	3	10	12	19
FvD	-	-	-	-	0	2
GL	5	6	7	10	4	14
GPV	2	-	-	-	-	-
JA21	-	-	-	-	-	0
PvdA	37	42	33	30	38	9
PvdD	-	0	2	2	2	5
PVV	-	0	9	24	15	20
RPF	3	-	-	-	-	-
SGP	2	2	2	2	3	3
SP	2	9	25	15	15	14
Volt	-	-	-	-	-	0
VVD	31	28	22	31	41	33
50PLUS	-	-	-	0	2	4

*Note.* The above table presents information on all parties. In this study, only information for parties with data on campaign spending are used. The number of seats are based on the penultimate election and retrieved from Kiesraad (2023).

## Appendix B

**Figure B.1.**

*Scatter plot of residuals by the standardized predicted values*



*Note.* The residuals and standardized predicted values are derived from the bivariate regression of the ‘difference between the election results and the polls’ by ‘campaign spending at 2015 prices in millions of euros’.

**Table B.2.***VIF values to check for multicollinearity*

Variable	With seats variable	Without seats variable
Campaign spending at 2015 prices (in millions of euros)	2.930	2.611
Election year [Ref. = 1998]		
2021	2.719	2.643
2017	2.123	2.118
2012	1.816	1.806
2010	1.597	1.596
2006	1.642	1.641
Party membership (in thousands of members)	2.820	2.406
Party type [Ref. = Opposition]		
Coalition party	2.356	1.570
Share of votes two months before the election day (%)	4.230	3.357
Seats in House of Representatives	7.462	-
Mean VIF	2.970	2.194

*Note.* Interpretation: if  $VIF = 1$ ; then there is no correlation. For VIF values between  $1 < VIF \leq 5$ . There is moderate correlation, which is acceptable. If  $VIF > 5$ ; There is high correlation which is not acceptable (Maoud, 2017, p. 4).

**Table B.3.***Regression analysis without clustered standard errors*

	<b>Model 1</b>	<b>Model 2</b>
<i>Coefficients</i>		
Intercept	-1.463* (0.798)	-3.720** (1.667)
Ratio of campaign spending and share of votes two months before election day	8.658* (4.570)	40.542* (0.480)
Squared ratio of campaign spending and share of votes two months before election day		-88.928 (57.919)
R <sup>2</sup>	0.070	0.114
N	50	50

*Note.* \*\*\*p < 0.01, \*\*p < 0.05, \* p < 0.10