Elections in the Age of Pandemic:

How Government Parties Score in the Times of COVID-19?

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Abstract

This thesis analyzes various effects of the COVID-19 pandemic on electoral outcomes worldwide. It employs bivariate regression analysis analyzing the main dependent variable and four independent variables. Research is conceived as a large N study consisting of 56 cases in 48 countries around the world. Upon testing, the results confirmed all three hypothesis this thesis sets up. First, government parties scored better when elections were held in the first wave of the pandemic than when elections were held in the second wave. Second, the pandemic was an important contributor to the lower average turnout. Majority of analyzed states recorded lower turnout than usual due to the pandemic and fear of contagion. Third, the pandemic has caused economic downturn which was particularly evident in the second wave affecting electoral outcomes in way to trigger economic voting.

Key words: *COVID-19, Coronavirus, Elections, Incumbents, Government Parties*

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AUTHOR'S DECLARATION

I, the undersigned, Miloš Pavković, candidate for the MA degree in Political Science declare herewith that the present thesis is exclusively my own work, based on my research and only such external information as properly credited in notes and bibliography. I declare that no unidentified and illegitimate use was made of the work of others, and no part of the thesis infringes on any person's or institution's copyright. I also declare that no part of the thesis has been submitted in this form to any other institution of higher education for an academic degree.

Vienna, 15. June 2021.

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Signature

Introduction

At the end of 2019 new type of virus emerged in China, which has rapidly spread around globally causing a worldwide pandemic. SARS-CoV-2 (COVID-19) hereinafter referred to as Coronavirus also, classified in the group of Coronaviruses, has shocked almost all countries, triggering curfews, mass quarantines, and consequently significant slow-down of an economy. The virus associated with acute respiratory problems and pneumonia was firstly identified in Wuhan, the capital of the Chinese province of Hubei. On 7 January 2020, the virus was isolated and identified by Chinese scientists (Wang et al. 2020). By now, more than 143 million people have been infected, and more than 3 million died from this lethal virus ("Worldometers" 2021). In March 2020, the modern world has met with a pandemic outbreak of global scales for the first time. Many governments introduced a state of emergency followed by curfews, closure of borders and strict quarantine measures which had serious implications such as overnight closure of Schengen zone, economic recession and limiting some of the fundamental rights. As Delanty described it, "[t]he pandemic was a social and economic shock as well as a political crisis and a psychological trauma" (Delanty 2021, 1). Despite the restrictions, political life has continued and many countries held elections in 2020.

Pandemic presents a shock that can be compared to one that has caused a global financial crisis in 2008, or from 1929. It has created far-reaching consequences on different political processes within societies. The COVID-19 pandemic is a perfect example of a natural catastrophe that produced political consequences. Sometimes colossal global events lead towards a change of parties in the government, while on the other hand in some cases these events make re-election easier. Thus, this research tends to analyze and compare elections and electoral outcomes worldwide with regards to the COVID-19 pandemic. Having in mind that the Coronavirus is a recent phenomenon, it is under-researched when it comes to the field of

political science. We want to unveil whether managing the pandemic was important to voters, whether ruling parties used the pandemic to their advantage or the pandemic did not have an effect on elections. We observe direct elections in 48 countries, including parliamentary and presidential elections on a national level. As a starting point, we take March 11 2020, the day when the World Health Organization (WHO) declared a global pandemic (WHO 2021). From March 2020 by the moment of writing this thesis, there were three waves of the pandemic. The first one ended in summer 2020, the second started in the fall of last year, while today we are currently under the third wave of the pandemic. This division is important for our analysis because it will let us identify the difference between elections held during the first wave in comparison to the elections held in the second wave if there is any.

Elections are used in most countries as an instrument for citizens to elect legislative and executive branches of power. Voters use elections to assess previous work of the government, and consequently, award it with reelection or punish it by voting for the opposition party or candidate. When assessing the work of the government, voters usually take into account economic development, electoral promises, party program, or implemented policies during the previous mandate… But how voters react in regards to the Coronavirus pandemic? Do they assess the economic downturn during the pandemic when casting their votes? Are restrictive measures aimed at preventing the spread of the pandemic welcomed by voters in elections or on the contrary, they have a negative impact? Is economic relief a type of financial payment to all citizens helping the incumbents? In other words, do incumbents win or lose elections in the times of COVID-19? This thesis will try to answer that question and others, such as why incumbents win or lose elections in regards to the pandemic and how pandemic influenced voter turnout. As a novel phenomenon, Coronavirus deserves attention not just from doctors and pulmonologists, but by social and political scientists also.

As we have seen, the global pandemic is an overarching phenomenon that affected almost all spheres of our society, starting from the economy, politics, and social relations of people. Thus, this research shall explore in more detail how the pandemic has affected elections, voter turnout and the perception of the electorate. However, the main focus of this paper would be government parties and how they scored during 2020 – which is the main research question.

We want to inspect for a potential relationship between several variables. Our assumption is that the pandemic has influenced electoral processes around the world in many ways. In the first wave, it made it easier for the government or incumbent to win re-election, while in the second wave it made it harder. On the other hand, due to its contagiousness and mortality, it may have discouraged voter participation, effectively lowering the voter turnout in elections around the world. Additionally, we are interested to see whether hard lockdowns, induced by the spread of the virus in some countries, affected voter turnout. Lastly, every social and political turmoil has its repercussion on economy. Is the case with the pandemic also? How it may have affected electoral outcomes?

There are three main hypotheses that this thesis will test. First, the government parties scored better in the first wave of the pandemic due to several reasons which will be elaborated in the third chapter. Second, voter turnout is important when it comes to re-election, and the pandemic has negatively impacted the turnout especially in states that introduced lockdowns and restrictive measures beforehand elections. Thirdly, number of infected persons by the COVID-19 disease played also an important role. Higher number of infections caused a lower turnout which in turn also affected electoral outcomes and vote share of government parties. These three hypotheses will be tested and explained in more detail in next chapters.

In the upcoming pages, the thesis will be structured into three main chapters. In Chapter 1 we will provide an overview of the most relevant literature for the thesis. Furthermore, the literature review is split between the literature on retrospective economic voting, natural

disasters and government and voters' responses on different kinds of disasters. In Chapter 2 we will provide a detailed description of the research design including the research question and methods used. Chapter 3 will encompass the argumentation of the author, results of the statistical research and the explanation of the obtained results. Finally, in the conclusion, all results and argumentation will be summarized and presented in a scientific way.

Chapter 1. Literature Review

Our research is seated within the literature of retrospective voting and natural disasters. The idea that elections can act as a "referendum" on the latest performance of incumbents and governments has been demonstrated widely in the political science literature (Healy and Malhotra 2013; Lewis-Beck and Stegmaier 2013). Although *retrospective voting* is conceptualized primarily economically, implying that incumbent governments are either electorally rewarded or punished depending on recent economic development (Lewis-Beck and Paldam 2000; Lewis-Beck and Costa Lobo 2017), our focus is non-economic retrospective voting behavior in the midst of a natural disaster. In the following two sub-chapters, we will present an overview of relevant literature on retrospective voting and natural disasters with regards to electoral outcomes, and the COVID-19 pandemic from the perspective of political and social sciences overall.

1.1 Natural Disasters

Beyond the health effects of the pandemic on individuals and humankind in general, the global pandemic of Coronavirus has global political implications and its understanding is vital. Global disasters that hit humanity can either be natural, such as earthquakes or hurricanes, or political-social, such as warfare or economic crisis (Turner 2021). Recent debates on the risk society suggest that catastrophes may increase with modernization (Beck 1992; Giddens 1990, 124–25). Globalization and technological change have made our world increasingly vulnerable and the pandemic of Coronavirus is an evident example of the risks of open borders and globalization (Turner 2021, 139). The pandemic is an example of a natural catastrophe that produced political-social consequences. Having in mind that the Coronavirus is a recent phenomenon, it is under-researched when it comes to the field of political science. The global

pandemic which happened in 2020 is an exogenous event that shares features with foreign threats (De Vries et al. 2021, 24). Furthermore, exogenous events can create emotional responses that carry over to influence political outcomes (Healy, Kuo, and Malhotra 2010; Small, Lerner, and Fischoff 2006). Thus, the Coronavirus pandemic can be observed as an exogenous event sharing similar features.

Literature on elections and disasters is rich and, in most cases, describes elections amid disaster as negative for incumbents' fortunes. There is a famous example of the shark attack in New Jersey just before the 1916 US presidential elections which affected negatively Woodrow Willson's presidential race that year (Achen and Bartels 2004). In other cases, incumbents have been also penalized electorally as a result of natural crises (Arcenaux and Stein 2006; Gasper and Reeves 2011). Even though Gasper and Reeves (2011) found that incumbents are punished for natural disasters, "more attentive responses from incumbents can actually lead to electoral benefits"(Sircar 2020, 3). This is also a central focus of our work, attentive responses by incumbents in the case of the Coronavirus pandemic have had the opposite effect than usually – it triggered support. Furthermore, Chang and Berdiev (Chang and Berdiev 2015) found that the occurrence and number of most natural disasters, as well as disaster-related losses, are associated with government turnover. However, in previous works on natural disasters and electoral results no pandemic was analyzed, maybe because Coronavirus (SARS-CoV-2) pandemic is unprecedented by its intensity and scope.

On the other hand, natural disasters can also affect the voters' turnout, which is yet another element in the scope of this research. Sinclair and others (2011) have analyzed voters' turnout of the 2006 New Orleans mayoral election after Katrina Hurricane. They found that despite difficulties that were caused by the hurricane, places where flooding was more serious actually had higher turnout (Sinclair, Hall, and Alvarez 2011). The higher voter turnout was attributed to increased voter mobilization and motivation to participate (Sinclair, Hall, and

Alvarez 2011). In the case of the Coronavirus pandemic, we want to test whether the number of infected people affected voter mobilization and participation. Our assumption is that, due to contagiousness, the virus has affected turnout negatively, especially in the states with higher number of infections per one million people.

The pandemic has produced two effects on citizens: a *rally-around-the-flag* and a *rally-around-the-leader* effect (De Vries et al. 2021, 24). Lockdown policies rally around institutions causing support for the government as a way of managing anxiety and expressing patriotism (De Vries et al. 2021, 6–9). According to De Vries and others, in the case of Italy, it was recorded an increase in popularity of government parties of 7,3%, and an increase in PM party support of 5,1% (De Vries et al. 2021, 16–17). But this was not only the case in Italy, the rise of popularity of incumbents and government parties had a spill-over effect during the first wave of the pandemic. Incumbents around the world experienced rising popularity, even the US president Trump approval rate raised at the start of the pandemic (De Vries et al. 2021, 3). The crisis in Italy, which experienced the worst scenario in Europe, was a signal and led to the increased incumbent support in other European countries. De Vries and others observe that: "[i]ncumbent support in other European countries increased after Italy's COVID-19 lockdown, even before domestic governments had responded with similar measures" (De Vries et al. 2021, 22). Additionally, Baccini and others in their paper confirm a negative effect of the COVID-19 pandemic on Donald Trump's vote share for the US presidential elections in November last year (Baccini, Brodeur, and Weymouth 2021). According to their counterfactual analysis, Trump would likely have won re-election if COVID-19 cases had been 5 percent lower (Baccini, Brodeur, and Weymouth 2021). Giommoni and Loumeau have confirmed that in the case of France pandemic has significantly affected electoral outcomes in two ways: incumbents vote share is higher, and voter turnout is larger where more stringent restrictions were adopted (Giommoni and Loumeau 2021).

We must mention also that despite the evidence of post-disaster electoral effects, some authors in their recent works have found negligible effect (Albrecht 2017; Bodet, Melanee, and Tessier 2015; Bovan, Banai, and Banai 2018; Fowler and Hall 2018). For instance, Albrecht (2017) runs a quantitative analysis on ten cases of minor and major disasters in Europe with the aim to check their effect on political trust and satisfaction. What he finds out is that political attitudes among individuals are largely unaffected and cases of disasters when incumbents benefit from or are blamed for the perceived management of disasters appear to be uncommon (Albrecht 2017). In the same vein, Bodet and others (2015) study the effects of natural disasters on incumbent support and turnout in the case of Calgary, one of the biggest cities in Canada. Contrary to their expectations, the flood had no significant effect on the support for the incumbent, nor it has a significant effect on voter turnout (Bodet, Melanee, and Tessier 2015). Similarly, Bovan and others (2018) find identical results in the case study of Croatia after floods in 2014 and 2015. Their main results suggest that floods did not have an impact on the election outcome (Bovan, Banai, and Banai 2018). Finally, Fowler and Hall (2018) deconstruct Achen and Bartels's famous claim of the influence of the shark attack on the US presidential election in 1916. They assembled data on every fatal shark attack in US history and country-level returns from every presidential election from 1872 until 2012. They find no systemic evidence that shark attacks affect elections (Fowler and Hall 2018). This paper will check if the Coronavirus pandemic has had any influence on elections and voter turnout around the world or not.

1.2 Retrospective Economic Voting

There is rich literature arguing that the economic ups and downs of government policies are among the major factors for re-election and government change. As Lewis-Beck and Stegmaier noted, good times keep parties in office, while bad times cast them out (Lewis-Beck and Stegmaier 2000). They conclude that economic issues are not exclusively assessed by

voters, they are generally weighted more heavily than other parameters of government (un)success. One of the first scientists to establish a relation between elections and economics was Edward Tufte in his famous book *Political Control of the Economy*. In his pivotal work he articulated what he called a basic principle (Tufte 1978, 65):

> When you think economics, think elections;
> When you think elections, think economics.

The study of Lewis-Beck and Stegmaier on several countries, including the US, UK, France, Denmark other high-income democracies and some low-income democracies shows that the fall of government is more likely to come from a shift in economic evaluations than from a shift in attachments (Lewis-Beck and Stegmaier 2000, 211). Furthermore, the relationship between the elections and economic performance was confirmed in yet another study by Dassoneville and Lewis-Beck. In a rigorous analysis of a large time-series-cross-sectional data set of European nations, they have found strong evidence that macroeconomy moves national elections outcomes (Dassonneville and Lewis-Beck 2014). Additionally, they found out that the economy-election relationship is asymmetric, meaning that an economic crisis has much higher electoral effects than positive economic growth (Dassonneville and Lewis-Beck 2014). In other words, governments are punished more for bad economic policy than they are rewarded for a good one (Dassonneville and Lewis-Beck 2014, 390). The relationship between the economic policies and electoral outcomes was confirmed also from the voters' perspective. In a study in the United States, Britain and France that was done using surveys on voters, the pattern of economic voting was identified (Lewis-Beck and Stegmaier 2007).

As a matter of fact, all literature mentioned so far is dealing with economic voting in ordinary times. As the global pandemic is an extraordinary event, we should see how this relationship elections-economy holds in extraordinary times. The answer to that question is provided in another co-authored article by Lewis-Beck and Costa Lobo. In their article *Economic Voting in Ordinary and Extraordinary Times*, they analyze how the global financial

crisis from 2008 affected electoral results in democracies of South-East Europe which were among most affected by the crisis – Greece, Italy, Portugal and Spain (Lewis-Beck and Costa Lobo 2017). Their research showed that economic voting was even more expressed than in ordinary times, due to the fact that more anti-incumbent votes were registered resulting in negative swings in the overall electoral outcome (Lewis-Beck and Costa Lobo 2017, 625).

There are other authors besides Lewis-Beck who investigated the relationship between economy and elections. For instance, Anderson has found out that voters' ability to express discontent with economic performance is enhanced when mechanisms of accountability are simple (Anderson 2000). In his individual-level survey conducted in 13 European democracies, results revealed that political context interacts with economic perceptions to affect voting behavior (Anderson 2000, 168). Additionally, Powell and Whitten based on multivariate analysis of 102 elections in 19 industrialized democracies conclude that economic conditions trigger anti-incumbent voting (Powell and Whitten 1993). They establish a relationship between inflation, unemployment and GPD growth as economic variables and electoral outcomes and find out that the right-wing governments are hurt by higher inflation, while the center and left-wing governments are hurt by high unemployment rates (Powell and Whitten 1993).

We have seen that economic voting is confirmed in various different studies, including government perspective, voters' perspective, using different techniques and methods of statistical analysis. Economic voting is an existing phenomenon, that is what we know. But what we do not know is whether the COVID-19 pandemic has triggered economic voting. Literature on prospective economic voting has not yet analyzed insights that COVID-19 has to offer with regards to economic voting. This is an existing gap in the literature that is identified and which this thesis intends to fill out.

1.3 Current Literature on the Coronavirus Pandemic

Having in mind the recency of the Coronavirus pandemic there are not many works analyzing it from the perspective of political science. The latest journals and books discussing the 2020 pandemic will be summarized and gaps within the current literature will be identified. One of the first article dealing with the influence of pandemic on elections was one by Indraneer Sircar on Croatian parliamentary elections (Sircar 2020). He analyzed whether the pandemic had influenced voter turnout and vote share for the dominant Croatian Democratic Union party (HDZ). Using the difference-in-difference statistical method, Sircar has not found evidence of causal inference between country-level infections and HDZ's support nor voter turnout (Sircar 2020). On the other hand, De Vries and others came to different results in the case of Italy (De Vries et al. 2021). Their research confirmed increased support for the government parties not just in Italy, but the Italian crisis was a signal and led towards an increase of incumbent in other European countries as well (De Vries et al. 2021, 17). In the two aforementioned cases of Italy and Croatia, we have gotten two diametrically opposed conclusions. This is one of the reasons why the large-N study is necessary to check for the influence of the pandemic on elections worldwide.

Another interesting article dealing with the pandemic and government policies with regards to a pandemic is the article by Maor and others analyzing the case of Israel (Maor, Sulitzeanu-Kenan, and Chinitz 2020). They argue that Prime Minister Netanyahu employed disproportionate policy responses both at the rhetorical level and on the ground in the fight against COVID-19 (Maor, Sulitzeanu-Kenan, and Chinitz 2020). In the recent elections that were held Netanyahu has lost support and the position of Prime Minister, and along with corruption scandals, disproportionate measures of his government in the fight against the pandemic can be blamed for his defeat. Finally, elections often can take place during emergency situations such as floods, earthquakes, hurricanes and as well pandemics. Among several novel

articles that are dealing with elections in times of pandemic is one by James Toby who warns of potential 'elephant traps' for states organizing elections during the pandemic (James 2021). One of the traps is guaranteeing health for the voters. James argues that there are several necessary requirements when it comes to organizing elections during the pandemic. Some of them are: building political consensuses, investing in sufficient resources and consider the impact of the whole electoral cycle (James 2021). There are many risks when it comes to the elections posed by the COVID-19, but there is no single nor simple solution to organize it (Landman and Di Gennaro Splendore 2020).

As shown in this chapter, bearing in mind that the COVID-19 pandemic is a very recent phenomenon, as such it is under-researched. Several academic works are investigating the impact of the pandemic on elections in few countries individually, but still, there is no comprehensive research that would deal with the pandemic on the international level. Our research intends to fill out this gap.

Chapter 2. Methodology and Research Design

This paper tends to analyze elections held around the world during the pandemic of COVID-19. As starting date, we will take March 11, 2020 - the day when the World Health Organization has declared Coronavirus pandemic. Thus, we analyze 56 elections in 48 countries worldwide that held elections between March 11 and December 31. The number of observed elections represents the *N* number – the pool of cases. The focus of this research is on the national level elections: direct legislative and presidential elections. Local elections as well as partial legislative elections, as was the case for instance in Iran where in September 2020 were held elections for only 11 legislative deputies, are not in the scope of this paper. Additionally, presidential elections held in the Dominican Republic are not observed because the incumbent president has served two mandates and was ineligible to compete. When a government party did not compete or did not have its candidate, we do not take this country into consideration. This is the case with Palau which held both parliamentary and presidential election, but both the government party and incumbent have not participated. Instead, independent candidates competed for office and this country does not qualify for our analysis.

Furthermore, the observed period will be split into two parts – the first wave and the second wave of the pandemic. There are different opinions about how many waves of the pandemic are there, varying from one to three. Waves of the pandemic are endogenous events and they have not hit all the countries at the same time. For this reason, government responses may have been different. Thus, we will observe the pandemic in 2020 in two phases. For the sake of clarity, we take for the first wave the first four months, until the middle of the summer. In June number of infected people started stagnating, and falling in some states and regions, thus states have started loosening restrictive measures, abolishing the state of emergency and lockdown and slowly returning life back to 'normal'. However, in the second half of summer

and during the autumn number of infected persons started rising. States, one by one, started reintroducing restrictive measures including lockdowns, curfew and state of emergency. Therefore, we take July 15 as the end of the first wave and the start of the second wave of the pandemic.

2.1 Data and Methods

We will use statistical modelling to analyze available data. More precisely, we will employ bivariate regression analysis in order to establish a causal relationship between the independent and dependent variables and descriptive statistics in order to explain the results. The relationship between an independent variable, labeled X, and a dependent variable, labeled Y, can be expressed in the following formula:

$$Y = a + bX,$$

where the values of the coefficients, a and b, determine the precise height and steepness of the line (Lewis-Beck 1980, 9). This is the case with exact relationship, however, in our case, we are dealing with an inexact relationship where we should account for a possible error. In that case, a more suitable equation would be:

$$Y = a + bX + e.$$

In this example, *e* stands for *error* (Lewis-Beck 1980, 10). When postulating a relationship among social science variables, we usually assume linearity, but this is not always the case. Nevertheless, we should always be aware of the possibility that a relationship between variables can be nonlinear (Lewis-Beck 1980, 13). Before testing our hypotheses, we should make sure that there were no violations in the assumptions of normality, linearity or homoscedasticity which could skew the results.

For the purpose of testing for the relationship between the dependent variable and independent variable we employ bivariate analysis. Bivariate analysis is often used in social research with the aim of establishing a relationship between variables (Babbie 2009). Bivariate regression analysis is useful for examining the ability of the independent variable to predict the dependence of the criterion variable. We assume a linear relationship between variable Y and variable X while using Person's correlation to test it. Person's relationship (R) can vary from -1, which denominates a perfect negative relationship, to 1, which marks a perfect positive relationship. In the case R = 0, it means that there is no relationship between the two variables. We can express *R* like the following equation:

$$R = \frac{the\ degree\ to\ which\ X\ and\ Y\ vary\ together}{the\ degree\ to\ which\ X\ and\ Y\ vary\ in\ general}$$

$$R = \frac{covariability\ of\ X\ and\ Y}{variability\ of\ X\ and\ Y\ individually}$$

Correlation is used for two kinds of tasks – to predict and to test the theory. While regression, by testing for a linear function, shows the central tendency of the relationship. Regression shows what is the best line which can explain the relationship. In our test, the aim is to reach the "Best Linear Unbiased Estimate" (BLUE). BLUE implies three specific things. First, that there is no specification error. The specification error means that the relationship between X and Y is linear, that no relevant independent variables have been excluded, and that no irrelevant independent variables have been included (Lewis-Beck 1980, 26). Second, there is no measurement error, meaning that variables X and Y are accurately measured (Lewis-Beck 1980, 26). Third, for each observation, the *expected value* of the error term equals zero (Lewis-Beck 1980, 26).

There are three types of data we will use for our analysis, and all are available in reports of electoral commissions of observed states. First, we look at the exact date of holding elections, how we could categorize it in the first or second wave of the pandemic. Second, we look for

the results of the election. More precisely, we look for the results of the government party(s) or the government-supported candidate in the case of presidential elections. We measure whether the government party or candidate won or not as a binary score. We measure this variable as binary rather than cumulative gains/losses of incumbent due to pragmatic reasons. It is more important if party or incumbent stayed in power than cumulative gains or losses of votes for this research. In this sense number of votes is not in primary focus, but whether the party stayed in government after the elections or the candidate was re-elected. Staying in power is coded as a win for a government party or candidate while being ejected from the government or not re-elected in the case of a presidential election as a loss. In the case of legislative elections in presidential systems, as was the case in the United States, we code electoral win for the government party if it won more seats than the opposition. The third type of data, available from reports of electoral commissions, is turnout which will also be observed. The voter turnout is measured as a ratio between the absolute number of registered voters and the number of voters who participated in the observed election. The voter turnout is expressed as a percentage. Turnout data is available in electoral commissions' reports of all states. However, in the case of the US elections, this data is not comparable because the US Federal Election Commission uses only valid votes divided by the total US population over age 18 including those ineligible to vote. This means that turnout in the US would be underreported in comparison to other states, therefore we are not going to include the US voter turnout in this analysis.

Analyzed states are divided into seven regions: Europe (11 states and 11 elections observed), North America (7 states, 8 elections), Africa (12 states, 19 elections), Asia, (7 states, 7 elections), South America (3 states, 4 elections), Middle East (3 states, 3 elections) and Oceania (4 states, 4 elections)[1]. Furthermore, states will be divided into three categories by the

[1] The number of observed election is higher than the number of observed countries due to the fact that some states held both legislative and presidential elections during the pandemic

type of governance following the Polity IV. We take Polity scores for differentiation among regime types with slightly different terminology than it is used by Polity IV. The observed states are classified as democracies (same in Polity IV), hybrid regimes (anocracies in Polity IV) and autocracies (same in Polity IV). We decided to use the hybrid regime instead of an anocracy as we think that it is more suitable and more often used than anocracy. This classification is important for us how we could be able to explain results in more detail at a later stage.

Table 1 *The Analyzed States and Electoral Cycles*

EUROPE		
State	**Type of Election**	**Wave**
Serbia	Parliamentary	First
Croatia	Parliamentary	First
Iceland	Presidential	First
Poland	Presidential	First
North Macedonia	Parliamentary	First
Belarus	Presidential	Second
Montenegro	Parliamentary	Second
Lithuania	Parliamentary	Second
Moldova	Presidential	Second
Georgia	Parliamentary	Second
Romania	Parliamentary	Second
NORTH AMERICA		
St. Kitts & Nevis	Parliamentary	First
Dominican Republic	Parliamentary	First
Trinidad & Tobago	Parliamentary	First
Jamaica	Parliamentary	Second
United States	Presidential	Second
United States	Parliamentary	Second
St. Vincent	Parliamentary	Second
Belize	Parliamentary	Second
AFRICA		

Guinea	Parliamentary	First
Mali	Parliamentary	First
Burundi	Parliamentary	First
Burundi	Presidential	First
Malawi	Presidential	First
Seychelles	Parliamentary	Second
Seychelles	Presidential	Second
Egypt	Parliamentary	Second
Tanzania	Parliamentary	Second
Tanzania	Presidential	Second
Guinea	Presidential	Second
Ivory Coast	Presidential	Second
Burkina Faso	Parliamentary	Second
Burkina Faso	Presidential	Second
Ghana	Parliamentary	Second
Ghana	Presidential	Second
Niger	Parliamentary	Second
Niger	Presidential	Second
Central Africa	Parliamentary	Second
Central Africa	Presidential	Second
ASIA		
South Korea	Parliamentary	First
Mongolia	Parliamentary	First
Singapore	Parliamentary	First
Sri Lanka	Parliamentary	Second
Kyrgyzstan[2]	Parliamentary	Second
Tajikistan	Presidential	Second
Myanmar[3]	Parliamentary	Second
MIDDLE EAST		
Syria	Parliamentary	First
Jordan	Parliamentary	Second
Kuwait	Parliamentary	Second

[2] Constitutional court of Kyrgyzstan has annulled results of the election
[3] Coup d'état followed shortly after elections

OCEANIA		
Vanuatu	Parliamentary	First
Kiribati	Parliamentary	First
Niue	Parliamentary	First
Kiribati	Presidential	Second
New Zealand	Parliamentary	Second
SOUTH AMERICA		
Surinam	Parliamentary	First
Bolivia	Parliamentary	Second
Bolivia	Presidential	Second
Venezuela	Parliamentary	Second

2.2 Variables and Hypotheses

This research is guided by one dependent variable (DV) and three main independent variables (IV). The dependent variable is defined as electoral results in 48 observed states. Our first independent variable (IV1) is the period when elections were held. According to the separation on the first and the second wave of the pandemic, we constitute our first independent variable. IV1 is a binary variable, thus having the value either 1 – elections were held during the first wave, or 2 – elections were held during the second wave. Coming from the independent variable we draw our first hypothesis.

H1: *Government parties scored better in the first wave of the pandemic.*

We will use Pearson's correlation to establish a correlation between the dependent variable and independent variable 1. Prior to checking for a relationship between the dependent variable and independent variable 1, we should define and reject the null hypothesis (H0).

H0: *There is no relationship between the pandemic of Coronavirus and electoral results in observed states.*

When we successfully reject the H0, then we can define our second independent variable (IV2). IV2 deals with the existence of restrictive measures in the observed states. The lockdown

implies the adoption of strict measures (some or all of them) by the government such as closing borders, introducing a state of emergency, curfew, closing cafes and restaurants and quarantine on a national level. The second independent variable is also defined as binary coded as follows: 0 – if there was no lockdown, or 1 – if there was lockdown adopted. Subsequently, building around the turnout data we draw out the second hypothesis.

H2: *In the states that had introduced lockdown before the elections, voter turnout was lower than in previous elections.*

Voter turnout is an important aspect of elections as it can have a decisive influence on the outcome. For instance, it is known that in general higher turnout represent an advantage to the Democratic candidate in the US presidential elections, while low turnout suits more to Republicans. Although this is not the rule for every single election, and the importance of turnout is ebbing over time (Martinez and Grill 2005), the importance of voter turnout should not be neglected. Especially in the case of a pandemic, government parties and their leaders have counted on lower turnout rates and that they would enable them easier re-election. This is the main reason for analyzing the voter turnout in the pandemic and for hypothesizing about it.

Our third independent variable is the number of infected persons in the observed country per one million inhabitants. States used polymerase chain reaction (PCR) tests to assess whether a person is infected or not. In counting the tests across countries, it is PCR testing that is tabulated, which are the most confident for COVID-19 testing. Data about confirmed cases of infection with the COVID-19 (SARS-CoV-2) is available from the *Our World in Data* (OWID) database. Access to this data will let us test our third hypothesis:

H3: *Countries with a higher number of confirmed cases recorded a lower turnout rate than states with a lower number of confirmed cases.*

For the third hypothesis, we will take the number of confirmed infections per one million people from the start of the pandemic until elections were held. If elections were held during the first

wave, we will consider data for the first wave, while if elections were held during the second wave, we will take the number of infections for both waves. In the second case, both waves have influenced voters and for this reason, we observe the number of infections in both waves.

Lastly, we would like to test for economic success and failure in states that held elections during the pandemic and whether it anyhow influenced electoral outcomes. Therefore, we introduce the fourth independent variable (IV4) – the economic variable. We want to identify economic development and test if significant changes in it can be attributed to electoral outcomes. Thus, we will observe Gross Domestic Product (GDP) as one of the most relevant units for measuring the economic development of states. We will compare the data from the year before the pandemic started – 2019, and the data from 2020 – when the pandemic was ongoing. GDP data for 2019 is available on the World Bank website ("World Bank Open Data" 2021), while the data for 2020 is available at the World Economic Database by the International Monetary Fund ("World Economic Outlook Database" 2020). GDP data for each country is expressed in US Dollar.

By employing four independent variables alongside the main dependent variable, we are confident that all important variables that can impact elections during the pandemic have been taken into account. By controlling for the time (wave) when elections were held, turnout, number of infected persons by SARS-CoV-2 in a given country, and economic development, we wanted to get reliable answers to our main research question. In the end, having multiple independent variables enables us to control for the results and ensures the robustness of the study.

2.3 Research Question

This thesis is organized around one main research question with several sub-questions that would help us address the main research question. The main research question is displayed in the very title of this work:

RQ: *How government parties score in the times of the global pandemic of Coronavirus?*

But we want to investigate not just how incumbents score, but also why they win or lose elections during the pandemic. That is why we have four independent variables because this paper aims to determine what lies behind winning and losing elections, and how it can be inferred to the COVID-19 pandemic. Therefore, why government parties win or lose elections in the pandemic can be conceptualized as a sub-question to the main research question. Similarly, another sub-question would be whether the pandemic influenced voter turnout in observed countries and how voter turnout reflected on elections. Lastly, we want to investigate whether the economic downturn caused by the pandemic resulted in triggering economic voting and contributing to worse results of incumbents in the second wave. All these sub-questions will help us to provide a comprehensive answer to the main research question.

Chapter 3. Results of Statistical Analysis

As already mentioned, during 2020 in 48 countries around the world were held 56 elections on a national level, both legislative and presidential. However, due to data availability limits for some variables, not all countries will be analyzed. In cases where missing data can be substituted, we will do that. Such an example is with some countries missing Polity scores. Countries having less than one million inhabitants are not measured by Polity IV and we cannot classify them. For these cases, we will take Freedom House scores when available and classify them as democracies, hybrid regimes or autocracies respectively, according to FH's score. Countries that are missing the Polity score in our analysis are Saint Kitts and Nevis, Saint Vincent, Belize, Seychelles, Vanuatu, Niue, and Kiribati. But in some cases, we were not able to get subsidiary data, such as whether the country introduced restrictive measures concerning the COVID-19 pandemic or not. In the parts of the analysis where we face missing data, countries with data missing will be excluded and listed.

3.1 Waves of the Pandemic and Electoral Results

In this part, we start with our first hypothesis and check whether the government parties scored better in the first wave of the pandemic or not. In the first phase of the pandemic, we observe 19 elections, while in 15 cases or 78% government parties have achieved victory by staying in power. On the other hand, in the second wave, there were 37 elections held overall. In 25, out of 37 government parties achieved victory (67%). We can see a small difference in favor of government parties winning in the first phase as demonstrated in table 2. However, we should have in mind that in some countries authoritarian leaders or dictators are in power and that elections in those countries are not free but a mere confirmation of the dictator's rule. For this reason, we want to exclude countries where a change in power via elections is not possible, or almost not possible. Therefore, we will exclude autocracies from our analysis, or more

precisely we will exclude countries with a score lower than 5 by the Polity IV. When autocracies excluded, we can see that re-election of government/candidate was in the first wave present in 11 countries out of 14 in total (78%) – which is the same percentage. However, in the second wave government parties record slightly lower success, they won re-election in 16 cases out of 24 in total (66%). What these results are suggesting to us is that the difference when autocracies are excluded is small. The previously set hypothesis was that government parties and incumbents scored better in the first wave of the Coronavirus pandemic than in the second. Results of testing our first hypothesis confirmed that government parties scored better in the first wave of the pandemic, however, we must admit that the government parties have won in the majority of elections in the second wave also. This fact makes us question whether the timepoint of holding elections, having in mind the phases (waves) of the pandemic play an important role.

Table 2 *How Government Parties Scored in the First and Second Wave*

Have the government party/candidate won or lost elections? * When were elections held? Crosstabulation

Count

		When were elections held?		
		First wave	Second wave	Total
Have the government party/candidate won or lost elections?	Won	15	25	40
	Lost	4	12	16
Total		19	37	56

Table 3 *The Distribution of Electoral Results in both Waves by the Type of Governance*

Have the government party/candidate won or lost elections? * When were elections held? * Type of Governance Crosstabulation

Count

Type of Governance			When were elections held? First wave	When were elections held? Second wave	Total
Democracy	Have the government party/candidate won or lost elections?	Won	7	10	17
		Lost	2	7	9
	Total		9	17	26
Hybrid Regime	Have the government party/candidate won or lost elections?	Won	4	6	10
		Lost	0	1	1
	Total		4	7	11
Autocracy	Have the government party/candidate won or lost elections?	Won	4	7	11
		Lost	0	1	1
	Total		4	8	12
Total	Have the government party/candidate won or lost elections?	Won	15	23	38
		Lost	2	9	11
	Total		17	32	49

Having in mind the result of our first test – that government parties were successful during both waves, we want to check for a relationship between the dependent variable (electoral outcomes) and the independent variable 1 (timepoint of holding elections with regards to the pandemic). In order to establish a statistical correlation between the DV and IV1, we run regression analysis on all 56 cases with a confidence interval of 95%. The result shows a very small correlation of 0,119. Again, same as with the previous analysis, we want to exclude autocracies because they can be potential outliers. In the second test, we are reporting a slightly stronger relationship, R = + 0,193 (see table 5). Although still a small correlation, we can conclude that the relationship between the electoral outcomes and waves of the Coronavirus pandemic exist and that we can reject the null hypothesis (H0) and continue our research. In addition, our test shows that *p*-value = 0,001 which is lower than 0,05 – the significance level (α), confirming that our results are statistically significant. R square (R^2) = 0,014 which

basically means that with this independent variable we can explain 1,4% of the outcome of the dependent variable.

Table 4 *Results of the Regression Analysis for N=56*

Correlations

		Have the government party/candidate won or lost elections?	When were elections held?
Pearson Correlation	Have the government party/candidate won or lost elections?	1,000	,119
	When were elections held?	,119	1,000
Sig. (1-tailed)	Have the government party/candidate won or lost elections?	.	,191
	When were elections held?	,191	.
N	Have the government party/candidate won or lost elections?	56	56
	When were elections held?	56	56

Additionally, we wanted to test for a relationship between the two variables but this time excluding small countries in Oceania, as well as New Zealand because New Zealand held an election once their government declared the country as 'corona free'. We also excluded Asian autocracies and small South American states and non-democracies. As shown in Table 6, we now have a pool of cases N=19, which still represent a relevant sample. Although on the edge of significance due to *p*-value = 0,06, certainly significant on at the $p < 0,10$ level. What our third test showed was also a much higher positive relationship between the DP and IV1. In this case, we record a medium-low positive relationship of R = 0,430. We can say with confidence, that when we observed national-level elections in three regions: Europe, North America and Africa, we were able to establish a medium-low relationship between the electoral outcomes and waves of the pandemic. This is not surprising having in mind that we have the biggest

sample of cases from these three regions, or what is even more important, the biggest sample of relatively democratic regimes compared to other regions.

Table 5 *Results of the Regression Analysis for N=37 (Democracies and Hybrid Regimes)*

Correlations[a]

		Have the government party/candidate won or lost elections?	When were elections held?
Pearson Correlation	Have the government party/candidate won or lost elections?	1,000	,193
	When were elections held?	,193	1,000
Sig. (1-tailed)	Have the government party/candidate won or lost elections?	.	,126
	When were elections held?	,126	.
N	Have the government party/candidate won or lost elections?	37	37
	When were elections held?	37	37

a. Selecting only cases for which Type of Governance <= Hybrid Regime

Furthermore, one of the main explanations, why incumbents were more successful in the first wave of a pandemic than in the second, is the *rally-around-the-flag* effect. The pandemic itself, restrictive measures imposed by the governments and severity of the situations have caused psychological effects on the population. In many countries fight against the pandemic was understood as fighting in a war. It resulted in governments getting a lot of confidence during the first wave. On the other hand, worse result in the second wave of a pandemic can be prescribed to several causes. First, the economic crisis caused by the pandemic kicked in during the fall and another round of restrictive measures followed. The voters had more time to assess government measures with regards to pandemic but also other parameters, including the economy. Lastly, during the second wave citizens were not happy about yet another lockdown, decrease in the number of jobs, and overall economic downturn. These can be identified as the main reasons behind the weaker results of ruling parties and government

candidates in elections worldwide. Although we report a small to medium relationship between the waves of pandemic and government parties scores, the pandemic can be identified as the main cause for the economic downturn and unpopular restrictive measure adopted by governments. Thus, its effects should be observed through the lenses of economic voting also.

Even though the positive correlation between the winning of incumbents in the first wave was identified, that certainly does not mean that holding elections in the first wave was a recipe for a win. There may be other factors and explanations why incumbents won more frequently in the first wave. However, we have been able to identify that they were more successful in the first wave and to establish a small positive correlation between the time point of holding elections and electoral outcomes.

Table 6 *Results of the Regression Analysis for N=19*

Correlations[a]

		Have the government party/candidate won or lost elections?	When were elections held?
Pearson Correlation	Have the government party/candidate won or lost elections?	1,000	,430
	When were elections held?	,430	1,000
Sig. (1-tailed)	Have the government party/candidate won or lost elections?	.	,033
	When were elections held?	,033	.
N	Have the government party/candidate won or lost elections?	19	19
	When were elections held?	19	19

a. Selecting only cases for which Which region state belongs to? < Africa

3.2 Lockdown and Voter Turnout

In the second hypothesis, we want to test if the pandemic had any impact on elections, or more precisely on voter turnout in observed elections. Voter turnout is usually very important

when it comes to elections even in normal times. In some cases, low turnout suits incumbents because their electorate is disciplined and lower turnout means only a decrease in vote share of the opposition. On the other hand, higher voter mobilization followed by high turnout rates is welcomed by the incumbent. Thus, voter turnout should be considered when discussing re-election because it may be decisive for the final results of elections. We gathered data from national electoral commissions and other relevant institutions about the turnout in elections during the pandemic, as well as about the turnout in the same type of elections held previously, in order to be able to compare them. For instance, if the observed state held presidential elections in 2020, we collect the turnout data on presidential elections in 2020 and previous presidential elections held in that country. First, we wanted to compare the average voter turnout in 2020 and previous elections held in analyzed countries. Using descriptive statistics, we calculated the mean turnout in 2020 which is 63,78%. While on the other hand, the mean turnout in elections held before the pandemic (in observed states) was 65,99% - a difference of more than 2%. This difference seems small and negligible, but when digging deeper into it we will see how important it can be. In this place, we should also report that due to data limit or incomparability we are missing the turnout data for 4 states – Niue, Kuwait, Myanmar, and United States.

Although we confirmed lower turnout during the pandemic, we cannot be sure that the decrease was caused by the pandemic. Therefore, we want to check whether the restrictive measures, including lockdown, curfew, nationwide quarantine or closing of non-essential stores and restaurants, have influenced turnout in states that held elections during the pandemic. In our sample, we have 18 countries that had no lockdown or similar measures on a national level, while 33 had introduced restrictive measures before elections.

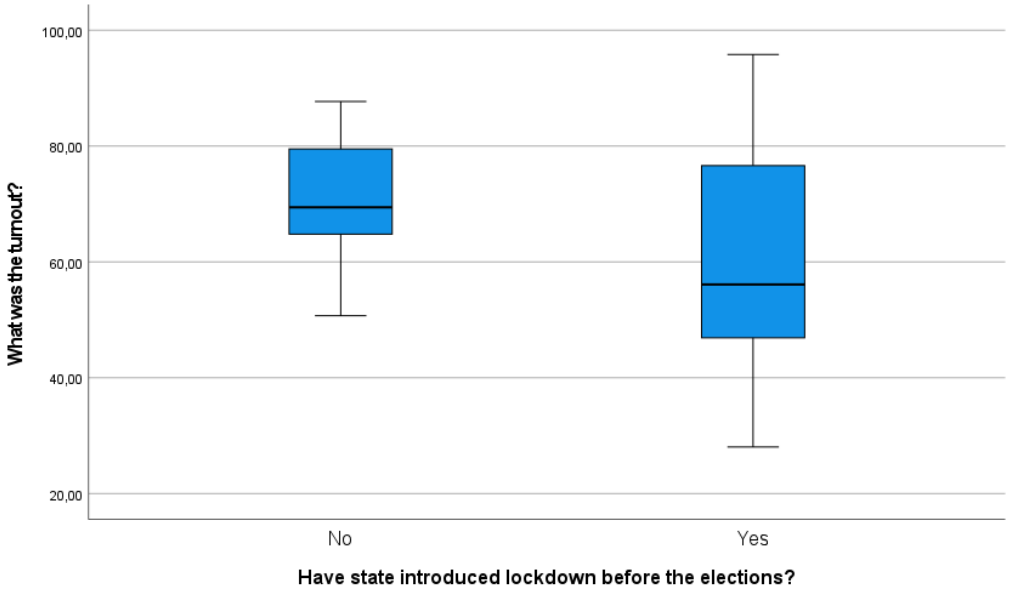

Figure 1 *Distribution of Voter Turnout with regards to Lockdown Measures*

As can be seen from Figure 1, states that have introduced lockdown or other restrictive measures recorded significantly lower average turnout – 56,11% than states without lockdown prior to elections – 69,43%. Based on this example, we can reasonably say that the restrictive measures aimed against the Coronavirus influenced decreased voter turnout. It is evident that voters were afraid of infection in polling stations and that it must have influenced lower turnout to a certain degree. The United States is the only state where voting by mail is available and thus data from this country is not considered. While discussing lower turnout rates we should also have in mind that not in all countries low turnout was due to pandemic. In some countries, the opposition boycotted elections, as was the case with Serbia and Georgia – which were among the main reasons behind low turnout. Sometimes low turnout is the combination of pandemic and politics and in some cases, the Coronavirus is the main cause for low turnout.

Finally, we wanted to compare the average voter turnout in states that have introduced lockdown and held election in 2020 with the average turnout in previous elections these countries held before the pandemic. This comparison will show why comparing and analyzing turnout is important for electoral outcomes. As already mentioned, the average turnout in states

that introduced restrictive measures in elections held in 2020 was 56,11%, while the average turnout in elections held before the pandemic in these same countries was 61,33%. A decline of more than 5% once again confirms our initial hypothesis that the lockdown lowered the turnout. This is another proof of how the COVID-19 pandemic has influenced electoral outcomes around the world in 2020. We have found that losing elections had a higher correlation with high voter turnout in the second wave. Upon running regression between the voter turnout in the second wave and government party or incumbent losing elections, we report a medium positive relationship of R = 0,270 on a 95% confidence interval. To put it simply, higher voter mobilization can explain 7,3% of incumbent losing elections in the second wave (R^2 = 0,073). In comparison to the first wave where the correlation between the turnout and government party scores is negligible, it is evident that lower voter turnout was more suitable for incumbents.

The second hypothesis was that during pandemic countries with lockdown prior to elections had lower turnout than in the previous election. By measuring mean turnout for these countries and by comparing the turnout rates in these countries in elections held in 2020 and before, we were able to discover evidence for lower voter turnout and confirm the second hypothesis. Having in mind the importance of the turnout, we can conclude that by affecting turnout, the COVID-19 pandemic has had an indirect influence on the electoral results also.

Table 7 *Average Turnout in States that introduced Lockdown in 2020 and before*

Average turnout in 2020	*Average turnout before 2020*
61,33%	56,11%

3.3 Number of Infected Persons and Electoral Outcomes

For the purpose of exploring the influence of the pandemic on electoral outcomes and testing our third hypothesis, we gathered data on the number of infected persons from the *Our*

World in Data database (Roser et al. 2020). The best way to test for the influence of the pandemic is to see the data on infected persons. We take a cumulative number of confirmed cases per one million inhabitants from the start of the pandemic until the day of elections. Taking data per one million people represent a better option rather than absolute numbers because of the comparability of data. As we can see in table 8, some of the countries that had the highest numbers of infected persons were the United States, Romania, Bolivia, Belize and Singapore. In addition, Belarus, Island, North Macedonia and Serbia also recorded high numbers of infected persons per one million people prior to elections. However, high numbers have not prevented these states from holding elections.

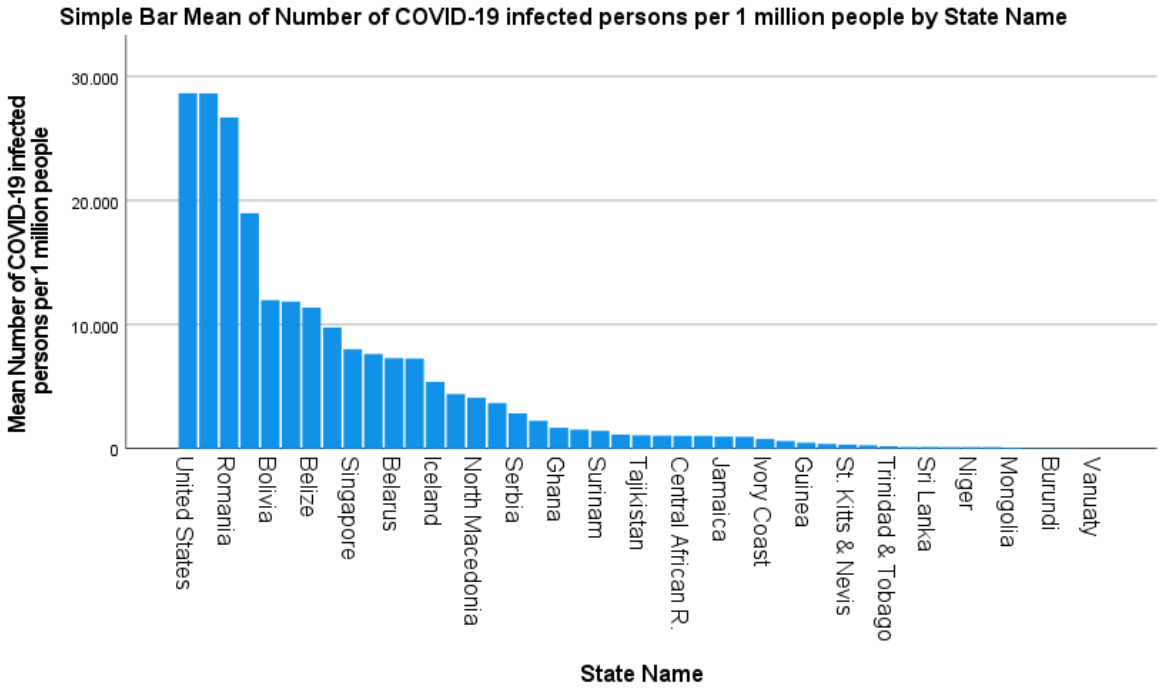

Figure 2 *Cumulative number of COVID-19 infected persons per one million persons per country (Descending)*

Therefore, we test for a correlation between the third independent variable (IV3) and our dependent variable (DV). After running regression, our results show a medium positive relationship of 0,485. Based on a 95% confidence interval ($p < 0{,}001$) our result is statistically significant on a two-tailed test. This information leads us towards the conclusion that the

decreased turnout has affected electoral results to a significant degree and it was produced by the pandemic. To be more precise, the number of COVID-19 infections can explain 23,5% of the dependent variable, which is whether the incumbent was re-elected or not. For instance, we can see in Figure 3 that Romania was one of the states with the highest number of infected persons per 1 million citizens before the elections (26.696), and at the same time with one of the lowest turnouts – just 31,94%. The same applies for Moldova, a very high number of infected per one million – 18.984, with turnout slightly above 45%. On the other hand, there are few contrary examples such as Bolivia. With more than 11.000 infections per one million people prior to elections, Bolivia reached a very high turnout of 88,42%, a slightly higher than in previous elections (88,31%). Of course, in the case of Bolivia, heated political debate out weighted the fear of the pandemic, and the same can be stated for Belize and Montenegro respectively. But these cases can be considered as outliers of the general trend which is lower turnout.

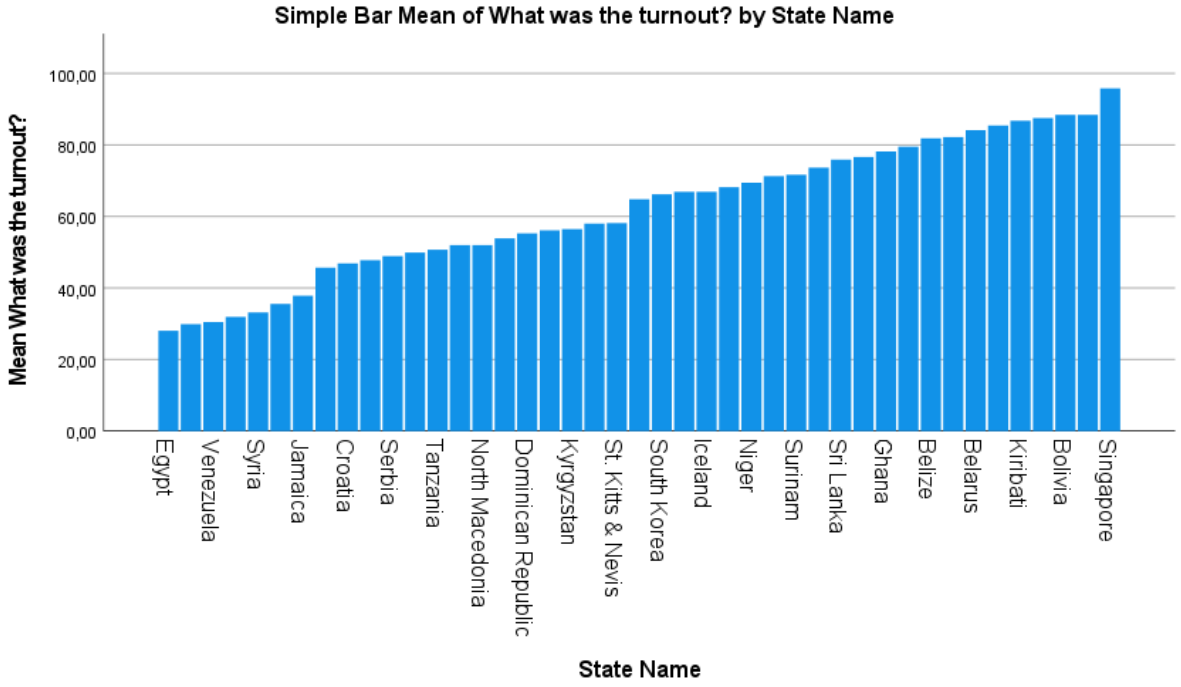

Figure 3 *Voter Turnout per Country (Ascending)*

The third hypothesis which implied that countries with a higher number of infected persons recorded lower turnout was confirmed in this part. Not just that the number of infected persons affected overall turnout, but it was responsible for almost a quarter (23,5%) of electoral wins and losses of the incumbent. Therefore, these results show an unequivocal relationship between the government parties score in elections and the COVID-19 pandemic. At the same time, this is a central topic of this thesis following from the main research question. Thus, confirmation of this relationship means that the pandemic was an important factor when it comes to electoral outcomes.

3.4 Economics and the Pandemic

Our fourth independent variable is dealing with the economic development of countries and their impact on elections. Looking into GDP is important as an economy frequent element in voters' electoral assessing and at the same time, the pandemic had a great influence on the economic development. We measure GDP by country in the year prior to the pandemic – 2019, and in the year of the pandemic – 2020. The values are expressed in billion US dollars. Data on GDP by the country for 2019 is available from the World Bank's database ("World Bank Open Data" 2021), however, this database does not contain the data for 2020. Therefore, we were forced to look for the data on nominal GDP elsewhere. In the end, we were able to access the data on nominal GDP by country from the *World GDP Ranking* by Knoema ("World GDP Ranking 2020" 2020). At first glance at charts in figures 4 and 5, we can see an overall decrease in nominal GDP in almost all analyzed states. The negative economic impact of the pandemic is evident. The US GDP contracted from 21,43 trillion dollars to 20,80 trillion dollars in a year. Romania as the biggest country in South-East Europe recorded a GDP decline of 2 billion dollars, while Poland lost more than 5 billion dollars in GDP in one year period. South Korea

is a country with the single biggest GDP drop after the US in our analysis. Its nominal GDP decreased by about 60 billion US dollars. On the other hand, the only state to record a significant rise in GDP was Egypt whose GDP increased from 303,09 billion USD to 361,90 billion USD in 2020. Again, same as in previous analysis, Egypt can be considered as an outlier contradicting world trend. However, Egyptian economic growth in recent years can be prescribed to recently discovered natural gas fields and to the fact that the global price of gas has been rising constantly (Mourad 2020).

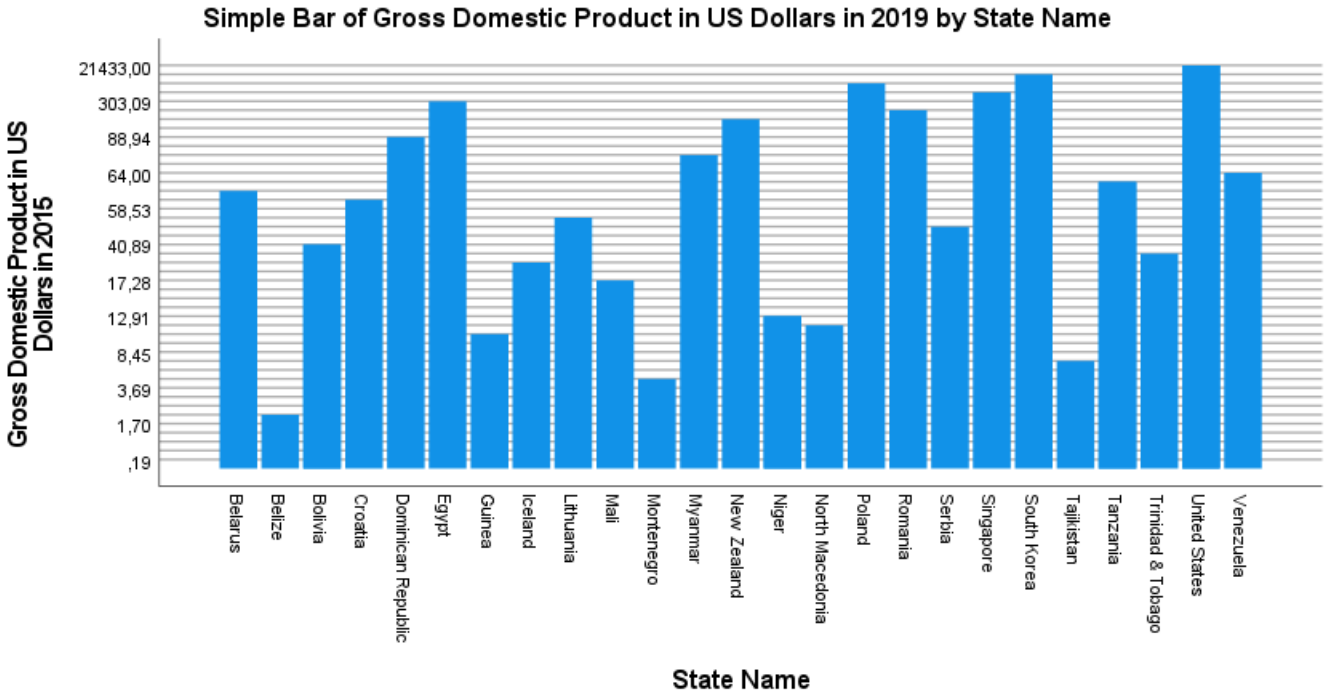

Figure 4 *Nominal GDP by country in 2019 expressed in billion US $*

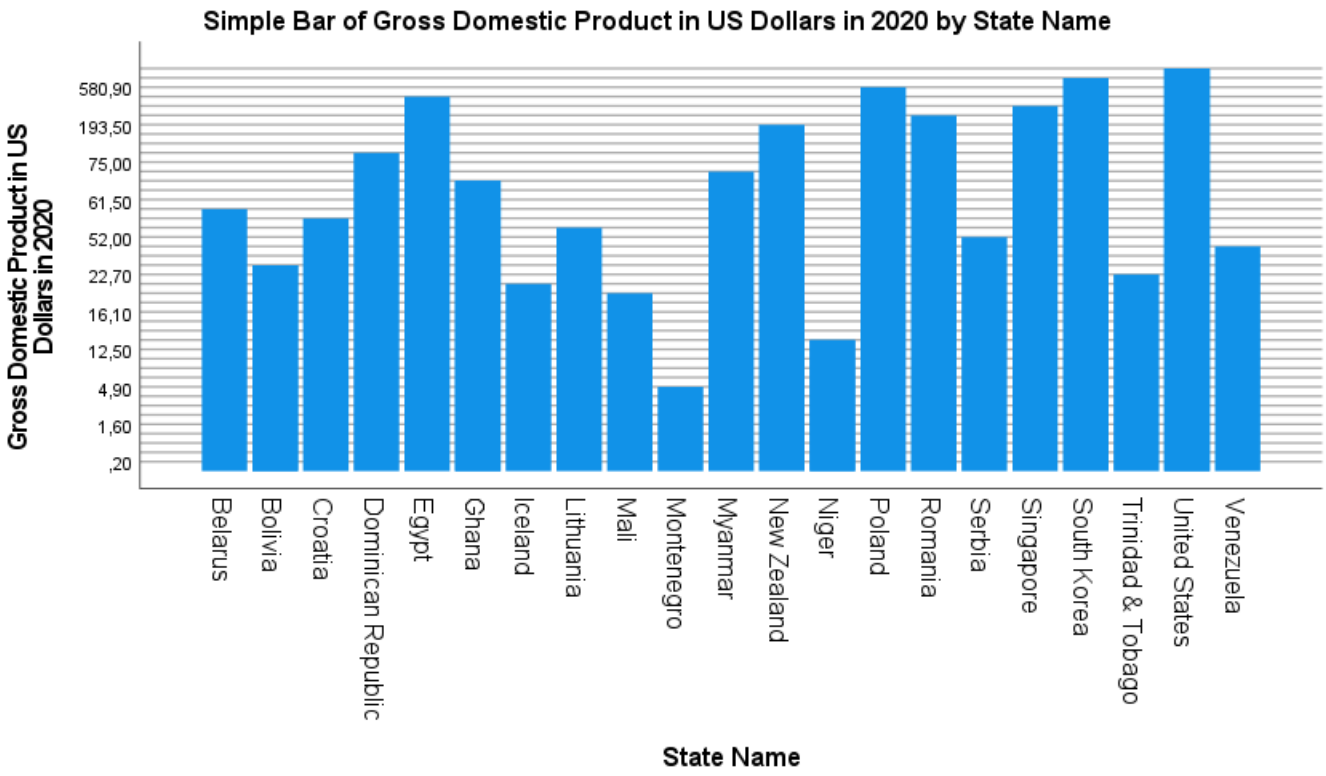

Figure 5 *Nominal GDP by country in 2020 expressed in billion US $*

When comparing the numbers one thing is sure – the world is in recession. The recession caused by the COVID-19 pandemic escalated and shut down many economies. Economic standing is important for the voters as prospective economic literature suggests (Lewis-Beck and Stegmaier 2000; Achen and Bartels 2004; Lewis-Beck and Paldam 2000; Lewis-Beck and Costa Lobo 2017; Healy and Malhotra 2013). When economic development is important for the voters, then it becomes also important for the government if it wants to win re-election. Having that said, we wanted to check for causal inferences between the overall economic downturn in the 48 observed states and the electoral outcomes. The intention was to see how much economic development affected government party scores in elections during the Coronavirus pandemic. Upon running regression analysis between our last independent variable and dependent variable, based on a 95% confidence interval, we report a small positive relationship between two variables:

$$R = + 0{,}310$$

Same as with other variables, we were able to identify a small linear relationship with the help of bivariate regression analysis. Therefore, we can say with confidence that economic success, or rather failure played a role when it comes to government party re-election.

Table 8 *Result of the Statistical Analysis for the IV4 and DV*

Correlations

		Have the government party/candidate won or lost elections?	Gross Domestic Product in US Dollars in 2020
Pearson Correlation	Have the government party/candidate won or lost elections?	1,000	,310
	Gross Domestic Product in US Dollars in 2020	,310	1,000
Sig. (1-tailed)	Have the government party/candidate won or lost elections?	.	,011
	Gross Domestic Product in US Dollars in 2020	,011	.
N	Have the government party/candidate won or lost elections?	54	54
	Gross Domestic Product in US Dollars in 2020	54	54

According to the results of the regression analysis, we can also report $R^2 = 0{,}096$, which means that the economic downturn caused by the global pandemic can explain 9,6% of the reasons for the incumbent losing or winning the elections. Of course, we should take the pandemic as the main cause for the economic downturn with reserve since there might be other factors. However, most economists would agree that the pandemic had the most negative impact among all others during 2020.

When we applied the same test with the economic variable for different regions, we found out that there is a stronger positive relationship between the economic variable and the

dependent variable in North America and Oceania. For the region of North America, we report positive medium relationship R = + 0,578. The linear tendency is present in the case of Oceania also. After running the regression analysis, we report a similar medium relationship as in North America. In this case, the relationship was a bit smaller, R = + 0,497. These results suggest that the economic variable had more impact in these regions than in the others.

States that have held elections in the first wave of the pandemic have avoided the economic downturn that started to unfold in the second part of the year. That is one of the possible explanations for figure 6 which displays the higher number of electoral victories for the government parties and candidates in comparison to the number of lost elections in the first wave of the pandemic.

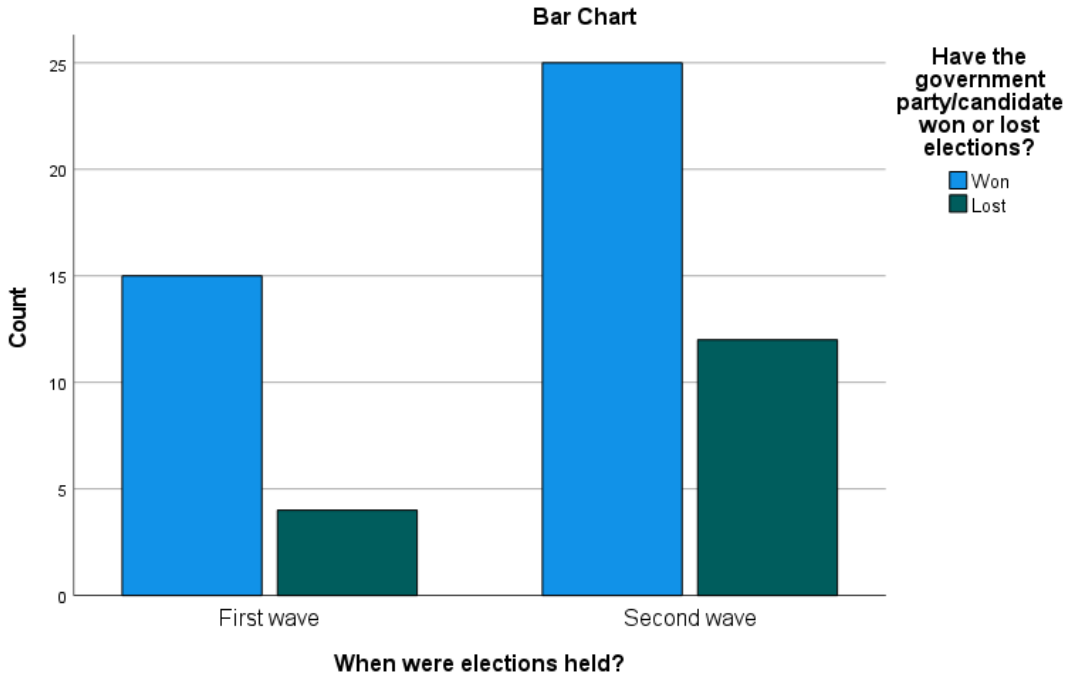

Figure 6 *Distribution of Wins and Losses of Government Parties and Candidates in the First and Second Wave of the Pandemic*

Additionally, we wanted to check for a relationship between the nominal GDP and the number of infected persons per one million in other to confirm the relationship between the economic downturn and the COVID-19 pandemic. Since the number of infected persons can

give us a precise measure of how seriously has one country been hit by the pandemic, we use this data for analysis. In the case of these two variables, we can report a medium-high positive relationship with the result of R = + 0,599 which is significant on the 0,001 level. It is not surprising that the higher numbers of infected persons have produced a higher economic downturn in the analyzed states. More infected persons required more restrictive measures, while more restrictive measures contracted the economy of the state more. As we have seen, the majority of states have recorded a decline in overall GDP rates, but states which had to keep restrictive measures longer, such as lockdown, state of emergency, curfew and national quarantine, have had a deeper economic downturn. As a consequence, the economic recession affected voters' decisions. It is rational to expect voters to punish the government in elections if they consider its measures unnecessary or unproductive. In order to check this assumption, we test for a relationship between the nominal GDP in 2020 and if a country had introduced restrictive measures or not. Here again, we find a small positive relationship of R = + 0,310. We can say with confidence that the restrictive measures have influenced negative economic development, that there were some outliers mostly in Africa. However, we must say that in many African countries there was a tendency of under-reporting Coronavirus cases and neglecting its effects (Welle Deutsche 2021). Therefore, we should take the available data for Africa with a certain reserve.

Following the argumentation that during the second wave of the pandemic economic downturn was much more felt than in the first wave, subsequently, economic voting was present to a greater extent. Voters assessed incumbents based on economic parameters more often due to the coming economic crisis, decrease in the number of jobs, especially in the hospitality industry. Thus, we run regression analysis between the dependent variable and the IV4 with splitting sample based on the first and the second wave of the pandemic. In the case of the first wave, we found a non-significant relationship between the variables. However, in the case of

the second wave, on a basis of a statistically significant level (*p*-value = 0,036 < 0,05), we report a small positive linear correlation (R = 0,345) between the economic variable and the dependent variable. In other words, what this finding reveals is that the economic variable can explain 11,9% (R^2 = 0,119) of the dependent variable – whether the incumbent stayed in power or lost elections. Although we report a small relationship, it becomes important when comparing with the economic variable trying to explain outcomes in the first wave with the very small positive relationship of R = 0,163 – which is almost insignificant. Therefore, the rise from the almost insignificant factor in incumbent re-election in the first wave, to a small relationship in the second (R = 0,345) is proof that the economic variable became more important at a later stage when the economic recession caused by the pandemic was more visible.

Table 9 *Result of the regression for the IV4 and DV split by the waves of pandemic (First Wave)*

Model Summary

Model	R When were elections held? = First wave (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,163[a]	,027	-,038	,400

a. Predictors: (Constant), Gross Domestic Product in US Dollars in 2020

Table 10 *Result of the regression for the IV4 and DV split by the waves of pandemic (Second Wave)*

Model Summary

Model	R When were elections held? = Second wave (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,345[a]	,119	,094	,452

a. Predictors: (Constant), Gross Domestic Product in US Dollars in 2020

Economic voting was more widespread in the second wave of the pandemic in comparison to the first wave. In the first wave, the economic consequences of the pandemic could not be visible, however, in the second wave they stood out and became part of voters' assessment. In the end, the retrospective economic voting theory can be applied in the case of the COVID-19 pandemic as shown by the results of regression analysis. In the second wave, 11,9% of voters were economic votes thus making retrospective economic theory applicable.

Conclusion

In this research, we have analyzed 56 electoral cycles in 48 countries around the world in 2020 during the pandemic of Coronavirus. The main goals were to check for a relation between the pandemic and elections, more precisely to provide an answer to the following questions: how government parties scored during the pandemic, were they more successful in the first or in the second wave and how the pandemic affected voter turnout. In order to answer these questions, we employed bivariate regression analysis and descriptive statistics to test our three hypotheses.

The first hypothesis, that the government parties scored better in the first wave of the pandemic, was confirmed after running a regression. During the first wave, a rise of confidence in institutions was evident due to the *rally-around-the-flag* phenomenon and social and psychological shock that the pandemic caused. Government parties clearly scored good, even in the second wave we record many government parties win, but especially in the first wave. However, confidence started melting down in the second wave, citizens started becoming unsatisfied with restrictive measures and economic crisis started to show up. These reasons can explain the weaker result of government parties in the second wave of the pandemic. Additionally, in 2021 the pandemic is still ongoing, and many refer to the third wave of the pandemic in the spring of 2021. Thus, it may be interesting for some future research to make a similar study and check how government parties score and whether there was an influence of pandemic as in the first two waves.

In the second part, we tested for the influence of the pandemic on turnout. We found out that on average turnout was lower by more than 2%. But our second hypothesis refers to countries that introduced lockdown including other restrictive measures prior to elections. The assumption was that states that had introduced lockdown before elections, had lower voter

turnout than in previous elections. Upon analysis, we were able to confirm this hypothesis and found out more than 13% lower turnout in states that introduced lockdown measures and more than 5% lower turnout in comparison to previous elections in these states. Introduction or restrictive measures prior to elections was perceived in a way to increase distrust and fear of getting infected in a polling station.

In the third part, we analyzed how the number of infected persons by COVID-19 disease affected elections, or more precisely voter turnout. The assumption was that countries with a higher number of confirmed cases recorded a lower turnout rate than states with a lower number of confirmed cases. This hypothesis was also confirmed by finding out that countries with the highest number of infections recorded lower voter turnout. Additionally, after running a regression analysis, we found a medium positive relationship between the number of infections and government parties' score. The number of infections was responsible for almost a quarter of wins and losses of government parties overall which points out the amount of influence that the pandemic had on electoral outcomes.

Lastly, we tested how economics affected elections during the pandemic and found a small correlation. What is more important is that there is a much higher correlation between economic growth and elections during the second wave of the pandemic. This is not surprising having in mind that the economic consequences of the pandemic were much more visible over time. Therefore, economic voting was present more in the second wave than in the first. Also, we established a medium-high correlation between the number of infection and economic growth, confirming assumptions that the pandemic was one of the main causes behind the economic crisis. Finally, the economic variable gave us insight into overall and average GPD before and during the pandemic and showed a decrease in GDP confirming the existence of economic recession.

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Appendix

Online Sources Used for Coding:

What's the status of COVID-19 in Iceland? (icelandreview.com)

Poland - Measures in response to COVID-19 - KPMG Global (home.kpmg)

Belize: State of emergency to remain in place until June 30 /update 1 (garda.com)

Mali on lockdown as first coronavirus cases reported, but elections to go ahead (france24.com)

Seychelles: Authorities order nationwide 21-day lockdown from April 9 /update 2 (garda.com)

Coronavirus: Egypt to lift lockdown from June 27 as COVID-19 restrictions ease | Al Arabiya English

Tanzania Evades COVID-19 Lockdown, but Restrictions Persist | Chatham House – International Affairs Think Tank

Coronavirus: curfews in Senegal and Ivory Coast, lockdown in South Africa (france24.com)

Burkina Faso: Authorities ease lockdown measures May 4 /update 7 (garda.com)

Ghana: Authorities impose lockdown on two regions due to COVID-19 from March 30 /update 3 (garda.com)

Niger Coronavirus (COVID-19) Situation Report #01 (Reporting period: 6 to 12 April 2020) - Niger | ReliefWeb

Surviving lockdown in the Central African Republic | NRC

Sri Lanka: Authorities to implement nationwide lockdown May 24-May 26 /update 16 (garda.com)

Venezuela: Nationwide lockdown extended until July 12 /update 7 (garda.com)

Kuwait to go under total lockdown for 20 days (argusmedia.com)

Kiribati Declares State of Public Emergency and Partial Lock Down in Response to Corona Virus Pandemic | Ministry of Information, Communication, Transport & Tourism Development (micttd.gov.ki)

Coronavirus: New Zealand announces lockdown - BBC News