Voting – Relationship between economic factors and the probability to vote on populist parties

A study of 2006 Swedish election to parliament

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Titel: Röstning – Samband mellan ekonomiska faktorer och sannolikheten att rösta på populistpartier.

En studie av 2006 års riksdagsval

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Sammanfattning


De empiriska resultaten bekräftar att det finns uppenbara samband mellan de valda variablerna och sannolikheten att rösta på populistpartier, då en majoritet av regressionerna förklarar 25 till 35 procent av variationen i röstningsavgörandet. Dessa siffror verkar stämma överens med verkligheten, eftersom ideologi och sakfrågor är viktigare för populistpartianhängare.

Gällande de ekonomiska variablerna är det arbetslösheten, utbildningsnivån, disponibla inkomsten och kommunalskatten som påverkar människor mest när de röstar på populistpartier. Det visar sig även att när andelen människor födda utanför den Europiska Unionen ökar, ökar även sannolikheten att man röstar på Sverigedemokraterna.

Till sist, tillväxten av populistpartier, speciellt av Sverigedemokraterna, har på senare tid tilltagit, vilket leder till att de konventionella partierna måste anamma likartade politiska ståndpunkter för att kunna få fler röster. Innebärande att om den rådande ekonomiska och politiska situationen består, kommer populistpartiers och i synnerhet Sverigedemokraternas riktlinjer att i framtiden få ett mycket större utrymme i den svenska politiken.
The purpose of the thesis is to identify relationships between economic factors and the probability to vote on populist parties. The results are in turn based on the populist parties’ outcome in the 2006 Swedish election to parliament. Parties below the 4 percent margin, prior to the election, which is the percentage point required to enter the parliament, are defined as populist parties. Furthermore, based on theoretical and previous empirical research, seven economic variables are chosen; disposable income, income distribution, municipal tax rate, unemployment and higher education. In addition to these five, are the number of crime incidents reported, and the share of people born outside of the European Union also included. Moreover, the study is conducted at a regional, or more explicitly, at a municipal level, implying that 290 observations are used for each variable, in a total of five regressions. These are performed to test the diversity of populist parties.

The findings confirm that there are obvious relationships between the chosen variables and the probability of voting on populist parties, as the majority of the regressions explain 25 to 35 percent of the variation in the voting decision. These figures seem consistent, since ideological and factual issues are more important to populist party sympathizers.

Nevertheless, the results show that when it comes to the economic variables - unemployment, education, disposable income and consequently the municipal tax rate are the ones which concerns people the most when voting on populist parties. Additionally, as the share of people born outside of the European Union increases, the probability of voting in favor of Sverigedemokraterna also increases.

Finally, the growth of populist parties or of Sverigedemokraterna in particular, forces the conventional parties to adopt similar political standpoints in order to gain votes. Implying that if the present economic and political situation persists, populist parties’, especially Sverigedemokraterna’s policies will thrive in Swedish politics.
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1 Introduction

1.1 Background to the Problem

There are various reasons to why a large group of people with fairly homogenous views should unite, most of the time, it is not because of the positive elements in society, but the negative ones (Hayek, 2004).

Populist parties are often unhappy with the way a country is presently governed. Their solutions to complex political and economic issues often tend to be very basic and fundamental. They want to change the world in a very drastic manner, and this should be done without any compromise. The solution should also be swift. In contrast, the conventional parties, no matter left or right, tend to have a long-run strategy in economic and political problem solving.

Populist parties are characterized by their eager to win votes from the malcontent segment in society. Leftwing populist parties in Sweden tend to have disgust towards capitalism - USA, and globalization - the European Union. On the other hand, rightwing populist parties seem to dislike cultural and ethnic blending, especially in form of foreigners. However, beyond the surface, one would find many similarities which they all have in common, one of them being the lack of long-run strategies to turn populist ideas into reality.

But what makes people cast their vote on these parties when they supposedly know the weaknesses in populist policy design? Or foremost, what are the underlying economic factors influencing people’s choice in contributing to the growth of populist parties? In fact, according to the latest election to the parliament, which occurred in September 2006, many Swedish people seem to sympathize with them.

In the very same election, Sverigedemokraterna, the leading rightwing populist party outside of the parliament, received 2.9 percent of the votes. Consequently, 4 percent is required to enter. In the prior election of 2002, they received 1.7 percent. Furthermore, the overall change in populist party votes increased from 3.12 to 5.67 percentage points (val.se). From Sweden’s point of view, this is a big increase. Nevertheless, the percentages are expected to rise even more until the forthcoming election of 2010.

1.2 Defining the problem

Having stated the background to the problem, we move on by asking; what are the factors behind populist party growth? Or even narrower, what economic factors are influencing populist party growth. Thus, the intensions are not to evaluate any policies they present, the correctness or wrongness in them, but merely to observe relationships between economic factors and the probability to vote on a populist party. This way, the question is posed from an economist point of view.
1.3 Purpose
The purpose of the thesis is to identify relationships between economic factors and the probability to vote on populist parties. The results are in turn based on the populist parties’ outcome in the 2006 Swedish election to parliament. Importantly, parties below the 4 percent margin, prior to the election, which is the percentage point required to enter the parliament, are defined as populist parties. Furthermore, relationships are examined at a regional, or more explicitly, at a municipal level. Thus, there are 290 observations made for each economic factor. The function of these factors is to reflect the economic situation in the municipalities.

1.4 Limitations
The thesis is limited to Sweden and the 2006 election to parliament, while all data is retrieved from a municipal level, hence not individual or national. Also, as mentioned in the purpose, parties below the 4 percent margin, prior to the election, are defined as populist parties. This does not in any way imply that a populist party which exceeds the 4 percent margin automatically becomes conventional. There has been, and are, populist parties in the Swedish parliament, but for the sake of simplicity, it is easier to think of parties below 4 percent as the only ones being populist. This limit is set in order to avoid unnecessary complications, and render the thesis easier to follow.

1.5 Outline
After the induction part, which ends with a section containing earlier studies, a description of populism is to follow. It includes general characteristics and illustrates the typical Swedish populist voter. Chapter 3 is the backbone of the thesis, and is hence covering the theories underlying economic voting. Theorems of the “rational voter”, “median voter” and “retrospect voting behavior” are consequently introduced. Additionally, the final section of the chapter describes the dynamics of political competition. Next, a chapter containing the outcomes is to follow, where populist party description and vote distribution is depicted. Further on, chapter 5 explains the regression model and the variables used. It also contains a methodology part. Chapter 6 in turn presents the empirical findings, which are thoroughly analyzed and commented upon. And finally, in chapter 7, a conclusion of the thesis is made, along with suggestions for further studies.
1.6 Previous Studies

The phenomena of economic voting began with Tibbits (1931), and his quantitative surveys in the 1930’s, where he tried to find a relationship between economic fluctuations and election outcomes. On the other hand, it was not until the early 1970’s when Goodhart & Bhansali (1970) and (Kramer 1971) wrote their influential papers on voting behavior, that the phenomena got a penetrating effect among economists. Since then, numerous studies have been conducted in various fields pertaining economic voting. The results have conversely not been analogous. Some claim that there is a strong relationship between economic factors and voting, while others claim the contradictory. Thus, a concluding statement is hard to present. Nevertheless, the studies that show upon strong relationship are carried out in a single country and during a short period of time (Bengtsson, 2002).

However, Kinder & Kiewit (1979) were the first ones to research if electorates vote based on common or self-interest. Their theory was therefore predicated on the idea that the ones with self-interest in mind will consider microeconomic variables, such as personal economic development, instead of macroeconomic. On the other hand, those considering common-interest will vote with regard to national economic development (macroeconomic variables). The results were based on surveys in relation to American elections to congress in the years of 1974 and 1976. Ultimately they showed that Americans do not consider micro-economic variables when casting their vote.

The first ambitious attempt concerning aggregated data was conducted by Martin Paldam (1991). He’s population consisted of 197 elections in 17 western countries. He’s indicators were government swaps in relation to economic fluctuations. Unfortunately, none of his results were significant. Next to try the same type of research was Bingham Powell & Guy Whitten (1993). They continued where Paldam left of by extending the population to 202 elections in 19 countries. Also, they allowed for a more political context. Consequently, their results were more satisfying than the ones Paldam achieved, however still fairly weak. In 1994, Martin Paldam, this time with the aid of Peter Nannestad, accomplished a compilation containing the last 25 years of findings, including their own. The economic factors they found being essential were inflation and unemployment. Not surprisingly, the results showed that an increasing inflation or unemployment rate led to that people more frequently voted on the opposition parties. Furthermore, other vigorous findings by Paldam & Nannestad showed that people will hold their government responsible for national economic development. Hence, when people are discontent with an economic situation, they vote in favor of the opposition. Moreover, governments’ popularity will decline over time and finally - voters are retrospect and think in short terms when it comes to voting.

Regarding Swedish research, Henrik Jordahl (2002) found unemployment as the most influencing factor in the Swedish elections of 1985, 1991 and 1994. A high unemployment rate resulted in the same behavior mentioned above – namely that more people voted in favor of the opposition parties.

From the above stated facts, one can conclude that the type of study this paper investigates is almost nonexistent, as most of them concerns government switches with respect to economic fluctuations. But as Bengtsson (2002) implies, research conducted during a short period of time and in a single country – as the case of this study, tend to show upon strong relationships.
2 Populism

Generally, populism is defined as a political niche which self-declares itself as the representative of the (ordinary) people’s interests against the elite. Therefore, it claims to be a channel of discontent against unfair authority (NE.se).

However, somewhat intellectual people have quite differentiated preferences, thus agreeing upon one common ideology will be difficult amongst them. Consequently, if we want to find similar preferences or values within large groups, we have to search among them with simpler or more fundamental views (Hayek, 2004). The simpler ideas - the better, because then more can relate, hence populist ideas are views simplified to seem more appealing to the people. Next, the implications of “the people” and a description of populism are to follow. Later, in section 2.2, the distinct hallmarks of the Swedish populist voter are depicted.

2.1 Characteristics of Populism

Populist movements are often sparked by specific political or economic issues and their common goal being, no matter left or right on a political scale – to attract as much people as possible (Canovan, 2002).

When trying to appeal to the whole people simultaneously, populism both unite and create duality amongst them, although the major purpose is to invoke a near to mythical unity of nation, class, profession, et cetera. Furthermore, it also wishes to inflame the non-elite against the elite, to which a fictional unity is also recognized (Mudde, 2002).

There is a great appeal about the expression “the people” for a populist politician. The meaning tends to be full of rhetorical resonance - still it manages to be empty of precise meaning. When it is used to mean “everyone”, it is suitably blurry while still sounding explicit, implying a feeling of harmony. However, when used to mean a particular class or segment of the population, it gains in definition but still manages to avoid losing its implication of depth and legitimacy (ibid).

Nevertheless, populism is very confusing in its aspects; it has both modernist, mass society and an anti-modernist, traditional aspect. It may appeal to them which are in the intermediate phase between the decline of established elites and just before the emergence of new elites (ibid). Furthermore, populism will exist wherever there is an ideology of popular antipathy against the order imposed upon society by a differentiated ruling class – elite, which is believed to have a monopoly of power, hence also economic power. Moreover, all autonomous institutions are resented as arrogant and secretive sanctuaries for the high and mighty. Thus, the self-esteem of the mass public is flattered by populist politicians to believe that they are not just the equal of their rulers - but they are actually better (Shils, 1956).

Populism is not really an ideology of its own but an attribute of certain social, political and economic movements, particularly of the extreme right or left, that thrive on the breeding of conspiracy theories (Mudde, 2002). When people unite on a negative basis, there is always a need for a common enemy, someone to blame for personal misery (Hayek, 2004).
2.2 Characteristics of the Populist voter

From a historical point of view - both communists and fascists were populists characterized by their inability, although stemming from the middle class, to use their education for climbing the social ladder (Hayek, 2004).

But what characterizes the contemporary Swedish populist voter? An answer can be provided through the publication “70-talister: Om värderingar förr, nu och i framtiden” (1999). It contains several studies about Swedish people’s values; conducted by Åke E. Andersson, Thomas Fürth and Ingvar Holmberg. Their results reveal that:

The typical Swedish populist voter is a man;

- with political views of the extreme right,
- with low sense of freedom and self-determination,
- from a family where the parents have no higher education and
- with strong ties to the local community.

…and he does not;

- want any higher education,
- want to move abroad,
- want to abandon the industrialized society, nor
- practice any religion.

The outcome implicitly suggests that right-wing populist parties in Sweden should have a strong position in politics, relative to left-wing populist parties. Quite right, the leading party outside of parliament is the right-wing populist party - Sverigedemokraterna (val.se).

This of course does not by any means entail that left-wing populist voters are non-existent. On the contrary, right-wing (but also left-wing) sympathizers can easily swing between extremes. Hayek (2004) says that socialism and its opposites are in its fundamentals the very same. Hence Hayek and Muddé (2002) are in accordance; populism in itself is not about any particular ideology. Furthermore, this also implies that people voting for a right-wing populist party today might just as well vote for a left-wing populist party tomorrow.
3 Theoretical Framework – Economic Voting

Self-interest is of great importance to economists. *Homo economicus* – the economical man – is all about private utility maximization. In a political context, this means that an individual votes on the party that will give him most utility. Ergo, an individual’s economic self-interest determines his choice on the election day (Holmgren & Oscarsson, 2004). In other words, as James Buchanan & Gordon Tullock (1962) explicate; the theories of social choice - or *public choice*, assumes that an individual as part of society and therefore a decision maker (although a limited one), is guided by his desire to maximize personal utility. However, every individual has a unique utility function and if we would like to analyze these exclusive utility functions, we should do so without any moral censure that might or might not be placed on such individual self-seeking action.

This chapter contains the fundamental theories underlying economic voting. First, “the rational voter theorem” is discussed, as it is crucial to know *why people vote*. Next, the concept of “retrospect voting behavior” is clarified. Since the background problem to the thesis is populist party *growth*, we assume voters being mobile. Were they instead static, would no party grow or decline. Consequently, the reason to *why people swing* has to be answered. Finally, what are the *dynamics* of voting? Who is *decisive*, and what actions do political parties take in order to win in an election? This is answered in section 3.4.

3.1 The Rational Voter Theorem

The “rational voter theorem” was founded by Anthony Down in his publication “*An Economic Theory of Democracy*” (1957) and utilizes microeconomic theory to voting behavior.

3.1.1 The paradox of voting

A voter would like to see party *X* win the election. Thus, he calculates the benefit of party *X* winning the election, which yields the utility *U(X)*. To be able to do so, the voter has to calculate the likelihood *P*, which is a measure to see if his vote will be decisive and thus make a difference, 0 ≤ *P* ≤ 1. According to Mueller’s theorem (1991), the value of *P* does not only reflect how close the election is, but also the relative size of the electorate. Lastly, the cost *C* also has to be taken into account. *C* includes the cost of time spent deciding among alternatives, and the opportunity cost of the time spent on voting. Hence, the utility from voting becomes:

\[ E(U) = P[U(X)] - C \]

However, when *P* is small, as it tends to be in real life, it leaves individuals very unlikely to affect the outcome of an election, hence, expected utility in almost all cases result in negative values. According to basic economics, when *E(U) < 0*, it is irrational to vote. Still many people choose to vote, even when they are not supposed to, why? This very issue originates the famous inconsistency - *the paradox of voting* (Connolly & Munro, 1999).
3.1.2  Explanations to the paradox of voting

There are several behavior theories to why people vote, despite the paradox of voting, one of them being the “minimax strategy”. It implies that a voter does not try to maximize his utility but instead tries to minimize regret. The voter’s strategy thereby becomes avoidance of risk and maximum regret (Connolly & Munro 1999).

For example, Mueller (1991) says that a voter casts his vote despite of being indifferent between two equal parties. This to eliminate the chance of a third party winning, one he does not want to see in power.

There are also models stating that voting is not based on self-interest but as a consequence of altruism. Thus implying that a voter is equally concerned with other people’s utility as his own. The model is called “the ethical voter”, and can explain irrational behavior such as wealthy individuals voting on a party advocating progressive tax schemes. The income of the wealthy individual decreases, but once the tax revenue is redistributed; the income of many others increases, leaving the now less wealthy, but altruistic individual satisfied (Connolly & Munro 1999).

Others suggest that a positive variable here denoted $D$, should be included in the utility function. $D$ illustrates the benefits from taking part in the democratic process, since it is seen as a civic duty to do so. Moreover, it enables individuals to shape their society, which in itself ought to be seen as a personal gain. Also, people who have a more extreme ideology, benefit from expressing them under democratic circumstances (ibid). Hence, the new utility from voting becomes:

$$E(U) = P[U(X)] - C + D$$

It is rational to vote, when $D$ is large enough - rendering $E(U) > 0$. 
3.2 Retrospect voting behavior

According to Michael Lewis-Beck and Martin Paldam (2000), 15 to 25 percent of the electorate is mobile each election. Thus, we want to know the reason to why voters swing. A well known and frequently used theory in economic voting is “retrospect voting behavior”. The concept is founded by the now well known Anthony Downs, and as the idea is based on “the rational voter theorem”, it is also included in the important publication from 1957. The concept fundamentally assumes that electorates cast their votes based on past performance of parties. Also, the voters seem to be short-sighted, implying that they regard recent conditions when voting. The following subheadings explain the most important views.

3.2.1 Downs – The Rational Voter revisited

According to Downs, as stated in the previous section, a voter casts his vote on the party that brings the most personal benefits in economical terms. Hence, the voting behavior is called rational choice, where an individual tries to maximize personal utility in accordance to well known microeconomic terms. Furthermore, Downs stresses the fact that a voter bases his predictions about a specific party’s future activity on real facts and not on promises made by the very same. Thus, a rational voter evaluates how well the present government performs in terms of the voter’s personal utility. If he believes that the opposition, or as in our case, a more radical party can accomplish more for him, he will in the future turn his back on the present government (Downs, 1957).

3.2.2 Key – The Responsible Electorate

Key claimed in 1966, just as Downs before him, that the electors vote according to government performance. However, Key state that electors do not have any other criteria but the government’s competence. Thus, a voter does generally not care about the political preference of governments, but what they accomplish.

Accordingly, Key claims that electorates use evaluation of past performance as a strict rewarding/punishing system. This conclusion is based on empirical studies made in the US (Key, 1966).

The difference between Key and Downs is consequently not the voting behavior but the underlying intentions. Downs’ electorate looks at past performance to evaluate if it can gain more utility from a different government. Key’s on the other hand uses past performance to evaluate government competence (Bengtsson, 2002).

3.2.3 Fiorina – A more modern approach

Fiorina’s book “Retrospective Voting in American Elections” was first published in 1981. He was obviously interested in the same issues as Downs and Key, but conducted research from a far more empirical point view. He found that electorates are actually not that retrospective as Downs and Key stated but rather base decisions on future expectations.

On the other hand, these are based on past experience, thus, Fiorina believes in indirect retrospect voting. He’s empirical findings support what Key claimed 20 years earlier, namely that voters are more concerned with real results rather than ideology (Bengtsson, 2002).
3.3 Swedish people and retrospect voting behavior

In this section, Swedish people’s retrospective evaluation of micro and macroeconomic development is compared with the growth of populist parties. In both cases, the results are taken from interviews conducted by Holmgren & Oscarsson (2004). However, as can be seen in both table 1 and 2 - the number of interviewed drops drastically in 1998. Due to this statistical issue, one should analyze these values with caution.

3.3.1 Micro economy

The results from table 1 show the retrospective evaluation of microeconomic development between the elections of 1985 to 2002. Each election year’s evaluation concerned the last length of office. The bottom row shows the gross percentage votes received by populist parties, corresponding year’s election.

[Table 1. Retrospective evaluation of microeconomic development (in %)]

<table>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal economy <strong>has improved</strong></td>
<td>31</td>
<td>36</td>
<td>38</td>
<td>22</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>Personal economy <strong>is the same</strong></td>
<td>41</td>
<td>40</td>
<td>37</td>
<td>40</td>
<td>54</td>
<td>47</td>
</tr>
<tr>
<td>Personal economy <strong>has worsened</strong></td>
<td>27</td>
<td>22</td>
<td>25</td>
<td>37</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Number of people interviewed</td>
<td>2681</td>
<td>2533</td>
<td>2473</td>
<td>2296</td>
<td>877</td>
<td>1048</td>
</tr>
<tr>
<td>Percent votes</td>
<td>0.3</td>
<td>0.7</td>
<td>1.0</td>
<td>0.9</td>
<td>2.6</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Concerning the thesis, it is of greater relevance to compare populist party growth with those who believe that their personal economy has become worse. Hence, when looking at the data, one cannot draw any conclusions about relations. However, the biggest leap in populist party sympathizing occurred in 1998, the very same year people felt the least discontent with their personal economy. But as mentioned above, the values of 1998 should be evaluated with criticism.

3.3.2 Macro economy

The results from table 2 show the retrospective evaluation of macroeconomic development between the elections of 1985 to 2002. Each election year’s evaluation concerned the last length of office. The bottom row shows the gross percentage votes received by populist parties, corresponding year’s election.

[Table 2. Retrospective evaluation of microeconomic development (in %)]

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish economy <strong>has improved</strong></td>
<td>25</td>
<td>59</td>
<td>5</td>
<td>4</td>
<td>49</td>
<td>21</td>
</tr>
<tr>
<td>Swedish economy <strong>is the same</strong></td>
<td>28</td>
<td>21</td>
<td>14</td>
<td>7</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td>Swedish economy <strong>has worsened</strong></td>
<td>39</td>
<td>12</td>
<td>75</td>
<td>86</td>
<td>11</td>
<td>32</td>
</tr>
<tr>
<td>Don’t know</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Number of people interviewed</td>
<td>2781</td>
<td>2325</td>
<td>2475</td>
<td>2296</td>
<td>877</td>
<td>1048</td>
</tr>
<tr>
<td>Percent votes</td>
<td>0.3</td>
<td>0.7</td>
<td>1.0</td>
<td>0.9</td>
<td>2.6</td>
<td>3.1</td>
</tr>
</tbody>
</table>

1 Source: Holmgren & Oscarsson, 2004 and http://www.valforskning.pol.gu.se/

2 Source: See 1
Once again, there is no direct relationship between the number of people being unhappy with macroeconomic development and populist party growth. In fact, people were the least discontent in 1998, the same year as populist party voters increased by 1.5 percentage points. But then again, 1998 year’s values should be critically viewed.

It is obvious that they theory underlying retrospect voting behavior does not support the real life results. On the other hand, Holmgren and Oscarsson claim that this type of aggregated data, on a national level rarely is supported by reality. Instead they insist on the relationship being far more observable on a lower perspective of society (Holmgren & Oscarsson, 2004).

### 3.4 The dynamics of voting

This final part of the theoretical framework explains the dynamics of voting. Section 3.4.1 gives the basics by describing the median voter theorem. In section 3.4.2, the spatial model of political competition, originating from Hotelings’s famous work, is depicted.

#### 3.4.1 The median voter theorem

Attracting the median voter is the key to winning elections. This is the implications of “the median voter theorem”, and it says that - if voters’ preferences are single-peaked, then the median voter will be decisive regarding the outcome in a majority voting (Tullock, 1994). Preferences are single-peaked when all options that voters decide upon can be arranged along a line in such a way that no voter prefers both A and C to option B, when B lies between A and C (Connolly & Munro, 1999).

For example; option A could be an implementation of a high income tax, option (B) could be a medium income tax and C could correspond to a small income tax. Thus, when a voter prefers a high income tax A, automatically prefers a medium income tax (B) to a small income tax C. Consequently, the option preferred by the median voter will win. Nevertheless, when this transitivity is violated, the theorem does not hold.

The median voter theorem does not only apply to direct but also to representative democracy. Implying that, since only two parties (left and right) are allowed in the theorem, parties will develop portfolios of policies to maximize their chances to be elected. This is done by choosing policies that not only appeal to the extremes on the political scale, but also to those in the middle (ibid). One can also consider the two parties as coalitions of the left and right, where different parties represent diverse policies within the coalition to cover the median voter. This way, the theorem can be related to modern Swedish politics.

#### 3.4.2 The spatial model of political competition

In 1928, Harold Hoteling constructed a model called spatial competition, where he investigated how sellers would choose locations along a linear market (Watkins, web page³).

The model assumes that the product is uniform, implying that consumers buy from the nearest seller. Furthermore, if there are only two sellers, A and B, they both capture one half of the product market (ibid).

---

³ Source: http://www.sjsu.edu/faculty/watkins/ downs.htm
If the consumers are evenly distributed along the market, the arrangement has the advantage that it reduces the amount of distance to the consumer to a minimum. But as this arrangement is not stable, seller A has a profit incentive to move toward seller B, in fact, he wants to move just beyond him and thereby seize a quarter of the market. Seller B has of course the same incentive, but the other way around (Watkins, web page\(^4\)).

After a while, they both realize that the only position to set up business is at the midpoint. But then again, each seller only gets half of the market, and the average distance to the customers is double as to before. Additionally, if the customers are not evenly distributed along the market, the tendency of the sellers under competition is to locate at the median point (ibid).

The spatial competition model was later modified by Anthony Downs to explain political competition. Instead of sellers and consumers, he related political parties with respect to ideological positions. The linear market was then transformed into a political spectrum. Downs applied assumption is that each voter votes on the party that is closest to his or her political position. Thus when a party takes a position to the right of the other, it gets the votes of all to the right of that position. As with the sellers in a product market, the political parties want to choose a political position that is virtually the same as their opponent’s. Hence, as mentioned in the prior section - parties are forced to assume the position of the median voter in order to win (ibid).

![Figure 1. The Spatial model of political competition](source)

Figure 1 illustrates the spatial model of political competition with an uneven vote distribution. The X-axis represents the policy space, which along three parties and their political platforms, denoted P1, P2 and P3 are positioned. Consequently, m1 is the midpoint of P1 and P2, while m2 is the midpoint of P2 and P3. The shaded horizontal lines represent the vote fraction received by party 1, the shaded vertical lines in turn represent the vote fraction of party 2 and the remaining area represents the vote fraction of party 3 (Osborn, 1995).

---

\(^4\) Source: [http://www.sjsu.edu/faculty/watkins/downs.htm/](http://www.sjsu.edu/faculty/watkins/downs.htm/)

Prior to an election, party 1 tries to move to the right of midpoint m1 in order to gain voters from party 2. To do so, it has to adopt policies of party 2. In the next election, party 1 has its platform further to the right and accordingly, also m1 is moved to the right. Thus, party 1 will again try to cross m1 (the new one) to gain even more votes. At the same time, party 2 tries to do the opposite and moves to the left. But it can also choose to move to the right and cross m2 in order to seize votes from party 3. This process continues from one election to the other and as mentioned before, forces parties to adopt similar policies (Connolly & Munro, 1999).

Tullock (1994) describe these strategic action patterns as a “rule-of-thumb” to how political parties fight in order to win. First they find the other party’s point of view regarding a key issue, and then they try to assume a very similar standpoint as to the other party. But as a final step, they take a populist direction away from it. This political behavior can be related to Moderaterna’s strategy prior to the 2006’s election, where they despite of being a right-wing, branded themselves as the “new labor party” in order to cover voters from the working class. And apparently, the strategy was of great success.
4 Participants and outcome of the 2006’s election

2006 was the year when Sweden for the first time in 12 years got a right wing government. Also, it was a year when populist party recognition blossomed. Thus, aggregate results, share vote distribution at a municipal level and description of the participant parties is presented in the chapter.

Table 3 shows the aggregate results of the conventional parties. Each of these received 4 percentage points or more, and could hence enter the parliament. The bottom row denotes the aggregate results of the parties which received less than 4 percent and could therefore not enter the parliament. These are also the ones defined as populist parties.

<table>
<thead>
<tr>
<th>Party label</th>
<th>Conventional parties</th>
<th>share of votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Moderata Samlingspartiet</td>
<td>26,23 %</td>
</tr>
<tr>
<td>Kd</td>
<td>Kristendemokraterna</td>
<td>6,59 %</td>
</tr>
<tr>
<td>Fp</td>
<td>Folkpartiet liberalerama</td>
<td>7,54 %</td>
</tr>
<tr>
<td>C</td>
<td>Centerpartiet</td>
<td>7,88 %</td>
</tr>
<tr>
<td>S</td>
<td>Arbetarepartiet-Socialdemokraterna</td>
<td>34,99 %</td>
</tr>
<tr>
<td>Mp</td>
<td>Miljöpartiet de gröna</td>
<td>5,24 %</td>
</tr>
<tr>
<td>V</td>
<td>Vänsterpartiet</td>
<td>5,85 %</td>
</tr>
<tr>
<td>Populist Parties</td>
<td>Remaining parties below 4 percent</td>
<td>5,67 %</td>
</tr>
</tbody>
</table>

Way ahead of the election, M, Kd, Fp and C formed a right-wing coalition. Meanwhile S and its allies Mp as well as V did accordingly and formed a left-wing coalition. Although a close election, ultimately, the parties of the right were declared as winners. Implying that for the first time in 12 years, S and its political partners did not receive enough votes to enjoy majority.

4.1 Populist party outcomes

Table 4 shows the aggregate results of the 5 largest parties below 4 percentage points. Hence the largest populist party is Sverigedemokraterna, 1.07 percentage points shy of entering the parliament. The bottom row shows the aggregate result of the remaining small parties.

<table>
<thead>
<tr>
<th>Party label</th>
<th>5 largest parties below 4 percent</th>
<th>share of votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sd</td>
<td>Sverigedemokraterna</td>
<td>2,93 %</td>
</tr>
<tr>
<td>Fi</td>
<td>Feministiskt initiativ</td>
<td>0,68 %</td>
</tr>
<tr>
<td>PP</td>
<td>Piratpartiet</td>
<td>0,63 %</td>
</tr>
<tr>
<td>SPI</td>
<td>Sveriges Pensionärers Intresseparti</td>
<td>0,52 %</td>
</tr>
<tr>
<td>Jl</td>
<td>Junilistan</td>
<td>0,47 %</td>
</tr>
<tr>
<td>Misc.</td>
<td>Residual parties</td>
<td>0,44 %</td>
</tr>
</tbody>
</table>

---

6 Source: http://www.val.se/

7 See 4
4.1.1 Populist party descriptions

Parties with strong ideological convictions

**Sverigedemokraterna** - An extreme right-wing populist party with focus on the *restriction of immigration to Sweden*. Furthermore, “Sweden should remain Sweden!” is one of their slogans (Sverigedemokraterna.se).

**Feministiskt Initiativ** - A populist party of the political left. As the party name reveal, their goal is to *strengthen women’s position in Swedish society*. Moreover, one of their radical views says that “the building of society should be based on women’s dictations” (FeministisktInitiativ.se).

As we just learnt, both Sverigedemokraterna and Feministiskt Initiativ hold strong ideological convictions. Nevertheless, they still are one-dimensional in a sense that they conduct policies based on a factual, although political issue.

**Parties that hold a factual issue as their conviction**

**Piratpartiet** - No particular ideology, however, they hold personal integrity as sacred. Thus, their main goal and the reason for foundation is the *allowance of file-sharing*, on the internet that is (Piratpartiet.se).

**Sveriges Pensionärers Intresseparti** - No distinct political ideology. Instead, the party’s purpose is to *shield the interests of senior citizens*. They believe that senior citizens are neglected and should be treated as the rest of society - equally (Spipartiet.org).

**Junilistan** - A cross-political party with no distinct ideology of the right or left. The party is characterized by its *criticism towards the power out-flow from Sweden to EU*. Nevertheless, they still want Sweden to remain as a part of EU (Junilistan.se).

**Residual parties**

Most of the remaining parties are small while covering all political extremes. Examples of right-wing parties are **Nationalsocialistisk Front** and **Nationaldemokraterna**. **Rättvisepartiet Socialisterna** and **Kommunisterna** are correspondent on the extreme left. Furthermore, **Sjukvårdspartiet** is an example of a remaining party which holds a factual issue as important. Finally, the residual parties tend to be very small and sometimes only consist of a few voters (val.se).
4.2 Populist party vote share distribution

Figure 2 shows the support for populist parties in Sweden, where the support indicator varies between the shades of light gray to black. The specific vote share range is displayed next to the corresponding color.

Almost the whole of north exhibits a low support for populist parties. Kiruna on the other hand, located in the north-east with a vote share of 9.6 percent, is an exception.

However, in the middle of Sweden, just above Stockholm, one can observe an increase in support. Nevertheless, the main Stockholm area with its sub municipalities exhibits an almost non-existent support for populist parties.

Furthermore, the Gutherburg area shows a somewhat stronger support, although still quite moderate.

Further south, below the Vänern and Vättern area, support is stronger and in some local areas even relatively strong. Forth, in the very south of Sweden, namely in Blekinge and Skåne, support is very strong. Mainly in Skåne though. But then again, when comparing to the rest of Sweden, Blekinge also appears to be a stronghold for populist parties.

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8 Source: http://www.val.se/
Figure 3 shows Skåne, located in the south-east of Sweden. For some reason, all municipalities with a vote share above 10 percent are located here. Consequently, Skåne also accounts for the top 15 municipalities with the highest vote shares.

To conclude, one can say that the north of Sweden show very low support for populist parties. In the middle of Sweden, support is moderate, although being relatively weak in the Stockholm and Gothenburg area. Finally in the south, especially Skåne, shows a very strong support for populist parties.

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9 Source: http://www.scb.se/
5 Methodology and data

This chapter starts off with a description of the chosen regression form - the logistic regression. The section is important in order to understand its functions and to interpret the results rendered. The next section, 5.2, is in detail explaining and motivating the variables chosen. And finally, section 5.3, concludes and provides a thorough explanation to the methodology, this to give a clear picture of the process.

5.1 Description of the logistic regression

In order to evaluate relationships between economic factors and the probability to vote on populist parties one can use the logistic regression model as a tool. The model is a part of the generalized linear model category, and is widely used in the fields of social and medical science. The dependent variable, or the logit, is the log of the odds ratio, which in turn is a linear function of the regressor(s). Also, the heteroscedastic nature of the error term has to be taken into account (Gujarati, 2003).

Furthermore, if data is available in grouped form, one can use OLS to estimate the parameters of the logit model (ibid). However, as this study is conducted at a municipal level, there is an issue to consider; namely the variety among municipality populations. The large municipalities do not present any problem, but the fact that smaller ones tend to be very small indeed, can be statistically misleading. Hence, the reader is advised to view the small-valued observations with some criticism.

The model is written as follows:

\[ \log(P_i) = \ln\left(\frac{P_i}{1-P_i}\right) = \beta_0 + \beta_1 X_1 + \ldots + \beta_r X_r + \mu_i \]

\( i = 1, \ldots, n, \)

\( 0 \leq P_i \leq 1 \)

\( \beta_0 + \beta_1 X_1 + \ldots + \beta_r X_r \) ranges from \(-\infty\) to \(+\infty\).

\( \mu_i \) = error term

\( P_i \) denotes the vote share cast in a specific municipality. The vote share in turn corresponds to the conditional probability of that very same municipality voting in favor of a populist party. \((1 - P_i)\) in turn denotes the conditional probability of the very same municipality not voting in favor of a populist party.

Hence, \( \left(\frac{P_i}{1-P_i}\right) \) denotes the odds ratio of voting / not voting in favor of a populist party.
In order to render the function linear, not only in $X_1$, but also in the parameters; the natural log of the odds ratio is taken:

$$\ln \left( \frac{P_i}{1 - P_i} \right) = \beta_0 + \beta_1 X_1 + \mu_i$$

Then to be able to observe any response in the regression; $(e^{\beta} - 1) \times 100$ has to be applied. Where $\beta_i$ denotes the sample estimate of the response in $X_1$, with respect to the odds ratio (dependent variable) (Demaris, 1992). Hence, the results of the logistic regression should be interpreted in the following way;

A one-unit increase in the significant variable $X_1$ renders an increase (or decrease) in the probability for a person residing in a municipality to vote in favor of a populist party by a certain percent, ceteris paribus (ibid).
5.2 The variables used

Table 5 displays the variables being used in the regressions. The variables X1, X2, X4, X6 and X7 do not need any meticulous introduction. Although being quite divers, they all are general ingredients in people’s consideration when voting, mainly because they all influence us in our everyday life. However, the variables crime X3, and people born outside of the European Union X5, are normally not thought of as economic factors, but they are still important to the thesis. Primarily because right-wing populist parties generally do not welcome ethnic diversity, thus it is interesting to observe any contingent relationships. Crime on the other hand should concern any voter, as it creates an insecure society, rendering public discontent. Even if these variables fall outside the concept of “economy”, it is relevant to note that no other or political variables have been included, as the thesis focuses on the economic part of voting. It is also important to point out that all data is retrieved from a municipal-level and one year prior to the election in question, 2005 to be exact.

The particular year is chosen because of the statement in section 3.2, which say that people are retrospective and myopic. Therefore they base their decisions on past experiences; however, they also tend to be short-sighted.

[Table 5. Compilation of the variables used]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>Disposable income (per person and year; measured in thousands of SEK)</td>
</tr>
<tr>
<td>X2</td>
<td>Gini - coefficient (of the municipality, measured as an index)</td>
</tr>
<tr>
<td>X3</td>
<td>Crime incidents reported (in a municipality; measured in per 100 people)</td>
</tr>
<tr>
<td>X4</td>
<td>Unemployment (measured in percentage points of municipality’s working force)</td>
</tr>
<tr>
<td>X5</td>
<td>People born outside of the EU (measured in percentage points of population)</td>
</tr>
<tr>
<td>X6</td>
<td>Municipal tax (measured in percentage points)</td>
</tr>
<tr>
<td>X7</td>
<td>Higher education (measured in percentage points of population)</td>
</tr>
</tbody>
</table>

In order to continue, some clarifications are in order. First, the variable X1 is the disposable income; hence all taxes have been deducted. The gini-coefficient X2 shows the income distribution of a given municipality. It is measured between 0 and 1. Values close to 0 indicate a near to perfect distribution, while values close to 1 indicate the opposite. To make it easier to measure, the values are multiplied by 100, this way it is transformed into an index. Furthermore, the number of crime incidents reported in a municipality, X3 which is measured in per 100 inhabitants - does not take into consideration if any conviction is followed by the report. Thus, it measures people’s own perception of when they have been subjected to a criminal act. Forth, the percentage share of people born outside of the European Union in a municipality, X5, concerns all people born outside of the European Union, but living in Sweden. Hence, the variable includes foreign as well as Swedish citizens. X6 represents the municipal tax rate, which is individual for each municipality. The variable is measured in percentage points, and is applied to the income. Consequently, the higher municipality tax, the more is taken from personal income. And finally, X7 represent higher education in a municipality. This is measured in the percentage share of the population which has at least 3 years of post high school education (such as university studies).
5.3 Method

Taken the function stated in 5.1 and the variables introduced in 5.2, we arrive at:

$$\ln \left( \frac{P_i}{1-P_i} \right) = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \mu$$

Thus, the model stated above is the one used to determine relationships between the predictors and populist party outcomes. First off, each regression is tested for significance at the 5 percent significance level. Hence the null hypothesis states that there is a relationship between the dependent variable and the predictors. On the other hand, the alternative hypothesis states the opposite. When a relationship is evident, a significant beta coefficient aids in determining the percentage change in the odds ratio. In other words - it will show the positive or negative change in the probability of voting in favor of a populist party. Furthermore, a variable is regarded as influential when it is found significant at the 5 percent significance level.

The regressors are the same through all regressions, meaning that merely the regressands vary. The study is conducted at a regional, or more explicitly, at a municipal level, implying that 290 observations are used for each variable, in a total of five regressions. These are performed to test the diversity of populist parties. And finally, all data is retrieved from the Statistiska Centralbyrån’s web page.

The first regression, denoted regression 1, tests the relationship between the aggregated outcome of all populist parties below 4 percent and the mentioned predictors. This is done to get a general overview of relationships regardless of political orientation.

The next one, denoted regression 2, tests the outcome of Sverigedemokraterna. The regression stands for right-wing oriented ideologies.

Regression 3 on the other hand represents a left-wing populist party. Thus it tests the biggest leftist populist party’s - Feministiskt Initiativ’s - outcome for relationships.

Regressions 2 and 3 are consequently ideologically oriented. Regression 4 however, tests the aggregated outcome of parties that hold factual issues as their conviction and are cross-political. Therefore, regression 4 includes the results of Piratpartiet, Sveriges Pensionärers Intresseparti (SPI) and Junilistan.

Finally, regression 5 tests the remaining (residual) parties’ outcome for relationships. The regression includes all populist parties except the five mentioned above, subsequently all types of ideologies are represented. Since most of the parties are very small, it seems better to aggregate their outcomes and test them as one.

For reasons stated in section 5.1, each regression is tested for heteroscedasticity. At a 5 percents significance level, the results shows that regression 1, 3 and 4 exhibit such behavior (results in appendix). Therefore, the mentioned regressions are adjusted with the “White Heteroskedasticity-Consistent Standard Errors & Covariance” method. Additionally, the regressions are also tested for multicollinearity. However, the VIF-indicators reveal relatively low values, the highest being 3, which in turn is implying usable variables (results in appendix, along with a correlation matrix).
6 Empirical analysis

Which municipalities are the ones with the lowest and respectively highest vote shares? What are their attributes? Section 6.1 attempts to answer these questions with the help of descriptive statistics. In section 6.2, a more precise effect of relationships are displayed and analyzed. Section 6.3 is in turn trying to presage what will happen in the future.

6.1 Descriptive statistics

[Graph 1. Percent vote share cast on populist parties, in corresponding municipality]¹⁰

Graph 1 exhibits the aggregate percentage vote share cast at different locations in Sweden. The vote shares are arranged in an increasing order and correspond to the municipality on the X-axis where it is cast. The municipal names shown are simply a few examples along the extent out of the 290 in total.

The graph reveals that the vote share curve is relatively steep in the beginning, until it exceeds 4 percent. After that, it becomes less steep, but when it reaches 8 percent, it once again becomes more vertical. This implies that the majority of municipalities lay on the 4 to 8 percent stretch. Thus to conclude; the lowest observation is 1.6 percent (Bjurholm), the majority of the municipalities lay between 4 – 8 percent, and the highest observation is 13.9 percent (Trelleborg).

¹⁰ Source: http://www.scb.se/
As mentioned above, the municipality with the lowest vote share is Bjurholm followed by Danderyd, Dorotea, Malå and Täby. On the opposite side of the extreme, Trelleborg is found to be the one with highest vote share, followed by Hörby, Bjuv, Örkelljunga and Burlöv.

An economic insight with the help of the variables will shortly follow, but first we want to see the descriptive statistics for the total observation, containing 290 municipalities.

Table 6 shows the extremes of each variable, the mean, the median and the standard deviation.

<table>
<thead>
<tr>
<th>Table 6. Descriptive statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Disp. income</td>
</tr>
<tr>
<td>Gini</td>
</tr>
<tr>
<td>Unemployment</td>
</tr>
<tr>
<td>PboEU</td>
</tr>
<tr>
<td>M. tax</td>
</tr>
<tr>
<td>Education</td>
</tr>
</tbody>
</table>

Moreover, table 7 and 8 show the economic situation of the top 5 among municipalities with lowest, respectively highest vote share cast on populist parties. The arrows in brackets indicate if the value is below or above the population mean.

<table>
<thead>
<tr>
<th>Table 7. Top five locations with the lowest vote share cast on populist parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Disp. income</td>
</tr>
<tr>
<td>Gini</td>
</tr>
<tr>
<td>Crime</td>
</tr>
<tr>
<td>Unemployment</td>
</tr>
<tr>
<td>PboEU</td>
</tr>
<tr>
<td>M. tax</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>vote share</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 8. Top five locations with the highest vote share cast on populist parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Disp. income</td>
</tr>
<tr>
<td>Gini</td>
</tr>
<tr>
<td>Crime</td>
</tr>
<tr>
<td>Unemployment</td>
</tr>
<tr>
<td>PboEU</td>
</tr>
<tr>
<td>M. tax</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>vote share</td>
</tr>
</tbody>
</table>
When comparing *disposable income* between table 7 and 8, there is a big contrast. Danderyd and Täby exhibit a very high disposable income level. Bjurholm, Dorotea and Malå on the other hand, also with a low vote share, are below the population mean. In the other group, all observed values are below the mean. Forth, the *gini-index* indicates that Danderyd and Täby have a relatively unfair income distribution. The three remaining locations however, show a below mean value and are thus more equalized. In the “high vote share” group, all except Burlöv, reveal a below mean value. When it comes to the number of *crime incidents reported*, there is a big difference. The “low vote share” municipalities all exhibit a below mean value, while in the other group, all except one does accordingly.

Furthermore, the *unemployment rate* is below the population mean in all “low vote share” locations except Dorotea. The situation is similar in the “high vote share” group, where two municipalities reveal an above mean value. Moreover, both groups show upon a similar situation when it comes to the share of *people born outside of the European Union*. Three out of five in the “high share vote” faction display values above the mean, while the corresponding number is two on the opposite extreme.

The *municipal tax rate* is below average in all of the “high vote share” municipalities. However, in the other group; Bjurholm, Dorotea and Malå all display a value above the mean. And finally, when looking at the share of *highly educated people* in municipalities, one can see that the “high vote share” locations all, except Burlöv reveal a value below the mean. Furthermore, in general, the variable is lower at the “low vote share” locations. Danderyd and Täby are of course exceptions, as they both exhibit very high education shares.

It is difficult to make any conclusions from the above stated observations. A thorough examination of the regression results is thus necessary.
6.2 Regression analysis

This part of the thesis depicts and analyzes the regression results, each one separately. Section 6.2.1 through 6.2.5 are thus accounting for regressions 1 to 5.

6.2.1 Regression 1 – total populist party outcome

Table 9 represents the result of the aggregate vote share cast on populist parties; hence all parties below 4 percent are included.

At the 5 percent significance level, the null hypothesis, saying that there is a relationship between the dependent variable “total populist parties” and the independent variables can be accepted, since the p-value (0.000) is less than 0.05.

Forth, the R-squared (0.281163) indicates a 28.11 percent fit, implying that 28.11 percent of the variance in the independent variable is explained by the regressors. Thus, when people vote on a populist party, approximately 30 percent of their total decision is based on the given factors.

[Table 9. Results from regression 1.]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-value</th>
<th>p-value</th>
<th>R-squared</th>
<th>F-statistics</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.115360</td>
<td>3.934683</td>
<td>0.0001</td>
<td>0.281163</td>
<td>15.75717</td>
<td>0.000000</td>
</tr>
<tr>
<td>Disp. income</td>
<td>-0.003907</td>
<td>-3.283460</td>
<td>0.0012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini</td>
<td>-0.002554</td>
<td>-0.711155</td>
<td>0.4776</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime</td>
<td>0.009639</td>
<td>1.507156</td>
<td>0.1329</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.001824</td>
<td>-0.094009</td>
<td>0.9252</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PboEU</td>
<td>0.007867</td>
<td>1.580423</td>
<td>0.1151</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M. tax</td>
<td>-0.161058</td>
<td>-6.786654</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-0.015990</td>
<td>-2.263672</td>
<td>0.0244</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: total populist parties
Method: Least Squares
Adjusted for heteroscedasticity: White Heteroskedasticity-Consistent Standard Errors & Covariance
Included observations: 290

The following table shows the independent variables and their responses, which are found significant at the 5 percent significance level. Their significance is indicated by t-statistics and a p-value < 0.05.

[Table 10. Outcome’s response to significant predictors in the odds ratio (from table 9)]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disp. income</td>
<td>A one unit increase in X1 is decreasing the probability of voting in favor of a populist party by 0.3899 percent, ceteris paribus</td>
</tr>
<tr>
<td>M. tax</td>
<td>A one unit increase in X6 is decreasing the probability of voting in favor of a populist party by 14.875 percent, ceteris paribus</td>
</tr>
<tr>
<td>Education</td>
<td>A one unit increase in X7 is decreasing the probability of voting in favor of a populist party by 1.586 percent, ceteris paribus</td>
</tr>
</tbody>
</table>

As seen in the table above, people consider both micro and macroeconomic factors when voting. Education and the tax rate are typical influencers of the latter, but of course, these have a direct impact on the microeconomic factor; disposable income.
Hence when observing the effects of disposable income, one can see that an increase decreases the probability of people voting in favor of a populist party. This is not in any way surprising, since people with a relatively high disposable income have fewer reasons to be discontent, economically that is.

Forth, there is a negative correlation between disposable income and municipality tax rate, although they render the same behavior, implying that when the tax rate increases, the probability of voting in favor of a populist party decreases. This is because the tax rate is adjusted to the income level the municipalities. Hence, people voting on a populist party in general, reside at locations where the tax rate is relatively low, but which in turn also implies a lower disposable income.

[Graph 2. Municipal tax rate (in %) vs. vote share cast on populist parties]

Graph 2 illustrates the situation described above. The municipal tax rate, measured on the Y-axis, fluctuates along the X-axis, where locations are arranged according to vote share size, in increasing order, from left to right. As the vote share size increases, the trend line does the opposite. Two example along the trend line; Vaxholm (32.15 percent), with a low vote share cast on populist parties, has a higher tax rate than Malmö (31.23 percent), located far to the right on the axis.

Education is highly correlated with income; hence a high share of educated people in a municipality results in a high disposable income level. When relating this to voting in favor of populist parties in general, the probability decreases as the share of educated people increases.

The gini-coefficient is not significant in any of the five regressions. This implies that people do not care about unfair income distribution at all when voting in favor of a populist party. This result is controversial, as section 2.2 states that populism in general is present wherever inequality is evident. However, Sweden has a low average gini value (14.111, where 0 is perfect income distribution and 100 is the opposite). Thus, when people think of inequality, they find other aspects.
6.2.2 Regression 2 – Sverigedemokraterna

Table 11 represents the results of the vote share cast on Sverigedemokraterna. At the 5 percent significance level, the null hypothesis saying that there is a relationship between the dependent variable “Sverigedemokraterna” and the independent variables is accepted since the p-value (0.000) is less than 0.05.

The R-squared value indicates a 35.47 percent fit, which also is the highest among the five regressions. Hence, the variables represent 35 percent of the voting decision when voting in favor of Sverigedemokraterna.

[Table 11. Results from regression 2.]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-value</th>
<th>p-value</th>
<th>R-squared</th>
<th>F-statistics</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.925034</td>
<td>4.724549</td>
<td>0.0000</td>
<td>0.354798</td>
<td>22.15321</td>
<td>0.000000</td>
</tr>
<tr>
<td>Disp. income</td>
<td>-0.004496</td>
<td>-2.483934</td>
<td>0.0136</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini</td>
<td>-0.005833</td>
<td>-1.083685</td>
<td>0.2794</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime</td>
<td>0.029575</td>
<td>2.911660</td>
<td>0.0039</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.132867</td>
<td>-4.637780</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PboEU</td>
<td>0.021962</td>
<td>2.904340</td>
<td>0.0040</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M. Tax</td>
<td>-0.224348</td>
<td>-7.448001</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-0.046844</td>
<td>-3.777459</td>
<td>0.0002</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: Sverigedemokraterna
Method: Least Squares
Included observations: 290

The following table shows the independent variables and their responses, which are found significant at the 5 percent significance level. Their significance is indicated by t-statistics and a p-value < 0.05.

[Table 12. Outcome’s response to significant predictors in the odds ratio (from table 11)]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disp. income</td>
<td>A one unit increase in X1 is decreasing the probability of voting in favor of Sverigedemokraterna by 0.448 percent, ceteris paribus</td>
</tr>
<tr>
<td>Crime</td>
<td>A one unit increase in X3 is increasing the probability of voting in favor of Sverigedemokraterna by 3.001 percent, ceteris paribus</td>
</tr>
<tr>
<td>Unemployment</td>
<td>A one unit increase in X4 is decreasing the probability of voting in favor of Sverigedemokraterna by 12.441 percent, ceteris paribus</td>
</tr>
<tr>
<td>PboEU</td>
<td>A one unit increase in X5 is increasing the probability of voting in favor of Sverigedemokraterna by 3.001 percent, ceteris paribus</td>
</tr>
<tr>
<td>M. Tax</td>
<td>A one unit increase in X6 is decreasing the probability of voting in favor of Sverigedemokraterna by 20.096 percent, ceteris paribus</td>
</tr>
<tr>
<td>Education</td>
<td>A one unit increase in X7 is decreasing the probability of voting in favor of Sverigedemokraterna by 4.576 percent, ceteris paribus</td>
</tr>
</tbody>
</table>

As indicated by table 12, all variables are found significant except income distribution. From the microeconomic point of view, disposable income, as well as the municipal tax rate plays the same role as before, implying that when one of them increases, the probability of voting in favor of Sverigedemokraterna decreases.
Additionally, the education share shows the same relationship, but in this case, the impacts are much greater. Namely as it increases, the probability of voting in favor of Sverigedemokraterna decreases by approximately 4.5 percent, compared to 1.5 percent in the previous regression.

Bearing the motto of Sverigedemokraterna in mind; which says that “Sweden should remain Sweden” (stated in section 4.11), one can say that their policies are successful. This is because the share of people born outside of the European Union is significant. Also, regression 2 is the single one out of the five where the variable is. Hence, as the share of people born outside of the European Union increases, the probability of voting in favor of Sverigedemokraterna also increases.

![Graph 3. Share of people born outside of the EU (in %) vs. the vote share cast on Sverigedemokraterna](image)

Graph 3 illustrates the situation described above. The share of people born outside of the European Union, measured on the Y-axis, fluctuates along the X-axis, where locations are arranged according to vote share size, in increasing order, from left to right. As the vote share size increases, the trend line does accordingly. Two examples along the trend line are Östersund (3.43 percent), with a low vote share cast on populist parties and Hässleholm (5.72 percent), with a high share cast on populist parties, located far to the right on the axis.

The relationship between the number of crime incidents reported and party outcomes is also only evident in the regression concerning Sverigedemokraterna. Consequently, a one-unit increase, measured in per hundred 100 persons, increases the probability of voting in favor of Sverigedemokraterna. Furthermore, the significance of unemployment is introduced in regression 2. The fact that it is not significant for total populist party outcome (regression 1) is quite surprising, as previous research emphasizes the relevance of it. Further on, although being significant, it renders in an opposite behavior than expected. Hence, as the unemployment rate increases, the probability of voting in favor of Sverigedemokraterna decreases.
To conclude regression 2; the empirical results strengthen what is stated in section 2.2, where Åke E. Andersson, Thomas Fürth and Ingvar Holmberg say that a typical populist voter who is of the extreme right does not want any higher education. Moreover, the regression is also in accordance with previous research, where unemployment is found as a relevant influencer, although resulting in an unexpected behavior.

The main policy of Sverigedemokraterna, to hinder ethnic diversity, is also considered as successful, as the share of people born outside of the European Union is significant. Given the facts rendered, one can say that Sverigedemokraterna is a channel for those who are very discontent with the present situation in Sweden.

### 6.2.3 Regression 3 – Feministiskt Initiativ

Table 13 represents the results of the vote share cast on Feministiskt Initiativ. At the 5 percent significance level, the null hypothesis saying that there is a relationship between the dependent variable “Feministiskt Initiativ” and the independent variables is accepted as the p-value (0.000) is less than 0.05.

Forth, the R-squared (0.284769) indicates a 28.47 percent fit, implying that roughly 30 percent of the voting decision is based on the given variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-value</th>
<th>p-value</th>
<th>R-squared</th>
<th>F-statistics</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-7.426769</td>
<td>-7.044790</td>
<td>0.0000</td>
<td>0.284769</td>
<td>16.03972</td>
<td>0.000000</td>
</tr>
<tr>
<td>Disp. income</td>
<td>-0.001677</td>
<td>-0.829288</td>
<td>0.4076</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini</td>
<td>0.001283</td>
<td>0.243120</td>
<td>0.8081</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime</td>
<td>0.006347</td>
<td>0.643570</td>
<td>0.5204</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>0.068588</td>
<td>2.141053</td>
<td>0.0331</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PboEU</td>
<td>0.002265</td>
<td>0.290308</td>
<td>0.7718</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M. tax</td>
<td>0.041782</td>
<td>1.459639</td>
<td>0.1455</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>0.085594</td>
<td>7.358664</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following table shows the independent variables and their responses, which are found significant at the 5 percent significance level. Their significance is indicated by t-statistics and a p-value < 0.05.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>A one unit increase in X5 is increasing the probability of voting in favor of Feministiskt Initiativ by 7.099 percent, ceteris paribus</td>
</tr>
<tr>
<td>Education</td>
<td>A one unit increase in X7 is increasing the probability of voting in favor of Feministiskt Initiativ by 8.936 percent, ceteris paribus</td>
</tr>
</tbody>
</table>

Table 14 signifies that macroeconomic factors are the main influencers of Feministiskt Initiativ voters. When the share of educated people increases, the probability of voting in favor of Feministiskt Initiativ also increases.
Consequently the opposite behavior compared to regression 1 and 2. The situation is illustrated in the graph below. An explanation to this relationship is that most of the high share vote locations are bigger cities - Stockholm, Göteborg and Malmö are among the top 10, so are the university cities of Lund and Uppsala, where the education level is considerably higher than in smaller municipalities.

[Graph 4. Share of educated people (in %) vs. the vote share cast on Feministiskt Initiativ]

Graph 4 illustrates the share of educated people, measured on the Y-axis, fluctuates along the X-axis, where locations are arranged according to vote share size, in increasing order, from left to right. As the vote share size increases, the trend line does accordingly.

Two examples along the trend line; Årgäng (5.03 percent), with a low vote share cast on populist parties, has considerably lower share of educated people than Partille (12.88 percent), located far to the right on the axis.

Nevertheless, in the present regression, unemployment renders a behavior that is anticipated (contrary to regression 2), namely when it increases, the probability of voting in favor of Feministiskt Initiativ also increases. Hence, municipalities with a high vote share are also typically those which have a relatively high education and unemployment level. Disposable income on the other hand is insignificant when considering Feministiskt Initiativ, thus, the voter does not care about the income part of economy but rather hold ideological and political aspect as important.
6.2.4 Regression 4 – Piratpartiet, SPI and Junilistan

Table 15 represents the results of the vote share cast on Piratpartiet, Sveriges Pensionärers Intresseparti and Junilistan aggregated. At the 5 percent significance level, one can accept the null hypothesis saying that there is a relationship between the dependent variable “PP, SPI & JL” and the independent variables, since the p-value (0.000217) is less than 0.05.

Nevertheless, the R-squared (0.093833) indicates a small fit, implying that only 9.38 percent of the variance in the independent variable is explained by the regressors. This is of course a very small value, but although usable, as it still explains a tenth of the variation in the regressand.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-value</th>
<th>p-value</th>
<th>R-squared</th>
<th>F-statistics</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.345161</td>
<td>0.327029</td>
<td>0.7439</td>
<td>0.093833</td>
<td>4.171553</td>
<td>0.000217</td>
</tr>
<tr>
<td>Disp. income</td>
<td>-0.004376</td>
<td>-2.760370</td>
<td>0.0062</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini</td>
<td>-0.0005001</td>
<td>-1.134421</td>
<td>0.2576</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime</td>
<td>-0.012979</td>
<td>-1.393373</td>
<td>0.1646</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>0.004714</td>
<td>0.157088</td>
<td>0.8753</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PboEU</td>
<td>0.002915</td>
<td>0.503469</td>
<td>0.6150</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M. tax</td>
<td>-0.112913</td>
<td>-3.506527</td>
<td>0.0005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>0.011859</td>
<td>1.501005</td>
<td>0.1345</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following table shows the independent variables and their responses, which are found significant at the 5 percent significance level. Their significance is indicated by t-statistics and a p-value < 0.05.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disp income</td>
<td>A one unit increase in X1 is decreasing the probability of voting in favor of PP, SPI and JL by 0.437 percent, ceteris paribus</td>
</tr>
<tr>
<td>M. tax</td>
<td>A one unit increase in X6 is decreasing the probability of voting in favor of PP, SPI and JL by 10.677 percent, ceteris paribus</td>
</tr>
</tbody>
</table>

When investigating the results of Piratpartiet, Sveriges Pensionärers Intresseparti and Junilistan, one can see that disposable income and the municipal tax rate are significant. As can be pointed out in prior regressions, where disposable income is significant, the municipal tax rate is too, quite naturally, because they are, as mentioned before, harmonized. Thus, when disposable income increases, the probability of voting in favor of Piratpartiet, Sveriges Pensionärers Intresseparti and Junilistan decreases. Consequently, when municipal tax rate increases, the probability decreases.
The significant variables exhibit the same behavior as before, thus the conclusion one can draw from the given facts is that populist parties which hold factual issues as their conviction, do care about economy, but only the income aspect of it, which in turn roughly represents a tenth of the voting decision.

6.2.5 Regression 5 – residual parties

Table 17 represents the results of the vote share cast on the residual populist parties aggregated. At the 5 percent significance level, one can accept the null hypothesis saying that there is a relationship between the dependent variable “residual parties” and the independent variables, as the p-value (0.000) is less than 0.05.

The R-squared (0.258079) indicates a 25.8 percent fit, implying that 25.8 percent of the variance in the independent variable is explained by the regressors. Thus, when people vote on a residual populist party, approximately a fourth of their total decision is based on the given factors.

### [Table 17. Results from regression 5]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-value</th>
<th>p-value</th>
<th>R-squared</th>
<th>F-statistics</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-12.69553</td>
<td>-7.622436</td>
<td>0.0000</td>
<td>0.258079</td>
<td>14.01349</td>
<td>0.000000</td>
</tr>
<tr>
<td>Disp income</td>
<td>0.005379</td>
<td>1.859866</td>
<td>0.0639</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini</td>
<td>-0.000645</td>
<td>-0.075012</td>
<td>0.9403</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime</td>
<td>0.006355</td>
<td>0.391589</td>
<td>0.6957</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>0.352655</td>
<td>7.704319</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PboEU</td>
<td>-0.022808</td>
<td>-1.887848</td>
<td>0.0601</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M tax</td>
<td>0.167397</td>
<td>3.478224</td>
<td>0.0006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-0.025573</td>
<td>-1.290672</td>
<td>0.1979</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: residual parties  
Method: Least Squares  
Included observations: 290

The following table shows the independent variables and their responses, which are found significant at the 5 percent significance level. Their significance is indicated by t-statistics and a p-value < 0.05.

### [Table 18. Outcome’s response to significant predictors in the odds ratio (from table 17)]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>A one unit increase in X5 is increasing the probability of voting in favor of a residual party by 42.28 percent, ceteris paribus</td>
</tr>
<tr>
<td>M tax</td>
<td>A one unit increase in X6 is increasing the probability of voting in favor of a residual party by 18.222 percent, ceteris paribus</td>
</tr>
</tbody>
</table>

Table 18 shows that the macroeconomic factors - unemployment and municipality tax rate are influencers in regression 5. Additionally, disposable income is very close to being so, but as the limit is set to a 5 percent significance level, it is rejected.
However, as the municipal tax increases, the probability of voting in favor of a residual party decreases. Moreover, the second significant variable, unemployment has a very strong relationship to residual party outcome, as it increases by one unit, which corresponds to one percentage point; the probability increases by 42 percent. Nevertheless, as mentioned in section 5.1, these values should be analyzed with caution.

[Graph 5. Unemployment rate (in %) vs. the vote share cast on residual parties]

Graph 5 illustrates the situation described above. The unemployment rate, measured on the Y-axis, fluctuates along the X-axis, where locations are arranged according to vote share size, in increasing order, from left to right. As the vote share size increases, the trend line does accordingly. Two examples are Olofström (2.53 percent), with a low vote share cast on residual parties, and Burlöv (3.01 percent), with a high vote share cast on populist parties, located far to the right on the axis.
6.3 Applied dynamics and future expectations

According to section 3.4.2, where the spatial model of political competition is described, parties try to win votes from each other by adopting similar policies. They do so by attempting to cross the midpoint between themselves and the party or parties which have their political platform situated next to their own.

Clearly, Sverigedemokraterna have their political platform on the right of the political spectrum. Nevertheless, the fact that all variables except income distribution are significant enables them to be a forum for diverse public discontent. In fact, they are the largest party outside of the parliament. Thus, in accordance with theory - their prosperity is based on the adaptation of policies designed by other parties. However, despite of this fact, they are basically the sole advocates of the “Sweden should remain Sweden” policy, and as regression 2 reveals, it is of great success. People, who, as section 2.1 describe – conspire to believe that the root of Sweden’s problems is bred by the introduction of cultural and ethnic blending, are drawn to Sverigedemokraterna.

Also, the majority of the regressions show that unemployment, disposable income and consequently the municipal tax rate are factors which already attract voters to all populist parties. Hence the matter of culture and ethnicity is a key political issue, implying that other parties will have to adopt it in order to gain more votes.

Nevertheless, most of the populist parties have strong political believes, thus, they will probably not budge in the first try. On the other hand, parties that hold a factual issue as their conviction, do concentrate less on ideology, and can more easily adopt extreme policies if it does not clash with their main focus.

As we learnt, the vote share received by populist parties has grown over the years, entailing that not only they are in need of adopting policies, but on the contrary, conventional parties also have to do so, but from the populist parties. Thus, the conventional parties have to raise disposable income, foster education, as well as fight unemployment in order to gain votes.

On the other hand, as most of the conventional parties already have fiscal and monetary strategies to maintain a high disposable income and fight unemployment, the only possible way to gain votes from their main threat – Sverigedemokraterna, is by adapting to their political standpoint. Hence, in the long-run, more conventional parties have to accept the “preservation of Swedish traditions” policy. Denmark is a perfect example of this phenomenon, where most of the conventional parties already have adopted this view, and it is hence no longer considered as extreme.
7 Conclusion

The growth of populist parties and consequently their increasing influence on Swedish politics have become more and more evident. Thus the purpose of the thesis was to find relationships between economic factors and the probability to vote on populist parties. This way, the question is posed from an economist point of view. The empirical findings confirm that there are obvious relationships between economic factors and the probability to vote on populist parties. The R-squared values are although quite moderate. Consequently, the majority of the regressions, with the exception of regression 4, explain between 25 and 35 percent of the variation in the dependent variables. Regression 4 has an even lower fit, slightly below 10 percent. This in turn implies that the chosen variables represent 25 to 35 and 10 percent respectively of the voting decision. The rest is a mix of personal values, beliefs and ideology. However, the figures seem perfectly consistent, as extreme political issues are more important to a populist party sympathizer. Otherwise, they would most probably turn to a conventional party. The low fit of regression 4 is also understandable, since the policies which the parties that hold factual issues as a conviction represent, are very concentrated and focused, overshadowing economic issues.

The majority of the regressions show that unemployment, education, disposable income and consequently municipal tax rate are factors which concerns people the most when voting. A high municipal tax rate is, as mentioned before, applied by the government where the income level is high. The arrangement is done to equalize income distribution in the country. This can explain the fact that the gini-coefficient is not significant in any of the regressions, implying that populist party voters do not care about other people’s income but their own. Thus when people think of inequality, they find other aspects. And hence, populist voters reside where disposable income and the municipal tax rate is relatively low.

Nevertheless, regression 3 shows that voters of Feministiskt Initiativ do not care about disposable income. Instead, unemployment and education is found significant. However, the education share shows an opposite trend as to the other regressions, namely when it increases, the probability of voting in favor of Feministiskt Initiativ also increases. An explanation to this tendency is that most of the voters reside in bigger and university cities, where the education level is considerably higher than in smaller municipalities.

Furthermore, Sverigedemokraterna’s voters are the only ones concerning the share of people born outside of the European Union as a problem, quite expectedly, as they have the most distinct policies preventing cultural and ethnic diversity. Additionally, all variables except the gini-coefficient are found significant for Sverigedemokraterna’s outcome, implying that they are a true political party of discontent.

Finally, when applying the spatial model of political competition to the current situation in Sweden, one can draw the conclusion that the controversial immigration issue will be decisive in future elections. As populist parties or Sverigedemokraterna in particular grow, the conventional parties will be forced to take a similar standpoint in order to gain more votes.

Suggestions for further studies are to add or replace variables in order to test for other combinations. On the other hand, with the risk of leaving the field of economy, one could add variables of other field aspects. Political views, social circumstances are examples of these.
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Appendix

White’s General Heteroscedasticity Test for regressions 1-5.

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<th>R-squared</th>
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Correlation matrix and VIF-values for the used variables.

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