The perfect combination

Factors influencing voter turnout

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Abbreviation list

ALDE	=	Alliance of Liberals and Democrats for Europe
AV	=	Alternative Vote
EP	=	European Parliament
EPP	=	European Peoples Party
FPTP	=	First-Past-The-Post
MEP	=	Member of the European Parliament
MMP	=	Mixed Member Proportional
MP	=	Member of Parliament
PR	=	Proportional Representation
S&D	=	Socialists and Democrats
STV	=	Single Transferable Vote
TRS	=	Two Round System
VIF	=	Variance Inflation Factor

1. Introduction

From the Treaty of Paris in which established the European Coal and Steel Community (ECSC) to the Lisbon Treaty, each Treaty has embodied further integration of what we now call the European Union (EU). Right away in 1951 with the first Treaty the Common Assembly was created, a predecessor of the European Parliament. Throughout the Treaties the power of the European Parliament changed and in 1979 the Members of the European Parliament (MEPs) were directly elected for the first time. With the implementation of the Lisbon Treaty the European Parliament became a co-legislator on nearly all policy areas of the EU (Hix & Hoyland, 2011).

Nevertheless, the legitimacy of the European Parliament is still questioned. A concept linked to the legitimacy issue is the concept called 'democratic deficit'. This concept is applied by those who consider the EU to lack "democratic structures and processes within the EU's institutions, in contrast to those that prominently exist at the national level within the Union" (Sieberson, 2008, p. 446). Stephen Sieberson wrote an article concerning the Lisbon Treaty and the impact it has on the democratic deficit. His conclusion is straight forward; the Lisbon Treaty makes the European Union more democratic and raises the legitimacy of the European Parliament, however, it does not reach the same democratic level of the Member States (ibid).

One of the main concerns of European officials is the decline of trust in European Institutions and in turnout at elections (Eurobarometer, 2012, p. 13). "Trust in the European Union has fallen since autumn 2011 and now stands at its lowest ever level (31%, -3 percentage points)" (ibid.). With falling electoral turnout and trust the input legitimacy of the European Parliament is also decreasing. Throughout the existence of the European Union and its predecessors, the Members of the European Parliament (MEPs) have struggled to make changes to the electoral system. The struggle has been aimed to increase the power of the European Parliament and, in the past few decades, to raise turnout (Anastassopoulos, 2002, pp. 17-19).

Many reports covering desired changes to the European electoral system have been published throughout the years by MEPs, from the Teitgen Report (1954) to the most recent one; the Lamassoure-Severin Report (2007). One of the MEPs, Andrew Duff a member of the Committee of Constitutional Affairs, has presented a draft report on a proposal for a modification of the Act concerning the election of the members of the European Parliament by direct universal suffrage. Part of the proposal is to reform the electoral system of the European Parliament. Duff proposes the introduction of pan-European (also known as transnational) lists next to national lists to choose an additional 25 MEPs. This would transform the entire EU into one constituency with candidates from the whole Union (Duff, 2012). The Duff Report has not yet been voted on in a plenary session of the European Parliament and is therefore not adopted by the European Parliament.

Research question

In the light of the many attempts of MEPs to change the European electoral system, the details of the attempts will be discusses in a later section of this thesis, a question arises. *What is the best combination of electoral and institutional factors to foster the highest possible turnout in Parliamentary elections and how can this be translated to the European elections?* An answer to this question could be used in the attempt to raise turnout of the European elections and thereby raise the input legitimacy of the European Parliament. It is important to realize that the research question is twofold and the second part can only be dealt with while knowing the results of the first part. Once the best combination of electoral and institutional factors is deduced from the statistical results, a combination of literature research and interviews determine if there is a possibility to change the current European electoral system to include the combination of factors dubbed positive for voter turnout.

Based on existing literature on voter turnout it is to be expected that especially compulsory voting and the type of electoral system have an important influence on voter turnout. Whereas the attempts of the European Parliament to change the European electoral system mostly point in the direction of the electoral system and the district blueprint as the most important variables. Throughout this thesis it is therefore certainly worth the effort to pay extra attention to any mentioning of compulsory voting, the electoral system and district blueprint. The expectation that these variables are of importance can serve as a mainstay throughout this thesis. In order to have outcomes that are applicable to any democratic parliamentary election in the world this thesis does not only look at the 28 Member States of the European Union; a worldwide approach is taken.

The main research question is approached through several steps; each of the steps is translated into a chapter of this thesis. The remainder of Chapter One focuses on why the research question is relevant and the method used to execute the research. Chapter Two dives into the large quantity of academic publications concerning electoral systems, thereby creating the conceptual basis for the research. Chapter Three starts with an overview of the previous research concerning voter turnout followed by the choice, presentation and operationalization of the variables used in this thesis. The results of the research are presented and analyzed in Chapter Four and the link to the European Parliament is made in Chapter Five with the help of several interviews. The final Chapter Six provides the conclusions drawn from the research, as well as the limitations and suggestions for further research.

Method

Although many types of research are available and might provide valid and useful results in the analysis of voter turnout, the cross sectional research design is the best applicable design for this research. The cross sectional research design and the case study research design do not offer the possibility to have a 'treatment', they are therefore not (quasi-)experimental designs but observational designs. The cross sectional design observes the situation at a certain moment in time, measuring both the independent and dependent variables. This design seeks to explain the variation between the different selected cases by having a large number of cases at that single moment in time (Kellstedt & Whitten, 2009, pp. 81-82).

When applying the cross sectional research design to the topic at hand, the first step is to determine the case selection. The sample population in this research design is based on the grade countries receive for their level of democracy. All countries in the world are analyzed by the Economist Intelligence Unit and given a grade. The grading results in the Democracy Index, countries can score from a 1 (authoritarian regime) to a 10 (full democracy). Seeing as the influence of electoral systems is at hand, there at least has to be a well-developed democracy. The sample population is therefore compiled out of all 78 countries that scored at least a 6.0 on the 2011 Democracy Index (EIU, 2011). The measurement moment is the latest general election for parliament of each country. By taking this as a measurement moment the electoral turnout is registered and the influence of the differences of the electoral system can be determined. One of the most important limitations to the cross sectional design is the number of variables that can be used. In this research there are 78 cases, which provide the opportunity to have ten to fifteen variables. Next to the dependent variable, voter turnout, I have selected ten variables presented in Table 1. The reasoning behind the choice is provided in Chapter Three.

Table 1.1: Overview of variables

Electoral and institutional variables	Control variables
Compulsory voting	Years since universal suffrage
Electoral formula	Federalism
District blueprint	Degree of literacy
Parties	GDP per capita
Electoral threshold	Unemployment

The cross sectional research design does not offer the opportunity to rule out all threats to internal validity. In theory, the history threat is not ruled out. Furthermore, the combination of the ten variables can rule out the possibility of the Y (electoral turnout) causing fluctuations in the

different variables. Other threats are also ruled out; maturation and mortality are not a threat as the observation is a single moment in time and testing is ruled out because the observation does not influence the data. The level of external validity is high, as there are a large number of cases from the real world. It is therefore possible to generalize the results and apply them to other cases all over the world.

The method explanation of the method in this chapter is quite general, however it is noteworthy that apart from a statistical chapter there is another chapter. This final chapter before the conclusion is a combination of literature research and interviews. The literature research focusses on the reports adopted by the European Parliament and the interviews are meant to find the opinions of different players in the reality of the European Union. The results of the statistical method are kept in mind during the discussion in this chapter and the interviews were conducted after the majority of the statistical analysis, thereby ensuring the coverage of the outcomes of the statistical research.

Relevance

The research question and the method have already shone some light on the practicalities of the research performed in this thesis. However, the social relevance of the research deserves some more words. In the first section of this chapter some references were made to a democratic deficit, developments of the European Parliament as an institution, a declining trust and a declining voter turnout. The actual relevance of this thesis is a combination of these issues; as the European Parliament became a full co-legislator the declining trust and declining voter turnout in European elections became an important concern. Increasing the power of the European Parliament should decrease the democratic deficit as it introduces democratic structures and processes at a European level similar to those at a national level (Sieberson, 2008, p. 446). Nevertheless, when the voter turnout becomes dramatically low the legitimacy of the elected Members of the European Parliament diminishes and a democratic deficit rises in another form.

In the 2009 European elections the lowest turnout was found in Poland, a mere 19,64% of eligible voters casted their vote. The average of the 27 Member States of the European Union was a turnout of 43%, a drop of 20% in comparison to the first European elections in 1979 (Eurostat, 2013). Even though the trend of decreasing voter turnout in the European was recognized before the completion of the Treaty of Lisbon, the Treaty does not provide grounds to counter this lacking democratic legitimacy (Sieberson, 2008, p. 464). Other sections of this thesis will deal with the attempts of the European Parliament to counter the decreasing voter turnout, but it is important to note that reports like the Anastassopoulos Report (1998) already acknowledge the low voter turnout.

This thesis therefore is socially relevant as it seeks to find factors that could foster a higher turnout in the European elections. Others have already analyzed European elections in relation to voter turnout (Flickinger & Studlar, 2007, pp. 383-384). However, the European electoral system has become more and more harmonized; there is no possibility to find electoral and institutional variables that foster voter turnout if one only focuses on European elections. The total case selection in this thesis, 78 countries, ensures that there is a wide variety of electoral and institutional options covered. The thesis provides a combination of factors that could, in theory, foster turnout in parliamentary elections. Seeing as there is no entity in the world similar to the European Union, the European Parliamentary elections can best be treated as normal parliamentary elections.

2. Electoral systems

Seeing as this thesis takes into account electoral and institutional variables and socio-economic variables and their relation to turnout, it is important to understand the different types of electoral systems. Electoral systems serve a number of functions, "their primary function [is] ensuring the smooth running and accepted legitimacy of the system" (Farrell, 2001, p. 3). Other functions might interfere with each other, like the reflection of the wishes of voters and the creation of strong and stable governments (ibid.).There are three main electoral system families; the plurality-majority systems; the semi-proportional representation systems; and the proportional representation systems. Within these families are the seven electoral systems used in this thesis, three of them are in the plurality-majority system family, three in the proportional family and one in semi-proportional family. This section provides a short but inclusive description of all seven systems, ensuring a full understanding.

Basic definitions

A few basic definitions are helpful before wondering off into the intricate maze of electoral systems. This short description covers constituencies and thresholds. A constituency is an electoral area from which one or more Members of Parliament are elected. The size of this electoral area can vary from very small, covering part of a municipality, to very large and covering the whole country. A constituency (British) is the same as a district (American) or an electorate (Australian) (Farrell, 2001, p. 6). Closely linked to constituencies is district magnitude (DM), this is a measure to indicate the number of MPs to be elected from a single district. In single member constituencies the DM is one, in multi-member constituencies it is more than one (Reynolds & Reilly, 1997, p. 90). The next definition concerns thresholds; "the minimum level of support which a party needs to gain representation, either legally imposed (formal) or merely mathematically de-facto (effective)" (ibid., p. 88). The mere existence of thresholds limits the degree of proportionality.

Plurality-majority system family

The key to this family of systems is that there is a great emphasis on representing 50% plus one of the votes (Reynolds & Reilly, 1997, p. 18). The systems generally favor larger parties, encouraging a two-party system and the possibility of a one-party government (Lijphart & Grofman, Choosing an electoral system, 1984, p. 5). Plurality-majority systems are also aimed to generate a closer relation between the voter and the representative, mostly by election in constituencies which aims to provide a geographical link. Generally the electoral systems in this family are less difficult than their

proportional counter parts (p.7). However, the advantages, disadvantages and characteristics of the systems in the plurality-majority family are best explained per system.

First Past The Post

The first and simplest system in the family is the First Past The Post (FPTP) system. It is also known under the names of 'relative majority', 'simple majority' and 'single member simple plurality'. The key in this system is that one candidate must receive a 'plurality' of the votes in a single member constituency, more than his/her opponents. The simplicity of the system resides in the idea that whoever gets the most votes wins the seat. It is therefore very easy for voters, they simply tick the box next to the name of their preferred candidate and their candidate wins if he has the highest number of votes. Unless the supporters of smaller parties are concentrated in a specific constituency, it are usually the bigger parties that stand a chance in this system (Farrell, 2001, pp. 19-21).

Two arguments in favor of the plurality-majority system family are especially prone in the First Past The Post system; stability and constituency representation. Stability in the sense that this system usually results in one party having a majority in Parliament, which then forms a government. As coalition governments are very rare in FPTP, the voter usually gets to cast a vote with the full realization that he votes for a certain government and a certain policy. Whereas in other systems governments are made up out of several parties, resulting in a consensus among those parties and therefore a consensus policy (ibid). The preference of the system for bigger parties is well illustrated by the 1997 elections in the United Kingdom; The Labour party received a total of 43,2% of the votes, but 63,4% of the seats in Parliament. As opposed to the Liberal Democrats; they received 16,8% of the votes but only 7,0% of the seats in Parliament (ibid., p. 27). However, the system also encourages very broad parties, parties that encompass a wide variety of societal elements. The parties in FPTP tend to have a wide variety of candidates that resemble the population of the constituencies (Reynolds & Reilly, 1997, p. 28)

Constituency representation is a big feature in the First Past The Post system, voters know who represents their constituency and this Member of the Parliament is directly approachable for issues (Farrell, 2001, p. 27). However as can be seen in Table 1, the constituencies in the countries best known for FPTP are not very small. Even when one doesn't take India into account because of its extraordinary size, one Member of Parliament in Canada or the UK represents around 100.000 citizens. Examples of countries with other electoral systems, and other constituency sizes, often show a much more favorable population per seat ratio. This large size of the constituencies is a hint that the link between the constituency and the Member of Parliament might not be very strong (ibid., p. 26).

Table 2.1: Population per seat in Parliament

Country	Electoral system	Population per seat
India	FPTP	2.220.538
Germany	MMP	131.935
Canada	FPTP	108.690
Italy	PR	96.320
United Kingdom	FPTP	95.788
Greece	PR	37.684
Hungary	MMP	25.946
Malta	STV	6.558

Source: eurostat.ec.europa.eu

There are several disadvantages to FPTP, the first and foremost has already been mentioned; the lack of proportionality. However there are more setbacks to this system. FPTP encourages parties to nominate a candidate that is acceptable to the majority of a constituency, it is therefore less likely to have ethnic minorities or women as candidate (Reynolds & Reilly, 1997, p. 30). The system is heavily dependable on the boundaries of districts. If the constituencies are not designed in a proper manner there may be some districts that have a multitude of voters that still elect one Member of Parliament (ibid., p. 31). In practice the First Past The Post system can mainly be found in former colonies of the United Kingdom but not in many other countries. When the eastern countries of Europe became democracies they did not adopt the FPTP, nor did most emerging African countries that did not belong to the British Empire (Farrell, 2001, p. 19). New Zealand adopted the First Past The Post system in 1935, however, they abandoned the system for a more proportional system in 1993; in 1996 New Zealand had its first elections using the MMP system (Norris, 1997, p. 298). Even the United Kingdom itself is considering a change towards a different electoral system (BBC, 2010).

The FPTP system would likely not have a positive effect on voter turnout; the system is less proportional and many votes are 'lost'. Theory tells us that the higher the proportionality the higher the voter turnout will be and FPTP is one of the least proportional systems out there. Nevertheless, the negative effect of the lack of proportionality might be cushioned by the stronger link between a constituency and the Member of Parliament.

Two Round System

The Two Round System (TRS) is also known under the names 'run-off', 'two-ballot' and 'second ballot'. TRS is very similar to FPTP, with some crucial differences. Whereas in the First Past The Post system the candidate in a single member constituency had to receive the plurality of votes, in the Two Round System the candidate has to win the majority of votes. To obtain the majority there are

two rounds of voting on two different days with some time in between the days. The vote in the first round is the same as in the First Past The Post system and if a single candidate receives more than 50% of the votes he/she is directly elected. However, in most cases none of the candidates in a constituency receives a majority of votes, which means that a second round will take place (Farrell, 2001, p. 52).

In the second round there are two options; the majority-plurality option or the majority-run-off option. In the majority-plurality option all candidates that reached a certain threshold run again in the second round. In the best known example of TRS, the French legislative elections, the threshold is 12,5% of registered voters. This creates the possibility that there are more than two candidates in the second round and therefore this majority-plurality option does not guarantee a majority for the elected candidate, as a candidate in the second round only needs a plurality of votes. In practice the second round is nearly always between two candidates because other candidates withdraw from the election in favor of one of the favorites. The majority-run-off option is more straightforward; the two candidates with the highest number of votes progress to the second round. In the second round the candidate with the most votes, the majority, wins (ibid., pp. 53-54). This majority-run-off option is often used presidential elections, like in France, but also in legislative elections, like in the Ukraine (Reynolds & Reilly, 1997, p. 43).

The advantages and disadvantages of the Two Round System are to a large extent the same as the First Past The Post system. The main advantage is that the TRS ensures a broader support or even a majority mandate for the elected candidate (Farrell, 2001, p. 49). It also gives voters the option to rethink their vote or vote more tactically in a second round. A voter can vote for their preferred candidate in the first round and if the candidate doesn't reach the second round choose from 'the best of the rest'. Another advantage of TRS is that a candidate is encouraged in the second round to have a broad program, possibly encompassing the interests of candidates that lost in the first round (Reynolds & Reilly, 1997, p. 44).

Apart from the disadvantages of the FPTP, the Two Round System puts an extra burden on both the authorities and voters. The extra burden for authorities comes from the extra election round they have to organize within short time of the first round, often one or two weeks. Furthermore, the cost of two election rounds is significantly higher than the cost of one election round. The extra burden on voters is a second trip to the voting booths and many voters lose their motivation if their preferred candidate is no longer running. A big drop in voter turnout in the second round is not uncommon (ibid.).

The effect of TRS would most likely be negative; the system is not proportional and asks for extra effort on the side of the voter. Again, theory tells us that proportionality has a positive influence on voter turnout and the Two Round System is not a proportional system. The effect of

disproportionality is likely even strengthened by the second round; people are likely to lose interest if their candidate(s) are out of the race.

Alternative Vote

The Alternative Vote (AV) system is also known as 'preferential voting' and is similar to the First Past The Post system, the major difference is that voters rank the candidates instead of picking one favorite (ibid., pp. 37-38). Voters rank candidates according to their preference, assigning a '1' to their favorite, a '2' to their second favorite and so on. All candidates must be ranked or the ballot form is invalid (Farrell, 2001, p. 56). When it comes to determining the result of the elections, the first determinant is the first preference of all voters. If a single candidate in the single member constituency receives a majority of the votes he/she is directly elected. When there is no majority for one candidate, the system excludes the candidate with the lowest amount of votes. The ballots where the dropped candidate was ranked '1' are now distributed to the second favorite on the ballot, the number '2'. The votes are counted again and if there is no majority again the process repeats itself until a single candidate reached a majority (Lijphart, 1999, p. 147). The AV system is therefore a majority system, an absolute majority is needed not just a plurality (Reynolds & Reilly, 1997, p. 38).

Apart from many similar advantages and disadvantages as the First Past The Post system, AV has some specific pros and cons. An "advantage of transferring ballots is that it enables the votes of several aligned candidates to accumulate, so that diverse but related interest can be combined to win representation" (ibid.). Furthermore, voters have to assign their preferences all at once, there is no option to first see who progresses to a second round as in the TRS (Gay, 1998, p. 65). Another advantage is that the candidates are encouraged to make themselves acceptable to a very broad section of voters; second, third or if there are more candidates even eighth preference might make the difference (Reynolds & Reilly, 1997, p. 38). One of the main disadvantages is the lack of transparency; voters generally don't know where there vote will end up. If there are eight candidates the vote might end up being counted for the former last preference, effectively leading to support of a candidate that the voter does not want to elect (Gay, 1998, p. 65). Finally, AV is not as simple as FPTP; voters require a degree of literacy and numeracy (Reynolds & Reilly, 1997, p. 38).

In comparison to the other two majority-plurality systems the AV system is leaning in a more proportional direction; the system still is not considered proportional and therefore is still expected to have a negative influence on voter turnout but less than the previous two systems. The lack of transparency might lead to lower turnout thought as people do not know for who their vote eventually counted.

Semi-proportional representation system family

As the name of the family suggests, the semi-proportional representation system family is a step towards proportional representation systems. “They make life a bit easier for small parties” (Farrell, 2001, p. 45). The systems in this family allocate the seats in such a way that they are somewhere in between plurality-majority systems and proportional representation systems. The best known semi-proportional system is the parallel system, which is dealt with in more detail below (Reynolds & Reilly, 1997, p. 51). There are more semi-proportional systems, like ‘Single Non-Transferable Vote’, ‘block vote’, ‘limited vote’ and ‘cumulative vote’. However, these systems are only marginally used or mostly used in the past (Farrell, 2001, pp. 44-45). When these other semi-proportional systems occurred in the data set used for this thesis they were categorized as ‘other’.

Parallel system

The parallel system is not as black and white definable as for instance the First Past The Post system; there are many different combinations in parallel systems. Because that is what a parallel system is; a combination of two other systems. Usually it is a combination of a system from the plurality-majority system family and the proportional representation system family. It can for instance be a combination of FPTP single member constituencies and proportional representation in multimember or national constituencies, which is the case in South Korea. It can also mean a combination of TRS single member constituencies and the proportional representation multimember districts, like in Lithuania. Basically any combination of plurality-majority and proportional representation systems is possible. Taiwan even uses a combination of a semi-proportional system and a proportional system; Single Non-Transferable Vote and PR (Reynolds & Reilly, 1997, p. 55).

The balance between the two systems in any combination depends on the country. In some countries 50% of the seats are allocated through the disproportional system, and 50% through the proportional system. Others only allocated a small percentage of seats through one system, mainly using the other system (ibid., p. 56).

The advantages and disadvantages of a parallel system largely depend on the combination of systems used. Nevertheless, the parallel systems tend to award seats to parties that did get a substantial part of the vote but did not manage to win a constituency. Depending on the number of seats allocated through proportionality, the parallel systems still don’t always include small parties. A parallel system also leads to two classes of Members of Parliament; some receive their mandate from districts, others from the proportional system. The biggest disadvantage of a parallel system usually is the complexity of the system. Proportional representation systems tend to be more complex, but combining this with plurality-majority systems creates an even more intricate election (ibid.).

The parallel systems are likely to have a rather positive effect on voter turnout; they are relatively proportional but still incorporate benefits from majority-plurality systems. Positive effects are however likely to be repressed by the high complexity of the systems. Theory tells us that if people have a hard time understanding how the system works they are less likely to actually vote; they often do not know what happens to their vote.

Proportional representation system family

The systems in the proportional representation system family aim to mirror the division of votes into a division of seats. Systems in this family are often used in Western European countries and in Latin America (Lijphart, 1999, p. 150). Generally the system uses multi-member constituencies that either span a certain region or the whole country. The ballot is usually more complex than the plurality-majority systems, it is certainly more complex than the First Past The Post system. When it comes to the results of the elections in the proportional representation family a formula is used to divide the seats, usually either the 'highest average' or the 'largest method' formula (Reynolds & Reilly, 1997, p. 60). Diversity and full representation of all votes casted are key in this family. Similar to the explanations concerning the plurality-majority system, the advantages and disadvantages are best explained for each separate system.

List Proportional Representation

List Proportional Representation (List PR) is not one straightforward system, there are many variables in List PR that can differ from country to country. Basically the system boils down to voters being able to vote for a candidate on an electoral list within a constituency. The electoral list is usually assembled by a political party and the constituency is usually multi member.

In some case the multi-member constituency covers a region of a country, sometimes it covers the entire country in one nationwide district (Farrell, 2001, pp. 68-69). A List Proportional Representation system becomes more proportional as the constituency becomes larger. One national constituency is therefore more proportional than several multi-member districts in a country (ibid., p. 79).

Within the constituency/constituencies the way the candidate lists are formulated by the parties can differ from system to system. In some countries there are 'closed' lists, whereas other countries use 'open' lists in the constituencies. In a closed party list system, the party formulates a list of candidates of its own party in a specific order, the voter can only vote on the list as a whole. The seats are awarded in the order of the list. In an open list system the parties still formulate a list in a specific order, however voters have to vote on a specific candidate within the list. Because of the votes on individual candidates the ranking of the candidates on the list can change, a candidate put

on a low position by the party could still be elected if he/she receives enough votes. The seats are divided according to the percentage of votes between the parties (Lijphart, 1999, p. 147).

The advantages and disadvantages of the List PR systems are nearly completely the opposite of the majority-plurality systems. The list systems ensure an inclusive and proportional representation of all significant groups in a country. At the same time there are far less 'wasted' votes; there is usually no exclusion of candidates or lists that received a significant amount of votes. Furthermore, the systems "encourage parties to present inclusive and socially diverse lists of candidates" (Reynolds & Reilly, 1997, p. 62). Inclusion of women and minority groups in these diverse lists is fostered by the system as any vote counts. List PR systems are also argued to have a better effect on governmental longevity and economic performance. This is due to the coalition governments which usually have to be formed, instead of two opposing ideology governments that cancel out each other's plans in the long term (ibid., pp. 62-64). Due to the dependence on lists instead of individual candidates, the headquarters of political parties have a great degree of control (Farrell, 2001, p. 95).

There are of course also disadvantages; mainly focusing on the coalition governments and a lack of geographical affiliation. Due to the bargaining nature of coalition governments they are less likely to take quick and coherent measures. The system also encourages the existence of small parties, small parties that might be needed for coalition governments and therefore hold a great deal of power. It is also less likely that voters are able to vote coalition governments away (Reynolds & Reilly, 1997, pp. 65-66). The system is also less transparent and more complex than many other systems (Dahl, 1998, p. 136). Finally, because there are no single member constituencies there is less direct regional representation. Especially in rural areas and developing democracies this can be considered a disadvantage (Reynolds & Reilly, 1997, p. 66).

The List PR system is likely to have a very positive effect on voter turnout; when it is applied in a national constituency it is the most proportional system there is. Voters tend to have the idea that their vote actually counted and hardly any votes are 'lost'. Nevertheless, the effect is likely slightly cushioned by the consensus seeking coalition governments that are often formed in countries using this system.

Single Transferable Vote

The Single Transferable Vote (STV) system combines proportional representation and constituency representation (Farrell, 2001, p. 121). STV requires multi-member constituencies, within these constituencies the voters have to rank the candidates with the most preferred candidate as number one. The system reminds of the Alternative Vote system, as the ranking is done in the same way. In AV all the candidates have to be ranked on the ballot, in STV the voters are not obliged to do so. They

have the possibility to only indicate one preference (Reynolds & Reilly, 1997, p. 83). After all votes are cast, the distribution of seats takes a number of steps. First a quota is set, the number of votes is divided by the number of seats plus one. Any candidate that receives enough votes to reach the quota plus one is directly elected. If no candidate reached to quota, the candidate with the lowest amount of votes is dropped. The votes cast for him/her are redistributed along the second preferences indicated on the ballots. Simultaneously, if a candidate already reached to quota and was therefore directly elected the excess votes are also distributed along the second preferences (Gay, 1998, p. 74). These excess votes are not counted as full votes, like the votes stemming from the dropped candidate. The worth of the excess votes is calculated through a formula taking into account the amount of surplus votes. Seeing as STV takes place in multi-member districts the steps are repeated until all seats are distributed (Reynolds & Reilly, 1997, p. 83). It is important to note that due to the quota the system becomes more proportional if the number of seats for a district is larger. In the Irish case the size of constituencies differs from three to five seats, whereas in the Australian upper house elections some constituencies contain as much as twenty seats (Farrell, 2001, pp. 129-130).

The advantages of Single Transferable Vote are quite predictable after the discussion of Alternative Vote and List Proportional Representation. The system combines a decent bit of proportionality and a geographical link between the candidates and the voters. It also provides voters the possibility to choose from several candidates from the same party or vote across party lines. The chances of minority representatives, women or independent candidates are also raised because the system does not rely on lists or single member constituencies. However, similar to AV the system does require some knowledge of literacy and numeracy and it is not simple (Reynolds & Reilly, 1997, p. 84). Some aspects of STV also ask for a precarious balance; the size of multi-member constituencies should be large enough to foster proportionality but small enough to not overwhelm voters with the amount of candidates. A practical worrisome fact is the fact that STV is only used in small countries, with the exception of Australia for upper house elections. The worry is that the system might work well in small countries but is not applicable in larger countries (Farrell, 2001, pp. 139-152).

Similar to the other proportional systems the effect on voter turnout is expected to be positive. The effect is expected to be strengthened by the possibility to vote across party lines, unlike the List PR system the voter is not bound by the lists of a certain party. Complexity and difficulty in the application of the system design might end up softening the effect.

Mixed Member Proportional system

At first sight the Mixed Member Proportional (MMP) system seems to be a parallel system and it should therefore be categorized as part of the semi-proportional representation system family. However, in MMP the Proportional Representation lists compensate for disproportionality in the constituencies (Reynolds & Reilly, 1997, p. 55). The system is also known as 'additional member', 'compensatory PR', 'personalized PR' or 'two-vote'. MMP consists of two dimensions; one dimension is usually a First Past The Post election, the other is usually a List Proportional Representation election (Farrell, 2001, pp. 97-98). The countries that use MMP have single member constituencies in which the First Past The Post system is used to determine who wins the seat. However, the district seats only make up a part of the Parliament, the other part of the seats are allocated in a proportional way. Voters therefore have two votes; one in the district and one on a national List PR system. If for instance a party does not win in a single constituency but it does nationally receive 10% of the votes the proportional seats are used. These seats are used in such a way that the national result is proportional, in the example the party with 10% of the votes would be represented in Parliament with approximately 10% of the seats (Reynolds & Reilly, 1997, p. 74).

The result of MMP is a combination of constituency representation and a high level of proportionality. Seeing as the finally representation in Parliament is completely proportional, this system therefore has the same advantages and disadvantages as the List PR system. Apart from that Mixed Member Proportional creates two classes of Members of Parliament, one representing the districts, the other the whole nation. It is however more complex than the List PR systems as the vote for the constituency is less important than the vote on the List PR system; the representation in Parliament will be proportional and the larger number of seats are therefore depending on proportionality (ibid., pp. 74-75).

The Mixed Member Proportional system is expected to have a positive effect on voter turnout, although less positive than the other two proportional systems. Still, MMP is a proportional system which has a positive effect. This effect is expected to be diminished by the high complexity of the system and the relative unimportance of the constituency vote.

New Zealand example

The previous sections dealt with the different electoral systems used in the countries in the dataset for this thesis, this section provides an example of the impact an electoral system can have. New Zealand used the FPTP system since 1935 but in the 1990s the need grew for electoral reforms. Wanting to get the input of the citizens of New Zealand the government organized two referendums, one in 1992 and one in 1993. The first covered the question whether the country should get rid of the FPTP system and the second covered the question of which system to use. As a result the

electoral system was officially changed to Mixed Member Proportionality in 1993 and used for the first time in 1996 (Norris, 1997, p. 298). The main reasoning behind moving away from FPTP is the lack of proportionality in this system (Lijphart, 1999, pp. 22-25).

Table 2.2 shows the voter turnout of the six parliamentary elections using MMP and the six preceding parliamentary elections using FPTP. On average the six MMP elections resulted in a turnout of 80,67% and the six FPTP elections in 87,91%. New Zealand has not used compulsory voting in any of these elections. It is striking that the voter turnout has decreased after the change to the MMP system, due to the increased proportionality a positive effect could have been expected. Nevertheless as mentioned before, the voter turnout percentages were not the concern of New Zealand; the country simply wanted a more proportional system.

Table 2.2: Voter turnout New Zealand

Year	Voter turnout (%)	Electoral system
2011	74,21	MMP
2008	79,46	MMP
2005	80,29	MMP
2002	76,98	MMP
1999	84,77	MMP
1996	88,28	MMP
1993	85,20	FPTP
1990	89,06	FPTP
1987	93,71	FPTP
1984	91,44	FPTP
1981	84,90	FPTP
1978	83,17	FPTP

Source: IDEA, voter turnout data for New Zealand

3. Variable selection

Whereas Chapter Two provided an overview of the most commonly used electoral systems, Chapter Three focuses on voter turnout itself and the factors influencing that turnout. The first section of this chapter provides an overview of the development of voter turnout research from 1980 to 2012. The eight used texts cover a wide spectrum of different angles and approaches, taking into account industrialized and non-industrialized countries, national elections and European elections and different theoretical approaches to the turnout question. The second section presents the ten variables chosen for this particular thesis, explaining the reasoning behind the choice. Finally the operationalization of the ten variables places them in the framework created in the method section of Chapter One.

Voter turnout

The following section covers eight publications concerning voter turnout. One by one the texts main lines of the texts are presented and placed into context with the preceding texts, starting with the oldest, stemming from 1980, to the youngest, published in 2012. Each of these publications contains an element of research into differences of voter turnout. To a certain extent there is a consensus that especially compulsory voting has a big effect on voter turnout, however economic and social factors should not be ignored. The discussion of these eight texts serves as a base for the determination of variables in the next chapter, it is like standing on the shoulders of giants, *nanos gigantium humeris insidentes*.

Throughout the discussion of the eight publications it is interesting to pay special attention to the in- or exclusion of several variables. The variables of interest are of course the ones that will be used in the analysis of this thesis; compulsory voting, the electoral system, political parties and to a lesser extent the district blueprint and a threshold. Especially the first three are mentioned in several texts, as are the socio-economic control variables.

Even though there are certainly older publications then the chapter by G. Bingham Powell Jr. (1980) by other authors, like Agnus Campbell (1966) and Richard Rose (1974), the eight presented here show the development of voter turnout research in the past decades. The authors of the used publications are respected scientists and often cited by other authors, which is always good combination for an overview of developments in a certain field. For each of the texts I will start with the setting of the research performed, present the factors they used and finally mention possible conclusions.

Starting with the chapter written by G. Bingham Powell Jr. This author conducted a comparative analysis of thirty democracies, looking at the national elections . Powell presents a clear

legitimation of his research, he stresses that it is important to know the factors influencing voter turnout because the voters determine the winners in democracies. This might sound very simplistic, but the reasoning is solid; some people will go to vote and thereby influence politics, others will choose to stay home. If a certain group of people is likely to show up, their influence rises (Powell, 1980, p. 5)

Powell distinguishes six factors that might influence voter turnout, based on partisan, legal and socio-economic grounds. The first is whether it is obliged to vote in the democracy and if there is a penalty for not voting. The latter has to be kept in mind as there are some cases where it is officially forbidden not to vote but the state does not enforce this with penalties. The second factor is the design of the registration law. In some countries voters are automatically eligible to vote whereas in others they have to register first. The third factor is the blueprint of the constituency. Powell combines both the constituency size, being single member districts or large multimember districts, and electoral formula in this factor. The electoral formula in this regard entails the possibility of proportionality or other formulas like first-past-the-post or single-transferable-vote. The fourth factor is the alignment of political parties and their position to cleavages within the democracy. The fifth factor is the level of competition among political parties, which hints at the number of parties in the democracy. Powell suggests a higher level of competition in a two party democracy than a multiparty democracy. The final factor in this research is a combination of economic development and social modernization. This factor is basically used as a control variable as it is not linked to the electoral system (ibid., pp. 9-24). The conclusion arrived at by Powell is that "linkages between parties and cleavage groups, the presence of successful party competition, automatic registration, and compulsory voting account for nearly 75 percent of the variance in turnout" (ibid., p. 26). He therefore states that four out of his six factors are of influence and he makes a side note that although the influence of compulsory voting is important, it is the least important of the four.

Seeing as the text by Powell is the first in this section there is no way to compare it to the others, it is possible to distinguish some striking features. The first and far most important feature is the importance Powell accredits to alignment of parties and cleavage groups. The operationalization of alignments of parties in thirty countries has to be done precariously to prevent subjective criteria. Powell remains quite vague as to how he exactly measures this variable, the variable that turns out to be one of the most influential on voter turnout. Secondly the case selection is rather trivial; the author does not provide a valid reasoning for his selection.

The next publication is a contribution by André Blais and R.K. Carty to the European Journal of Political Research in 1990. These authors focus themselves on one specific aspect concerning turnout, they ask themselves if "proportional representation really foster[s] higher levels of

turnout?" (Blais & Carty, 1990, p. 167). Blais and Carty therefore perform a large N research in which they use the records from 509 national elections in 20 different countries. Seeing as the research question is specifically looking for the influence of proportional representation the authors have distinguished one main variable and several control variables. The main variable is the electoral formula in the democracy, being proportional representation, majority representation or plurality representation. The control variables all deal with other aspects of the electoral system. The first control variable is the structure of the constituencies; the second is the possibility of compulsory voting; the third covers whether the country has a unicameralist system or bicameralist; the fourth is the time that has passed since the introduction of universal male suffrage; the fifth the time since universal female suffrage; the sixth the possibility of federalism; the seventh the possibility of direct presidential elections. Blais and Carty also define four intervening variables; political party competitiveness; electoral disproportionality; number of parties and one-party majority government (ibid., pp. 169-174).

The conclusion presented by Blais and Carty is that controlled for the other variables the electoral formula does have a significant effect. A plurality formula scores seven percentage points lower in turnout and a majority formula scores five percentage points lower than proportional representation (ibid., p. 179). Nevertheless, the authors stress that there is a powerful time period effect, with some periods showing significantly higher or lower turnouts.

In comparison to the Powell text, the publication by Blais and Carty a completely different approach with less countries but more cases. The starting point is also quite different as Blais and Carty focus on the electoral system and only use other variables as control or intervening variables. Most interesting is the notion that the time period factor is of major importance; the authors are among the first to introduce the time element in voter turnout research in such large quantities. A final striking feature of the Blais and Carty text is that they do not agree with Powell when it comes to parties and cleavages.

The third publication is a dissertation by Erik Oppenhuis (1995) on voting behavior in Europe. Oppenhuis is divided into two parts, one dealing with electoral participation, the other with party choice. The first part is of interest for this thesis as Oppenhuis elaborates on who does and who does not vote and he distinguishes individual characteristics and country characteristics. Characteristics are in this case the same as factors or variables were in the previously discussed publications. The author here does not perform research with thirty democracies as cases or a large number of national elections; he analyses the 1989 European elections. These elections were held throughout the 12 member state European Union, but were not standardized. Each country had elections under its own national electoral laws (Oppenhuis, 1995, pp. 13-18).

Oppenhuis distinguished seven individual characteristics and eleven country characteristics. The individual characteristics defined the individual voter, making it possible to see if certain groups of individuals were more likely to vote without taking the electoral system into account. These characteristics are social class, religion, age, gender, size of town, attitude towards the EU and general political orientations. The country specific characteristics cover the electoral system and political and social context. These characteristics are compulsory voting, Sunday voting, the electoral formula, number of parties, party competition, complexity of party system, satisfaction with democracy, percentage of union membership, percentage of working or middle class people, percentage of lowest educated people and finally the standard of living (ibid., pp. 21-36). Oppenhuis arrives at the conclusion that in the individual characteristics age is the most important factor, followed by political orientation (ibid., p. 66). When it comes to the country characteristics compulsory voting, the electoral formula and Sunday voting are the most important factors (ibid., p. 85).

The first observation that can be made when one compares the Oppenhuis text to the previous publications is that the setting is significantly different; European elections held under the framework of the national electoral laws. This setting is particularly interesting for anyone interested in possible changes to the current European electoral system, simply because the 1989 elections could show impacts of different systems on European turnout. Oppenhuis also includes the individual characteristics of voters. Although this is interesting from a theoretical point of view, these characteristics are not of importance for academics concerned with raising voter turnout.

The next publication is a chapter by Mark Franklin, Cees van der Eijk and Erik Oppenhuis (1996) in the book *Choosing Europe? The European Electorate and National Politics in the Face of Union*. These authors want to find out what the determinants of turnout are, with the goal in mind to determine if changes to the European electoral system for the European Parliament would be useful (Franklin, Eijk, & Oppenhuis, 1996, p. 307). Similar to the previous publication, these authors use the 1989 European elections for their research. They then check their findings by testing the expectations on the data from the 1994 European elections. The variables used in this research are; the electoral formula, the votes/seats ratio, compulsory voting, Sunday voting, education levels, age, cleavages, number of parties, competitiveness of parties, complexity of the system and the adequacy of representation. The authors come to the conclusion that compulsory voting and the electoral system are the most important factors, followed by Sunday voting (ibid., p. 328).

A striking difference between the Franklin, Van Der Eijk and Oppenhuis chapter and the Oppenhuis dissertation is the exclusion of individual characteristics. To a large extend the research is rather similar which is not surprising as the chapter of the three authors seems to be largely based on the dataset of Oppenhuis' dissertation. In comparison to for instance Powell, the authors of this

chapter are much more convinced of the influence of compulsory voting and support the findings of Blais and Carty concerning electoral systems.

A contribution to the European Journal of Political Research by André Blais and Agnieszka Dobrzynska (1998) is the next publication. Blais and Dobrzynska performed a large N research in which they covered 91 countries. In their study they analyzed 324 democratic national lower house elections in the period 1972-1995. Seeing as they did not confine themselves to western democracies, they picked the 91 democracies based on the rating of the Freedom House. Blais' and Dobrzynska's text revolves around the question "when and where is turnout highest and lowest and why?" (Blais & Dobrzynska, 1998, p. 239). The authors came up with three categories of variables; socio-economic variables, institutional variables and party system variables. The first category contains the Gross National Product (GNP) per capita, growth of GNP per capita, average life expectancy, degree of illiteracy, size of population, and density of population. The second category contains the possibility of compulsory voting, voting age, the electoral formula, the decisiveness of elections and the degree of democracy. The final category contains the number of parties and the competitiveness (ibid., pp. 241-249). Blais and Dobrzynska arrive at the conclusion that a great number of factors influence the turnout; "economic development, degree of illiteracy, population size and density, the presence or absence of compulsory voting, voting age, the electoral system, the closeness of the electoral outcome and the number of parties" (ibid., p. 251). Each of these variables separately only marginally influences turnout but together they have large impact.

In comparison to any of the before mentioned texts the Blais and Dobrzynska publication is very extensive; the number of countries and elections is much higher. What is noteworthy for the results presented later in this thesis is that several socio-economic factors are found to be influential in the Blais and Dobrzynska text. The authors also continue to reinforce the findings of other authors that compulsory voting and the electoral system are influential factors, although they do not consider them to be of great individual importance.

Mark Gray and Miki Caul (2000) wrote the next publication as a contribution to the journal Comparative Political Studies. These authors focus on industrialized democracies, making a cross sectional analysis of 18 of them over the period 1950-1997. Gray and Caul analyzed national elections for their research. Seeing as they have taken 18 industrialized democracies a number of institutional factors have remained the same and have therefore been left out of the analysis by the authors. The factors incorporated in this study are the number of parties, the level of competition, inflation, economic growth, education (higher education), age & age limit to vote, strength of unions, female suffrage, federalism, direct presidential elections, electoral disproportionality and the possibility of a one-party majority government (Gray & Caul, 2000, p. 1112). Gray and Caul concluded that a large number of factors has influenced voter turnout in the industrialized democracies. Most

important to them is that "factors affecting and shaping group mobilization have been vitally important in sustaining historical levels of aggregate voter turnout" (ibid., p. 1113).

Remarkable in the Gray and Caul text is the specific choice for 18 industrialized democracies and the assumption that a number of institutional factors has not changed in these countries. By focusing the research on industrialized democracies and ignoring the institutional factors the results of the research are not easily generalized. Gray and Caul take a rather different approach than the other texts and stress group mobilization as the key to higher voter turnout. Striking is the lack of similarities with other voter turnout research.

The next publication is a text by André Blais and Kees Aarts (2006). These two specifically look at the Netherlands and make a comparison to Europe. They state that it has been shown that "turnout is substantially higher under PR, under larger district magnitude, and under more proportional systems in general" (Blais & Aarts, 2006, p. 180). However, they seek to find out how and why these factors foster higher turnout rates. In doing so they take a critical look at the following factors; the electoral formula, district size, disproportionality, number of parties, party mobilization and the ballot system. Blais and Aarts focused their research on national elections. And although they mainly deal with Europe, they also use literature sources to present an unexpected result in electoral turnout studies; turnout in democracies in Latin America do not seem to be fostered by the same variables as their counterparts in Europe or elsewhere in the world (ibid., pp. 185-193).

Blais and Aarts take the importance of the electoral system for granted and use a number of electoral or institutional variables. Remarkably they do not include compulsory voting in their analysis, a factor that is considered to be of importance by many authors. The most noteworthy result of the two authors is the difference in results between Europe and other parts of the world, introducing a possible concern for the analysis of the dataset used in this thesis.

The eighth and final publication in this part of the chapter is a recent contribution by Nils Steiner and Christian Martin (2012) to the journal West European Politics. The authors have used aggregate-level data from legislative elections in 24 developed democracies for their study. They aimed to find out if economic integration has a negative effect on voter turnout (Steiner & Martin, 2012). Steiner and Martin took variables to determine whether economic integration has an effect or if it can be ruled out due to control variables. The variables used are; compulsory voting, registration procedures, time since introduction of universal suffrage, voting age, effective electoral threshold, real GDP per capita, population size, voting age population, margin of victory, effective number of parties and the total public spending to GDP (ibid., pp. 240-246). The authors came to the conclusion that economic integration has an indirect negative effect on voter turnout, as it has a negative effect on party polarization which in turn negatively affects voter turnout (ibid., p. 260).

Similar to the Gray and Caul text Steiner and Martin use only select number countries, 24 developed democracies in this case. Although at first sight this could be seen as a limitation to the generalization power of the results, the approach is much more sophisticated than the Gray and Caul text. Steiner and Martin use developed democracies to be sure that there is a fully functioning and established democratic system which enlarges the possibility to find influential factors apart from electoral and institutional factors. Interestingly the authors partly come to the same conclusion as Powell did in 1980; the party polarization or cleave positioning is quite influential.

Altogether the roles of compulsory voting, the electoral system and political parties are still debated, as are the roles of several socio-economic variables. Especially concerning the European Union and European elections there is still a large shaded area, a shaded area on which this thesis will shine a light.

Although the approach taken in this thesis is largely based on, and therefore similar to, the eight before mentioned texts there are many differences. The combination of the variables used here is not used in the literature nor is the combination of cases used. Similar to Blais and Dobrzynska (1998) there is no confinement to the western democracies, industrialized countries or Member States of the European Union; a worldwide approach is taken. Furthermore, this thesis takes into account the most recent parliamentary elections in each of the countries. It is therefore a snapshot of the current state of affairs, whereas others like Gray and Caul (2000) take a long term approach. The benefit of the snapshot is that the data are very recent and the effects of the variables are not affected by different time periods. A similarity to several of the more recent texts is that this thesis does take socio-economic factors into account as control variables.

Variables

The preceding section, covering previous research in the field of voter turnout, contains a large number of different possible variables. Not surprisingly many of the mentioned factors can be led back to the description of the different electoral systems in Chapter Two. In determining the variables used in this research the previous research plays a big role, as does the knowledge of the different electoral systems. Seeing as the scope of this thesis does not provide the possibility of including all the variables mentioned in the eight discussed texts it is not possible to simply copy all the variables and their justifications. A selection of variables is needed, narrowing the number of variables down to only ten. Ten variables is the maximum amount that can be used because there is only a limited amount of cases, 78 to be precise. The overview of the chosen variables is presented in Table 1, making a distinction between electoral and institutional variables on one side and control variables on the other. To not complicate the further discussion of variables the electoral and

institutional variables are dealt with as being electoral variables, simplifying sentences throughout the thesis.

Table 3.1: Overview of variables

Electoral and institutional variables	Control variables
Compulsory voting	Years since universal suffrage
Electoral formula	Federalism
District blueprint	Degree of literacy
Parties	GDP per capita
Electoral threshold	Unemployment

The goal of the statistical analysis in this thesis is to find the best combination of electoral factors to foster the highest possible turnout in Parliamentary elections. Not surprisingly there is a need for several electoral variables. There is a consensus in the academic world that certain factors have to be taken into account when researching voter turnout, as can be derived from the previous section. The first variable that is considered to be of great importance is compulsory voting. Powell (1980) already indicates that it is of importance whether there are penalties for not voting and nearly all of the other included authors deal with penalties and compulsory voting to some extent (Powell, 1980, p. 9; Steiner & Martin, 2012, p. 240). The academic justification for the inclusion of compulsory voting is therefore very clear. In the dataset for this thesis there are forteen countries which have compulsory voting, six of which enforce the obligation with penalties. Seeing as this is nearly one fifth of the cases it is certainly worth looking into. When it comes to the relevance in relating compulsory to the European Parliament the picture is somewhat more complex; the introduction of compulsory voting for European elections would most likely not be received in a positive manner in most European countries. The relavance to the European Parliament is further discussed in Chapter Five.

The second variable, the electoral formula, is also a factor that is nearly always included in research conducted in the area of voter turnout. The level of proportionality or a majority-plurality approach is the minimum of what is included (Blais & Carty, 1990, p. 169). Other authors included the diverse electoral systems, from First Past The Post to Proportional Lists (Franklin, Eijk, & Oppenhuis, 1996, p. 328). Seeing as the differt authors include this variable in one way or another, it can certainly not be excluded from this thesis. The only question is in what form the variable should be used; a general approach which only includes the level of proportionality or a specific approach which includes the different electoral systems. Chapter Two already includes a description of the main electoral systems, the question which form of electoral system variable I chose is therefore already known. The motivation for this stems from the link which is to be made to the European

elections. For possible reforms it is usefull to be more specific than to simply indicate a certain level of proportionality. When we look at the dataset the Proportional List and the First Past The Post systems make up 69,2% of the cases. This indicates that the other systems, and therefore the gradations between proportional and plural-majoritarian, make up a large portion of the cases.

Other electoral variables that are often used by in research in the field of voter turnout are statisfaction with the degree of democracy (Oppenhuis, 1995, p. 15) and the ballot design rules (Blais & Aarts, 2006, p. 186). The registration laws that are included by Powell revolve around the question whether citizens should register to be able to vote or if this should happen automatically. Although this variable is used in several texts, the conclusion is that the influence on voter turnout is very limited (Steiner & Martin, 2012, p. 260). The degree of statisfaction with democracy or politics might be an interesting and influencial variable, however there is no data available on a large number of countries in this dataset. Finally the ballot design rules as used by Blais and Aarts (2006) focus on the techniques used to draw up lists that can be used in list based electoral systems. The problem with this variable is that it is not applicable in electoral systems that do not use lists, such as the First Past The Post system.

There are three other electoral variables that are included in this thesis; the district blueprint, the number of political parties elected and the electoral threshold. The district blueprint variable is not as often used as compulsory voting and the electoral system but still pops up in several texts. Some only distinguish between single and multi member constituencies (Powell, 1980, pp. 9-10), others look at the size of the districts (Blais & Carty, 1990, p. 169) and then there are some that do not specify a constituency factor but include it in the electoral system factor (Blais & Dobrzynska, 1998, p. 252). In this thesis the district blueprint variable is similar to the variable used by Powell, however there are more distinctions made. I deal with two extra possibilities. The first is a variation on the multi member constituencies; a distinction is made between multi member constituencies and national constituencies. This distinction is of importance in the light of the link with the European Parliament and the possibility of pan-European lists, as this would entail one pan-European multi member constituency. The other extra possibility is a mix between single member and multi member districts, simply because this is the reality in some countries.

Some research in the field of voter turnout also includes the party landscape, either in the form of competition among parties (Oppenhuis, 1995, pp. 24-25) or the number of parties (Steiner & Martin, 2012, p. 243). The latter form also includes the other competion among parties to a certain extent. The reasoning behind this is that if the number of parties in a democracy increases there is more to choose from and the parties will have to compete more with each other for the votes (ibid.). In this thesis I include the number of parties variable but I use a twofold approach. On the one hand the number of parties running in the elections gives an indication of the supply side in the political

spectrum; the larger the number of parties running in elections the more competition there is (ibid.). On the other hand the number of parties making it into the Parliament indicates the degree to which voters actually use the possibility to choose from a large spectrum of parties (ibid., p. 245).

The last electoral variable is the electoral threshold, the mimimum amount of votes or pecentage of votes that a party needs to be respresented in Parliament. In some texts a threshold is not used as a separate variable but rather included with an overall judgement of the level of proportionality (Gray & Caul, 2000, p. 1112). The reason why Steiner and Martin include the threshold as a sparate variable is that it is "an indicator of the electoral system's inherent bias against smaller parties" (Steiner & Martin, 2012, p. 249). For this reason, and because a threshold is realatively easily altered, the threshold variable is also included in this thesis.

Choice of control variables

The reasoning behind the choice of the control variables is less extensive, but just as important as the choice of electoral variables. As can be seen in Table 1 there are five control variables, all of them aimed to control the analysis for socio-economic influences. The reasoning for the inclusion of socio-economic variables is the diversity in the socio-economic situation of the cases. Timor-Leste has a rather different situation than for instance Luxembourg; Timor-Leste has a GDP per capita of $502,- whereas the GDP per capita of Luxembourg is $10.0541,- (Worldbank, 2013). Blais and Dobrzynska stress that any research in the field of voter turnout should include socio-economic variables, if the used cases are not socio-economical homogenic (Blais & Dobrzynska, 1998, p. 240).

The first and the second control variables are more along the lines of institutional variables but are often grouped with socio-economic variables. The first of the control variables is the amount of years since universal suffrage, giving an indication of the 'maturity' of the democracy. Steiner and Martin stress that as the amount of years since the introduction of universal suffrage increases the electoral turnout in several systems (Steiner & Martin, 2012, p. 254). The second control variable is whether the country has a federal structure or not. "In [federal] systems the national legislative assembly has less power than do those in unitary systems since authority is divided and shared with provincial or state legislative assemblies" (Blais & Carty, 1990, p. 171). Federalism could therefore have a negative effect on turnout.

The third control variable is the degree of literacy. This variable is included partly to incorporate the level of education in a country and partly because of previous research. Previous research shows that a certain level of literacy is needed to be able to vote, the necessity differs from electoral system to electoral system but there is a bare minimum requirement (Blais & Dobrzynska, 1998, p. 242). A low degree of literacy would therefore translate into a lower turnout.

The fourth and fifth control variables are meant to illustrate the economic situation in the country. The GDP per capita gives a general sense of the wealth of the citizens of the country, with a lower GDP per capita indicating a worse economic situation then a high GDP per capita. This variable is included to control if the economic dissatisfaction of a population might increase turnout, possibly because of the wish to make changes to the policies of a government (Steiner & Martin, 2012, p. 249). The final control variable is the level of unemployment. Similar to the GDP per capita variable the goal of this variable is to illustrate possible dissatisfaction with economic policy and overall policy in a country. If a country has a high unemployment level this is generally a negative sign of the economy (Gerber, Green, & Larimer, 2008, p. 34). However, where GDP per capita is rather rigid and only changes marginally from year to year, the unemployment rates are much quicker in responding to the economic situation in a country. Both variables control the analysis of voter turnout for the effects of the economic situation in countries.

Operationalization

As set out in the section reviewing academic work in the field of electoral turnout, there are a large number of possible variables that could influence turnout. Each of the authors chooses a number of variables and defends why he does so, I have performed this in the previous section. This section focuses on the operationalization of those chosen variables, all ten of them. The ten variables are shown in Table 1, which gives an overview of the electoral variables and the control variables. Table 2 provides an overview of the setup of the data set, showing the statistical variables, values and measurements that are used in the operationalization of the variables mentioned in Table 1.

Number	Variable	Values	Measure
Dependent	Voter turnout	Percentage	Scale
1	Democracy Index Grade	Grade	Scale
2	GDP per Capita	Current US$	Scale
3	Degree of literacy	Percentage	Scale
4	Number of parties participating	Number	Scale
5	Number of parties reaching parliament	Number	Scale
6	Years since Universal Suffrage	Number	Scale
7	Unemployment	Percentage	Scale
8	Year of elections	Year	Nominal
9	Type of elections	Presidential or Parliamentary	Nominal
10	Number of Chambers	Unicameral or Bicameral	Nominal

11	Compulsory Voting	No, Yes, Yes enforced	Nominal
12	Constituency blueprint	Single Member, Multi Member, National or Mixed	Nominal
13	Federalism	Yes, No	Nominal
14	Electoral System	Proportional, FPTP, STV, Other, MMP, Parallel, AV, TRS	Nominal
15	Electoral Threshold	One seat or less, More	Nominal

Table 3.2: Overview of the design of the data set

The first electoral variable mentioned in compulsory voting. This variable is straightforward, there are three possible values; there is no compulsory voting; there is compulsory voting but it is not enforced; there is compulsory voting and it is enforced. This electoral variable is found as Number 11 in Table 2, measured as a nominal variable. The source of the data is the Election Guide from the Consortium for Elections and Political Process Strengthening.

The second electoral variable is the electoral formula, referring to the family of electoral system. This variable has a large number of possible values than the compulsory voting variable, however the seven main families cover 96,2% of the cases in this research. The possible values are therefore the seven main families and to catch the remaining four cases I have included a value named 'other'. The seven main families are; full proportional representation; First Past The Post; Single Transferable Vote; Mixed-Member Proportional; Parallel; Alternative Vote and Two-Round System. Number 14 in Table 2 covers this electoral variable and is measured as a nominal variable. The source of the data is the International Institute for Democracy and Electoral Assistance.

The third electoral variable is the blueprint of the electoral district, referring to the number of Members of Parliament elected in the constituency. There are four options for this variable, being; Single Member districts; Multi Member districts; one National Constituency; a Mixed system. The Multi Member districts are rather close to the one National Constituency seeing as the National Constituency is one big Multi Member district. The difference between the two is that in the value 'Multi Member districts' there are several districts within the country instead of one district. Some electoral families entail a mix of single member districts with proportional representation through one national constituency, resulting in the value 'Mixed'. The blueprint of the electoral district is covered by Number 12 in Table 2, with a nominal measurement level. The source of the data is the International Institute for Democracy and Electoral Assistance.

The fourth electoral variable is named 'Parties', this covers both the number of parties participating in the elections and the number of parties that are represented in Parliament. The combination of these two groups of numbers not only provides a variable that measures whether the

supply side of elections matters for turnout, it also shows if it is the ability to choose from many parties or the larger numbers in Parliament that matter. The numbers are not presented as categories but as the actual numbers. This electoral variable is a combination of the Numbers 4 and 5 in Table 2, measurements on a scale level. The source of the data is the International Institute for Democracy and Electoral Assistance.

The fifth and final electoral variable is the electoral threshold, a tool to limit proportionality. An electoral threshold is somewhat difficult to operationalize in this setting, as there are several electoral systems where there is a *de facto* electoral threshold due to single member constituencies. However within those constituencies there is no threshold, it is simply the participant with the highest amount of votes that wins the seat. Making the perceived threshold a matter of overall proportionality rather than a threshold to win representation in Parliament. In multi member constituencies similar considerations can be made. Altogether, this electoral variable boils down to the question if there is a threshold that calls for more votes than one seat in Parliament, or if one seat is enough. The values used in Number 15 of Table 2 are therefore 'one seat or less' or 'more than one seat'. By categorizing these values a discussion about thresholds is prevented, which is desirable as the discussion would go beyond this thesis. The source of the data is the Election Guide from the Consortium for Elections and Political Process Strengthening.

Control variables

To ensure that the electoral variables are of significant influence I have chosen five socio-economic control variables. With the exception of the first control variable these variables are beyond the design electoral systems. By using these checks I make sure that the overall state of the country is not the determining factor for voter turnout.

The first control variable in my research is the number of years since the introduction of universal suffrage. The year of the introduction of universal suffrage refers to the first time elections were held in the country while applying universal suffrage. Once the year has been determined the only thing that remains is to deduct that number from the year of the most recent legislative elections. This control variable is covered by Number 6 in Table 2, a scale level measurement. The source of the data is the CIA World Fact Book.

The second control variable is federalism, covering the possibility of a strong bond between a federal region and the chosen representative(s). To prevent any discussions on different categories or types of federalism, this variable only has two possible values; there is federalism in the country or there is no federalism in the country. Number 13 of Table 2 is used for this variable, a nominal measurement. The source of the data is the CIA World Fact Book.

The third control variable is the degree of literacy, illustrating the basic education of the population of the country. The definition of the variable has already been presented in a previous section of this thesis, nevertheless, there is no availability of data for all the cases along the lines of the definition. In several cases the fact that a citizen attended school, no matter how long, is enough to classify that citizen as literate. Seeing as this control variable is only meant to determine whether basic education has an impact, attending a school is sufficient. The value of the control variable is in percentages and measured at a scale level in Number 3 of Table 2. The source of the data is the CIA World Fact Book.

The fourth control variable is the GDP per capita, illustrating the general financial status of the country. The GDP per capita is not categorized in this research but used as a scale measurement, making use of the precise data of the Database of the World Bank. Seeing as the newest data stems from 2011 and the election year in several cases was either 2012 or 2013, the 2011 GDP per capita is used instead. The GDP per capita is measured in current US$, as is shown in Number 2 of Table 2.

The fifth and final control variable is the unemployment rate, illustrating the economic condition of the country. Similar to the GDP per capita the data stems from the Database of the World Bank and therefore does not contain data from 2012 and 2013, instead the 2011 data is used. The value of the variable is in percentages and therefore at a scale level. The control variable is covered in Number 7 of Table 2.

Numbers 1, 9 and 10 in Table 2 are only added to the data set as a check. Number 1 is the grade awarded to the country by the Democracy Index, Number 9 is the type of elections (with the exception of the United States of America all the cases are parliamentary) and Number 10 shows if the country has a unicameral system or a bicameral system.

Trouble shooting

As indicated in the discussion of the used method in Chapter One, the variables with a nominal measurement level are not suitable for the type of statistical analysis as used in this thesis. Seeing as the overall analysis of the data does ask for the inclusion of variables such as the electoral system a statistical solution is needed. The method paragraph in Chapter One already provides this solution; nominal variables are converted to a number of ‘dummy’ variables. Seeing as the number of dummy variables needed is the number of possible values of a nominal variable minus one there are quite some dummies. The variable covering electoral systems, for instance, has eight possible values which results in seven dummy variables.

The data set in this research contains eight nominal variables, two of which are only used for extra information and are not subject to any statistical analysis. The remaining six variables have a total of twenty-one possible values, adding up to a total of fifteen dummy variables as shown in

Table 3. Dummy variables only serve here as a statistical trick to include nominal variables in regression analyses. When it comes to the analysis of the results the existence of dummy variables will simply be ignored, the overall analysis treats them as if they are nominal variables.

Table 3.3: Nominal & Dummy variables

Nominal variable	Number of possible values	Number of dummy variables
Number of Chambers	2	1
Compulsory Voting	3	2
Constituency blueprint	4	3
Federalism	2	1
Electoral System	8	7
Electoral Threshold	2	1

4. Results & Analysis

Whereas in the previous chapters the base was created for the statistical analysis of ten variables relating to voter turnout, this chapter presents the results of the analysis. Chapter Four can be divided into five steps; first the specific method used, second the correlation of the individual variables with voter turnout is determined. For each of the five electoral variables and for each of the five control variables a simple regression analysis is presented from which the correlation is derived. The third step is to combine the five electoral variables into one multiple regression analysis to determine the combined influence of the different electoral variables without taking the control variables into account. The fourth step is just the other way around; the electoral variables are ignored but the control variables are combined in one multiple regression analysis. Finally the electoral variables are combined in a multiple regression analysis while controlling for the control variables and specific combinations are made. The correlations between all variables can be found in Appendix B, as well as the descriptive statistics for the variables.

The method as described in Chapter One is only a general approach used in this thesis, a part of the method that cannot be missing in this thesis is the actually statistical work. All the data are entered into the well-known statistical program SPSS. With this program two types of analysis are used in this thesis; simple regression analysis and multiple regression analysis. Simple regression analysis is actually just 'regression analysis', the 'simple' part is added to distinguish it from multiple regression analysis. In regression analysis a model is fitted to the dataset to predict values. To be more precise; the model seeks to predict the values of the dependent variable from one independent variable. Multiple regression analysis aims to achieve the same but with several independent variables; the goal remains to predict the values of the dependent variable (Field, 2005, p. 144). The prediction is made by creating a linear model, meaning a model that fits best to predict the values with a straight line. To this end the method of least squares is used. This method seeks to find a line that has the least amount of difference between the data and the line. The line that has the lowest sum of squared differences with the data is chosen (ibid., p. 146).

Apart from these two types of analysis a number of other methodological issues have to be explained. Dummy variables, correlation, R^2, F-ratio, b-values and significance have to be discussed. Dummy variables are a necessity when it comes to regression analysis; regression analysis cannot cope with variables that are nominal. In this thesis there are a number of nominal variables, making the short explanation of dummies a necessity. Basically dummy variables are recoded variables; variables with more than two possible values are divided into separate variables with the values '0' and '1'. One value of the original variable is chosen as the base line and is therefore always coded as '0', this is often the value that is most common in the variable. The number of dummy variables

needed is the number of possible values that the original variable had minus one, the minus one is for the base line group (ibid., pp. 208-209).

The correlation is "a measure of the linear relationship between variables" (ibid., p. 107). R^2 is another measure of a relationship, it is the amount of change in one variable that is explained by the other variability (ibid., pp. 128-129). Next, the F-ratio indicates the ratio of the difference explained by the model and the difference explained by unsystemic factors. If the value is below one, the systemic variables in the F-ratio are of less importance than the unsystemic variance and therefore the value is not significant (ibid., p. 357). The b-values indicate the relationship between the dependent and independent variable, while at the same time keeping the other independent variables constant. This is therefore a value which is of importance in multiple regression analysis as it provides the negative or positive relationship of the individual independent variable (ibid., p. 226). Finally, the significance; a very important concept which affects each of the mentioned relationships and measurements. The significance states the reliability of the measurement; a measurement is significant at the 0,05 level if there is a 95% certainty that the result is genuine. The closer the significance level is to 0,000 the better it is. Generally, a significance level of 0,05 is considered significant (ibid., p. 59). Nevertheless, considering the relatively small number of cases in the current dataset a significance of 0,1 is acceptable and will therefore be used as the significance level. Throughout this thesis the significant values are indicated with an asterisk (*), making the recognition of significant results easier.

Individual variable correlations

Each of the five electoral variables is covered in their own paragraph. The five control variables are all separately analyzed but the description of the analysis and the results is placed in one paragraph.

Compulsory voting

This variable consists of two dummy variables; one where the countries with compulsory voting but without penalties are coded as '1' and the rest as '0'. The other where the countries with compulsory voting and penalties are coded as '1' and the rest as '0'. The combination of these two dummy variables is the compulsory voting variable. The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable compulsory voting is displayed in Table 4.1.

Table 4.1: Compulsory voting

Simple correlation	R^2	F-ratio	Significance
0,420	0,176	7,811 (4,88)	0,001*

The results indicate that the simple correlation between voter turnout and compulsory voting is 0,420. This means that there is a positive correlation between the two; countries with compulsory voting have a higher turnout. In fact, the compulsory voting variable is responsible for 17,6% of the changes voter turnout with a significance of 0,001. The results are therefore significant. The F-ratio is 7,811 whereas the critical value of the F-ratio is 4,88, the F-ratio is therefore higher than the critical value. The amount of influence of the systemic variance is therefore higher than of the un-systemic variance. In layman's terms; the F-ratio is large enough not to be the result of chance.

From this result we can draw the conclusion that there certainly is a correlation between voter turnout and compulsory voting. In comparison to other variables to come this is one of the highest scores. However, this is the result for the complete compulsory voting variable and therefore includes both the options of compulsory voting with and without penalties. In Table 4.2 only the compulsory voting without penalties is shown. It is clear from the first look that this is an entirely different picture. The simple correlation is negligible, the R^2 is nearly not existing as is the F-ratio and the result is far from significant. Eight countries have compulsory voting without penalties, based on these first statistical results shown in Table 4.2 it is safe to say that these eight do not have a systematically higher turnout because of this variable.

Table 4.2: Compulsory voting without penalties

Simple correlation	R^2	F-ratio	Significance
0,034	0,001	0,084	0,773

If we turn it around and look at Table 4.3 which only shows the compulsory voting with penalties the difference is enormous; the correlation from the overall variable stems from the compulsory voting with penalty cases. The correlation and influence are nearly as high as those in Table 4.1, the F-ratio is much higher and the significance couldn't be better. Six countries have compulsory voting with penalties and Table 4.3 clearly shows that the turnout in these countries is certainly higher, partly because of this variable.

Table 4.3: Compulsory voting with penalties

Simple correlation	R^2	F-ratio	Significance
0,413	0,171	15,219	0,000*

Electoral formula

This variable consists of seven dummy variables. Because the List PR system is the most often used system it is always coded as '0', whereas each of the other systems has their own dummy variable.

These seven dummy variables combined form the electoral formula variable. The dummy variable for Alternative Voting is excluded from the analyses because there is only one country that uses it and it is therefore qualified as an outlier. The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable electoral formula is displayed in Table 4.4.

Table 4.4: Electoral formula

Simple correlation	R^2	F-ratio	Significance
0,524	0,275	4,358 (3,12)	0,001*

The results indicate that the simple correlation between voter turnout and the electoral formula is 0,420. This means that there is a positive correlation between the two; voter turnout is influenced by the choice of electoral system. The choice of is even responsible for 27,5% of the changes in voter turnout with a significance of 0,001. The results are therefore significant. The F-ratio is 4,358 whereas the critical value of the F-ratio is 3,12, the F-ratio is therefore higher than the critical value.

However, the only conclusion that could be based on this result is that the choice makes a difference in turnout. The variable does not offer the possibility to draw any conclusion concerning which type of electoral system results in a higher turnout. To be able to find an answer in that direction one new dummy variable is needed; one that qualifies the proportional systems as '1' and the majority-plurality systems as '0'. Table 4.5 provides the result from the proportional system dummy. The results in the Table show that the division between proportional and majority-plurality systems is not the cause for the correlation found for the overall electoral formula variable.

Table 4.5: Proportional system dummy

Simple correlation	R^2	F-ratio	Significance
0,073	0,005	0,400	0,529

As a final attempt to find the source of the correlation between the electoral formula and voter turnout the systems are separately taken into account. Table 4.6 shows the results from this step, each of the original six dummies is used and List PR is standard coded as '0'. Apart from the first two results, the results are significant and become more significant as the steps progress. When we look at the steps it is noticeable that the adding of 'other' and of 'TRS' resulted in the biggest increases of the correlation and influence of the variable. The conclusion from these first few analyses of this variable is therefore that the electoral formula does have a sizable and significant impact on the voter turnout, but the reason for this is smeared out over all systems.

Table 4.6: Electoral system dummies

System	Simple correlation	R^2	F-ratio	Significance
FPTP	0,112	0,013	0,945	0,334
Previous + STV	0,195	0,038	1,445	0,242
Previous + Other	0,342	0,117	3,169	0,029*
Previous + MMP	0,395	0,156	3,286	0,016*
Previous + Parallel	0,424	0,180	3,070	0,015*
Previous + TRS	0,524	0,275	4,358	0,001*

District blueprint

This variable consists of three dummy variables. Because the multi member constituency type is the most often used design it is always coded as '0', whereas each of the other constituency designs has their own dummy variable. These three dummy variables combined form the district blueprint variable. The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable district blueprint is displayed in Table 4.7.

Table 4.7: District blueprint

Simple correlation	R^2	F-ratio	Significance
0,338	0,114	3,093 (4,04)	0,032*

The results indicate that the simple correlation between voter turnout and the district blueprint is 0,338. This means that there is a positive correlation between the two; voter turnout is influenced by the design of the constituencies. The influence of the variable on voter turnout is 11,4% with a significance of 0,032. The results are therefore significant, however not to the level that the previous two variables were significant. The F-ratio is 3,093 whereas the critical value of the F-ratio is 4,04, the F-ratio is therefore lower than the critical value. This indicates that the variable is not considered a good explanatory variable for the changes in voter turnout.

Seeing as there still is a correlation it is worth the effort to find out where the correlation stems from. The district blueprint variable contains three dummies, so similar to the previous two variables a closer look at these dummies might produce clarity. Table 4.8 provides an overview of the three dummies and their results. With the first two dummies, the single member district and the national constituencies, the significance is horrible. Furthermore, their correlation is limited and so is their influence and F-ratio. The main reason for the positive correlation between the district blueprint variable and voter turnout stems from the mixed systems. Seeing as 25,6% of the countries in the dataset have mixed systems the influence is noteworthy.

Table 4.8: Design dummies

Design	Simple correlation	R^2	F-ratio	Significance
Single Member	0,067	0,005	0,338	0,562
Previous + National	0,114	0,013	0,477	0,623
Previous + Mixed	0,338	0,114	3,093	0,032

Parties

Unlike the previous three variables the parties variable is not made up out of a number of dummy variables. This variable is the combination of two scale variables; the number of parties running in the elections and the number of parties making it into the Parliament. The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable parties is displayed in Table 4.9.

Table 4.9: Parties

Simple correlation	R^2	F-ratio	Significance
0,084	0,007	0,255 (4,88)	0,775

The results indicate that the simple correlation between voter turnout and the electoral formula is 0,084. This means that the correlation between the two is negligible; voter turnout is not influence by the quantities of parties. A mere 0,7% of the changes in voter turnout is explained by the parties variable. To make the matters even worse; the significance is 0,775. The results are therefore far from significant. The F-ratio is 0,255 whereas the critical value of the F-ratio is 4,88, the F-ratio is therefore far lower than the critical value. It is even lower than one, indicating that the explanation power of this variable is worse than that of the mean of squared sums.

A closer look into the separate variables that together form the parties variable doesn't make the picture any better. Table 4.10 provides the results of the separate variables. The correlation of the number of parties running in the elections with voter turnout is higher than that of the number of parties reaching Parliament. However, the effects remain trifling with a 0,1% and 0,6% influence.

Table 4.10: Party variables

Variable	Simple correlation	R^2	F-ratio	Significance
Reaching	0,035	0,001	0,090	0,765
Running	0,080	0,006	0,471	0,495

Electoral threshold

The electoral threshold variable is a relatively straight forward variable; it is made up out of one dummy variable. A threshold of more than one seat is coded as '1', whereas no threshold or a maximum of one seat is '0'. The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable electoral threshold is displayed in Table 4.11.

Table 4.11: Electoral threshold

Simple correlation	R^2	F-ratio	Significance
0,099	0,010	0,734 (6,96)	0,394

The results indicate that the simple correlation between voter turnout and the electoral formula is 0,099. This means that there is a positive correlation between the two but that it is almost as unimportant as the parties variable. Voter turnout is slightly influenced by the establishment of an electoral threshold. Only 1% of the changes in voter turnout is explained with this variable and the significance is 0,394. The results are therefore not significant. The F-ratio is 0,734 whereas the critical value of the F-ratio is 6,96, the F-ratio is therefore lower than the critical value. Similar to the parties variable, the electoral threshold F-ratio is below one and therefore a very bad explanatory variable. A total of 33 countries in the dataset have a threshold of more than one seat, however, it seems like this does not systematically result in a higher (or lower) turnout.

Control variables

The control variables are relatively simple in comparison to several of the electoral variables; four out of the five are scale variables and the remaining variable is covered with one dummy. Each of the control variables is shortly covered on its own. The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable universal suffrage is displayed in Table 4.12.

Table 4.12: Universal suffrage

Simple correlation	R^2	F-ratio	Significance
0,122	0,015	1,082 (6,96)	0,302

The results indicate that the simple correlation between voter turnout and the universal suffrage is 0,122. This means that there is a positive correlation between the two but that it is very weak. Voter turnout is slightly influenced by the amount of years since the introduction of universal suffrage. In total 1,5% of the changes in voter turnout are explained with this variable and the significance is 0,302. The results are therefore not significant. The F-ratio is 1,08 whereas the critical

value of the F-ratio is 6,96, the F-ratio is therefore lower than the critical value. Universal suffrage does score better than the last two electoral variables but is still a weak predictor of voter turnout.

The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable federalism is displayed in Table 4.13.

Table 4.13 : Federalism

Simple correlation	R^2	F-ratio	Significance
0,108	0,012	0,874 (6,96)	0,353

The results indicate that the simple correlation between voter turnout and federalism is 0,108. This means that there is a positive correlation between the two but that it is less important than the universal suffrage variable. Only 1,2% of the changes in voter turnout are explained with this variable and the significance is 0,353. The results are therefore not significant. The F-ratio is 0,874 whereas the critical value of the F-ratio is 6,96, the F-ratio is therefore lower than the critical value. The score of the federalism variable are quite similar to those of the universal suffrage variable; both do not significantly influence voter turnout on their own.

The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable literacy is displayed in Table 4.14.

Table 4.13: Literacy

Simple correlation	R^2	F-ratio	Significance
0,180	0,032	2,474 (6,96)	0,120

The results indicate that the simple correlation between voter turnout and the literacy rates is 0,180. Literacy therefore scores better than the previous two variables, but with an influence of only 3,2% the impact is rather limited. The significance is 0,120 which means that the results are therefore not significant, however, it is a much better significance than that of the previous two variables. The F-ratio is 2,474 whereas the critical value of the F-ratio is 6,96, the F-ratio is therefore lower than the critical value. Although the F-ratio is lower than the critical value, it is above one and therefore the variable does have somewhat of a prediction value.

The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable GDP per capita is displayed in Table 4.15.

Table 4.14: GDP per capita

Simple correlation	R^2	F-ratio	Significance
0,226	0,051	3,999 (6,96)	0,049*

The results indicate that the simple correlation between voter turnout and GDP per capita is 0,226. This means that there is a positive correlation between the two and with an influence of 5,1% it is nearly as influential as the previous three variables combined. The results are significant. The F-ratio is 3,999 whereas the critical value of the F-ratio is 6,96, the F-ratio is therefore lower than the critical value at a significance of 0,01. Nevertheless, if we take the 0,05 significance level into account the critical value of the F-ratio drops to 3,96 and in that case the GDP per capita variable does go beyond the critical value. The GDP per capita variable is therefore the most important predictor so far.

The result of the simple regression analysis performed with the dependent variable voter turnout and the independent variable unemployment is displayed in Table 4.16

Table 4.15: Unemployment

Simple correlation	R^2	F-ratio	Significance
0,248	0,061	4,834 (6,96)	0,031*

The results indicate that the simple correlation between voter turnout and unemployment level is 0,248. This means that there is a positive correlation between the two and it higher than that of the other control variables. In fact, 6,1% of the changes in voter turnout are explained with this variable and the significance is 0,031. Similar to the GDP per capita variable the results are significant. The F-ratio is 4,834 whereas the critical value of the F-ratio is 6,96, the F-ratio is therefore lower than the critical value. The value of the F-ratio does approach the critical value at the 0,01 significance level, but only at the 0,05 significance level does the F-ratio go beyond it. At a significance level of 0,05 the critical value is 3,96; the unemployment variable is higher than this.

The last two control variables, GDP per capita and unemployment percentage, show a significant influence. Overall, the results indicate that especially the last two control variables have some limited influence. In the last section of this chapter all the results are combined and an overall analysis is presented which includes the influence of the control variables.

The correlations for each of the variables as presented so far make it difficult to compare the figures. Therefore the variable as presented throughout Tables 4.1 up to 4.16 are put together in Table 4.17 presented below. This Table 4.17 also shows a more complete overview of the models, including the adjusted R square and the standard error of the estimate.

Table 4.16: Overview of simple correlation models

Variable	Simple correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
Compulsory voting	0,420	0,176	7,811	0,154	12,50	0,001*
Compulsory without	0,034	0,001	0,084	-0,012	13,67	0,773
Compulsory with	0,413	0,171	15,219	0,159	12,46	0,000*
Electoral formula	0,524	0,275	4,358	0,212	12,07	0,001*
District blueprint	0,338	0,114	3,093	0,077	13,05	0,032*
Parties	0,084	0,007	0,255	-0,021	13,48	0,775
Threshold	0,099	0,010	0,734	-0,004	13,61	0,394
Universal suffrage	0,122	0,015	1,082	0,001	13,67	0,302
Federalism	0,108	0,012	0,874	-0,002	13,60	0,353
Literacy	0,180	0,032	2,474	0,019	13,46	0,120
GDP per capita	0,226	0,051	3,999	0,038	13,36	0,049*
Unemployment	0,248	0,061	4,834	0,049	13,26	0,031*

Electoral variables combined

In the previous section each of the separate variables was discussed individually. The individual variables were entered in a simple regression analysis and the results displayed. Individual results do not provide an idea of the explanation power of the combination of the electoral variables. In a search for the 'perfect' combination of electoral factors fostering high voter turnout, it is also of importance to know to what extent the chosen variables influence changes in voter turnout. The aim of this section is therefore to display the results of all electoral variables combined, but also to find the influence of the five individual if the other variables stay the same (the b-values).

Table 4.18 presents the culmination of the five electoral variables in their relation to voter turnout. At first sight Table 4.18 seems to be different from a typical multiple regression analysis, but each of the steps is a regression analysis. The first step is a regression analysis of compulsory voting, whereas the second step adds the electoral formula variable making it a multiple regression analysis. With each step a variable is added and from the results the changes that the addition of one variable cause can be deduced. The third step adds the district blueprint variable, the fourth adds the parties variable and the fifth adds the electoral threshold variable.

Table 4.17: Electoral variables

Step	Correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
1	0,422	0,178	7,784 (4,88)	0,155	12,27	0,001*
2	0,623	0,388	5,234 (2,82)	0,314	11,05	0,000*
3	0,630	0,397	3,777 (2,55)	0,292	11,23	0,000*
4	0,636	0,404	3,185 (2,42)	0,277	11,34	0,001*
5	0,640	0,410	2,974 (2,38)	0,272	11,38	0,002*

The table shows that the results are all significant at a 0,001 level, only the final addition of the electoral threshold makes the significance 0,002. These results mainly thank their significance to the inclusion of compulsory voting as the first step, if compulsory voting would be added as a last step the first four steps would be far less significant. For each of the steps the F-ratio is higher than its critical value, indicating that the model is a good explanation of the outcomes. However, the decrease in the F-ratio also indicates that the model after the fifth step is worse at explaining the outcomes than the model after the first step. Throughout the steps the correlation is increased and the influence adds up to 41%. The other 59% is therefore a result of not included variables.

Apart from the correlation, R^2 and F-ratio, the b-values are also interesting to look at when several variables are combined. These b-values provide the effects of each variable if the effects of all the other variables are held constant. Table 4.19 doesn't just provide the b-values for each of the variables, it presents the values for each variable or dummy variable. This therefore creates a clear picture of the importance of each separate variable or dummy.

The first two results cover the compulsory voting variable, one specifying with and the other without penalties. The b-value for compulsory voting without penalties is not significant and the standard error is larger than the b-value, this dummy is therefore not of systematic importance for voter turnout. Its brother, the compulsory voting with penalties, is another story; the effect is 15,81 which is quite large, the standard error is not large enough to counter this and the results are significant. Compulsory voting with penalties turns out to have a large effect, as was predicted already in the simple regression analysis.

Table 4.18: Electoral B-values

Variable	B	Std. error	Significance
Compulsory voting without penalty	3,95	4,65	0,40
Compulsory voting with penalty	15,81	5,94	0,01*
FPTP	-6,10	12,60	0,63
STV	14,00	8,64	0,11
Other	11,64	7,97	0,15
MMP	-10,12	7,55	0,19
Parallel	-5,00	6,86	0,47
TRS	-28,48	10,91	0,01*
Single member constituency	6,07	11,33	0,60
National constituency	-3,10	4,32	0,48
Mixed constituency	-1,71	6,29	0,79
Parties participating	-0,04	0,05	0,43
Parties in Parliament	0,15	0,36	0,67
Threshold	2,41	3,27	0,46

N=75

None of the dummies included in the electoral formula variable are significant except for the TRS dummy. The TRS system has a negative effect on voter turnout of -28,48, this is not cancelled out by the 10,91 standard error and the results are significant. Other dummies also have an effect but this effect is considerably lower than that of TRS and they are not significant. In comparison to other variables the effect of these other dummies is still pretty high, but within the electoral formula variable the TRS dummy stands out.

The district blueprint variable contained three dummies, none of the b-values are significant for these dummies. Furthermore, the standard errors are much higher than the b-values themselves. This indicates that the district blueprints do not have an important systematic effect on voter turnout. As the discussions later on will show, there is a high VIF value for single member districts. The role of this dummy should therefore be neglected, however, the influence of this dummy is very limited anyway.

For the parties variable the picture is similar to the district blueprint variable; the results are not significant. Apart from that, the b-values are substantially lower than any other variable and the standard errors cancel out whatever small systematic effect there was. Finally, the threshold variable shows a higher b-value than the parties variable. The systematic effect of the threshold variable is 2,41, however, the standard error is 3,27. This indicates that the effect is nullified by the standard

error. Furthermore, the results are not significant. The parties variable and the threshold variable therefore have the lowest effect of the electoral variables when the other variables are not changed.

Control variables combined

This section covers the control variables and performs the same analyses as in the previous section on electoral variables. The five control variables are combined into one multiple regression analysis, first focusing on the correlation, R^2 and F-ratio. After this the b-values are taken into account. Table 4.20 presents the culmination of the five control variables in their relation to voter turnout. Similar to Table 4.18 this Table 4.20 is made up out of multiple regression analyses as with each step a variable is added. The first step is the years since the introduction of universal suffrage variable, the second adds the federalism variable, the third adds the literacy variable, the fourth adds the GDP per capita variable and the fifth adds unemployment variable.

Table 4. 19: Control variables

Step	Correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
1	0,122	0,015	1,082 (6,96)	0,001	13,67	0,302
2	0,159	0,025	0,926 (4,88)	-0,002	13,70	0,401
3	0,221	0,049	1,197 (4,04)	0,008	13,63	0,317
4	0,256	0,065	1,208 (2,53)	0,011	13,60	0,315
5	0,302	0,091	1,369 (2,37)	0,025	13,51	0,247

It is right away clear that the results are not significant at any stage during this process. The significance does become slightly better as the steps proceed but it is nowhere near the desired 0,001 level. The F-ratio is a similar story; the values are too low across the steps but they do increase somewhat. In none of the steps is the F-ratio higher than the critical value, after the second step the F-ratio isn't even above one. When we address the correlation and the R^2 it becomes clear that the correlation does increase after each step and the percentage of the changes of voter turnout explained by the combination of the variables also slowly rises. Altogether the control variables are responsible for 9,1% of the changes in voter turnout, keeping in mind that the result is not significant.

The b-values for each of the five variables are presented in Table 4.21, note that in contrast with the electoral variables the control variables are not made up out of dummies. These values paint a picture similar to that of the correlation and R^2 values. The b-values are not significant, with unemployment rates being the most significant one at a level of 0,17. When one looks at the b-values themselves it is quickly clear that none have much of an influence. Only the federalism variable shows a b-value of above one; federalism has a b-value of -1,80. However, the standard error cancels

out the effect and the lack of significance diminishes the usefulness of this variable. It is surprising to see the negligible effect of the GDP per capita variable; in Table 4.20 it was good for a 1,6% effect on voter turnout but the b-values show that GDP per capita is not influential on its own.

Table 4.20: Control B-values

Variable	B	Std. error	Significance
Universal suffrage	-0,03	0,09	0,76
Federalism	-1,80	4,19	0,67
Literacy	0,09	0,169	0,61
GDP per capita	0,01	0,00	0,33
Unemployed	-0,37	0,26	0,17

N=74

All variables combined

In this section the combination is made of all the variables; the five electoral variables and the five control variables are entered into one multiple regression analysis. The results from this analysis are particularly interesting because it tells us in how far the ten variables are determinant for the voter turnout. Ideally all the independent variables together would of course affect the dependent variable for the full 100% at a significance level of 0,001. This would mean that all the possible variables are included and that there is no other influence on voter turnout. `

As Table 4.22 shows, the reality is not that ideal. The overall correlation of the model, which includes all ten variables, with voter turnout is 0,689, the influence is 47,4% and is significant. Furthermore, the F-ratio is 2,519 and is above one and above the critical value, which in this case is 2,45. These results indicate that all the included variables together are good for 47,4% of the outcome, 53,7% remains unaccounted for.

Table 4.21: Combination all variables

Correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
0,689	0,474	2,519 (2,45)	0,286	11,34	0,004*

It is not surprising to see that just over half of the changes to voter turnout are not the result of the included variables; the number of variables is quite limited in comparison to some other authors. Powell (1980) and Blais and Carty (1990) respectively use six and five variables, but Gray and Caul (2000) and Steiner and Martin (2012) use fourteen variables. With more variables chances are that a higher R^2 is possible, however none of the authors mention the overall R^2 of their model.

Table 4.23 provides are more in depth view into the different variables and their behavior within the model. The b-values are to a large extent close to the b-values presented in Tables 4.19 and 4.21. The most notable differences are in compulsory voting with penalties, TRS and GDP per capita. Compulsory voting with penalties turns out to be a worse predictor with all the variables included; the b-value dropped two points, the standard error rose and the significance went up from 0,01 to 0,04. The TRS dummy on the other hand reached an even higher b-value, at the same time the standard error rose and the significance rose. The increase in b-value for TRS (7,84) increased more than the standard error (4,55). Finally, the GDP per capita is worth highlighting because it's already low b-value of 0,01 in the control multiple regression dropped to 0,00 in this combined multiple regression. One side note has to be made; in this regression both FPTP and single member districts are included. As the assumptions will show at the end of this chapter, the high VIF values for the two should normally mean that not both can included but there are no conclusions drawn from their presence in this specific analysis that combines all variables and dummies.

Table 4.22: All variables b-values

Variable	B	Std. error	Significance
Compulsory voting without penalty	2,82	4,92	0,57
Compulsory voting with penalty	13,08	6,34	0,04*
FPTP	-10,63	14,70	0,47
STV	12,46	8,93	0,17
Other	9,67	8,26	0,25
MMP	-10,87	7,74	0,17
Parallel	-6,22	7,13	0,39
TRS	-36,32	15,46	0,02*
Single member constituency	8,38	13,32	0,53
National constituency	-4,55	4,71	0,34
Mixed constituency	-1,68	6,62	0,80
Parties participating	-0,06	0,05	0,28
Parties in Parliament	0,13	0,40	0,76
Threshold	3,16	3,76	0,40
Universal suffrage	-0,02	0,08	0,82
Federalism	-1,82	4,85	0,71
Literacy	-0,27	0,21	0,21
GDP per capita	0,00	0,00	0,17
Unemployed	-0,26	0,24	0,28

N=75

Specific combinations

Due to the nature of several variables an extra step can be made; making specific combinations of variables that are feasible in the real world. Entering all variables into one multiple regression analysis provides the overall explanation power of all the variables combined, but it adds variables together that are not combinable because of their nature. An example is the inclusion of both a First Past The Post system and a nationwide constituency. The FPTP system cannot function with that kind of a district, just like the List PR system cannot work with single member constituencies. In this section a number of combinations of electoral and institutional variables are made that do function together, including the control variables. The statistical results for the control variables are not presented as the image proved not to be very different from earlier analysis; the control variables are not significant and have a negligible influence. Not all possible combinations are presented here, only the ones that are feasible in real life.

To start of each of the variables or dummy variables has been combined with the control variables. The results are presented in Table 4.24, with compulsory voting with penalties standing out as the most influential and significant combination. The mixed district dummy also draws some attention to itself, especially when the b-value is taken into account. The combination of the mixed dummy and the control variables show that the b-value of the mixed dummy is -8,629 with a standard error of 3,523 and a significance of 0,017. The b-value is therefore significant and a mixed district has a noteworthy negative effect on voter turnout.

Table 4.23: Variables with control variables combined

Variables	Correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
FPTP	0,327	0,107	1,333 (2,45)	0,027	13,50	0,255
List PR	0,397	0,157	1,763 (2,45)	0,081	13,11	0,110
STV	0,343	0,118	1,494 (2,45)	0,039	13,41	0,194
MMP	0,376	0,141	1,837 (2,45)	0,064	13,23	0,105
TRS	0,397	0,158	2,094 (2,45)	0,082	13,10	0,065*
Parallel	0,357	0,128	1,634 (2,45)	0,050	13,34	0,151
Other	0,399	0,159	2,116 (2,45)	0,084	13,09	0,063*
Compulsory without	0,303	0,092	1,128 (2,45)	0,010	13,61	0,356
Compulsory with	0,479	0,229	3,323 (2,45)	0,160	12,54	0,006*
Single member	0,318	0,101	1,257 (2,45)	0,021	13,54	0,289
National	0,304	0,093	1,140 (2,45)	0,011	13,60	0,349
Mixed	0,408	0,166	2,224 (2,45)	0,091	13,04	0,051*
Threshold	0,328	0,107	1,343 (2,45)	0,027	13,49	0,251
Participating parties	0,359	0,129	1,623 (2,45)	0,049	13,09	0,155
Successful parties	0,354	0,126	1,580 (2,45)	0,046	13,11	0,167

The first real combination focuses on the FPTP system; it combines the FPTP dummy and the control variables. This way the results shown in Table 4.25 cover the influence on voter turnout of

the FPTP system as opposed to any other electoral system, while still including the control variables. Although the results are not significant, the influence of 10,7% is still interesting to see. Especially when the compulsory voting variable is added to the mix, which is also done in Table 4.25. The inclusion of the compulsory voting variable seriously increases the influence and makes the results significant. On top of that the F-ratio is high enough, whereas with only FPTP it is not. Table 4.25 doesn't only show the combination of FPTP and the whole compulsory voting, it also shows FPTP with only the compulsory voting with penalties dummy. It is noteworthy that the significance increases if only the penalties dummy is included and the influence hardly changes.

Table 4.24: FPTP and compulsory voting Combination

Variables	Correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
FPTP	0,327	0,107	1,333 (2,45)	0,027	13,50	0,255
FPTP + compulsory voting	0,485	0,236	2,505 (2,45)	0,142	12,68	0,019*
FPTP + penalties	0,483	0,233	2,867 (2,45)	0,152	12,60	0,011*

The b-values are for this combination are included in Table 4.26. It is clear that only the penalty dummy is significant and has a very positive relation to voter turnout. The other two are not significant and the standard error is bigger than the b-value, making their results rather useless. It can only be stated that FPTP seems to have a very weak negative relation to voter turnout.

Table 4.25: FPTP and compulsory voting b-values

Variable	B	Std. error	Significance
Compulsory voting without penalty	2,309	5,080	0,651
Compulsory voting with penalty	19,284	5,824	0,002*
FPTP	-2,165	4,756	0,651

At the complete other side of the electoral systems there is the List PR system, similar to the FPTP system the combination is made with control variables and with compulsory voting. Table 4.27 shows the influences of the combinations. First only with List PR, then with the whole compulsory voting variable and finally without the compulsory voting without penalties. The results for the electoral system are again not significant but closer to significance than FPTP and the influence is greater as well. The combination with the penalties dummy is also slightly more significant and with a higher influence than the same combination with FPTP.

Table 4.26: List PR and compulsory voting Combination

Variables	Correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
List PR	0,397	0,157	1,763 (2,45)	0,081	13,11	0,110
List PR + compulsory voting	0,509	0,259	2,484 (2,45)	0,168	12,48	0,017*
List PR + penalties	0,507	0,257	2,810 (2,45)	0,178	12,40	0,010*

The b-values show the predictable picture of a significant positive role for the penalties dummy and non-significant roles for the other two. Nevertheless, the standard error for List PR is smaller than the b-value and the significance is closing in on the 0,1 level. One could therefore state that the List PR systems have a somewhat positive effect.

Table 4.27: List PR and compulsory voting b-values

Variable	B	Std. error	Significance
Compulsory voting without penalty	2,053	5,044	0,685
Compulsory voting with penalty	17,499	5,915	0,004*
List PR	4,913	3,464	0,161

Another variation of variables that might be interesting and feasible in reality is the combination of the List PR dummy, the national district dummy and the threshold variable. The results are presented in Table 4.29. The results in this table are all significant, but none reach the critical value of the F-ratio. The influence of the combination of all three variables and dummies is 19,6%, not a low figure.

Table 4.28: List PR second combination

Variables	Correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
List PR + national	0,412	0,170	1,926 (2,45)	0,082	13,11	0,079*
List PR + threshold	0,437	0,105	2,225 (2,45)	0,105	12,94	0,043*
List PR + national + threshold	0,443	0,196	1,986 (2,45)	0,098	13,00	0,062*

It therefore becomes important what the deal is with the b-values when all three are combined. Table 4.30 provides the overview, it exhibits a significant result for the List PR dummy but not for the other two. Again the positive influence of the List PR system is established, with a decent b-value which is not diminished by the standard error. Both the national district dummy and the threshold variable have a negative impact on voter turnout, but the results are not significant and the standard error of the national district is larger than the b-value.

Table 4.29: List PR second b-values

Variable	B	Std. error	Significance
List PR	9,084	3,384	0,009*
National	-3,440	5,156	0,507
Threshold	-5,025	3,413	0,146

Based on the results of the previous sections of this chapter there are two more combinations that have to be shown; List PR with multi member constituencies and a threshold above one seat , and FPTP with single member constituencies and a threshold above one seat. Table 4.31 shows the two combinations, both with and without the threshold variable included. It is clear right away that the List PR combinations are significant and close to or exceeding the critical value of the F-ratio. Whereas the FPTP combinations are not significant and far from the critical value. The influence also differs notably; a 23,4% influence for the three fold List PR combination against a 13,5% influence for the three fold FPTP combination.

Table 4.30: List PR and FPTP combinations

Variables	Correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
List PR + multi member	0,445	0,198	2,327 (2,45)	0,113	12,86	0,035*
List PR + multi member + threshold	0,484	0,234	2,480 (2,45)	0,140	12,69	0,021*
FPTP + single member	0,328	0,107	1,133 (2,45)	0,013	13,59	0,354
FPTP + single member + threshold	0,368	0,135	1,270 (2,45)	0,029	13,48	0,275

The b-values of the List PR dummy combined with the multi member dummy and the threshold variable are exhibited in Table 4.32. The b-values of the multi member dummy and threshold variable are significant and not cancelled out by the standard error. The multi member districts have a positive influence on voter turnout, whereas the creation of a threshold has a negative influence.

Table 4.31: List PR combinations b-values

Variable	B	Std. error	Significance
List PR	1,707	4,797	0,723
Multi member	9,195	4,817	0,061*
Threshold	-5,681	3,254	0,086*

With the b-values for the First Past The Post dummy combined with single member districts and a threshold of more than one it is clear that the results are not significant. Furthermore, the

standard errors of the FPTP and single member dummy are considerably larger than the b-values. The b-value of the threshold variable is higher than the standard error and has a negative influence but is not significant.

Table 4.32: FPTP combinations b-values

Variable	B	Std. error	Significance
FPTP	-8,888	10,826	0,415
Single member	1,675	9,962	0,867
Threshold	-5,104	3,525	0,152

In this section several combinations have been made but the most influential combination has not yet been presented. This final combination of course contains the control variables together with the List PR dummy, the multi member dummy, the compulsory voting with penalties dummy and the threshold variable. Table 4.34 contains the results for this combination and Table 4.35 the b-values.

Table 4.33: Final List PR combination

Correlation	R^2	F-ratio	Adjusted R^2	Std. Error of Estimate	Significance
0,547	0,299	3,030 (2,45)	0,200	12,24	0,004*

Table 4.34: Final List PR b-values

Variable	B	Std. error	Significance
List PR	0,120	4,671	0,980
Multi member	7,958	4,672	0,093*
Compulsory with	14,439	5,932	0,018*
Threshold	-3,429	3,271	0,298

This final List PR combination does lead to significant results, with a good F-ratio and an influence of 29,9%. The highest influence of all the combinations and with a very good significance. When we dive into the b-values of the combination it is clear right away that the good results of the combination stem from the multi member and compulsory voting with penalties dummies. These b-values are significant and their b-value is not nullified by the standard error. In this combination the role of the List PR dummy could hardly be any less significant. Nevertheless, all variables or dummies in this combination have a positive effect on voter turnout except for the threshold variable.

Regression assumptions

Having discussed a number of multiple regression analyses the question still remains if these analyses can be used for generalizations. To be able to generalize from the results a number of assumptions have to be met. If these assumptions are not met, the results are not useful for generalization. In this case there are six assumptions that have to be true, each of these will be shortly touched upon. The multiple regression analysis subject to the assumptions is the most intricate one; the one containing all variables and dummies. By checking if this most elaborate multiple regression analysis with all the variables meets the assumptions, the others are expected to be covered as they are made up out of the same variables but only a select number of them.

The first two assumptions are rather basic; the measurement level is quantitative for all the predictors and there is a theoretical causal relationship (Field, 2005, pp. 169-170). Each of the ten variables in this thesis is measured on a quantitative level or dummies are created to simulate such a quantitative level. The theoretical causal relationship between voter turnout and each of the independent variables is illustrated in either choice or the operationalization of the variables.

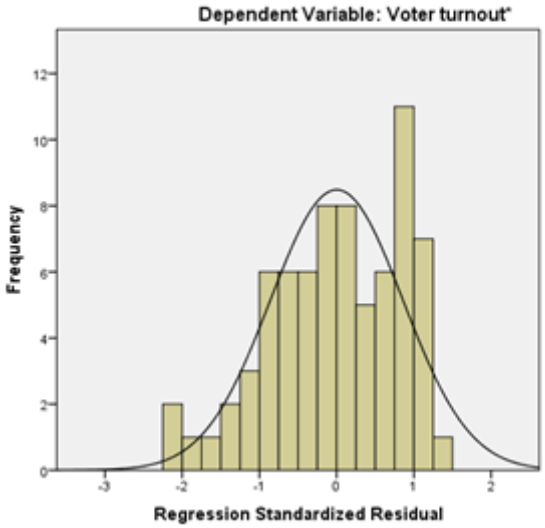
The third assumption is that there is no multicollinearity. Multicollinearity is a strong correlation between two or more independent variables in the multiple regression analysis, in a simple regression analysis there is only one independent variable and therefore multicollinearity is impossible. Multicollinearity is a threat because it limits the size of R, limits the possibility to assess the individual importance of variables and increases the instability of the b values (ibid., pp. 174-175). The variance inflation factor (VIF) measures the multicollinearity and if the VIF value for any variable is above 10 there is reason for concern. In the dataset used for this thesis the VIF values are no reason for concern except for the FPTP dummy and the single member districts dummy. FPTP scored a 13,25 VIF value and single member dummy scored 12,87. Seeing as the other scores are all significantly lower the two are connected and the solution is the deletion of one of the variables. The deletion does not entail the deletion of cases; the variables should simply not be combined in regression analyses. If the cases where the two variables are combined were to be deleted this would mean the loss of a large part of the dataset, which is not surprising as FPTP and single member districts are a normal combination. After the deletion of the single member district dummy from the multiple regression analysis the VIF values are presented in Table 4.36; all values are well below the limit of 10, even below 5. The concerns about the single member dummy are taken into account in the results, as in the results either the single member dummy or the FPTP dummy are not included or the situation is specifically mentioned.

Table 4.36: VIF values

Variable/Dummy	Variance Inflation Factor
Participating parties	2,488
Successful parties	2,894
Universal suffrage	1,830
Literacy rate	2,507
GDP per capita	1,777
Unemployment %	1,602
Federalism	1,860
Compulsory without	1,333
Compulsory with	1,611
FPTP	1,875
STV	1,204
Other	1,211
MMP	2,553
Parallel	3,398
TRS	1,754
National	1,359
Mixed	4,935
More	1,926

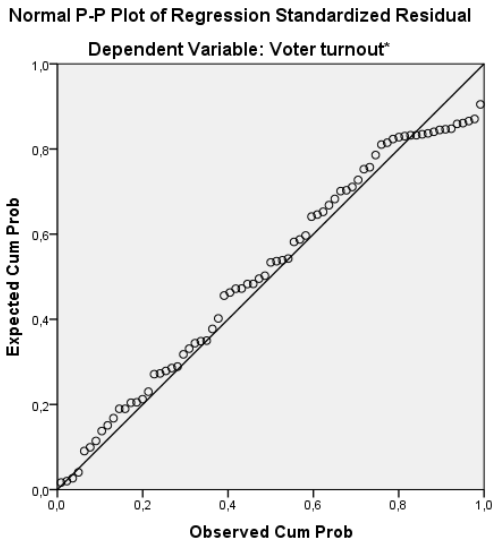
The fourth assumption is that the residuals are more or less normally distributed. Residuals are "the differences between the values of the outcome predicted by the model and the values of the outcome observed in the sample" (ibid., p. 163). To test this assumption two graphs are helpful; the histogram of the standardized residuals and the normal P-Plot. There is no need to go into detail as to what these graphs exactly display, but if the histogram shows a normal distribution and the P-Plot a straight line the assumption is met. As graph 4.1 shows there is a more or less normal distribution with an anomaly at a residual of 1 and a lack of values above 1.

Graph 4.1: Histogram standardized residual



This could be reason for concern if it were not for the second test; graph 4.2 shows the P-Plot. The graph shows a nearly completely straight line except for the highest values. The two graphs show a more or less normally distributed residual, the anomaly is explained by the nature of voter turnout. The nature of voter turnout in the countries in this data set means that it is far more likely to reach a voter turnout percentage of 90% than to reach a turnout of 10%. If a country has a very low voter turnout it is unlikely to be qualified as a functioning democracy in the Democracy Index and these cases are therefore not included. The lowest voter turnout in the data set is 32,19% in Mali, whereas the highest is 93,21% in Australia. All in all, the limited concerns raised by this assumption are taken away by the theory behind voter turnout.

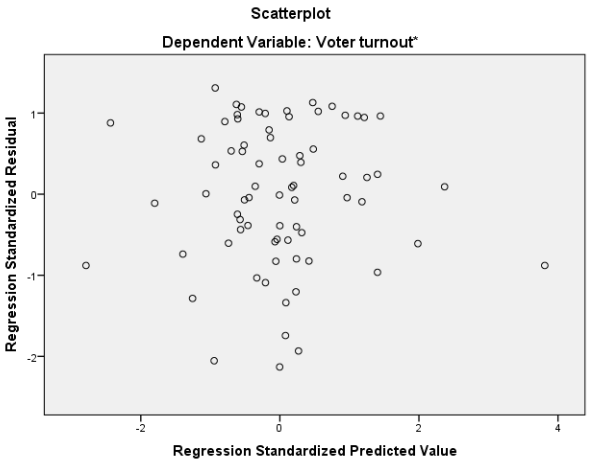
Graph 4.2: Normal P-Plot



The fifth and sixth assumptions can be dealt with in one scatterplot. The fifth assumption to be met is the linearity assumption. Basically this assumption is based on the idea that the model has to be linear in order to generalize the findings. The linearity is a test to see if the relationship is a linear relationship (ibid., p. 170). In practice the linearity assumption is met when a scatterplot of the residuals does not show a clear pattern. As graph 4.3 shows, the regression analysis performed with the dataset used in this thesis does not result in a pattern. The scatterplot shows that the assumption of linearity is met.

The sixth assumption concerns homoscedasticity and hetroscedasticity, the assumption states that there should be homoscedasticity. This entails that “at each level of the predictor variables, the variance of the residual terms should be constant” (ibid., p. 170). If the residuals in graph 4.3 are randomly distributed the homoscedasticity assumption is met. In this case the residuals do not show any pattern and therefore this assumption is met.

Graph 4.3: Scatterplot standardized residual



General comments

Looking back at the different sections of this chapter it is striking that all ten variables combined result in a 47,4% explanation power; not quite half of the change in voter turnout is explained by these ten variables. Nevertheless, the real world is not a controlled experiment and 47,4% is therefore not a bad percentage. This percentage includes the control variables, these variables are not directly changeable for governments of countries. Only through certain policies might governments be able to influence these variables, like GDP per capita, over time. The five electoral variables amount to an influence of 41%, implying that only 6,4% of the total influence is the result of the five control variables. These electoral variables are therefore certainly of importance for voter turnout.

For the question how the electoral variables individually influence the voter turnout we turn to the results in Table 4.23. The most notable points that have to be made are; the Two Round System has a very bad influence on voter turnout whereas Single Transferable Vote has a strong positive influence. Furthermore, although the standard error indicates that the range of the variability is very big, single member constituencies also seem to have a positive effect on voter turnout in many cases.

However, these results are the results when all ten variables and all their dummies are cramped into one multiple regression analysis. When different and more feasible or realistic combinations of variables are made a different picture arises. The combination of a List PR system with multi member constituencies, with penalties for not voting and without a threshold of more than one seat results in the highest explanatory power with a positive result. 29,9% of the variations in voter turnout can be explained with these variables and in this combination the penalties and constituencies are the most influential and are significant.

A side note has to be made with regards to many of the results presented in this chapter; many of the results are not significant. When all variables are combined into one multiple regression analysis none of the b-values are significant, although compulsory voting with penalties and the TRS system come close to significance. The lack of significance is not surprising as the creation of dummy variables results in a high number of variables to be tested. In the final multiple regression analysis 19 variables are tested, whereas the N remains the same. This breaks the 'rule' mentioned in the method section of Chapter One; for each variable there should be at least five cases, preferably even more.

Nevertheless, the reshuffling of dummy variables does not result in more significant results. To test this, the electoral system dummies were transformed into two dummies instead of seven and the district dummies into two dummies instead of three. The electoral system dummies were transformed into one dummy for proportional systems and one for majority-plurality systems, with semi-proportional systems as the constant '0'. In the district dummies the multi member districts were combined with the national districts, as these are in theory the same except for their size. Again; the results were no more significant than those presented throughout this chapter.

This chapter provided the results from the statistical analysis performed in this thesis, nevertheless the amount of tables and results blurs the main message. For the successful interpretation of the next chapter and the final conclusion it is of the utmost importance that the core message is clear and understandable. The central message can be summarized in a few sentences. To start of; several of the individual electoral and institutional variables prove to have a significant influence on voter turnout, also if they are controlled for the control variables. All the variables together, control and others, plunged into one model result in an explanatory power of 47,4% but this model is not applicable to the real world. Several combinations of variables lead to positive influential models, mostly incorporating compulsory voting with penalties and proportional representation. Throughout the next chapter the importance of the electoral system and compulsory voting should be kept in mind.

5. European Parliament

The overall research question not only asks for the influence of the ten variables on voter turnout, it also wonders about the translation of the statistical outcomes to the reality of the European Parliament. Some literature sources already suggested that compulsory voting was an important factor and the statistical chapter of this thesis certainly supported this. The electoral system is also a considerable factor with proportional representation having a positive influence. The reality of the European Parliament and the European elections show a trend of declining voter turnout, a fact that is recognized in several reports of the EP in recent decades. In this chapter the steps that the European Parliament took to reverse the trend are examined and special attention is paid to whether or not the influential factors are taken into account. Several reports of the EP call for more proportional elections for instance, but none call for compulsory voting. The latest reports also call for changes to the district blueprint. The European Parliament assigns a great deal of importance to (transnational) constituencies, a factor that this thesis shows to be relatively influential.

This chapter starts with a section focusing on previous failed or successful attempts of the European Parliament to change the electoral system in chronological order. Next, the most recent report by MEP Andrew Duff concerning the 2014 elections is covered and his infamous report concerning transnational lists. Finally, five interviews with backstage actors are presented and related to the European electoral system.

Previous attempts

This section aims to be as short as possible but also aims to include all major attempts for change by the European Parliament. It is important to state that it are attempts by the European Parliament and not the Council, because the Council most often does not agree with the suggestions of the Parliament. Table 5.1 provides an overview of the reports covered in this section and already mentions the two Duff Reports. The first five reports are meant to cover the main attempts for change of the electoral system in history. These five are however not the only reports from Parliament that suggest changes, they are simply the most important ones.

Table 5.1: European Parliament reports

Number	Name of the report	Year
1	Patijn Report	1975
2	Seitlinger Report	1982
3	De Gucht Report I	1991
4	De Gucht Report II	1993
5	Anastassopoulos Report	1998
6	Duff Report I	2013
7	Duff Report II	Not adopted

The first elections for the European Parliament were held in 1979 after the Council had reached an agreement in 1976. However, the process of working towards direct elections had already started in 1958 with the establishment of a working group in the predecessor of the European Parliament. Fernand Dehousse chaired this working group and laid the foundations for the direct elections in a report. The Patijn Report was very similar to the report of the Dehousse working group, but the Patijn Report was more pragmatic and therefore acceptable for the Council (Anastassopoulos, 2002, pp. 26-31). The contents of the Patijn report were basically; temporarily the national electoral systems would be used for European elections but the goal was to have a uniform electoral system in time for the second elections; the elections would take place in a time span of three days across all Member States; dual mandates for Members of Parliament are accepted. The Council largely adopted the suggestions in the Patijn Report but did not agree on the goal to have a uniform electoral system by the time of the second elections (Duff, 2012, p. 33).

The Seitlinger Report proposed a much more uniform electoral system. The Report suggested the extension of proportion representation, specifically with the creation of multi member districts. All Member States would have to introduce multi member districts that contain three to fifteen seats. The Council did not accept the suggestions made, the United Kingdom did not want to give up its First-Past-The-Post system (Anastassopoulos, 2002, pp. 40-43). In the period 1984 to 1989 MEP Reinhold Bocklet, replacing Lorraine Jean Seitlinger, unsuccessfully pressed for the changes desired in the Seitlinger Report (Duff, 2012, p. 34).

The De Gucht Reports, 1991 and 1993, took an approach of smaller steps. He did not propose a uniform proportional system as he knew this was unacceptable for the United Kingdom. De Gucht proposed parallel electoral system, single member districts where to be complemented with national PR seats (Anastassopoulos, 2002, pp. 47-48). Although the De Gucht Reports were adopted, the Council didn't accept the proposal for the step towards a uniform electoral system. A few years later

a new government in the United Kingdom, which included the Liberal Democrats, decided to change their European electoral system and established proportional representation in multi member districts (Duff, 2012, p. 34).

The Anastassopoulos Report, adopted in 1998, proposed a significant step in the reform of the European electoral system. The Report pressed for more proportional representation, the establishment of multi member districts in Member States with more than 20 million citizens, the introduction of transnational lists, a ban on dual mandates and national discretion when it comes to thresholds (Anastassopoulos, 1998, pp. 23-26). The Council adopted only a few points from this Report; it decided to phase out dual mandates and officially introduce proportional representation as the European electoral system, with the possibility to use Single Transferable Vote (Duff, 2012, p. 36). Finally, in 2007 the Lamassoure-Severin Report was adopted which also dealt with the European elections, however, this Report mainly covered the allocation of seats. This Lamassoure-Severin Report also suggested the creation of transnational lists based on one European-wide electoral district (Lamassoure & Severin, 2007, pp. 14-16).

Duff reports

The recently adopted, 12th of June 2013, Duff Report called "Improving the practical arrangements for the holding of the European elections in 2014" is somewhat similar to the Lamassoure-Severin Report. It mostly holds practical arrangements and focuses on political parties. The Duff Report stresses the need for national political parties to indicate to voters in national debates what their European affiliations are. The parties should also inform voters of the parties preference of a candidate for the Commission Presidency. Furthermore, a large part of the Report covers the need for true European campaigns; stressing the need for Member States to ensure the broadcasting of electoral debates and the need for Member States to run public awareness campaigns to increase voter turnout (Duff, 2013, pp. 4-5).

The much more far reaching and fundamental report is the Duff Report called "Second report on a proposal for a modification of the Act concerning the election of the members of the European Parliament by direct universal suffrage of 20 September 1976". This Report was instigated in 2009 and it was discussion in the plenary meeting of the Parliament in 2011 and 2012. It has not been adopted by the European Parliament, nevertheless, because of a far reaching proposal in the Report it is interesting to discuss. Previous reports by other MEPs included the mentioning of transnational lists with a European-wide electoral district, this Duff Report focuses on transnational lists. He suggests that 25 MEPs should be elected through these transnational lists and presents some minimum requirements for the lists. Apart from the transnational lists, or Pan-European lists as they

are also called, the Duff Report proposes the creation of an European electoral authority (Duff, 2012, pp. 6-8).

Interviews

To prevent this chapter on the European Parliament from becoming a descriptive chapter, five interviews are presented. Table 5.2 provides an overview of the five interviewees and their affiliation. After a short introduction of the five interviewees the main points they made are presented, followed by a short analysis. The summaries of the interviews can be found in Appendix A.

Table 5.2: Interviews

Name	Affiliation
Oliver Dreute	European Peoples Party (EPP)
Daniela von Bethlenfalvy	Socialists & Democrats (S&D)
Guillaume McLaughlin	Alliance of Liberals and Democrats (ALDE)
Guillaume Sellier	Greens
Tibor Vaszi	European Commission

The four interviewees from the European Parliament are representatives from the four biggest political groups in the Parliament. Together they have 602 of the 754 seats, which is 80%. The criteria for whom to interview were quickly made; the interviewees should have extensive knowledge of the European electoral system and of their political group's position on it, however, they should not be MEPs or assistants. The exclusion of politicians and the focus on permanent staff is based on the desire for a long term vision and group political line, instead of the opinion of a single MEP. Oliver Dreute is a good example. He works for the EPP group as a legal advisor and worked on several dossiers concerning the European electoral system, including the two Duff Reports. Daniela von Bethlenfalvy works for the S&D as policy advisor, specifically focusing on the Committee on Constitutional Affairs from which all the previously mentioned reports stem. Guillaume McLaughlin currently works as the head of the office of the President of the ALDE group, he used to work as policy advisor for the ALDE group with a focus on the Committee on Constitutional Affairs. Guillaume Sellier works for the Greens as policy advisor with a focus on the Committee on Constitutional Affairs. Finally, Tibor Vaszi works for the European Commission as a Policy Officer in DG Justice. He worked a lot on dossiers concerning electoral reform and the two Duff reports.

The main point made by Mr Dreute is that the European citizen should feel represented by a Member of the European Parliament. He therefore thinks that there should be a limit to the amount

of citizens that can be represented by a single MEP, effectively calling for more seats for Germany and France. Mr Dreute believes strongly in the link between the citizen, or the region, and the elected politician. By means of districts in all Member States and the establishment of primaries the bond between the European Parliament and the citizens could grow.

Ms Bethlenfalvy takes a completely different approach, according to her the voter turnout cannot be raised a lot on the short term. She states that education is the key; by educating young people and children about Europe an awareness and understanding is created, this would result in higher turnout. Although Mr McLaughlin did not know of the answers Ms Bethlenfalvy, his train of thought goes in the same direction. According to him the most important issue in European election is that citizens don't understand what they're voting for. As soon as someone is able to clearly establish a link between a vote and the policy the voter turnout would raise. Mr Sellier makes similar statements; he doesn't think that the voters realize or understand what they are voting for. He believes that the direct election of a Commission President would solve this problem to some extent and thinks that all the national parties should have one candidate in common from their European political party. Mr Vaszi doesn't state that there is a problem with the current electoral system, he restricts himself to the discussion of practical improvements that can be made to the system. However, he does stress that drastic changes in the European electoral system are not likely to be adopted anywhere soon. Whereas the Commission welcomes initiatives to further integrate the European Union, also through the electoral system, the Council has a quite negative stance towards changes in the system. Mr Vaszi stresses that this reluctance to change the electoral system is also seen in the Parliament.

When it comes to practical improvements of the electoral system, each of the interviewees has quite some improvements in mind. However, the suggestions are not the same. Where the Greens would welcome transnational lists as an increase in proportionality, the S&D wants nothing to do with it. Where the EPP wants primaries and a stronger bond between a district and a MEP, ALDE dismisses this because of negative experiences in the United Kingdom. Nevertheless, the different proposals are presented in Table 5.3.

Table 5.3: Practical suggestions

Dreute (EPP)	Bethlenfalvy (S&D)	McLaughlin (ALDE)	Sellier (Greens)	Vaszi (Commission)
Primaries	Education for youth	Link vote with policy	Link vote with policy	Transnational lists
Districts	Education for media	Transnational lists	Transnational lists	One election day
Limit maximum representation	Debate broadcasting	Transnational parties	Elected Commission President	One district size (or range)
One common top candidate	Transparency	Elected Commission President		Commissioners active in campaign
				One voting age

So far the discussion of the opinions of the interviewees has limited itself mentioned what they would themselves envisage as the main problem with the current European electoral system or changes they would like to see. However, seeing as the goal of this thesis is to find a perfect combination of factors, it is interesting to see the opinions concerning the five electoral and institutional variables. The interviews covered these variables but not always in a direct way. Some opinions are therefore not included in the interview summaries but are derived from the answers given in the interviews themselves.

As the previous chapter presents compulsory voting with penalties and the choice of electoral system as the two most influential factors they are the first to be discussed. Compulsory voting, especially compulsory voting with penalties, is looked upon with hesitation by most of the interviewees. Mr McLaughlin, Mr Dreute and Mr Sellier do not think that forcing people to vote will necessarily result in higher turnouts. Whereas Ms Bethlenfalvy believes that compulsory voting might work in some Member States, but in others it would be received as a dictate from Brussels. She stresses that the culture of a country is the key to whether or not compulsory voting might work; in some countries a measure like this might even result in a revolution. Mr Vaszi also doesn't believe in mandatory voting, stating that the citizens of Europe should be persuaded to vote rather than forced.

None of the five interviewees thinks that a different electoral system should be adopted; they are all happy with the proportional representation currently in place. However, Mr Sellier, Mr McLaughlin and Mr Vaszi do think that the addition of transnational lists would create a more

proportional and representative European Parliament. Mr Dreute and Ms Bethlenfalvy do not agree to this, they have a number of objections to transnational lists. Especially Mr Dreute stressed that transnational lists are not desirable, which is surprising when one takes his concerns about representation into account. This German EPP representative wants to decrease the difference between the numbers of citizens a single MEP represents. If at a certain point in time the wishes of the Greens in the European Parliament become reality and half of the MEPs are elected through transnational lists there could be a lower difference in representation.

Next the three remaining electoral and institutional variables; the electoral blueprint, the parties and the threshold. Starting with the last, there is no desire with any party or with the European Commission to change the current rules concerning thresholds. Nevertheless, a review of the threshold rules seems inevitable; the German constitutional court determined that the 5% threshold for European elections in Germany is not constitutional (Spiegel.de, 2011). The party variable is harder for interviewees to comment on, as the number of parties participating in elections is not up to policy makers. Regardless, the possibility of transnational parties might be interesting here. In several countries used in the dataset for this thesis there are local parties participating in national parliamentary elections, but they often form coalitions with other local parties. Translating this to the European level we already see that national parties form political groups in the European Parliament. Although the most recent Duff report (2013) that was adopted by the EP encourages the creation and strengthening of transnational parties the interviewees do not believe that true transnational parties will actually become reality. Mr Dreute and Ms Bethlenfalvy are very clear in that they believe national parties will not be eager to give away their power to transnational parties. Even if the EP would want legislation to force transnational parties in existence, the Council would most probably block it. Which is not surprising as the members of the Council are usually the leaders of national parties, as Mr McLaughlin points out.

The electoral blueprint variable is closely linked to the previously made arguments concerning transnational lists. A change to transnational lists next to the current national lists would in practice create a mixed district design. Although some interviewees think transnational lists are desirable, the reality is that with the current division of power in the EP these lists will not be acceptable.

General comments

The reports of the European Parliament, from the Patijn Report to the first Duff Report, are all to some extend concerned with the proportionality of the European elections. Proportionality has been a main issue especially in the early reports but it still plays an important role in the more recent ones.

The wish of the EP to have more proportionality aims to reach higher voter turnout among other objectives. Based on the statistical research performed in Chapter Four the proportionality wish would in fact lead to higher turnout, however the reality is different. With every election of the European Parliament the turnout decreased, even though the level of proportionality rose. Although the statistical research showed that the variables in this thesis do not lead to full explanatory power, the observation certainly has to be made. The interviewees of the Groups in the European Parliament and the interviewee from the Commission stress that proportionality is still very important to the parties in the EP and to the Commission.

The translation of a 'perfect combination' of electoral and institutional variables into the European electoral system seems unrealistic; none of the interviewees would support the introduction of compulsory voting. The interviews and the EP reports can only lead to the conclusion that the European Parliament can seem very innovative in its attempts to raise voter turnout, however they are not willing to take very drastic measures. Because of the power play between the different European Institutions it is very unlikely that there can be major changes to the European electoral system if even the European Parliament is not willing to commit.

6. Conclusion

In this thesis so far I have provided information and analyses aimed to answer the research question, however no answer is provided yet. The research question is 'w*hat is the best combination of electoral factors to foster the highest possible turnout in Parliamentary elections and how can this be translated to the European elections?*' In the light of this question Chapter One provided the used method; an analysis of voter turnout in the most recent elections in 78 countries. Chapter Two created a strong base for the choice of electoral variables by discussing each of the three electoral system families and some basic definitions. The majority-plurality family, the semi proportional family and the proportional family each have their distinct pros and cons. Next, Chapter Three provided an overview of the previous research conducted in the field of voter turnout. The choice of variables by other authors is presented, as well as the reasoning behind their choice. The same chapter then continues with the choice and operationalization of the ten variables used in this thesis. Chapter Four deals exclusively with the statistical results and some short analyses and Chapter Five deals exclusively with the European Parliament.

The first part of the research question, concerning the best combination of electoral factors, can be answered based on the results in Chapter Three. The results show that the socio-economic factors are negligible when it comes to influencing voter turnout. Based on existing literature on voter turnout it was expected that especially compulsory voting and the type of electoral system have an important influence on voter turnout. Whereas the attempts of the European Parliament to change the European electoral system mostly pointed in the direction of the electoral system and the district blueprint as the most important variables. The district blueprint does not provide the expected influence. However, the expectations concerning compulsory voting and the electoral system are proven to be accurate, as they are the two most influential variables. In fact, compulsory voting with penalties is the single most important positive influence on voter turnout.

The image of the electoral system is somewhat more complex. The Two Round System is without a doubt the most influential of the electoral systems, however it has a negative influence. The usage of TRS in a country leads to lower voter turnout. Other electoral systems show a weaker correlation with voter turnout. Although the many results presented in Chapter Four show many variables and dummies to have positive and negative influences, there is one combination that stands out. The combination of a List PR system with multi member constituencies, with penalties for not voting and without a threshold of more than one seat results in an influence factor of 29,9% and has a clear positive relation to voter turnout. Other combinations also resulted in positive or negative influences but none as significant as this specific List PR system combination.

However, some literature presented in Chapter Three indicated that an electoral system that fosters turnout in Europe has the opposite effect in South America. Seeing as the geographical location of the countries in the dataset are not taken into account it might very well be that the electoral system actually plays a bigger role than the current results show. A proportional system in South America with a low turnout could for instance muffle the effects of proportional systems in Europe or elsewhere. Based on the findings of Blais and Aarts (2006), combined with the results of the research in this thesis, it is safe to state that a proportional system is certainly of a positive influence in Europe.

The second part of the research question remains; how can this combination be translated to the European elections. The introduction of compulsory voting with penalties throughout Europe for the European elections is not feasible. None of the previous attempts to change the electoral system include this measure and none of the interviewees considers compulsory voting to be a good idea. The introduction would most probably be received as a dictate from Brussels and increase the distrust of European citizens. Of the six countries that use compulsory voting with penalties, only one is located in the European Union; Luxembourg. The less intrusive compulsory voting without penalties is used in Belgium and Greece, however, this type of compulsory voting turns out not to have any real influence.

A possible change of electoral systems is not very likely to be considered, even if a renowned consultancy firm would suggest this would raise turnout. The European Parliament has fought for decades to create a harmonized proportional system and for the abolishment of the First Past The Post system in European elections. Proportionality has always been the goal of the Parliament, whereas the Council has always been reluctant in the acceptable of more proportionality. The final step towards full proportionality, the transnational lists, is even a step to far for most of the European Parliament. In the past decade these types of lists have been discussed and the European Parliament has been rather positive, until the most recent (not adopted) Duff Report. With the transnational lists actually on the verge of becoming a goal of the European Parliament in their negotiations with the Council the Parliament reviews its position. A step towards full proportionality is therefore very unlikely in the near future.

The final positive variable from the best combination, the deletion of a threshold, is not part of the European electoral system. It is currently up to the Member States to decide if they want a threshold, however this threshold cannot be more five percent. The establishment of a uniform threshold throughout the EU would result in heavy protests from the smaller political parties. These protests would be a result of the declined proportionality of an electoral system with a threshold. Nevertheless, the influence of a threshold is the smallest of the whole combination and does not add a lot to the combination.

Altogether the statistical research has delivered a combination of electoral and institutional factors that positively influence voter turnout. The influence is still limited and there is no 100% correlation but it clearly is influential. The research presented in Chapter Five shows that the European Parliament is well aware of the influence certain factors have; it is not without reason that the EP has worked towards more proportionality. Nevertheless, the reality also shows that voter turnout is much more complicated than the statistical research suggests; proportionality has increased over time but the voter turnout has decreased. The one factor that would without a doubt lead to higher turnout, compulsory voting with penalties, is not acceptable to the European Parliament. A 'perfect' combination of a List PR system with multi member constituencies, with penalties for not voting and without a threshold of more than one seat results can therefore not be translated into the reality of the European elections.

Limitations

With any research there are certain limitations, there are four main limitations for this thesis. The first and foremost is the limited number of independent variables that are used to explain voter turnout. With a larger amount of cases the number of variables could have been higher, which would have meant that more than 47,4% of the changes in voter turnout could have been explained. Furthermore, in the attempt to balance electoral variables and socio-economic variables I have left out some electoral variables that are certainly of importance. The second limitation is not surprising; the limitation is the fact that the research question could not be answered with results from an experiment. If the 'perfect' combination was derived from controlled experiments the answer results would have been far more interesting from a generalization point of view.

The third limitation is the choice to only take the most recent election result into account. With this single election result it is impossible to know if the turnout level in a single country is higher than usual. If more elections would be taken into account the possibility of abnormal voter turnouts would be less; one could for instance take the average voter turnout of the latest three elections. However, the inclusion of more than one election would complicate matters. There is a high probability that several variables would have changed over time.

Finally, the fourth limitation concerns Chapter Five, in particular the interviews conducted from this chapter. Although the five interviewees represent the European Commission and 80% of the European Parliament, a larger number of interviewees would have made the chapter more relevant. Representatives of the smaller groups in Parliament did not agree to an interviewee, nor did the representatives of the Irish Council Presidency. The inclusion of the smaller groups would have been interesting to have a complete picture of the views of the Parliament. More importantly,

the inclusion of the Council would have meant that all three major Institutions would have been represented. Seeing as the Council is often the Institution that blocks changes to the electoral system their view would have been especially interesting, however, because of the many different interests in the Council a representative would probably not have provided any controversial answers.

Further research

Based on the research performed in this thesis and its limitations two major possibilities for further research arise; a more inclusive statistical research and a more inclusive qualitative research. The more inclusive statistical research would have to include more variables, both on the electoral and the socio-economic sides. At the same time, a more inclusive statistical research would have to include more elections than only the latest; the most three or five most recent elections would provide a stronger position. Depending on how these extra elections would be integrated it could mean an incredible rise in the number of cases. If the extra elections are treated as separate cases the total number of cases would be multiplied by either three or five. This creates the possibility to include more variables.

The more inclusive qualitative research would in practice mean a larger number of interviews with different representatives. The inclusion of smaller groups and the Council is already discussed in the limitations section, however more is possible. It would be interesting to see different points of view within the political groups; from each group a legal point of view and a constitutional point of view could be included. If the amount of interviews rises it also becomes interesting to interview representatives of the European parties. The European parties are more and more the ones who have to deal with the European elections.

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Appendix A: Interviews

Interview summary Mr Oliver Dreute

In the development of the electoral system of the European Parliament there is a very important issue to keep in mind; the Members of the European Parliament should be democratically accountable. This democratic accountability entails that there should be an upper limit of how many citizens can be represented by one MEP. The seats in the Parliament should therefore be re-allocated. At this moment MEPs from Germany or France represent more than 800.000 citizens whereas MEPs from many smaller countries only represent a fraction of that amount. There should also be an upper limit of MEPs, a Parliament cannot function with too many Members.

In a possible revision of the electoral system there should always be a sort of constituency to ensure a geographical link between MEP and citizens. At the same time being elected from a constituency increases the accountability of the MEP.

A way to improve the system is to organize primaries. Using primaries for the nominations for the electoral lists ensure a closer link to the people, as opposed to appointed places on party lists. Primaries would result in a stronger mandate for the MEP and more accountability to the citizens in the constituency, which will make MEPs take their jobs more seriously.

The suggestion of introducing transnational lists would not be acceptable to the EPP. There are several objections;

- The practice of these lists would entail that members of staff of the European Parties will be put on the lists, not politicians.
- The transnational MEPs would not represent a constituency, they would represent no one.
- The seats for transnational MEPs would have to come from somewhere, which means a reduction of seats for the MEPs from Member States. Therefore some MEPs will lose their seat or see their chances for reelection become smaller.
- National parties are not willing to give up their power and usually the negotiators in the Council are the heads of those national parties. Even if the European Parliament would agree on transnational lists, the Council would not accept them.
- The elections are about power and influence, there is no place for ideological dreams.

A recent development is the possibility for European Parties to have a top candidate, the candidate they would propose to become Commission President. This top candidate would run next to the normal lists in the country where he/she is from. However, this has to take place within the existing legal framework. The next election will be a reality check for this development.

Interview summary Ms Daniela von Bethlenfalvy

The main and most important problem with the European elections is the lack of knowledge the people have of the European issues and the European system. It is therefore of the utmost importance to introduce compulsory courses in schools, from a young level onwards, to teach children to understand Europe. European issues and systems should be thought next to national issues and systems.

An example is the Swiss case; Switzerland has referenda that involve the public in politics. The Swiss are thought in their schools about referenda and the impact these referenda have.

EU elections are still run on domestic issues. To overcome this, a solid background is needed in for instance secondary schools. The domestic issues seem to be much closer to the citizens but the EU has taken over many national tasks.

It would therefore be a good idea if the Ministers of Education would synchronize a change in the education system and introduce compulsory subjects about Europe in Bachelors in Universities. It would simply be a matter of teaching facts and reality, not introducing a pro-European campaign.

Smaller things will also help turnout, understanding and awareness. Training and courses for media would ensure that at least the journalists know what they are reporting on. But also debates on TV can contribute, as well as transnational parties.

Transnational lists would not be a good idea as they would introduce a second class of MEPs. Two classes of MEPs would in fact be discrimination.
Furthermore, transnational lists would increase the likelihood of some charismatic person running for the European Parliament that does not have the intention to actually take the seat. Thereby gathering votes for the party but in fact committing electoral fraud, also known as the 'Berlusconi case'.

Compulsory voting is not an option as it would work and be acceptable in some Member States, but in others it would result in a revolution. This is culturally determined.
More transparency would perhaps contribute to more understanding of the system and result in higher turnout. One could think of publishing the results of votes in the Council, but then this also becomes a stage for populists.

The key is education, the key is knowledge and the exclusion of emotion. However, knowledge does not protect against ignorance and the education/knowledge path is a long term project.

Interview summary Mr Guillaume McLaughlin

Mr McLaughlin thinks that the main problem that results in a low voter turnout is the fact that people think their European vote doesn't have an influence, doesn't affect the system and doesn't make a difference.

The answer is not in the alteration of the electoral system.

People need to somehow understand that there is a link between their vote and policy. People want their vote to have influence. The influence of the vote is currently difficult to see because the Commission has to uphold the Treaties, the color of the European Parliament doesn't change that. Even if the European Parliament was to appoint the Commission President, he would still have to abide by the Treaties.

It is difficult to campaign for the European elections because the step between the national level and the EU level is difficult to make for people. Transnational lists are not politically feasible as it would need real transnational parties, but national parties oppose the move of power to the European level as it is against their fundamental interests.

Single Member Constituencies for European elections would not be a good idea. It would not result in a better link between the citizens and the Members of the European Parliament. There is no real link between constituencies and Member of Parliament in the UK now either, as the Members still have to follow the party lines.

Proportional representation is still not understood in the UK, campaigns are still not designed for that system. Proportional representation does allow for a core message and is more positive, whereas First Past The Post is more a tactical voting system.

Altogether transnational lists would be a good thing, as it would create transnational parties. It will make it clear who the parties actually are and clarifies the link between vote and policy. It makes the consequences of a vote visible.

However, if transnational lists were to be accepted the first implementation will be a disaster. The first lists will be a result of power play.

Nevertheless, there is no majority in the European Parliament for transnational lists and national parties will continue to do everything in their power to block transnational lists and parties.

Interview summary Mr Guillaume Sellier

One of the big problems with the European elections is that people don't know what they are voting for. The Commission and the Council are well known, but the Parliament not so much.

For the Greens it is very important that the electoral system used for parliamentary elections is a proportional system. This increases the political diversity by ensuring the representation of small parties.

The election of the Commission President out of candidates put forward by the European parties might raise the turnout as people see some result of their vote. However, it is not a perfect solution. It is rather a first step.

The top candidates for the Commission Presidency should be candidates in all countries, not just in their own Member State. By making the candidates run in all countries it is possible for the whole of the EU to choose their desired Commission President.

The candidates should be put forward by the European parties, preferably after a primary election.

The Greens have decided to propose two candidates, which are chosen through a primary.

It would be a good idea to have transnational lists for the election of MEPs. Preferably the transnational lists should elect more than 25 MEPs as the current Duff report proposes. A balance should be found between transnational lists and national lists, possibly a 50/50 divide. Most important though is to keep the system proportional.

It is therefore not a good idea to have small constituencies. With 750 MEPs the constituencies would still be too big, the connection to the constituency would still be lost and it would be a disaster for small parties.

There are possibilities to make changes to the electoral system after the European elections in 2014, specifically in the 2015 Convention. The willingness to make changes depends highly on the outcome of the elections.

Interview summary Mr Tibor Vaszi

Mr Vaszi stresses that he gives his personal opinion in this interview, which is not necessarily the Commission line. The Commission line can be found in the communications and proposals of the Commission.

When it comes to possible changes to the electoral system of the European Parliament, Mr Vaszi welcomes the proposal for transnational lists. The possibility to have a number of MEPs elected from transnational lists next to the national MEPs could be a big improvement.

On the medium to long term European parties might become a factor of influence when it comes to the European elections, but on the short term the national parties are certainly still running the show.

The electoral system could furthermore be improved with addressing the following issues;

- The day(s) of the elections. Currently there is too much time between European elections in different Member States. A uniform election day or possibly an election weekend should be created.
- District size. Currently there is a big diversity in district size from Member State to Member State. There should be a harmonization of district size. In this harmonization a range of population size should be set, making sure that MEPs represent a certain number of citizens.
- The voting age and candidate age. Currently there is a difference in the voting and candidacy ages in different Member States. The age should be uniform in all Member States to ensure that all European citizens have the same possibilities.
- Losing the right to become a candidate. In some Member States citizens lose their right to be a candidate when they are convicted for criminal offences, in others there a no such rules. There should be a uniform rule for when citizens lose the right to stand as a candidate.
- Long term third country residents. It should be widely and openly discussed if long term residents from non-EU countries can vote in European elections.

The current way the electoral system deals with the threshold is good and the electoral system should certainly remain proportional. This proportionality ensures diversity.
Compulsory voting is not a good tool for the European elections, it would be better to motivate people to vote in another way.

Changes to the electoral system are difficult to find agreement on, even within the Parliament. The Commission often welcomes attempts to make changes. But if there isn't even enough support within the Parliament, the Council will certainly not agree to the changes. Institutional reforms are difficult to arrange.

At a certain point it might be good if Commissioners actively joined the political campaign. When the Commission President is directly elected and the Commissioners also campaign it might become clear to voters what happens to their vote.

Appendix B: Statistical overview

Table B.1: Descriptive statistics

Variable	Mean	SD	N
Compulsory voting without penalty	0,10	0,31	78
Compulsory voting with penalty	0,08	0,27	78
FPTP	0,13	0,34	78
STV	0,03	0,16	78
Other	0,04	0,19	78
MMP	0,08	0,27	78
Parallel	0,13	0,34	78
AV	0,01	0,11	78
TRS	0,03	0,16	78
Single member constituency	0,15	0,36	78
National constituency	0,13	0,34	78
Mixed constituency	0,26	0,44	78
Parties participating	21,21	41,04	76
Parties in Parliament	8,33	5,76	76
Threshold	0,42	0,50	78
Universal suffrage	69	22,49	75
Federalism	0,82	0,39	78
Literacy	92,45	12,39	77
GDP per capita	20254,09	21622,10	78
Unemployed	10,71	6,97	76

Table B.2: Variable Correlations

	Comp without	Comp with	FPTP	STV	Other	MMP	Parallel	AV	TRS	Single Member	National	Mixed	P. Part	P. In	Threshold	Universal Suffrage	Federalism	Literacy	GDP	Unemployed
Comp without	-																			
Comp with	-0,098	-																		
FPTP	-0,130	-0,111	-																	
STV	-0,055	-0,047	-0,062	-																
Other	-0,068	0,192	-0,077	-0,032	-															
MMP	0,061	-0,083	-0,111	-0,047	-0,058	-														
Parallel	0,123	-0,111	-0,147	-0,062	-0,077	-0,111	-													
AV	-0,039	-0,033	-0,044	-0,018	-0,023	-0,033	-0,044	-												
TRS	-0,055	-0,047	-0,062	-0,026	-0,032	-0,047	-0,062	-0,018	-											
Single	-0,144	0,010	0,899	-0,069	0,099	-0,123	-0,164	-0,049	0,156	-										
National	-0,130	0,033	-0,147	-0,062	-0,077	-0,111	-0,147	-0,044	0,180	-0,164	-									
Mixed	0,092	-0,170	-0,225	-0,095	-0,117	0,492	0,653	-0,067	-0,095	-0,250	-0,225	-								
P. Part	-0,036	-0,024	0,324	-0,047	-0,029	-0028	-0,051	ND	-0,021	0,295	-0,014	-0,077	-							
P. in	0,018	0,188	0,114	-0,096	-0,023	-0,034	0,052	ND	0,192	0,133	0,080	-0,013	0,670	-						
Threshold	-0,118	-0,150	-0,328	-0,139	-0,171	0,142	-0,018	-0,098	0,189	-0,293	0,215	0,032	-0,041	0,056	-					
Universal suffrage	-0,093	0,189	-0,118	0,163	0,049	0,185	0,037	ND	-0,074	-0,047	-0,121	0,049	-0,029	-0,048	0,299	-				
Federalism	-0,062	-0,241	-0,220	0,076	-0,080	-0,116	-0,020	0,053	0,076	-0,264	0,079	-0,108	-0,283	-0,481	0,062	-0,014	-			
Literacy	0,007	0,086	-0,171	0,046	0,032	0,062	0,124	ND	-0,386	-0,121	-0,186	0,104	-0,253	-0,249	0,251	0,382	-0,012	-		
GDP	-0,110	0,152	-0,054	0,107	0,027	-0,027	0,022	-0,107	0,009	0,039	-0,112	-0,084	-0,074	-0,035	0,140	0,419	-0,250	0,421	-	
Unemployed	-0,135	-0,165	-0,046	-0,007	-0,093	-0,008	-0,170	ND	0,212	-0,079	0,205	-0,066	-0,038	0,014	-0,025	-0,423	0,121	-0,385	-0,353	-