

The effect of the Covid pandemic on the satisfaction with democracy



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## Abstract

The Covid pandemic that became active in Europe in 2020 challenged European countries in an unprecedented way. National governments had to take firm measures to reduce the number of infections with this highly contagious virus. The measures taken by the governments had direct impact on the day-to-day lives of civilians. This thesis investigates what effect the Covid pandemic has on the satisfaction with democracy. Moreover this thesis looks into determinants of satisfaction with democracy and how these determinants change in times of a crisis. To answer these questions a multilevel ordinal logistic model is used to analyse Eurobarometer data between 2011 and 2020. This thesis finds that at the short run there is no significant effect of the Covid pandemic on the satisfaction with democracy, the effects on the long run need to be researched further. Furthermore, this thesis finds that the institutional quality, personal political views and personal situation have an effect on the satisfaction with democracy. The occurrence of a (health) crisis has implications on the importance of personal finances, they become less important. Also the political interest of civilians is an important factor to satisfaction with democracy in times of crisis.

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# 1. Introduction

The Centre for the Future of Democracy (Cambridge Bennett Institute for Public Policy written by Foa et al. (2020) reported that democratic satisfaction is declining and has reached an all-time global low. Moreover the report states that, in contrast with what you might expect, mainly in developed democracies the levels of democratic satisfaction are at an all-time low. How is this possible? What factors affect the satisfaction with democracy?

Based on existing literature this thesis defines 3 potential factors that affect the satisfaction with democracy. These factors are: institutional quality, the congruence between personal views and the government policies and the personal situation Next to these 3 factors there is a separate factor that needs to be discussed. This factor is also raised by Foa et al. (2020). Foa et al. (2020) states that “citizens’ levels of dissatisfaction with democracy are largely responsive to objective circumstances and events – economic shocks, corruption scandals, and policy crises. These have an immediately observable effect upon average levels of civic dissatisfaction”(Foa et al., 2020, p. 2). This statement means that the occurrence of a crisis has an immediate effect on the levels of democratic satisfaction<sup>1</sup>. Living in 2021 it could be argued that we are living in a new crisis, namely the Covid pandemic. At the start of the pandemic in early 2020 there was a lot of uncertainties on how this pandemic would affect our public health and our economies. Acting on these uncertainties governments took firm measures to limit the possible effects from the coronavirus on the society. Examples of measures that were taken across Europe are: obligations to keep at least 1 meter distance, to work from home, wear face masks in public spaces, large events where many people gather were banned and in some cases shops, cafés and restaurants were even closed. Measures like this surely have an effect on the day-to-day life of many people, arguably even more than a purely economic crisis that has been analysed in previous studies.

This raises the question what the effect of a health crisis would be on the satisfaction with democracy. Recent literature suggests that the Covid pandemic would have a positive effect on the satisfaction with democracy. The early studies from Bol et al. (2020) and Esaiasson et al. (2020) state that at the time of the first lockdown support for the current government reached high levels, suggesting that the satisfaction with democracy would be high. This contradicts the earlier literature of Armingeon and

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<sup>1</sup> This is a topic that has been thoroughly researched over the last years. Studies that looked into the satisfaction with democracy during the '07/'08 economic crisis are Armingeon and Guthmann (2014), Kriesi (2017) and Cordero and Simón (2015). These studies show indeed that an economic crisis has a significant negative effect on the satisfaction with democracy between 2007 and 2011.

Guthmann (2014), Kriesi (2017) and Cordero and Simón (2015) that has proven that normally the satisfaction with democracy should decrease in the event of a crisis. This raises the question whether a health crisis has different effects on the satisfaction with democracy than an economic crisis.

The current studies (Bol et al., 2020; Esaiasson et al., 2020) are not adequate to conclusively state what the effect of the Covid pandemic has been on the satisfaction with democracy. First, their research is conducted at the very beginning of the Covid pandemic, hence they only consider a very short time frame. Second, the studies from Bol et al. (2020) and Esaiasson et al. (2020) cannot state the change in the satisfaction with democracy since they measure the support for the incumbent parties. Third, the mechanics of the determinants for the satisfaction with democracy are not clearly discussed in the current research. This is also proven by Schraff (2020) who doubts that the changes in the satisfaction with democracy can be attributed to the Covid pandemic.

This thesis aims to fill this research gap and find out whether the satisfaction with democracy has changed and what factors affect the satisfaction with democracy in the event of a health crisis. Using cross-section data that goes back 10 years, this thesis is able to identify the main determinants and mechanics to the satisfaction with democracy during a crisis.

The main research question of this thesis will be *‘What is the effect of the Covid pandemic on satisfaction with democracy and its determinants?’* To analyze this effect, this thesis first analyses whether the Covid pandemic changed the satisfaction with democracy. To analyse the effect a 10 year cross-section survey was analysed for trends in the satisfaction with democracy. Looking over a longer period of time provides the opportunity to see what the effect of the Covid pandemic really is. If there is a break in the suggested downward trend, this would have to be clearly visible from the data.

Next to the effect of the Covid pandemic on the satisfaction with democracy this thesis also aims to find out what the effect is on the determinants of the satisfaction with democracy. This thesis defines 3 potential factors: institutional quality, the congruence between personal views and the government policies and the personal situation. The institutional quality measures the amount of corruption and procedural fairness in the government system. Low levels of corruption and high levels of procedural fairness increase the institutional quality and should increase the level of satisfaction with democracy. The congruence between personal views and the government’s policies measures the difference in ideological issues between the voters and the executive power in a government system. When the congruence between both is high, the levels of satisfaction with democracy should also be high. Lastly the personal situation measures the all-round satisfaction of an individual. It is expected that satisfied people with good economic well-being are more satisfied with democracy, since the system is obviously treating them well, compared to less satisfied people.

To analyse the effect on the determinants of the satisfaction with democracy, this thesis looks at the three normal determinants (institutional quality, personal views and personal situation) in times when there is no crisis present from the same 10 year cross-section survey. In order to measure this effect, multilevel logistic regressions are run on data between 2011 and 2020. This analysis shows which factors have an effect on the satisfaction with democracy. To find possible differences between a normal situation and the situation where there is a pandemic present, additional variables are added to the model. In addition to the three factors (institutional quality, personal views and personal situation) the effect of the pandemic on the satisfaction with democracy is measured by the performance of the government during the pandemic and what and how severe the consequences of the measures and the virus itself have been on the respondents. This separate analysis of the 2020 data could show and explain the differences between the normal situation and the situation where there is a pandemic present.

This thesis contributes to the explanation of why a pandemic or health crisis might have a different effect compared to economic crises in the past. Moreover, by conducting a multilevel approach, this thesis contributes to the literature since the multilevel approach is not often used combined with time series data.

This thesis is structured as follows. In chapter 2, an overview of the related literature on the factors that influence the satisfaction with democracy is presented. This chapter delves deeper into the three normal factors (institutional quality, personal views and personal situation) and the theory behind the reaction of satisfaction with democracy to a crisis. Hypotheses are derived based on the related theories. The data and method are discussed in chapter 3. This chapter shows the multilevel logistic ordinal model and the independent, dependent and control variables. Chapter 4 discusses the results of the analysis of the variables in both a non-crisis and crisis situation. This thesis will end with a conclusion of the findings and recommendations for further research.

## 2. Literature study

### 2.1 What is satisfaction with democracy?

Satisfaction with democracy is one of the most used indicators to measure the support for democracy. The data is mostly drawn from major public opinion surveys such as the Eurobarometer, where it is represented as 'satisfaction with the way democracy works'. The interpretation of the indicator has proven not to be very straightforward. Anderson and Guillory (1997) use satisfaction with democracy as an indicator of system support. This usage relies on findings of Kornberg and Clarke (1994), Clark and Kornberg (1992) and Fuchs (1993) who find that satisfaction with democracy does not coincide with the trust or satisfaction with the current government, so it clearly is an indicator of actual system support. More specifically Anderson and Guillory (1997) use the satisfaction with democracy to 'measure system support at a low level of generalization. It does not refer to democracy as a set of norms but to the functioning of democracy' (Anderson and Guillory, (1997, p.70).

Kriesi (2017) and Cordero and Simón (2015) make a distinction between satisfaction with democracy and support for democracy (Cordero and Simón, 2015) or evaluation of democracy and conception of democracy (Kriesi, 2017). In both cases the former stands for the satisfaction with democracy as intended in this study, namely the satisfaction with the performance of democracy in their country. The latter stands for the support for democratic principles and concepts. It seems as if both concepts should move hand in hand but Kriesi (2017) shows that this is not the case. There are instances where the satisfaction with democracy would decrease and the support for democracy would increase. According to Kriesi's (2017) research, this is the case after the economic crisis of 2008.

In short, the most used definition for the satisfaction with democracy is: the satisfaction with the way democracy performs in your country. In this study only the satisfaction with democracy will be taken into account. The data used in this study does not allow for any conclusions on the support for democracy.

### 2.2 What factors affect satisfaction with democracy?

First let's start with the factors that could influence satisfaction with democracy. In my literature study, three main schools of thought are presented. First I will discuss the institutional quality, second there is the personal political view and finally the personal situation and personal perception are discussed. Separately there is the effect of a crisis on the satisfaction with democracy. Since this thesis aims to measure this effect, this effect is mentioned separately. Therefore this thesis defines three normal factors (institutional quality, personal views and personal situation) and separately the effect of a crisis.

### *Institutional quality*

The first school of literature is represented by a study of Wagner et al. (2009). According to their study institutional factors such as the rule of law, well-functioning regulation and low corruption have a positive effect on the satisfaction with democracy. After controlling for the possible effects of economic factors (GDP growth, unemployment and inflation), Wagener et al. (2009) find that strong institutions have a positive effect on satisfaction with democracy. The results of Wagner et al. (2009) are based on macro-level indicators for the quality of governance. In their study they measure the institutional quality using the quality of governance indicators from the World Bank (quality of monetary policy, regulatory quality, rule of law and control of corruption), the Business Environment Risk Intelligence (BERI composite index) and the Database of political institutions (checks and balances, union density, proportional representation, plurality, fractionalization and control in both houses).

As one aspect of the institutional quality, corruption and fairness have also been analysed at the micro-level (Stockemer and Sundström, 2013; Erlingsson et al., 2014). The difference between macro- and micro-level indicators can be seen as the difference between petty corruption and grand corruption. Where petty corruption stands for the acceptance of bribes by public authorities. Grand corruption refers to corruption involving politically elected decision-makers during the formation of policies (Stockemer and Sundström, 2014).

Stockemer and Sundström (2014) use two micro-level indicators, which indicate the petty corruption, and one macro-level, which indicates the grand corruption, in their study. The two micro-indicators are the survey questions that asks respondents how much they think that judges and police in their country accept bribes. For the macro-level they use the World Bank Control of Corruption Indicator. Strictly the macro-level indicator measures both petty and grand corruption, so is not strictly a measure for grand corruption. However, Stockemer and Sundström (2014) deem the indicator appropriate since it gauges at the macro-level how strongly corruption is embedded into the system. Stockemer and Sundström (2014) investigate how the satisfaction with democracy is affected by corruption, and find that only the perception of corruption at the micro-level has a significant effect on the satisfaction with democracy. Besides, Stockemer and Sundström (2014) find that all macro-level factors e.g. GDP per capita, GDP growth, Gini coefficient and the age of democracy do not have a significant effect on the satisfaction with democracy. These findings show that it is not overall corruption, but petty corruption that impacts their assessment of their democracy (Stockemer and Sundström, 2014).

The results from Stockemer and Sundström (2014) are supported by the study of Erlingsson et al. (2013). Erlingsson et al. (2013) studies the effect of the perceptions of procedural fairness to the



satisfaction with democracy in the Nordic Welfare States, and find that citizens that express distrust in the public officials are significantly less satisfied with the performance of the political system. This finding leads to the conclusion that perceived procedural fairness does have an independent effect on the satisfaction with the political system. Erlingsson et al. (2013) stress that this is an important finding since this proves that procedural fairness is still important in largely non-corrupt countries, as is the case in EU countries.

The theories mentioned above lead to the first hypothesis of this thesis:

- Hypothesis 1: The higher the institutional quality in a country, the higher the satisfaction with democracy will be.

#### *Personal Political views*

Second, there is a selection of literature that looks at satisfaction with democracy on an individual level linked to the personal political views of an individual. The literature to this subject includes the political interest of an individual, to what extent their individual views correspond with the parties in power and the so called winner-loser gap.

To measure the personal political views, one should first determine whether the respondent is even at all interested in politics. Since the more an individual is interested in politics, the better they would be able to relate their own views to the views of the government (Stecker and Tausendpfund, 2016). Although the work of Christmann and Torcal (2017), Anderson and Tverdova (2003) and Anderson and Singer (2008) focus on other determinants of the satisfaction with democracy, their analysis find that the political interest has a positive significant effect on the satisfaction with democracy.

Stecker and Tausendpfund (2016) studied the effect of the political interest and government-citizen congruence of individuals on satisfaction with democracy. Their findings suggest that satisfaction with democracy is indeed dependent on the left-right congruence between the government and the political interest of the citizens. However they also suggest that this effect is largest on citizens with a strong interest in politics. This suggestion means there is some interaction between the variable. However in their regression this suggestion is only partially proven. The regression without interaction term shows that the effect of left-right congruence and political interest is both significant. The outcome for interaction between the left-right congruence and interest in politics is insignificant. However the outcome of the interaction between other relevant political opinions and the political interest is significant. This is the case for redistribution and interest in politics and European integration and political interest.

As touched upon by Stecker and Tausendpfund (2016) congruence in the views of citizens and the government is an important factor to the satisfaction with democracy. This is also proven by Kim (2009) and Dahlberg and Holmberg (2013), their studies show that higher congruence corresponds with higher satisfaction with democracy. The congruence between citizens and the government can be measured by comparing them on a right-left scale. The study of Stecker and Tausendpfund (2016) shows that this scale is an adequate measure compared to identifying all issues separately.

The last factor of personal political views is the winner-loser gap. The winner-loser gap stands for the theory that supporting the winning party after an election boosts the satisfaction with democracy for this individual. The idea behind this theory is that being part of a political majority or winning team, dependent on the elective system, leads to more support for the system and its institutions and authorities (Singh et al., 2011). Singh et al., (2012), Dahlberg and Linde (2016) and Han and Chang (2016) find that the winning effect has a positive effect on the satisfaction with democracy. For the loser the opposite effect applies.

The effects of congruence and the winner-loser gap are not the same as Singh et al. (2011) has shown that being a winner has more positive effects to an individual's satisfaction with democracy than the ideological congruence. Meaning that when of two quite similar parties you support the losing one, the effect that a likeminded party has won the election would be smaller than when your party would have won the election. Due to the data availability, this thesis does not directly take this winner-loser gap into account. However the data that indicates the congruence between the individual and the government also gives an indication on whether this person is a winner or a loser. An individual with high congruence will most likely be a winner and an individual with low congruence will most likely be a loser. Although ideological congruence and the winning effect are not exactly the same, looking at the congruence will provide an insight in the personal political views of the respondent.

The theories on political interest and congruence between citizens and the government lead to the next two hypothesis.

- Hypothesis 2: The higher an individual's interest in politics, the higher his/her satisfaction with democracy will be.
- Hypothesis 3: The more an individual's views correspond with the government's policy the higher the individual's satisfaction with democracy will be.

#### *Personal situation*

The third school of thought looks at the personal situation of an individual. Christmann and Torcal (2017) study the effect of the personal economic situation on the satisfaction with democracy. One of

their hypothesis is that worsening personal situations lead to declining satisfaction with democracy over time (Christmann and Torcal, 2017 p. 1243). The personal situation, in their analysis, is measured by a combined variable of the ability to pay bills, anxiousness about having to reduce living standard, anxiousness about losing your job and the ability to pay loans and mortgages. When setting this variable up with other variables that include country level values for corruption and economic factors, the economic personal situation shows a positive significant effect with the satisfaction with democracy, confirming that a worsening personal situation will lead to declining satisfaction with democracy. This effect is also found in many other research. For instance, Anderson and Singer (2008) find that an individual's income level is positively related to the satisfaction with democracy. Also Armingeon and Guthmann (2013) find that personal situation which is measured by the life satisfaction of an individual also has a positive significant effect on the satisfaction with democracy.

In short, it is fair to say that the satisfaction an individual has for democracy is likely to be influenced by his or her personal well-being. This leads to the following hypothesis:

- Hypothesis 4: Individuals with better personal economic levels will show high levels of satisfaction with democracy.

#### *Impact of a crisis*

The final school of thought is represented by Foa et al., (2020). They mention that the publics' satisfaction with democracy is mainly determined by major events like crisis, scandals and economic shocks. From this perspective it is interesting to see what the effect of the Covid pandemic is on satisfaction with democracy. When looking back at the previous crisis Europe has faced, the economic crisis of 2008, literature shows this led to decreasing levels of satisfaction with democracy. Examples of studies on the satisfaction with democracy during the economic crisis are: Armingeon and Guthmann (2014), Kriesi (2017) and Cordero and Simón (2015). In their findings the authors mention that it is predominantly the decreased perceived performance of the economy and politics as a consequence of the crisis.

Since there seems to be consensus amongst researchers on the decline in democracy as a consequence of a crisis, is there any reason to suspect that the Covid pandemic would have other effects? One key difference between the economic crisis and the Covid pandemic is that the economic crisis was indeed only an economic crisis. The current pandemic introduced a new element of citizens' health being at risk. This risk led to governments taking unprecedented measures such as lockdowns which could change the effect of this crisis on the satisfaction with democracy.

Some research has already been done on the effects of imposing lockdown measures in a country. Bol et al. (2020) suggest that between March and April 2020, when lockdowns were imposed, the citizens' vote intentions have increased for the party of the Prime Minister. Bol et al. (2020) also state this shows increased trust in government and satisfaction with democracy. Their findings are based on an online survey of 15 Western European countries. Of these 15 countries, seven started a national lockdown. The survey compared the political attitudes before and after the enforcement of the lockdown.

In the same timeframe Esaiasson et al. (2020) find similar results. The study of Esaiasson et al. (2020) studies a panel of Swedish respondents. The respondents were interviewed twice, once between 24 February 2020 and 10 March 2020 when participants were aware that something unusual has happened but were not able to foresee the coming events, and once between 31 March 2020 and 14 April 2020 when the country was in the middle of an acute phase of crisis. The result of this study is that trust in the Swedish government has increased during the enforcement of the first measures against Covid.

Schraff (2020) investigates whether the increase in trust and satisfaction with democracy can be attributed to the lockdown effect or whether it can be attributed to a rally around the flag effect. This is an effect where 'citizens start to rally around their political institutions as a lifebuoy' (Schraff, 2020, p.1). In this, the current administration can be seen as this lifebuoy where citizens seek stability. The data Schraff (2020) based his research on comes from a Dutch survey that was conducted through March 2020. In the middle of the fieldwork (15 March) the Dutch government imposed a lockdown. In contrast with Bol et al. (2020), Schraff (2020) concludes that the main effect to the rise in trust can be attributed to the emotional angst effect, and therefore is a rally around the flag effect. Schraff (2020) also finds that in line with the emotionally driven anxiety effect, rising Covid numbers lead to increased political trust, while standard determinants of political trust, like economic evaluations and social trust, lose their relevance. Schraff (2020) suggests that this theoretical mechanism should be further research in the future.

Even though the relation between Covid and increasing satisfaction with democracy seems valid, these observations were made at the beginning of the Covid pandemic during the 'first wave'. One could argue that current satisfaction and trust levels are significantly lower compared to the first wave. And even if general satisfaction and trust levels might still be relatively high, one could guess that political polarization has increased. These two hypotheses are related to the increasing anger and discussions about the Covid measures (see next two paragraphs for more detail). Mainly anti-establishment populism has the potential to profit from current anger about ongoing measures. This could be

explained by studies that show that feelings of anger are a motivating factor for supporting populist movements<sup>2</sup>.

The study conducted by Rico et al., (2017) is based on a three-wave panel survey of Spanish citizens between 2014 and 2016. The aim of the study is to assess which emotion is the key motivating factor to support populist movements. Rico et al., (2017) studies the effects of fear and anger, two emotions that are often seen as a key motivating factor for supporting populist movements. Out of the two anger is the main driver. This finding corresponds with the findings mentioned earlier by Bol et al., (2020), Esaiasson et al., (2020) and Schraff (2020) namely that the fear people experienced during the first wave should not increase support for populist movements. However as I argued before, over time fear has been replaced by anger about the strict measures in multiple countries, this can be observed by looking at the increase of protests against the restrictions. According to the Democracy Index 2020 (The Economist Intelligence Unit, 2021), these protests have been a prominent feature of the political landscape of 2020. Therefor there is an argument to suggest that in the long run there would be an increase in support for populist movements and therefor possibly a decrease in the satisfaction with democracy.

This argument is supported by the Democracy Index 2020 that is created by the Economist Intelligence Unit. They observe a trend where the average global score of the democracy index decreased significantly. The decrease in score represents a significant deterioration that came about largely because of restrictions imposed by the government restricting individual freedom and civil freedoms in response to the Covid pandemic (The Economist Intelligence Unit, 2021). As a result, the Economist Intelligence Unit observe decreasing levels of trust in governments, and established political parties across the world, fuelling the rise of populist movements

Overall, I hypothesize that the effect of the Covid pandemic will be different to the economic crisis. The main difference is the fact that the fear for someone's personal health plays an important role in the evaluation of the actions taken by the government. This leads to the final hypothesis:

- Hypothesis 5a: In the short run the Covid pandemic will have a positive effect on the satisfaction with democracy.
- Hypothesis 5b: In the long run the Covid pandemic will have a negative effect on the satisfaction with democracy.

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<sup>2</sup> See the study of Rico et al. (2017).

### 3.Data and methodology

#### 3.1 Sample

The factors included in this study for the satisfaction with democracy mostly come from the European Commission's Standard Eurobarometer database. For this thesis the surveys between 2011 and 2020 are used (European Commission, Brussels, 2014; 2015; 2017; 2018a; 2018b; 2019a; 2019b; 2020a; 2020b; 2021a; 2021b; 2021c) This Eurobarometer monitors the public opinion in the European Union member and candidate countries. In all available databases from the last years the satisfaction with democracy is measured alongside many other socio-economic variables. In the last version (july-august 2020) the participants were also asked about the response of their national government to the Covid pandemic. By comparing the databases before the pandemic with the available data from during the pandemic it will be possible to see what the effects are of the regular and Covid specific variables.

For this study the data between 2011 and 2020 has been used<sup>3</sup>. Usually this survey is held twice per year. For all the surveys the November version has been taken. The only exception to this is the data for 2020 which has been collected in July and August 2020. The reason for this deviation is that the data from winter 2020 is not available yet.

As mentioned, the Eurobarometer survey is held among members of the European Union and some candidate countries. In the end this research includes the outcomes

**Table 1 Number of participants per country**

COUNTRY CODE - ISO	Freq.
3166	
AT	10144
BE	10273
BG	10276
CY	5025
CZ	10121
DE	15470
DK	10054
EE	10046
ES	10129
FI	10088
FR	10207
GB	12429
GR	10056
HR	10245
HU	10285
IE	10054
IT	10220
LT	10121
LU	5091
LV	10052
ME	6276
MK	10481
MT	5032
NL	10160
PL	10142
PT	10235
RO	10404
RS	9240
SE	10234
SI	10223
SK	10212
TR	10226
Total	313251

of 32 countries. Table 1 shows the number of observations per country. In general, all countries are represented equally, meaning that all countries have an equal amount of participants in the survey

<sup>3</sup> Using even earlier data form before 2011 has proven not to be feasible since more and more questions have been introduced or altered over time. This means that in earlier data some independent variables are missing, making the data less usable for this study.

(about 1000 people per survey)<sup>4</sup>. Only Malta, Montenegro and Cyprus have fewer observations (about 500 per survey). Since this study is looking at the individual level of the participant, weighting is not needed for the results.

## 3.2 Variables

### 3.2.1 Dependent variable

The dependent variable in this study is the level of satisfaction with democracy expressed by a participant in the Eurobarometer Survey. The satisfaction with democracy is measured by an ordinal scale from 1 to 4, where participants need to answer the question: “On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the way democracy works in (OUR COUNTRY)?” In the dataset the answers are coded as follows: 1 indicates very satisfied, 2 indicates fairly satisfied, 3 indicates not very satisfied and 4 indicates not at all satisfied. It is important to note that this means that a numerical higher value actually means that someone is less satisfied with democracy<sup>5</sup>. Participants refusing to answer or who answer ‘I don’t know’ are coded 5 in the data. When analysing the data all 5s are coded as blanks, and are thus left out of the regression, since the 5s skew the ordinal regression that is used to analyse the results. The 5s can be used in an overview on the answers given by the participants over time.

### 3.2.2 Independent variables – Normal determinants

The independent variables used in this study coincide with the four factors that can influence the satisfaction with democracy that are introduced in the literature review. The schematic diagram (Figure 1) and the descriptive statistics in table 2 provide an overview of the three factors and corresponding independent variables. Table 3 provides an overview of the pairwise correlations between the variables used in this analysis. There are some significant correlations, however never exceeding high coefficients (0.8). There is no indication that correlations will have an effect on the outcomes.

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<sup>4</sup> Some transformations were made to the original country codes of the survey. Originally the codes for Germany were divided in East (DE-E) and West-Germany (DE-W). East-Germany generally had between 300 and 500 observations compared with 1000 for West-Germany. For this study the observations for East and West-Germany were merged to one country code for Germany (DE), explaining the higher number of observations for Germany. The same goes for Great Britain. The data previous to 2018 made a division between Great Britain (GB-UKM, about 1000 observations) and Northern Ireland (GB-NIR, between 300-500 observations). In later versions the two were merged. For this study both countries were merged in retrospect, explaining the higher number of observations for Great Britain. Next to these two merges, Iceland has been deleted from the database since it only offered data until 2013.

<sup>5</sup> In some cases, this makes the interpretation of the odds ratio in the regression a bit more complicated. When this is the case this is clearly explained in the results section.

**Table 2 Descriptive Statistics 2011-2020 analysis**

Variable	Obs	Mean	Std. Dev.	Min	Max
demsat	285440	2.591	.914	1	4
trustnatgov	292442	1.635	.481	1	2
trustpubadmin	169897	1.589	.492	1	2
lifesat	312062	2.081	.794	1	4
expgen	304936	1.892	.633	1	3
socialclass	264726	2.205	.982	1	5
bills	307929	2.458	.701	1	3
polintr	272820	2.567	.957	1	4
orientationZ	313251	.406	.686	-1	1
orientationZX	213014	.135	.711	-1	1
execrlcZ	213014	.275	.881	-1	1
voiceNATL	247033	2.452	.912	1	4
direction	295683	2.177	.906	1	3
attentry	246961	1.491	.686	1	5
age	313251	49.578	18.17	15	99
female	313247	.538	.499	0	1
ageedu	285297	20.088	9.497	0	96
rural	312944	.328	.469	0	1
COVID	313251	.101	.301	0	1
CPIscore	282592	61.838	15.761	35	92
gdpcap	313251	29882.13	20407.395	4162.726	118981.91

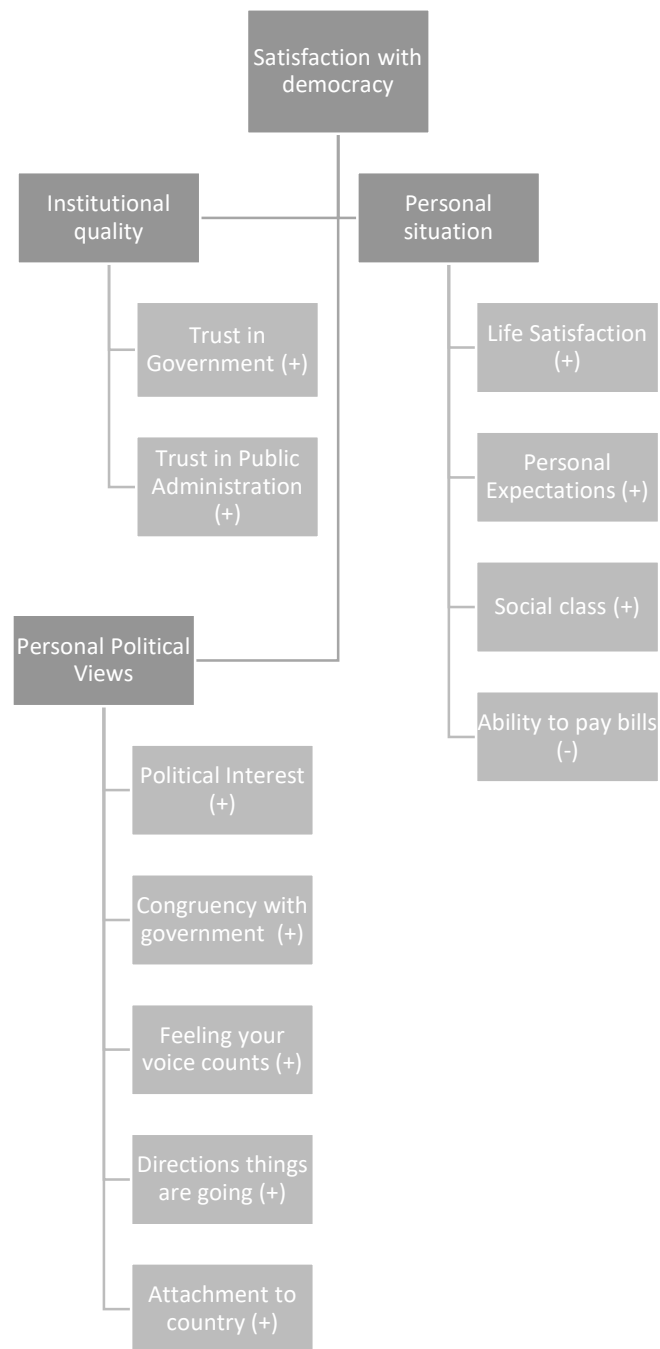
**Table 3 Pairwise correlation matrix 2011-2020 analysis**

	demsat	trustn~v	trustp~n	lifesat	expgen	social~s	bills
Demsat	<b>1.0000</b>						
trustnatgov	<b>0.3563*</b>	<b>1.0000</b>					
trustpubad~n	<b>0.3244*</b>	<b>0.4791*</b>	<b>1.0000</b>				
lifesat	<b>0.3239*</b>	<b>0.2206*</b>	<b>0.2240*</b>	<b>1.0000</b>			
expgen	<b>0.1598*</b>	<b>0.1563*</b>	<b>0.1105*</b>	<b>0.2448*</b>	<b>1.0000</b>		
socialclass	<b>-0.1975*</b>	<b>-0.1403*</b>	<b>-0.1198*</b>	<b>-0.2451*</b>	<b>-0.1129*</b>	<b>1.0000</b>	
bills	<b>-0.2355*</b>	<b>-0.1674*</b>	<b>-0.1843*</b>	<b>-0.3982*</b>	<b>-0.1317*</b>	<b>0.2688*</b>	<b>1.0000</b>
polintr	<b>-0.0251*</b>	<b>-0.0127*</b>	<b>0.0421*</b>	<b>-0.0131*</b>	<b>0.0173*</b>	<b>0.0185*</b>	<b>0.0260*</b>
orientationZ	<b>0.0581*</b>	<b>0.0594*</b>	<b>0.0476*</b>	<b>0.0773*</b>	<b>0.0408*</b>	<b>-0.1575*</b>	<b>-0.0767*</b>
orientatio~X	<b>-0.0099*</b>	<b>-0.0311*</b>	<b>-0.0228*</b>	<b>0.0291*</b>	<b>-0.0035</b>	<b>-0.0925*</b>	<b>-0.0265*</b>
execrlcZ	<b>0.0162*</b>	<b>0.0148*</b>	<b>0.0310*</b>	<b>0.0250*</b>	<b>-0.0069*</b>	<b>-0.0967*</b>	<b>-0.0523*</b>
voiceNATL	<b>0.4389*</b>	<b>0.3191*</b>	<b>0.2975*</b>	<b>0.2707*</b>	<b>0.1539*</b>	<b>-0.1539*</b>	<b>-0.2033*</b>
direction	<b>0.3448*</b>	<b>0.4834*</b>	<b>0.3237*</b>	<b>0.2573*</b>	<b>0.2433*</b>	<b>-0.1286*</b>	<b>-0.1796*</b>
	polintr	orient~Z	orient~X	execrlcZ	voiceN~L	direct~n	
polintr	<b>1.0000</b>						
orientationZ	<b>0.0096*</b>	<b>1.0000</b>					
orientatio~X	<b>-0.0042</b>	<b>0.2654*</b>	<b>1.0000</b>				
execrlcZ	<b>0.0035</b>	<b>0.0489*</b>	<b>0.4347*</b>	<b>1.0000</b>			
voiceNATL	<b>0.0210*</b>	<b>0.0493*</b>	<b>0.0012</b>	<b>0.0353*</b>	<b>1.0000</b>		
direction	<b>-0.0032</b>	<b>0.0384*</b>	<b>-0.0378*</b>	<b>-0.0347*</b>	<b>0.3101*</b>	<b>1.0000</b>	

\*  $p < 0.05$



**Figure 1 Schematic representation on the three factors that affect the satisfaction with democracy.**



### *Institutional quality*

Starting with the institutional quality I hypothesize that a higher level of institutional quality leads to higher levels of democratic satisfaction. To measure this effect two proxies were selected from the Eurobarometer survey. The two proxies measure the trust of the respondent in respectively the public administration (trustpubadmin) and government (trustnatgov) in their country. Both proxies are appropriate to measure the institutional quality with respect to whether petty corruption and procedural fairness are well handled in the system. If the public or government officials are known to be prone to corruption this should be reflected in the trust in both government and public administration. Also, if procedural fairness is not guaranteed this should show in lower values for trust in public administration. The trust is measured by asking the participant: "please tell me if you tend to trust or tend not to trust public administration / government in (your country)". The respondents can answer the question with either tend to trust (1) or tend not to trust (2). This variable has been entered as an ordinal value in the analysis.

### *Personal political views*

It was hypothesized that the more the personal views correspond with the views of the government the more satisfied with democracy someone should be. Next to that a person that is more interested in politics is hypothesized to be more satisfied with democracy compared to a person that is not at all interested in politics. To measure the political views of the participants six variables were taken from the Eurobarometer survey.

The first variable is the political interest (polintr) of the participant. Political interest of the participant is deducted from asking the participant to what extent they discuss national, European and local political matters. In the dataset available from Eurobarometer this is transformed to an political interest variable which ranges from 1 (very interested) to 4 (not at all interested).

The second variable to measure the political views of an individual is their left-right placement (orientationZ). Respondents answer the question "In political matters people talk of "the left" and "the right". How would you place your views on this scale?". Their answer is given on a scale of 1 to 10, where 1 represents the far left and 10 the far right. For analysis purposes the 1 to 10 scale has been altered. People who answered between 1 and 3 have been categorised as left and was given a value of -1, people who answered between 4 and 7 have been categorised as center and received the value 0, and people who answered between 8 and 10 have been categorised as right and received a value of 1. To capture the effect of the orientation of the executive power in the government, execrlcZ, which comes from the DPI database is included in the regression. Similarly, left gets value -1, center gets value 0 and right gets value 1. Lastly, an interaction term (OrientationZX), which is constructed by the

orientation of the respondent (OrientationZ) and the executive power (execrlcZ), is included to test the effect of congruency. When there is congruency between the respondent and the executive party in the government the value of OrientationZX will always be 1, when there is no congruency the value of OrientationZX will always be -1. Since it is likely that the more someone has in common with the government's policies the more satisfied with democracy they will be, this thesis expects that the congruency has a positive effect on the satisfaction with democracy.

The third variable is whether the respondent has the feeling that their voice counts in their country (VoiceNATL). The respondent answers the statement "my voice counts in (our country)" with either totally agree (1), tend to agree (2), tend to disagree (3) or totally disagree (4). It is assumed that the more the respondent has the idea that their voice counts the more satisfied with democracy they will be.

The fourth variable on political views is the direction things are going (direction). This variable represents whether the respondent thinks things are going in the right direction in their country. They get the question "At the present time, would you say that, in general, things are going in the right direction or in the wrong direction, in our country?" The possible answers to the question are "things are going in the right direction" (1), "things are going in the wrong direction" (3) or neither (2). Here it is also assumed that people that find that things are going in the right direction share more views with the current government and will therefore be more satisfied with democracy.

Finally, the attachment the respondent has with his/her country (attcntry) is entered in the analysis. It is presumed that the stronger the attachment of the respondent is with their country the more they see eye to eye with their government. Respondents answer the question "please tell me how attached you feel to (our country)". The answers respondents can give are very attached (1), fairly attached (2), not very attached (3), not at all attached (4). All these variables are entered as ordinal values in the analysis.

#### *Personal situation*

This thesis argues that the better your personal situation is the more satisfied with democracy an individual should be. To measure this effect five variables were selected from the Eurobarometer survey.

The first variable is the life satisfaction (lifesat) from the respondent. The question the respondent answered is: "On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the life you lead?". The answers ranged from very satisfied (1), fairly satisfied (2), not very satisfied (3) to not at all satisfied (4).

Next there are the personal expectations of the respondent for the next twelve months (expgen). Respondents answered the question whether they thought the financial situation of their household and their personal job situation would get better (1), stay the same or get worse (3).

For the next variable respondents were asked about their social class (socialclass). They were asked “do you see yourself and your household belong to the working class of society (1), the lower middle class of society (2), the middle class of society (3), the upper middle class of society (4) or the higher class of society (5). For this variable it is assumed that the higher individuals see themselves in society the more happy they will be and the higher their satisfaction with democracy will be.

Finally the ability of the respondent to pay their bills (bills) is measured. This variable is included since it gives an insight in the (past) financial situation of the respondent. This variable is different from the expectation variable since this one measures the past situation over the last 12 months, while the expectation variable makes the respondent predict the coming 12 months. Participants were asked “During the last twelve months, would you say you had difficulties to pay your bills at the end of the month most of the time (1), from time to time (2) or (almost) never (3)?” Also this data has all been entered as a ordinal value into the analysis.

### 3.2.3 Independent variables – determinants during Covid pandemic

As in 2020 the Covid pandemic spread across Europe the question raises what its effect could be on the satisfaction with democracy and its determinants. To see whether Covid has had an effect on the satisfaction with democracy, a dummy variable is introduced into the model. Before it was hypothesized that the Covid pandemic could increase the satisfaction with democracy on the short run. This effect will be measured by a dummy that is coded 1 for the 2020 data, when the pandemic was active in Europe, and 0 for all the other years.

Furthermore, the Covid pandemic could also make a difference in how people evaluate whether they are satisfied with democracy or not. In other words, the determinants of the satisfaction with democracy could face changes as well. To measure this effect 6 variables were used from the Eurobarometer survey: the satisfaction with Covid measures taken by the national government (satcovnat), whether the respondent agrees with the focus on either health or economy from the measures (balance), whether the respondent agrees with the limitations to public liberty (publiberty), to what extent the respondent believes that the pandemic will have consequences for the national economy (covconsecon) and for their own financial situation (covconsperfin) and how well they coped

with the confinement measures during the Covid pandemic. Table 4 shows the descriptive statistics for the 2020 analysis.<sup>6</sup>

**Table 4 Descriptive Statistics 2020 analysis**

Variable	Obs	Mean	Std. Dev.	Min	Max
demsat	31313	2.429	.828	1	4
trustnatgov	26775	1.554	.497	1	2
trustpubadmin	26616	1.432	.495	1	2
lifesat	31493	1.987	.735	1	4
expngen	30719	1.918	.64	1	3
socialclass	31177	2.432	.978	1	5
bills	31326	2.547	.654	1	3
polintr	31516	2.778	.924	1	4
orientationZ	31516	.037	.617	-1	1
orientationZX	21724	.016	.579	-1	1
execrlcZ	21724	.124	.931	-1	1
voiceNATL	30716	2.354	.989	1	4
direction	30139	2.108	.967	1	3
attentry	31515	1.49	.694	1	5
satcovnat	31147	2.186	.929	1	4
covconspcrfin	30404	2.414	1.009	1	4
covconsecon	31005	1.567	.678	1	4
perscopingcov	31459	2.9	1.08	1	5
balance	30915	-.103	.751	-1	1
publiberty	31342	1.789	.868	1	4
infectionsperc	31516	.003	.002	0	.011
age	31516	50.114	17.862	15	99
female	31512	.539	.499	0	1
ageedu	31515	26.921	23.259	0	99
rural	31509	.329	.47	0	1
COVID	31516	1	0	1	1
CPIscore	31516	61.383	15.646	35	88
gdpcap	31516	30859.60	21409.148	5888.004	115873.6

To measure the satisfaction with Covid measures taken by the national government the respondent answered the question “In general, how satisfied are you with the measures taken to fight the Coronavirus outbreak by the national government?” The possible answers are: very satisfied (1), fairly satisfied (2), rather not satisfied (3) and not at all satisfied (4). It is to be expected that respondents that show to be satisfied with the measures taken by the national government to be more likely to be more satisfied with democracy.

Next respondents were asked “Thinking about the measures taken by the public authorities in your country to fight the Coronavirus and its effects, would you say that...” Respondents could answer the question with “these measures focus too much on health to the detriment of the economy (-1), a

<sup>6</sup> Please find the pairwise correlation matrix in the appendix

balance has been reached (0) or these measures focus too much on economy to the detriment of health (1).” In order to measure the effect of this variable the original values have been replaced by current value to make a distinction between negative and positive values. Now it is clear that a positive odds ratio means that the respondent who thinks the focus is too much on health is more likely to be satisfied with democracy, and vice versa.

The question “Thinking about the measures taken by the public authorities in your country to fight the Coronavirus and its effects, would you say that...” was asked a second time. This time the respondent got different answers to choose from: “the limitations to public liberties were absolutely justified (1), the limitations to public liberties were somewhat justified (2), the limitations to public liberties were not very justified (3), the limitations to public liberties were not at all justified (4). It is to be expected that for this variable respondents with a lower value are more likely to be more satisfied with democracy, since they show more understanding for the limitations on public liberty.

The consequences of the pandemic are analysed by asking the respondents to react to the following two statements. “The Coronavirus outbreak will have serious financial consequences for you personally.” And “The Coronavirus outbreak will have serious economic consequences for my country.” Both statements could be answered with totally agree (1), tend to agree (2), tend to disagree (3) and totally disagree (4). For both variables it is to be expected that they have a positive relation with the satisfaction with democracy, namely that when you expect that the consequences will be larger, you are less likely to be satisfied with democracy since you do not expect that the government is able to cope with the pandemic in a good way.

Finally there is the personal coping with the measures to stop the Coronavirus from spreading, especially the confinement measures. The respondent is asked: “thinking about the measures taken to fight the Coronavirus outbreak, in particular the confinement measures, would you say that it was an experience easy or difficult to cope with?” The respondent could answer the question with “very easy to cope with, and even an improvement to your daily life” (1), “fairly easy to cope with” (2), “both easy and difficult to cope with” (3), “fairly difficult to cope with” (4) or “very difficult to cope with, and even endangering your mental and health conditions” (5). It is expected that people who found it harder to cope with the measures are less satisfied with democracy. And that the people who see the measures as an improvement are likely to be more satisfied with democracy.

#### 3.2.4 Control variables

Because this thesis aims to find out whether the personal and perceived values from the Eurobarometer can explain changes in the satisfaction with democracy, it is necessary to control for a number of factors.

First it is necessary to control for individual socio-demographic characteristics of the respondents. These values include age, gender, nationality, years of education and type of community they live in (rural or urban)<sup>7</sup>.

The second categories of control variable is the Corruption Perception Index (Transparency International, 2020a). This index portrays the perceived level of corruption in the public sector in a country according to experts and businesspeople. The index is measured on a scale from 1 to 100, where a score of 1 is the worst score and 100 is the best score (Transparency International, 2020a). Even though perception is in the name of this index, it can be seen as an objective measurement of the corruption in a country since its methods are exhaustively tested by the The European Commission Joint Research Centre in 2012 and 2017 (Transparency International 2020b). Besides the Corruption Perception Index uses the averages of at least three different sources to verify their results. This makes the actual ranking very reliable (Transparency International 2020b). The use of this control variable is thus to see whether the objective quality of governance has more influence than the perceived values from the Eurobarometer survey.

Since differences between countries do not only occur in the quality of governance it is also necessary to look at the economic situation in a country. To control for economic differences GDP per capita is used as a control variable. For this control variable the data from the World Bank (2020) World Development Indicators was used.

In order to measure the fair effect of the Covid pandemic across all countries there has also been corrected for the number of infections per country. This is necessary since changes in satisfaction with democracy could also depend on the severity of the pandemic in a country. In this study there has been corrected for the number of infections per capita. Since the survey was held in July and August 2020 the number of infections on the first of August have been selected. The data was retrieved using the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (Dong et al., 2020).

### 3.3 Method

In order to analyse the data an ordinal logistic multilevel regression model is used. Next to the ordinal values (level 1) the model has to deal with the level 2 variables such as GDP, infections and governance indicators. For this reason the Multilevel mixed-effects ordered logistic regression has been chosen to analyse the data.

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<sup>7</sup> Several variables are measured by dummy variables, for instance, gender (1 for female, 0 for male), and type of community they live in (1 for rural, 0 for urban).

To answer research question 1 ‘Did the Covid pandemic change the satisfaction with democracy?’ A regression will be run including data from 2011 to 2020. The regression includes the variables as presented in figure 1, the control variables for CPI, GDP and additionally includes a dummy variable that is coded 1 for the occurrence of the pandemic in 2020. If the effect of the dummy variable is significant, it means that the Covid pandemic has a significant effect. The same model also analyses the effect of the dependent variables on the satisfaction with democracy. This analysis answers the second research question ‘What factors affect the satisfaction with democracy in a normal situation’. The possible effect that the occurrence of a crisis has on the satisfaction with democracy is covered with the dummy Covid variable. The model is as follows:

$$\begin{aligned} Demsat_{ij} = & \beta_1 trustnatgov_i + \beta_2 trustpubadmin_i + \beta_3 lifesat_i + \beta_4 expgen_i + \beta_5 socialclass_i \\ & + \beta_6 bills_i + \beta_7 polintr_i + \beta_8 orientationZ_i + \beta_9 OrientationZX_i \\ & + \beta_{10} voiceNATL_i + \beta_{11} direction_i + \beta_{12} attcntry_i + \beta_{13} Age_i + \beta_{14} female_i \\ & + \beta_{15} ageedu_i + \beta_{16} rural_i + \gamma_{01} Covid_j + \gamma_{02} CPIscore_j + \gamma_{03} gdpicap_j + e_{ij} \end{aligned}$$

Where the subscript ij indicates variables that are measured at the individual level and the subscript j indicates variables that are measured at the national level and  $e_{ij}$  is the error term for the differences at the individual-level.

To answer the third research question ‘What factors affect satisfaction with democracy during the Covid pandemic?’ In this analysis 2020 data is used. This analysis includes all the variables as used in the previous model, but also adding Covid specific variables.

$$\begin{aligned} Demsat_{ij} = & \beta_1 trustnatgov_i + \beta_2 trustpubadmin_i + \beta_3 lifesat_i + \beta_4 expgen_i + \beta_5 socialclass_i \\ & + \beta_6 bills_i + \beta_7 polintr_i + \beta_8 orientationZ_i + \beta_9 OrientationZX_{ij} \\ & + \beta_{10} voiceNATL_i + \beta_{11} direction_i + \beta_{12} attcntry_i + \beta_{13} Age_i + \beta_{14} female_i \\ & + \beta_{15} ageedu_i + \beta_{16} rural_i + \beta_{17} satcovnat_i + \beta_{18} covconspersfin_i \\ & + \beta_{19} covconsecon_i + \beta_{20} perscopingcov_i + \beta_{21} balance_i + \beta_{22} publliberty_i \\ & + \gamma_{01} Covid_j + \gamma_{02} CPIscore_j + \gamma_{03} gdpicap_j + \gamma_{04} execrlcZ_j \\ & + \gamma_{05} infectionspercap_j + e_{ij} \end{aligned}$$

Where the subscript ij indicates variables that are measured at the individual level and the subscript j indicates variables that are measured at the national level and  $e_{ij}$  is the error term for the differences at the individual-level.

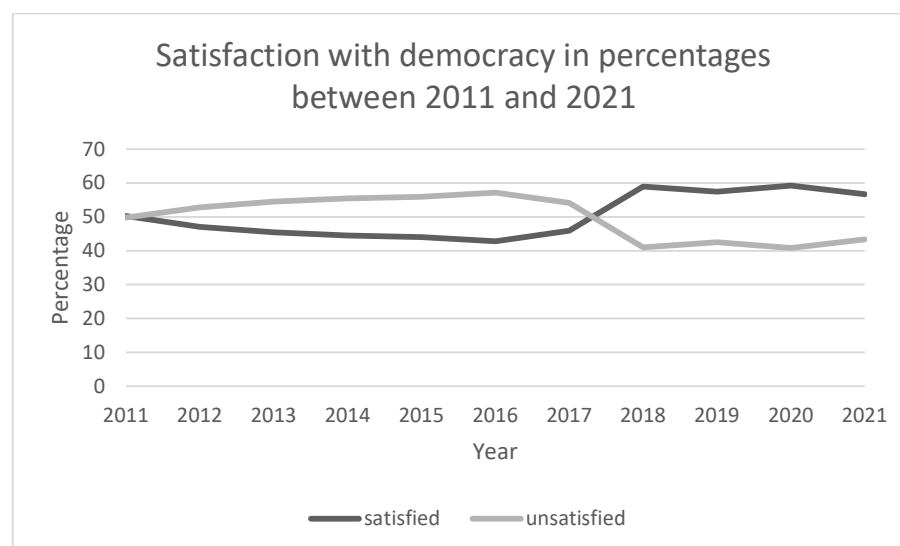


## 4. Results

### 4.1 Did the Covid pandemic change the satisfaction with democracy?

The first research question that needs to be answered is whether the Covid pandemic has in fact changed the satisfaction with democracy. To answer this question, I will need to have a look at the trends in satisfaction with democracy over the last years. In the table below there is an overview of the satisfaction with democracy over the last 10 years in European countries. It is important to note that between 2011 and 2013 the “Don’t know” answers were not documented. Figure 2 and table 5 show the trend in satisfaction with democracy over the last 10 years. In the graph the respondents who answered very satisfied and fairly satisfied are grouped as satisfied, the respondents who answered not very satisfied and not at all satisfied were grouped unsatisfied. Figure 2 shows that for a long time the majority of respondents were unsatisfied with democracy. This changed in 2018 when the majority of respondents was satisfied. Table 5 shows this change is mainly visible in the amount of people who answered not very satisfied and fairly satisfied. From 2018 to 2021 the trend seems to remain relatively constant, even though a small decrease in 2021 is visible. At this stage it is too early to determine whether this is the start of a decreasing trend. The following section will go further into the details of the changes over the last 10 years in the satisfaction with democracy.

**Figure 2: Satisfaction with democracy between 2011 and 2021**



**Table 5 Satisfaction with democracy between 2011 and 2021**

year	DEMOCRACY SATISFACTION – COUNTRY					
	Very satisfied	Fairly satisfied	Not very satisfied	Not at all satisfied	Don't know	Total
2011	2176	10969	8828	4182	0	26155
	8.32	41.94	33.75	15.99	0.00	100.00
2012	2072	10279	8910	4946	0	26207
	7.91	39.22	34.00	18.87	0.00	100.00
2013	2230	10192	9377	5560	0	27359
	8.15	37.25	34.27	20.32	0.00	100.00
2014	3788	9236	8725	7509	2340	31598
	11.99	29.23	27.61	23.76	7.41	100.00
2015	3824	8885	8497	7641	2472	31319
	12.21	28.37	27.13	24.40	7.89	100.00
2016	3382	9195	9399	7408	1976	31360
	10.78	29.32	29.97	23.62	6.30	100.00
2017	3944	9714	8861	7229	1895	31643
	12.46	30.70	28.00	22.85	5.99	100.00
2018	2447	13380	7970	3047	580	27424
	8.92	48.79	29.06	11.11	2.11	100.00
2019	2868	14553	9282	3622	640	30965
	9.26	47.00	29.98	11.70	2.07	100.00
2020	3120	15422	9003	3768	203	31516
	9.90	48.93	28.57	11.96	0.64	100.00
Total	29851	111825	88852	54912	10106	295546
	10.10	37.84	30.06	18.58	3.42	100.00

Numbers in grey are row percentages

When looking at table 5 at first glance there are some interesting trends starting with the don't know answers. As previously mentioned these answers were not recorded before 2014. In the following years the amount of people who answered "I don't know" to the question how satisfied they were with the democracy in their country was around six to seven percent. In 2018 a downward trend started where "I don't know" dropped to about two percent, this was also the case in 2019. The downward trend continued into 2020 where only 0.64 percent answered "I don't know". It seems that over the last years more and more people have made their minds up on how satisfied they are with democracy. Since the downward trend already started 2018 with a sharp decline, the sharp decline in 2020 might not be an effect of the Covid pandemic.

In 2018 the amount of people who answered "not at all satisfied" also sharply declined to 11 percent, where it used to be around 20-25 percent. From 2018 onwards the value remains more or less the same, around eleven to twelve percent. The amount of people who answered "Not very satisfied" varies between 27 and 34 percent over the last ten years. Where the highest values were found in 2011, 2012 and 2013. Over the remaining years the values remained steady around 28 to 29 percent. The distribution of the amount of people who are fairly satisfied with democracy shows a parabolic

shape with high values in 2011, 2012 and 2013 around 40 percent, then dropping to values around 29 percent between 2014 and 2017, then shooting back up to values around 48 percent in 2018, 2019 and 2020. The low values between 2014 and 2017 coincide with the high values of Don't know answers in the same years. The amount of people who are very satisfied varies between 8 and 12.5 percent. The values were highest between 2014 and 2017, with values above 10 percent. Before 2014 and after 2017 values are around 8 to nine percent.

It seems that the findings for 2020 are consistent with the trends that were present over the last ten years. On the basis of this graph there is no proof for any significant changes in the satisfaction with democracy due to the Covid pandemic. The data over 2020 was collected during July and August, these were the first few months of the Covid pandemic. In hypothesis 5a it is proposed that the Covid pandemic will have a positive effect on the satisfaction with democracy in the short run. This hypothesis is built on the principle that in a crisis situation people seek stability, which results in rally around the flag effects (Schraff, 2020). Looking at the Eurobarometer data from July and August 2020 on the satisfaction with democracy there is no evidence to support the proposed rise in satisfaction in hypothesis 5a.

However, it is possible that the long-term effects of satisfaction with democracy could be different from the short-term effects. Hypothesis 5b states a decrease in satisfaction with democracy due to the Covid pandemic. This long-term prediction is in line with trends that have been observed after other crisis that have occurred over the last years. In most cases the satisfaction with democracy decreases. Most of the observed crisis are financial or economic crisis, while of course the Covid pandemic strictly is not an economic or financial crisis, the measures governments are taking arguably have even more effect on the day-to-day life. New data also shows the satisfaction with democracy in November – December of 2020 and March - April 2021.

**Table 6 Satisfaction with democracy in November – December 2020**

DEMOCRACY SATISFACTION - COUNTRY	Freq.	Percent	Cum.
Very satisfied	2638	9.69	9.69
Fairly satisfied	13122	48.22	57.91
Not very satisfied	7863	28.89	86.81
Not at all satisfied	3342	12.28	99.09
Don't know	248	0.91	100.00
Total	27213	100.00	

**Table 7 Satisfaction with democracy in March-April 2021**

DEMOCRACY SATISFACTION - COUNTRY	Freq.	Percent	Cum.
Very satisfied	2182	8.18	8.18
Fairly satisfied	12803	48.01	56.19
Not very satisfied	8135	30.50	86.69
Not at all satisfied	3318	12.44	99.13
Don't know	231	0.87	100.00
Total	26669	100.00	

Table 6 and 7 show the satisfaction with democracy in November - December 2020 and March – April 2021. The results from the winter of 2020 are not very different from the results that were discussed above. The largest change is a change of 0.69 percent points in the ‘fairly satisfied category’. The changes between winter 2020 and spring 2021 are larger. It is immediately visible that the ‘very satisfied’ category has shrunk quite rapidly from well above 9 percent to only 8.18 percent, the lowest value since 2013. Also the value for ‘not very satisfied’ has increased quite significantly from 28.89 to 30.5 percent. Both changes are quite rapid but the values are not shocking. Both levels have been seen before and do not suggest a large effect of the Covid pandemic on the satisfaction with democracy.

Although the changes are not very extensive, there is a visible change where the amount of satisfied respondents has decreased and the amount of dissatisfied respondents has increased. This supports the hypothesis (5b) that over the long term the satisfaction with democracy should decrease as an effect of the Covid pandemic.

#### 4.2 What factors affect satisfaction with democracy in a non-crisis situation?

To answer the second research question I run the multilevel ordinal logistic regression (meologit) with data from the eurobarometer between 2011 and 2020. The stata output can be found in table 8. The table shows the log odds ratio, this ratio shows the amount of change expected in the log odds when there is a one unit change in the predictor while all the other variables remain the same. The log odds ratio only takes on values above 0. Values below 1 should be interpreted as a decrease of the odds (negative relation), values above 1 should be interpreted as an increase of the odds (positive relation), while a value of 1 shows that there is no increase in the odds per unit change of the predictor. The regression results in a significant result for most of the individual parameters that are entered. The results are analysed in the four groups – institutional quality, personal political views, personal situation and the effect of a crisis – that were introduced in the introduction.

The first group is the institutional quality. This group consists of the trust in the government (trustnatgov) and the trust in public administration (trustpubadmin). These parameters measure the

trust of the public in elected and non-elected government officials. The trust of the public is expected to be influenced by procedural fairness and corruption in the government system. When people perceive little corruption and good procedural fairness in the system scores should be good. On that theory hypothesis 1 states that it is likely that good scores for the institutional quality correspond to good values for democratic satisfaction. That is why a positive effect of both parameters on the satisfaction with democracy is expected. The results confirm the aforementioned suspicion. The odds ratio for both variables is significant and above 1. The positive odds ratio means that for every unit change of trust in the government or public administration it is more likely that the respondent is satisfied with democracy. This means that the more satisfied the respondent is with the institutional quality, the more likely the respondent is to also be satisfied with democracy. The results confirm hypothesis 1 and show that the institutional quality of a country is very important parameter to the satisfaction with democracy.

Second there are the personal political views of the respondent. This group consists of the political interest (polintr), congruency with government (orientationZX), the feeling that your voice counts (voiceNATL), the satisfaction with the way things are going (direction) and the attachment to their country (attcntry). Also for these variables a positive effect is expected<sup>8</sup>. This means that it is expected that when the personal views of the respondent correspond with the government's policies the satisfaction with democracy would be high (hypothesis 3). The results do not fully support the hypothesis. For the political interest it is hypothesized that the higher an individual's interest in politics, the higher their satisfaction with democracy should be. Instead of a positive effect, I find that the political interest shows a negative relation, meaning that the higher the interest of an individual in politics the more likely they are to be less satisfied with democracy. This could be explained by the possibility that people who are more interested in politics are likely to be more up to date with what the government is doing exactly. This makes that these people have more information and knowledge to be critical about. The other variables behave as expected and show a significant positive relation. Notably the feeling that your voice counts has the highest odds ratio of all variables, showing its importance to the satisfaction with democracy.

Third the personal situation is analysed. This groups consists of the life satisfaction (lifesat), personal expectations (expngen), social class (socialclass) and the ability to pay incoming bills (bills). For life satisfaction and personal expectations a positive relation is expected. For the ability to pay bills and the social class a negative relation is expected. The expected results reflect that a better (economic) situation should lead to more satisfaction with democracy even if the odds ratio is negative. The results

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<sup>8</sup> Due to the data entry an odds ratio below 1 for the congruency with government (OrientationZX) actually implies a positive relation.

confirm the hypothesis since life satisfaction, personal expectations show a significant positive effect and the ability to pay bills and social class show the expected significant and negative relation. This suggests that indeed the people with a better (economic situation) are more likely to be more satisfied with democracy.

Finally, to analyse the impact of a crisis a dummy for the Covid pandemic was entered into the model. The expected result was that the Covid pandemic would have a positive effect on the short run and could have a negative effect over a longer time period. From the results in table 8 it is only possible to look at the short run since the questionnaire was held in June and July of 2020. The results show a negative odds ratio that is not significant to the satisfaction with democracy. Please note that due to the data entry this negative odds ratio actually suggests that the satisfaction with democracy has increased during the Covid pandemic. The next section will delve deeper in to the effects of the Covid pandemic on the satisfaction with democracy.

The control variables show some effect on the satisfaction with democracy. The odds ratio for rural is above one, indicating that the respondent who has a 0 value has a larger chance of being satisfied with democracy. This means that people living in urban areas are more likely to be satisfied with democracy. The number of years of education show an odds ratio below 1, indicating that the people with the highest age at which they had education have a larger chance of being satisfied with democracy. This means that the individual with more years of education has a larger chance of being satisfied with democracy. Also the odds ratio for the variable for female is below 1. This means that the 1 value is more likely to be satisfied with democracy, indicating that woman are more likely to be satisfied with democracy. The variable for the age of the respondent is insignificant.

It turns out that only the political interest of the respondent does not behave as expected. With these results hypothesis 2 has shown to be not true since the interest in politics does not lead to higher satisfaction with democracy. Also hypothesis 5a, that stated that the Covid pandemic should have a positive effect on the satisfaction with democracy on the short run, cannot be proven since the result is insignificant even though the relation is correct.

**Table 8 Output of the 2011-2020 meologit analysis**

Mixed-effects ologit regression				Number of obs	=	<b>90,881</b>
Group variable: <b>country</b>				Number of groups	=	<b>24</b>
				Obs per group:		
				min	=	<b>832</b>
				avg	=	<b>3,786.7</b>
				max	=	<b>6,826</b>
Integration method: <b>mvaghermite</b>				Integration pts.	=	<b>7</b>
Log likelihood = <b>-97202.513</b>				Wald chi2(20)	=	<b>22697.15</b>
				Prob > chi2	=	<b>0.0000</b>
demsat	Odds ratio	Std. err.	z	P> z	[95% conf. interval]	
trustnatgov	<b>1.858909</b>	<b>.0316315</b>	<b>36.44</b>	<b>0.000</b>	<b>1.797935</b>	<b>1.921952</b>
trustpubadmin	<b>1.452988</b>	<b>.0227091</b>	<b>23.91</b>	<b>0.000</b>	<b>1.409154</b>	<b>1.498186</b>
lifesat	<b>1.324233</b>	<b>.0141613</b>	<b>26.26</b>	<b>0.000</b>	<b>1.296766</b>	<b>1.352282</b>
expngen	<b>1.103419</b>	<b>.0127581</b>	<b>8.51</b>	<b>0.000</b>	<b>1.078694</b>	<b>1.128709</b>
socialclass	<b>.8495216</b>	<b>.0061555</b>	<b>-22.51</b>	<b>0.000</b>	<b>.8375422</b>	<b>.8616723</b>
bills	<b>.914381</b>	<b>.0107812</b>	<b>-7.59</b>	<b>0.000</b>	<b>.8934926</b>	<b>.9357577</b>
polintr	<b>.9490536</b>	<b>.0064867</b>	<b>-7.65</b>	<b>0.000</b>	<b>.9364247</b>	<b>.9618527</b>
orientationZ	<b>1.063827</b>	<b>.0111457</b>	<b>5.91</b>	<b>0.000</b>	<b>1.042204</b>	<b>1.085898</b>
orientationZX	<b>.9626022</b>	<b>.0107724</b>	<b>-3.41</b>	<b>0.001</b>	<b>.9417186</b>	<b>.9839489</b>
execrlcZ	<b>.9859756</b>	<b>.0109966</b>	<b>-1.27</b>	<b>0.205</b>	<b>.9646564</b>	<b>1.007766</b>
voiceNATL	<b>1.956117</b>	<b>.0168127</b>	<b>78.06</b>	<b>0.000</b>	<b>1.923441</b>	<b>1.989348</b>
direction	<b>1.355705</b>	<b>.0113688</b>	<b>36.29</b>	<b>0.000</b>	<b>1.333605</b>	<b>1.378172</b>
attcntry	<b>1.106396</b>	<b>.0116435</b>	<b>9.61</b>	<b>0.000</b>	<b>1.083809</b>	<b>1.129454</b>
age	<b>1.000596</b>	<b>.0004194</b>	<b>1.42</b>	<b>0.155</b>	<b>.9997747</b>	<b>1.001419</b>
female	<b>.9724609</b>	<b>.0124367</b>	<b>-2.18</b>	<b>0.029</b>	<b>.9483883</b>	<b>.9971445</b>
ageedu	<b>.9973538</b>	<b>.0005817</b>	<b>-4.54</b>	<b>0.000</b>	<b>.9962144</b>	<b>.9984945</b>
rural	<b>1.05877</b>	<b>.0147243</b>	<b>4.11</b>	<b>0.000</b>	<b>1.030301</b>	<b>1.088026</b>
COVID	<b>.9965517</b>	<b>.0170881</b>	<b>-0.20</b>	<b>0.840</b>	<b>.9636162</b>	<b>1.030613</b>
CPIscore	<b>.9641897</b>	<b>.004118</b>	<b>-8.54</b>	<b>0.000</b>	<b>.9561522</b>	<b>.9722948</b>
gdpcap	<b>.9999769</b>	<b>2.34e-06</b>	<b>-9.89</b>	<b>0.000</b>	<b>.9999723</b>	<b>.9999815</b>
/cut1	<b>-1.919739</b>	<b>.3579124</b>			<b>-2.621234</b>	<b>-1.218243</b>
/cut2	<b>.8991477</b>	<b>.3578862</b>			<b>.1977036</b>	<b>1.600592</b>
/cut3	<b>2.840396</b>	<b>.3579088</b>			<b>2.138908</b>	<b>3.541885</b>
country   var(_cons)	<b>.6413253</b>	<b>.224607</b>			<b>.3228255</b>	<b>1.274057</b>

Note: Estimates are transformed only in the first equation to odds ratios.

LR test vs. ologit model: chibar2(01) = **1337.07** Prob >= chibar2 = **0.0000**

### 4.3 What factors affect satisfaction with democracy during the Covid pandemic?

In the previous section it has become clear which variables affect the satisfaction with democracy in a normal situation. Now the normal situation is compared to 2020 when the Covid pandemic was spreading all over Europe. During the pandemic governments took all kinds of measures to limit the number of infections and deaths as a consequence of the Covid virus. Widely spread measures were obligations to keep at least 1 meter distance, to work from home, wear face masks in public spaces and large events where many people gather were banned.

The Eurobarometer of July / August asked the respondents how they have experienced these measures. Using this data it is possible to see how the measures affects the satisfaction with democracy. It is also possible to assess whether the variables that were analysed in the normal situation behave the same as they did before.

Starting with the comparison of the variables that were also analysed in the previous section there are some changes. There are some variables of which the odds ratio changed from below 1 to above 1 and the other way around. These variables are the political interest, orientation, female and rural. Now that the odds ratio of the political interest has turned around hypothesis 2 should be revisited as it was rejected in the previous section. Now it fits the hypothesis that people who are more interested in politics are more likely to be more satisfied with democracy. In the third paragraph of 3.2 I explained that the odds ratio for political interest laying below 1 could have something to do with the amount of knowledge that person possesses. This could mean that they are more critical about government handling. In the case of the Covid pandemic the odds ratio thus lays above one, this would imply that the added knowledge of this person leads to more satisfaction with democracy. It is possible that this person has more knowledge about how and why certain measures are taken, this added knowledge could result in more sympathy with the measures that were taken.

The change in odds ratio on the other variables might show that certain groups of people have experienced the measures in a different way. Since the odds ratio for the orientationZ variable is now below 1 it has become clear that in 2020 people who identify as right on the ideological left-right scale have a larger change of being satisfied with democracy. While the previous analysis showed that left people had a larger chance of being satisfied with democracy. This finding should be interpreted with caution since the main effects of this variable might be influenced due to the presence of the interaction term. The interpretation thus should be when the value of *execrlcZ* is zero, people who support the right party have a larger chance of being satisfied with democracy. The same holds for men and people living in an urban environment, they now have a higher chance of being satisfied with democracy compared to woman and people living in rural areas. It has to be noted that for the rural



and female variable the p-value has now become insignificant. This is also the case for other control variables such as the GDP per capita and the age of education. More importantly this is also the case for the ability to pay bills. This might indicate that the personal financial situation has become less important to people.

The variables to measure the satisfaction with the Covid measures are the satisfaction with how the government handled the pandemic (satcovnat), your perception on the economic (covconsecon) and financial (covconsperfin) consequences the pandemic has, how well you could cope with the measures (perscopingcov), how well you think the government found a balance between public health and the economy (balance) and whether the limitations on public liberty were justified (publliberty).

First of all, it is important to note that the personal financial consequences (covconsperfin) show no significant effect on the satisfaction with democracy. This links nicely to the finding that people attribute less importance to the ability to pay bills (bills) during the Covid pandemic. It seems that the personal finances are not a top priority. This would imply that in a health crisis personal finances are less important compared to political views and institutional quality. It seems that the more ideological factors outweigh the financial factors in this crisis situation.

The other variables added do show significant effects on the satisfaction with democracy. As expected the satisfaction with how the government handled the pandemic (satcovnat) shows an odds ratio above 1, meaning that a good score for this variable is likely to lead to a good score on the satisfaction with democracy. This finding was expected since a positive view on the government's actions mostly leads to satisfaction with democracy.

Second the perceived economic consequences (covconsecon) show an odds ratio below 1. This means that respondents who disagree with the opinion that the economic consequences would be large, are more likely to be more satisfied with democracy. It might be possible to combine this with the previous finding about how the government handled the crisis. One could imagine that the respondents have so much trust in the government that they believe the economic consequences to be little. Otherwise the finding would not make much sense since people who do not believe the economic consequences would be large would normally not support the strict measures.

Third the personal coping (perscopingcov) with the Covid measures, this finding is quite straight forward since the odds ratio is positive. This means that the people who could cope with the measures best show the best levels of democratic satisfaction.

Fourth the balance between public health and economy (balance) is analysed. The negative odds ratio shows that the people who feel that the focus has been too much on the economy are more likely to

be satisfied with democracy. In contrast this means that the people who find that the focus has been too much on public health are less likely to be satisfied with democracy. This finding could point to the group of people who do not agree with the danger Covid is believed to be.

Finally, there is the justification of the limitations on public liberty during the measures imposed by the governments (publiberty). As expected the odds ratio is positive, meaning that the people who find the limitations justified are more likely to be satisfied with democracy.

**Table 9 Output of the 2020 meologit analysis**

Mixed-effects ologit regression	Number of obs	=	17,124
Group variable: <b>country</b>	Number of groups	=	21
	Obs per group:		
	Min	=	345
	avg	=	815.4
	max	=	1,240
Integration method: <b>mvaghermite</b>	Integration pts.	=	7
	Wald chi2(26)	=	6330.35
Log likelihood = <b>-14779.264</b>	Prob > chi2	=	0.0000

demsat	Odds ratio	Std. err.	z	P> z	[95% conf. interval]	
trustnatgov	2.912699	.1357154	22.94	0.000	2.658486	3.19122
trustpubadmin	1.585469	.0604857	12.08	0.000	1.471243	1.708564
lifesat	1.412719	.0383746	12.72	0.000	1.339473	1.48997
expgen	1.10917	.0298975	3.84	0.000	1.052093	1.169344
socialclass	.9294589	.0167314	-4.06	0.000	.8972377	.9628373
bills	.9875683	.0301004	-0.41	0.681	.9303002	1.048362
polintr	1.082836	.0205815	4.19	0.000	1.043239	1.123935
orientationZ	.8918674	.0241635	-4.22	0.000	.8457432	.940507
orientationZX	.8684611	.0255795	-4.79	0.000	.8197459	.9200712
execrlcZ	.8426477	.064437	-2.24	0.025	.7253623	.9788973
voiceNATL	1.958638	.0416594	31.61	0.000	1.878666	2.042015
direction	1.32965	.0288283	13.14	0.000	1.274332	1.38737
attcntry	1.262878	.0333155	8.85	0.000	1.199241	1.329893
satcovnat	1.596393	.0380109	19.64	0.000	1.523605	1.672659
covconspcrfin	1.011823	.0193294	0.62	0.538	.9746385	1.050426
covconsecon	.8173499	.0216769	-7.60	0.000	.7759492	.8609594
perscopingcov	1.120153	.0188527	6.74	0.000	1.083805	1.15772
balance	.9306037	.0210917	-3.17	0.002	.8901695	.9728746
publliberty	1.204013	.0271218	8.24	0.000	1.152011	1.258362
infectionsperc	1.56e-24	5.58e-23	-1.53	0.126	4.73e-55	5123013
age	1.002444	.0010361	2.36	0.018	1.000415	1.004477
female	1.020147	.03261	0.62	0.533	.9581935	1.086106
ageedu	.9995659	.0007513	-0.58	0.563	.9980945	1.001039
rural	.9859288	.033934	-0.41	0.681	.9216131	1.054733
CPIscore	.9709025	.006829	-4.20	0.000	.9576097	.9843798
gdpcap	1.000001	4.84e-06	0.21	0.831	.9999916	1.000011

/cut1	1.783793	.4162856			.9678886	2.599698
/cut2	5.761516	.4187264			4.940828	6.582205
/cut3	8.290807	.4219464			7.463808	9.117807

country	
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var(_cons)	<b>.080038</b>	<b>.026823</b>	<b>.0414987</b>	<b>.1543682</b>
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Note: Estimates are transformed only in the first equation to odds ratios.

LR test vs. ologit model: chi2(2) = **220.47**                      Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

## 5. Conclusion

This thesis looks at the determinants of the satisfaction with democracy and how the Covid pandemic affects the satisfaction with democracy. Using the data from the Eurobarometer it is possible to draw conclusions about the satisfaction with democracy on a large set of data. The goal of this thesis is to answer three questions:

1. Did the Covid pandemic change the satisfaction with democracy?
2. What factors affect satisfaction with democracy in a non-crisis situation?
3. What factors affect satisfaction with democracy during the Covid pandemic?

First, by looking into the survey data of the satisfaction with democracy of the last years, the trend showed no evidence of a sharp change in the period between the summer of 2020 and the spring of 2021, when the Covid pandemic was active in Europe. Moreover, the Covid pandemic has shown an insignificant effect in every regression ran in this thesis. This would suggest that the Covid pandemic did not change the satisfaction with democracy significantly during 2020. Unfortunately it has not been possible to fully analyse the results of the satisfaction with democracy since the most recent survey data (2021) does not used in this thesis. However since we see that the changes between 2020 and 2021 are not very large one could assume a similar outcome of the regressions. Naturally this effect could be analysed in future research building on this thesis.

The hypothesized effect (hypothesis 5a and 5b) of the Covid pandemic on the satisfaction was that it could lead to an increase in satisfaction with democracy in the short run, but would eventually result in a decrease in satisfaction with democracy in the long run. Even though there is a small increase in the satisfaction with democracy in 2020 compared to 2019, and a decrease in the satisfaction with democracy in 2021 compared to 2020, which would support this hypothesis. The effect cannot be attributed to the presence of the Covid pandemic due to the insignificant outcome of the model. This finding complements the analysis of the effect of the Covid pandemic. Although Bol et al. (2020) and Esaiasson et al. (2020) have analysed the effect of the Covid pandemic on the support for the incumbent parties, the effect of Covid pandemic on the satisfaction with democracy is lack of analysis. This thesis fills this gap.

The finding that the Covid pandemic has no significant effect on the satisfaction with democracy is contrary to the widely accepted statement that in general a crisis leads to a decrease in the satisfaction with democracy (Armingeon and Guthmann, 2014; Kriesi, 2017; Cordero and Simón, 2015). This difference could be contributed to the fact that the Covid pandemic is predominantly a health crisis and not strictly an economic crisis.

To answer what factors affected the satisfaction with democracy in a (non) crisis situation, an analysis was done on three possible factors: institutional quality, political congruency between the respondent and the government and the personal situation.

The first hypothesis (*Hypothesis 1: The higher the institutional quality in a country, the higher the satisfaction with democracy will be*) is accepted in the analysis. The institutional quality is measured by trust in the national government and trust in public. The results show that the institutional quality matters in both crisis and non-crisis period. Moreover, the institutional quality shows a larger effect on the satisfaction with democracy during the Covid pandemic. This implication might rely on the measures governments have had to take to control the spread of the virus. Since these measures, and the virus, affect the daily life of the respondents it is important for the respondents to trust the people making the decisions about their physical and mental well-being. When the respondents trust the people in power, they are more likely to be satisfied with the democracy in their country.

The second hypothesis (*Hypothesis 2: The higher an individual's interest in politics, the higher his/her satisfaction with democracy will be*) cannot be accepted unconditionally since the analysis showed that in the normal situation this effect behaved opposite to what was expected. During the pandemic the analysis shows that the effect is as expected. This difference could be due to the fact that more interested people are also more informed on the strategy the government has to fight the pandemic. More informed people are often more likely to understand and accept the reasoning behind the tough decisions the governments were facing. This result implies that in times of a pandemic it is important to keep people informed and interested in the political situation.

The third hypothesis (*Hypothesis 3: The more an individual's views correspond with the government's policy the higher the individual's satisfaction with democracy will be*) has turned out to be true for both the analysis, when there is no crisis present and where there is a crisis present. Individual's views correspond with government's policy are measured by several indications, for instance, whether you feel your voice counts, whether you are happy with the direction things are going, the congruency between respondents and politics and the attachment to your country show that they indeed are determinants for the satisfaction with democracy. Interestingly there is very little difference between the two analysis, the fact whether there is a pandemic is present does not change very much on the likelihood of being satisfied with democracy. This would imply that the rally around the flag concept, introduced in the introduction by Schraff (2020), does not hold in this analysis. The rally around the flag concept states that in case of a crisis people are more likely to support the current leader, who they trust to help them out of this crisis. Since there is no decrease in the importance of the congruence between the government's policies and the personal opinions, there is no evidence that people from

the other political spectrum have supported the incumbent parties during the Covid pandemic. Meaning that the rally around the flag concept did not play a role in this period.

The fourth hypothesis (*Hypothesis 4: Individuals with better personal economic levels will show high levels of satisfaction with democracy*) is only accepted in the normal situation. The results shows that a better economic status (measured by life satisfaction, general expectations, ability to pay bills and social class) increases the satisfaction with democracy. In the situation when the Covid pandemic is included in the analysis the effects of the ability to pay bills and the expectations of the Covid pandemic on the personal finances are insignificant. This result implies that the importance of the personal finances has decreased due to the presence of the Covid pandemic. Coming back to the statement that the effect of a health crisis could be different than the effect of an economic crisis. The finding that personal finances are less important, strengthens the statement of the difference between a health and economic crisis. In an economic crisis people are often hit directly in their wallet, where this seems not to be the case during the Covid pandemic.

On the basis of the results in this thesis some policy implications can be formulated. First, the results state that better trust in politics and public administration lead to higher levels of democratic satisfaction. In times of a pandemic it thus turns out that trust in the persons in power increases the levels of democratic satisfaction. The same goes for procedural fairness. A government should thus make sure that they present strict measures in a fair and clear way so that trust levels remain high. Second, the presentation of measures also links to the political interest. As shown before during the Covid pandemic the interest in politics has a positive effect on the satisfaction with democracy. The government should thus try and keep up interest in politics. This could be achieved by presenting the measures taken to control the virus in an interesting and clear way.

In short this thesis contributed to the understanding of how changes in democratic satisfaction are caused. By looking at the determinants of democratic satisfaction it has become clear that a health crisis does not behave the same as a purely economic crisis.

The main limitation of this thesis is that at the moment of writing the Covid pandemic has not ended yet, and it does not look like it will end soon. The results that have been found are thus provisional. Also it was not possible to make a full analysis of the data collected in the winter of 2020 and spring 2021 since this data did not share the same variables as the original research based on data from the winter of 2020. It is possible that further analysis on data collected during these time frames provides different outcomes with respect to both independent and dependent variables or even the level of democratic satisfaction. Further research should naturally focus on analysing the levels of democratic satisfaction even further as the Covid pandemic stays active in Europe. The longer the pandemic keeps

going on the more likely it becomes that more and more people get fed up with the measures. This is another interesting subject to do further research on. This research should focus on more practical policy advises on what governments can do to keep democratic satisfaction high when imposing strict measures that have large impacts on the daily life of citizens.



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## Appendix

Table of variables in alphabetical order

Age	Age of respondent
Ageedu	Age until the respondent underwent full time education
Attcntry	Attachement to country
Balance	Balance between health and economy in measures taken by the national government against the Covid pandemic
Bills	To what extend the participant hasn't been able to pay bills over the last 12 months
Community	Whether the participant lives in a rural or urban area
Covconsecon	To what extend has the covid pandemic affected the national economy
Covconsperfin	To what extend has the covid pandemic affected personal finances
COVID	Dummy for 2020 when the covid pandemic appeared
CPIscore	The corruption score according to CPI
Demsat	Satisfaction with democracy in your country
Direction	How happy is the respondent with the direction 'things are going'
Expngen	What are the expectations for their life in general over the next 12 months for the respondent
ExecrlcZ	Left-right placement of the executive party in the government
Female	Dummy for being female
Gdpcap	GDP per capita
Infectionspercap	Covid infections per capita
Lifesat	Life satisfaction
OrientationZ	Left-right placement of the participant
OrientationZX	Interaction term between orientation and execrlc
Perscopingcov	How well the respondent could cope with the covid measures
Polintr	Political interest
Publliberty	Whether the respondent thinks the limitations on public liberty caused by measures against the Covid pandemic were justified
Rural	Dummy for living in rural area or village (0 for small and large towns)
Satcovnat	Satisfaction with the way the national government handles the covid pandemic
Socialclass	Social class of the respondent
Trustnatgov	Trust in national government
Trustpubadmin	Trust in public administration
VoiceNATL	How well the respondent feels their voice counts in their country

# Pairwise correlations for 2020 analysis (4 tables)

	demsat	trustn~v	trustp~n	lifesat	expngen	social~s	bills
demsat	1.0000						
trustnatgov	0.4825*	1.0000					
trustpubad~n	0.3807*	0.4442*	1.0000				
lifesat	0.3684*	0.2141*	0.2218*	1.0000			
expngen	0.1937*	0.1218*	0.1372*	0.2287*	1.0000		
socialclass	-0.1597*	-0.1344*	-0.1101*	-0.2661*	-0.1077*	1.0000	
bills	-0.2245*	-0.1539*	-0.1951*	-0.3832*	-0.1201*	0.2880*	1.0000
polintr	-0.0639*	-0.0757*	-0.0548*	-0.0582*	0.0109	0.1248*	0.0611*
orientationZ	-0.0176*	-0.0165*	0.0233*	0.0005	-0.0214*	0.0129*	-0.0190*
orientatio~X	-0.0935*	-0.1382*	-0.0493*	-0.0270*	-0.0265*	-0.0316*	0.0069
execrlcZ	0.1028*	0.0836*	0.1074*	0.1107*	0.0496*	-0.0720*	-0.1615*
voiceNATL	0.4736*	0.3669*	0.3181*	0.2826*	0.1499*	-0.1500*	-0.1982*
direction	0.4606*	0.5461*	0.3601*	0.2550*	0.2322*	-0.1135*	-0.1586*
attcntry	0.1877*	0.1694*	0.1283*	0.0995*	0.0409*	0.0169*	-0.0839*
satcovnat	0.4786*	0.4747*	0.2934*	0.2699*	0.1624*	-0.1229*	-0.1714*
covconspcr~n	-0.2251*	-0.1886*	-0.1857*	-0.2693*	-0.1191*	0.1728*	0.3231*
covconsecon	-0.1327*	-0.1303*	-0.0983*	-0.0464*	-0.0505*	0.0741*	0.0553*
perscoping~v	0.2533*	0.1512*	0.1441*	0.2688*	0.1169*	-0.1218*	-0.2438*
balance	0.0133*	0.0372*	0.0001	0.0130*	0.0165*	0.0005	-0.0193*
publiberty	0.3446*	0.2668*	0.1966*	0.2274*	0.1139*	-0.0700*	-0.1933*
infections~p	-0.1085*	-0.0619*	-0.0751*	-0.0766*	-0.0093	0.0627*	0.0345*
age	-0.0385*	-0.0924*	-0.0342*	0.0260*	0.1931*	-0.0875*	0.1058*
female	0.0005	-0.0023	-0.0082	-0.0088	0.0053	-0.0031	-0.0085
ageedu	-0.0522*	-0.0267*	-0.0468*	-0.0770*	-0.0982*	0.0984*	0.0348*
rural	0.0159*	0.0155*	0.0092	-0.0070	0.0307*	-0.0771*	-0.0107
COVID	.	.	.	.	.	.	.
CPIscore	-0.2779*	-0.2224*	-0.2283*	-0.3269*	-0.0478*	0.1666*	0.3035*
gdpcap	-0.2661*	-0.2059*	-0.1982*	-0.2857*	-0.0252*	0.1822*	0.2373*

	polintr	orient~Z	orient~X	execrlcZ	voiceN~L	direct~n	attcntry
polintr	1.0000						
orientationZ	-0.0687*	1.0000					
orientation~X	-0.0077	0.1045*	1.0000				
execrlcZ	0.0063	0.0285*	-0.0100	1.0000			
voiceNATL	-0.1216*	0.0202*	-0.0522*	0.1437*	1.0000		
direction	-0.0696*	-0.0409*	-0.1029*	0.0254*	0.3474*	1.0000	
attcntry	-0.0614*	-0.0537*	-0.0478*	-0.0191*	0.2011*	0.1666*	1.0000
satcovnat	-0.0805*	-0.0391*	-0.1236*	0.0603*	0.3592*	0.4600*	0.2250*
covconsper~n	0.0252*	-0.0307*	0.0052	-0.1800*	-0.1515*	-0.1642*	-0.0369*
covconsecon	-0.0105	0.0097	0.0453*	-0.1205*	-0.0709*	-0.1418*	0.0639*
perscoping~v	-0.0446*	0.0090	0.0021	0.0991*	0.1492*	0.1698*	0.0503*
balance	-0.0194*	-0.0380*	-0.0263*	-0.0077	0.0305*	0.0478*	0.1028*
publiberty	-0.0527*	0.0322*	-0.0368*	0.0941*	0.1938*	0.2588*	0.1436*
infections~p	0.0132*	-0.1156*	-0.0270*	-0.1981*	-0.0653*	-0.0093	0.1043*
age	0.1075*	-0.0069	0.0141*	-0.0648*	-0.0514*	-0.0409*	-0.1801*
female	-0.1011*	-0.0082	-0.0015	0.0307*	0.0078	0.0117*	-0.0373*
ageedu	-0.0567*	-0.0146*	-0.0115	-0.0673*	-0.0185*	-0.0340*	0.0599*
rural	-0.0081	0.0322*	0.0003	0.0255*	0.0125*	-0.0052	-0.0140*
COVID	.	.	.	.	.	.	.
CPIscore	0.0999*	-0.1032*	-0.0407*	-0.2339*	-0.1890*	-0.1554*	0.0023
gdpcap	0.1244*	-0.1123*	-0.0531*	-0.1167*	-0.1670*	-0.1617*	0.0028

	satcov~t	covco~in	covco~on	persco~v	balance	publli~y	infect~p
satcovnat	1.0000						
covconsper~n	-0.1826*	1.0000					
covconsecon	-0.1007*	0.2913*	1.0000				
perscoping~v	0.2365*	-0.2617*	-0.0834*	1.0000			
balance	0.1059*	0.0210*	0.0868*	-0.0065	1.0000		
publliberty	0.4105*	-0.1990*	-0.0067	0.3062*	-0.0371*	1.0000	
infections~p	0.0803*	0.0428*	-0.0051	0.0016	0.1443*	-0.0894*	1.0000
age	-0.1021*	0.1641*	-0.0258*	-0.0753*	-0.0282*	-0.1456*	-0.0150*
female	-0.0182*	0.0000	-0.0175*	0.0410*	0.0047	-0.0446*	-0.0503*
ageedu	-0.0084	0.0492*	0.0405*	-0.0228*	0.0218*	-0.0198*	0.0656*
rural	0.0048	-0.0166*	-0.0114*	-0.0237*	-0.0082	0.0156*	-0.0048
COVID	.	.	.	.	.	.	.
CPIscore	-0.1679*	0.3646*	0.0226*	-0.2597*	0.0412*	-0.2627*	0.2874*
gdpcap	-0.1773*	0.2802*	0.0210*	-0.1929*	0.0389*	-0.2218*	0.5127*
	age	female	ageedu	rural	COVID	CPIscore	gdpcap
age	1.0000						
female	0.0121*	1.0000					
ageedu	-0.2884*	-0.0069	1.0000				
rural	0.0563*	-0.0074	-0.0433*	1.0000			
COVID	.	.	.	.	1.0000		
CPIscore	0.1573*	-0.0242*	0.1257*	-0.0309*	.	1.0000	
gdpcap	0.1195*	-0.0399*	0.1091*	-0.0012	.	0.7969*	1.0000

\* $p < 0.05$