Hovedoppgave

NTNU
Norges teknisk-naturvitenskapelige universitet
Fakultet for samfunns- og utdanningsvitenskap
Institutt for sosiologi og statsvitenskap

Andreas Lillebråten

Repressive Covid-19 restrictions and protest

A quantitative study of how repressive Covid-19 restrictions have affected levels of protest during the Covid-19 pandemic

Hovedoppgave i Statsvitenskap
Veileder: Charles Butcher
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Abstract:

The Covid-19 pandemic has offered political authorities unique possibilities to pass new legislation and implements restrictions. Unfortunately, in several states, this has led to increased levels of repression. Covid-19 restrictions have been violently enforced, selectively enforced on the opposition and on certain groups, and used to limit media freedom. I argue that such repressive Covid-19 restrictions have a higher chance of being viewed as legitimate by the public and thus not activating micro-mobilization processes, which should lead to decreased levels of protest. I construct a dataset containing 109 countries and 49 weekly time units, enabling me to analyse the effect repressive Covid-19 restrictions have on the level of protest. The results show robust evidence suggesting that Covid-19 restrictions, which discriminatively represses certain groups, significantly decrease the level of protest in autocratic countries.

Preface

De siste fem årene har vært år fylt med mange opplevelser. De fleste behagelige og lystbetonte, men andre utfordrende og lærerike. Denne masteroppgaven havner i siste gruppe. Jeg har lyst til å takke min veileder Charles Butcher for å ha fulgt meg igjennom denne prosessen, og for å ha tatt seg tid til å svare på alle spørsmål jeg måtte ha hatt. Jeg ønsker også å takke alle de menneskene som har utgjort mitt liv de siste årene. Det sies at han som har venner er aldri en fiasko. Behagelige ord å tenke på når skrivesperren inntar fingrene. Fra studievenner på Dragvoll til bokamerater i skitne stuer. Dere har gjort oppholdet i Trondheim til en periode i livet jeg alltid vil sette pris på. Spesielt takk til Kristoffer Eikemo som har vært en trofast venn igjennom hele studiet, og til Nils Eivind Holth Landrø for ditt uerstattelige samboerskap de siste seks årene.

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1. Introduction

During the early months of 2020, the Covid-19 virus started spreading throughout the world. The first cases were first observed in Wuhan, China, in December 2019. Shortly thereafter, on 30 January 2020, the World Health Organization (WHO) declared the Covid-19 outbreak a "Public Health Emergency of International Concern[1]", and on 11 March, it was declared a pandemic (WHO, 2020). When states are in such periods of imminent danger, governments often are empowered to take actions beyond standard procedures, which is known as state of emergency measures (Lührmann & Rooney, 2020). Many countries can implement such measures to fight a domestic crisis should a disaster emerge (Rooney, 2019). When implemented, these emergency powers allow leaders to use additional powers. But the emergency also provides a rational argument for why leaders need more power, thus making the emergency a useful tool for leaders to expand their powers and remove democratic constraints.

It may thus seem that the Covid-19 pandemic has allowed state leaders to increase their power and remove democratic constraints. This suspicion has been supported by Kishi (2021), who found that the pandemic has offered unique opportunities for political authorities to implement new restrictions and pass new legislations. Some leaders have strengthened their position and authority, while others have selectively enforced restrictions and legislations as a tool to repress opposition and to reduce challenges to power. Kishi (2021) find that overall, state repression has increased around the world during the Covid-19 pandemic[2].

Due to this excessive use of emergency powers, there were major concerns that state responses to Covid-19 would lead to a "shut down of democracy itself". In their democracy report, Alizada et al. (2021) find that the most pessimistic predictions did not materialize during 2020. However, there were some concerns: 9 democracies registered major violations of international norms[3] in response to the pandemic and 23 registered moderate violations. Fifty-five autocratic regimes were registered to have engaged in major or moderate violations of international norms. Further, 2/3 countries imposed major or moderate restrictions on the

[1] An extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response. See: https://www.who.int/news-room/q-a-detail/emergencies-international-health-regulations-and-emergency-committees

[2] For the full report, see: https://acleddata.com/2021/04/01/a-year-of-covid-19-the-pandemics-impact-on-global-conflict-and-demonstration-trends/

[3] Based on international human rights law, emergency measures may alter democratic institutions, rights, and proceedings only within certain boundaries. Emergency measures must be "proportionate, necessary and non-discriminatory", have a clear time limit, and not be implemented in an excessive manner

media. Alizada et al. (2021) argue that the direct and immediate effects the pandemic has had on the decline of democracy are still limited. However, they conclude that "The final toll on democracy may turn out to be higher unless restrictions are eliminated immediately after the pandemic ends.".

To better understand which long-term effects the Covid-19 pandemic may have on worldwide democracy, it is fruitful to examine the how these restrictions affect protest. Studies have shown that protesting can be an essential factor in democratization (Celestino & Gleditsch, 2013; Stephan & Chenoweth, 2008). Further, Kadivar (2018) argues that prolonged mobilization is an essential component in the survival of new democracies. Thus, understanding the relationship between repression and protest during the Covid-19 pandemic can help us better understand the democratic implications the pandemic may have.

Repression during the Covid-19 often came in the form of Covid-19 restrictions. The official purpose of these restrictions is to fight the virus, but the Covid-19 restrictions have been used as means of repression in several states (Kishi, 2021). I further refer to this form of repression as "repressive Covid-19 restrictions", which I will elaborate more on in the definition section. Thus, this thesis seeks to investigate the puzzle *"How have repressive Covid-19 restrictions affected the level of protest during the Covid-19 pandemic?".*

The research on the relationship between repression and protest is often referred to as the "Repression-dissent[4] nexus", a body of literature examining how repression and dissent are intertwined. Both how dissent affects repression and how repression affects dissent. Three decades ago, Lichbach (1987) cataloged the available theory and empirical findings on the relationship. He concluded that there is a connection but that the literature produces generally mixed results. Numerous studies have been done since this, but Lichbach's conclusion still applies today. Defining one single explicit effect that repression has on protest is a pursuit that appears to be futile.

First, repression may lead to what is referred to as backfiring, meaning that repression results in a rise in protest (Martin & Hess, 2006; Martin, 2015; Khawaja, 1993; Moore, 1998; Carey, 2006). Contrary, it may also cause a decline in protest (Tilly, 1978: 100-102; Olzak, Beasley & Oliver, 2003). Lastly, a combination has been observed, where repression leads to a decline initially but a rise in the long run (Lichbach, 1987; Opp and Ruehl, 1990; Rasler, 1996). Further, several studies focus on the different conditions of repression to explain the conflicting findings, e.g., type of repression (Sullivan, 2016; Mason & Crane, 1989; Kocher, Pepinsky & Kalyvas, 2011), communication and leadership (Francisco, 2004; Sutton, Butcher & Svensson, 2014), the severity of the repression (Tilly, 1978; Hechter, 1982), and type of government (Gupta, Singh & Sprague, 1993),

When it comes to studies of repression and dissent during the pandemic, the literature is primarily descriptive. Researchers at ACLED have monitored state repression and protest trends during the pandemic, producing several reports (e.g. Bruijne & Bisson, 2020; Kishi, 2021). The V-dem institute has tracked state responses to the pandemic and its potential effect on democracy (Edgell et al., 2020; Kolvani et al., 2020). However, to my knowledge, there exists no quantitative analysis of how types of repression have affected level of protest during the pandemic. The closest being Bartusevicius et al. (2021) quantitative study of how the psychological burden of Covid-19 is associated with participation in protests.

[4] Dissent is defined as when non-state actors threaten to or actually impose cost on the political authorities. This includes the behaviour of protesting. More on this in definition-section.

To examine how repressive Covid-19 restrictions have affected levels of protest, I first go through the existing literature on how repression affects protest. Through the literature, I identify the theoretical mechanisms surrounding the concept of legitimacy and backfire. Should a repressive event be considered illegitimate by the public, this may start micro-mobilization processes, which increases the chances of a backfire (Opp & Roehl, 1990; Hess & Martin, 2006). I argue that repressive Covid-19 restrictions are forms of repression that the public more likely will find legitimate, thus not leading to a backfire. Therefore, with the added cost of protesting that repression adds, I expect such repression to lead to a decline in the number of protests.

To test this argument, I employ a quantitative research design. Data from ACLED[5] provides daily observations of protests throughout the world, from which I construct my dependent variable. To measure repressive Covid-19 restriction, I construct four independent variables based on data from Varieties of Democracies' "Pandemic Backsliding Project"[6]. Together with data from John Hopkins University, measuring new cases of Covid-19 infections as control variable, I construct a panel containing 109 countries, stretching over 49 weeks during 2020. I estimate several models with fixed effects specification, which given the short timeframe, lets us control for a myriad of unobserved variables.

In the analysis, I estimate models using both OLS regression, OLS regression with Huber-White robust standard errors, and negative binomial regression. I expect the impact repressive Covid-19 restrictions have on protest to be conditioned on the type of government. Therefore, I also run separate models containing autocratic and democratic country units. The only robust findings suggest that in autocratic countries, the use of repressive Covid-19 restrictions on certain groups based on their race, colour, sex, language, religion, or social origin, leads to a lower level of protest. I find some weak evidence that Covid-19 restrictions that violate certain rights have a negative effect on levels of protest in autocratic countries. Analysis of abusive Covid-19 restrictions in democracies, and Covid-19 restrictions on media in autocracies, suggests a backfire effect, but the results are inconsistent, and may be caused by reverse causality.

[5] Armed Conflict Location and Event Data Project: https://acleddata.com/#/dashboard
[6] The Pandemic Backsliding project: https://www.v-dem.net/en/our-work/research-projects/pandemic-backsliding/

1.2. Structure of the thesis

The thesis is structured as follows. First, I have a thorough review of the existing literature, explaining both the empirical findings and the proposed theoretical mechanisms. Further, I present research concerning repression and protest during the Covid-19 pandemic. Next, I present definitions of the Covid-19 pandemic, repression, and protest. In this part, I also argue how Covid-19 restrictions can be understood as repressive. In the theory chapter, I examine how repression may lead to backfire through mechanisms surrounding the legitimacy of the repression. I elaborate here further on the communication tactics presented by Hess and Martin (2006) on how a state can communicate a repressive event to make it legitimate. What follows is a discussion of how the proposed mechanisms and tactics may function during the Covid-19 pandemic. In the methodology chapter, I present all the variables used and how the data is collected. I go through all the alterations that has been employed to make the analysis robust, and how countries are divided into autocracies and democracies. I present the results from all models before I discuss my findings and the weaker parts of my thesis. Finally, I sum up the thesis in the conclusion.

1.3. Literature review

In this section, I present the existing literature on the repression-dissent nexus. First is the literature describing an approximately direct effect between repression and protest. Next is the literature emphasizing how different conditional factors affect the relationship. Last, I present the current literature on repression and protest during the Covid-19 pandemic.

1.3.1. Direct effect

When states represses it may lead to a rise in protest which many researchers describe as a backfire (Hess and Martin, 2006). The backfire may occur around censorship, police brutality, or other repressive events that the general population perceives as illegitimate (Hess & Martin, 2006). In such cases, this may start micro-mobilization processes, where individuals experience increased incentives to join a protest event (Opp and Roehl, 1990). Khawaja (1993) observed this mechanism in his study of the Palestinian West Bank from 1976 to 1985. He found that – with some exceptions – that repression viewed as illegitimate increased the level of protest.

Further studies have shown that the relationship between repression and dissent is reciprocal. Dissidents respond to government action with more dissent, and governments respond to dissident action with more repression (Lichbach, 1987; Moore, 1998). Carey (2006) finds the same reciprocal relationship between repression and protest in his study of Latin America and Africa, leaning on Opp and Roehl's (1990) argument of micro-mobilization to explain the backfire, while arguing that increased repression is due to governments wish to eliminate the threat that protest pose.

Studies have also shown that repression may lead to decreased levels of protest. When authorities repress, the cost of mobilizing rises and fewer people will join protest networks (Tilly, 1978: 100-102). In their study of South Africa between 1970-1985, Olzak, Beasley, and Oliver (2003) found that different reforms led to a rise in protest, but that repression decreased the rate of protest significantly. One mechanism proposed here is that repression may drive portions of the opposition underground and thus limit mobilizing (Zwerman, Steinhoff & Porta, 2000). Further, repression may negatively affect levels of protest due to bans, arrests, and executions introduces a cost, making it more difficult for dissident groups to mobilize resources to challenge the government (Oberschall, 1973; Jenkins & Perrow, 1977; Tilly, 1978).

Lastly, several studies have found a curvilinear relationship between repression and protest (e.g., Lichbach, 1987; Opp and Ruehl, 1990; Rasler, 1996). Opp and Ruehl (1990) explain the curvilinear effect as an increased cost of protesting in the short run. Over time, the incentives for protest can increase due to the population viewing the repression as illegitimate, thus launching micro-mobilization processes. Rasler (1996) repeats this argument and finds in her analysis of the Iranian revolution a long-run positive effect due to the lag before micro-mobilization effects occur.

1.3.2. Conditional factors

So far, we have looked at the different direct effects repression can have on protest and dissent. However, the literature also emphasizes that the effect repression has on protest is often conditioned on other factors. In his analysis, Sullivan (2016) finds that repression can both have a positive and a negative effect on protest, depending on the type of repression. If repression is indiscriminate[7], this can lead to a rise in support for the opposition and thus cause a rise in protest. On the other hand, more selective[8] repression will stop mobilizing activities and thus lead to decreased levels of protest. Mason & Krane (1989) explain theoretically that carefully targeted repression – selective repression - may lead to less active support for the opposition movement. When the level of repression rises and becomes more indiscriminate, it will increase support for the opposition because regular citizens can no longer stay passive and avoid repression. Lyall (2009) makes a similar finding, and he argues that indiscriminate repression forces bystanders to seek shelter in the rebel's arms. Kocher Pepinsky and Kalyvas (2011) observed this effect in their study of aerial bombing during the Vietnam war. When civilians in Vietnam were bombed by the US, it shifted the support to the Viet Cong insurgents.

Several other conditions also explain how repression affects protest. For a repressive event to backfire, there must be sufficient communication of the event to other potential protesters. Further, there has to be efficient leadership to coordinate the following protests (Francisco, 2004). Sutton, Butcher, and Svensson (2014) empirically tested the importance of communication and leadership and found strong support for these mechanisms.

[7] Repression that affects the general population, for example police violence
[8] Repression of dissident organizations who coordinate overt challenges, for example a protest.

The severity of the repression also affects the following level of protest. When the repression is mild, the cost of repression goes down and thus leading to more protest. Vice versa, harsh repression will increase the cost, thus making it less attractive to participate in protests (Tilly, 1978; Hechter, 1982).
Gupta, Sing, and Sprague (1993) find that the effect of repression on dissent is conditioned on the type of government. State repression in democracies increased the level of protest, in contrast to authoritarian states, where state repression negatively affected protests. They argue that should democratic states employ severe sanctions against their citizens, it will seriously compromise the governments' legitimacy. Autocratic states are not as dependent on legitimacy to rule; therefore, they can apply such measures and impose a high cost of participating in a protest.

Adding to the complexity, Sullivan, Loyle, and Davenport (2012) found that past levels of protest condition how repression affects protest. If levels of protest were in decline before the repression, this led to a backfire. Conversely, when protest had been increasing in the past, repression had no significant effect on protest. The theoretical explanation is that the motivation to protest that caused a rise initially, could be further increased by a repressive event.

Last, legal or institutional forms of repression can have a dampening effect on the level of protest. In a study of the civil rights movement in the southern states of the US, Barkan (1994) found that the use of legal means without violence was an effective strategy to defeat the movement. This due to the added cost of protesting because of frequent arrests, high bail, and court proceedings. Further, using legal means as repression had more legitimacy, minimizing the following criticism.

1.3.4. Repression and Dissent during the Covid-19 pandemic

Kishi (2021) and his team at ACLED have produced a report on state repression and protest trends during the Covid-19 pandemic. The findings suggest that some states have enforced Covid-19 restriction rather violently. The heavy-handed enforcement of lockdown restrictions in Uganda resulted in its highest recorded level of disorder in a decade. The same applies in South Africa, where due to lockdown restrictions, was registered more than the double level of violence against civilians in April compared to the year prior. The same month in Nigeria, the enforcement of Covid-19 restrictions led to a spike in state violence against demonstrators

and civilians. Further, using the power granted by the state of emergency, governments have repressed opposition and limited ongoing protests. For example, in Guinea, there were ongoing protests against proposed constitutional changes. The state used Covid-19 restrictions to silence the opposition and successfully pushed through the changes (Bruijne, 2020). Several states have also targeted the media under the guise of Covid-19 restrictions. The most severe cases here include the use of physical violence (Kishi, 2021). However, as many as 2/3 of countries have implemented some form of pandemic-related restrictions on the media (Alizada et al., 2021).

Protest trends have also been affected by the pandemic. Before the pandemic, protest levels were rising, some even referring to 2019 as the "year of global protests" (Maerz et al., 2020). This trend went on during the start of 2020, but after WHO's pandemic declaration in March, protest levels dropped significantly due to lockdowns. This did not last long, and protest levels soon resurged. First as a direct response to government mismanagement of the pandemic, where protesters demanded stronger responses from the government, healthcare workers showing frustration around working conditions, or people calling for financial support due to the lockdowns. After this, demonstrations became a continuation of already existing social movements that had begun before the pandemic. The pandemic itself only intensified previously held grievances because of economic recession and governments mismanagement. In some cases, new demonstration movements emerged altogether. This resulted in an increase in levels of protest during 2020 compared to 2019 (Kishi, 2021).

1.3.5. Gaps in the literature

To my knowledge, this thesis will be the first exploration of the relationship between repressive Covid-19 restrictions and protest. The literature shows that several states have repressed their citizens during the pandemic, often due to the implementation of Covid-19 restrictions. Further, there has been an overall increase in protest levels during the pandemic. This thesis will answer the empirical question of how repressive Covid-19 restrictions have affected the level of protest. In doing so, we can assess whether the repressive restrictions have contributed to the rise in protest during the pandemic. Theoretically, this should not be the case. States implement the repressive Covid-19 restrictions allegedly to stop infections and save lives, which I argue is a type of repression that has a higher chance of being viewed as legitimate by the public. Thus, investigating this relationship will also shed light on the legitimacy of the repressive Covid-19 restrictions. As mentioned in the introduction, Alizada

et al. (2021) concluded that the pandemics' final toll on democracy might be high, should the restrictions not be eliminated after the pandemic. By investigating how repressive Covid-19 restrictions have affected the level of protest, the thesis might give some insight into whether rising autocratization will deepen through declines in protest.

2. Definitions

2.1. Covid-19 virus

The coronavirus family contains several different viruses which leads to respiratory infections. In many cases, the coronavirus causes a mild cold but may also cause more severe disease, and in some cases also death. The new coronavirus that is now spreading throughout the world is called SARS-CoV-2 and was first identified in December 2019 in Wuhan. The SARS-CoV-2 virus causes the disease Covid-19 (Cheng et al., 2020).

The SARS-CoV-2 most likely originated from bats and was transferred to humans late in 2019, either directly or via other animals. It is possible to be infected with SARS-CoV-2 without developing any disease but still infect others with the virus. The virus can infect through several methods, and some believed to be more significant than others. Droplet transmission is believed to be the most important route of transmission. People infected with Covid-19 omits droplets and particles from the mouth and nose containing SARS-CoV-2. Infections occur when these then touch mucous membranes in the receiver's mouth, nose, or eyes. Droplet transmission happens within 1-2 meters of the infected person. Studies suggest that the risk of infections drops rapidly with more distance to the infected person (Lai et al., 2020).

On Mars 7th, the number of confirmed Covid-19 cases surpassed 100’000, leading to WHO declaring Covid-19 as a pandemic on Mars 11th (WHO, 2020).

2.2. Repression

This thesis definition of repression is based on the definition used in Davenport's (2007) article "State Repression and Political Order". Here, repression can be understood as actual or threatened use of physical sanctions against an individual or organization, and it must be performed within the state's territorial jurisdiction. Repression is a tool to impose costs on the target, as well as deterring beliefs and/or specific activities that are perceived to be a challenge to the government, its personnel, practices, or institutions (Goldstein, 1978). Repression is similar to other forms of coercive behavior that rely on threats and intimidation to influence targets. The difference is that repression does not apply to all coercive behavior, such as deterrence of violent crime and theft. It deals more specifically with the application of state power that violates First Amendment-type rights and personal integrity rights. Personal integrity is the rights concerns an individual's survival and security, such as the freedom of torture, extrajudicial execution, wrongful imprisonment, and mass killing (Goldstein, 1978: 31). First Amendment-type rights include the freedom of speech, assembly, and travel. The freedom of the press. Freedom of association and belief without government reprisal or investigation, and the general freedom to boycott, peacefully picket, or strike without suffering criminal or civil penalties (Goldstein, 1978: 30-31).

The thesis seeks to answer the puzzle "How have repressive Covid-19 restrictions affected the level of protest during the Covid-19 pandemic?". Therefore, it is essential to differentiate between what is considered Covid-19 restrictions and what is considered repressive Covid-19 restrictions. The following section will make that differentiation clearer,
using the definition of repression and examples of Covid-19 restrictions.

2.2.1. Covid-19 restrictions as repression

There are several cases in which Covid-19 restrictions meet the aspects of the definition of repression I presented. These aspects revolve around the nature of the restrictions themself, how the restrictions are enforced on people, or to which purpose the restrictions are applied.

One of the aspects of repression is the use of physical sanctions. When enforcing lockdown restrictions, governments may use - for example - economic sanctions through tickets to raise people incentives to follow the restrictions. Such enforcement would not be considered repressive Covid-19 restrictions. However, restrictions are considered repressive when

physical sanctions are employed while enforcing the restrictions. Violent enforcement has been observed in several African countries, where the police have beaten up people not following lockdown restrictions. In some cases, the police have shot and killed people who did not follow restrictions (Kishi, 2021). When the enforcement of restrictions results in death, this would also violate rights concerning an individual's survival and security.

Should Covid-19 restrictions be used to target the media or journalists, this would violate freedom of speech and press freedom. During the pandemic, 2/3 of countries has implemented Covid-19 restrictions on media, under the guise of being motivated by public health concerns (Alizada et al., 2021). Further, journalists have also been arrested for violating curfew restrictions while reporting about the pandemic (Edgell et al., 2020).

The aspect of freedom of travel in Davenport's (2007) definition cannot be applied directly when assessing if a Covid-19 restriction is repressive. Governments implemented Covid-19 restrictions to limit travel and movement of citizens, for example, curfews or closing of borders (Kishi, 2021). Since restrictions on travel and movement may be an essential tool to fight the virus, this thesis does not consider such restrictions as repressive, should one criterion be met. The implementation of the restrictions must be motivated by legitimate public health concerns. Assessing the intentions of why political authorities implement restrictions on travel and movement is, of course, challenging. However, it is relatively clear that health concerns are not the most dominant motivator in some cases. For example, in Serbia, where restrictions were lifted from the general population, while refugees, migrants, and asylum seekers were still held under 24-hour quarantine in housing centers, despite there being zero Covid-19 cases in the housing centers (Kolvani et al., 2020).
To summarize, Covid-19 restrictions are considered repressive when the enforcement is violent, when the restrictions target the media or journalists, or when the implantation of the restrictions is not motivated by legitimate health concerns.

2.3. Dissent and protest

This paper examines the relationship between repression and protest. Much of the literature describes the relationship between repression and dissent. Therefore, this section will define both dissent and protest.

Ritter and Conrad (2016) define dissent as something that occurs when nonstate actors within the state's jurisdiction collectively threaten to or actually impose costs on the political authorities to motivate the government to change their behavior, power allocation, or policies. The dissent may be violent and non-violent and includes behavior including strikes, protests, and boycott damage. The actions taken by the dissent may damage state property and disrupt the normal functioning of society (Bueno de Mesquita et al, 2003)

To separate protest from dissent, we can see what kinds of activities that are described as protests. Della Porta and Diani (2006:165) use an example of a protest against The World Economic Forum to illustrate the characteristics of a protest. During the event, people "marched, arranged blockades; had concerts; people wore costumes and masks; and they occupied spaces". The example has some of the characteristics of Ritter and Conrads (2016) definition of dissent, namely, nonstate actors imposing a cost to an authority. What's specific about Della Porta and Dianis (2006) example is that people do this through gathering in groups.

In this thesis, protesting is thus understood as something that occurs when people gather in groups to impose a cost on political authorities to motivate them to change their behavior, power allocation, or policies. This definition includes both violent and non-violent protesting.

3. Theory

3.1. The legitimacy of repression

In assessing how repressive Covid-19 affects the level of protest, it is essential to understand which mechanisms lie between repression and protest. First, repression may have a direct negative effect on protest because it introduces a cost (Opp & Roehl, 1990). First, the repression makes it more difficult for protest networks to gather resources to challenge the government (Oberschall, 1973; Jenkins & Perrow, 1977; Tilly, 1978). Further, if individuals expect to be repressed by the state if they protest, the incentives to join decrease (Olson, 1965; Hardin, 1982).

Opp and Roehl (1990) argue that if the repression activates micro-mobilization processes, the cost repression introduces can be neutralized or even lead to increased levels of protest. Opp and Roehl (1990) explain micro-mobilization processes as a process where individuals may experience increased incentives to join a protest after a repressive event. First, the incentives may be of social nature. Repression may cause increased expectations of others joining a protest. Further, an individual may observe that repressed protesters get positive attention and recognition, thus increasing the rewards of protesting. Second, moral incentives may increase. Individuals may find repression immoral and feel a moral obligation to support the cause of movement through protesting. Third, incentives to change the political system may increase. When exposed to repression, individuals may become dissatisfied with the political institutions and thus want to change these through protesting.
Opp and Roehl (1990) argue that these micro-mobilization processes are more likely to occur should people perceive the repression as illegitimate. Therefore, an essential factor to examine is whether the public view the repressive Covid-19 restrictions at illegitimate or legitimate.

The legitimacy of repression is consequently often used to explain how repression may lead to increased levels of protest, referred to as a backfire (Hess & Martin, 2006). This perception of legitimacy connects to protesters, namely, if protesters' demands are perceived as legitimate by the public. Thus, should political authorities repress a movement with legitimate demands, the chances that the public will feel repulsed increases, and thus making the repression backfire (Della Porta & Reiter, 1998; Wisler and Guigni, 1999).

The use of violence affects how the public views the repression. When a repressive event is violent, the public more likely will view it as illegitimate and disapprove. Thus, governments are not expected to use violence against non-violent protesters since this will make the cost

too high to make it a lucrative strategy (Carey, 2006). Sharp (1973) argues that witnessing violent repression against peaceful protesters may cause people to feel repulsed and that entire groups may want to dissociate themselves from the repression. This effect can be observed vice versa: when protesters are violent, attacking them may seem more justified by the public (Martin, 2015). An example of violent repression against peaceful protesters could be seen in South Africa during the apartheid, where several people protested against the internal passports black people had to carry. Following many small events, police opened fire on the protesters, killing dozens. This was considered a significant event in the struggle against apartheid since the South African government was discredited around the world (Frankel, 2001). Martin (2015) points to an important mechanism in this example: attacks on peaceful protesters may be counterproductive and generate support for the protesters and their cause.

To summarize, repression may direct have a negative effect on protest through increased cost. However, should the public view the repression as illegitimate, this may start micro-mobilization processes and cause a backfire. Thus, how the public receives information about the repression is an essential factor. Hess and Martin (2006) have established different communication tactics that political authorities employ to make a repressive seem more harmless and thus increase the chances of the public viewing the repression as legitimate.

First, they can cover up the situation, including censorship of the media. States will then use disinformation and manipulate the media to discredit the targets of the repression (Marx, 1979;). Second, the targets of the repression can also be devalued or stigmatized to make the repressive action seem legitimate and less offensive to audiences. Devaluing or stigmatizing includes drawing on racism, using derogatory labels, spreading rumors, and publicizing unfavorable information, real or manufactured. When the repressed are of low status or stigmatized by allegations, what happens to them may seem less serious to the general population (Martin, 2015). Third, the repressive event may be reinterpreted as something other than an attack. By blaming, minimizing, or framing, the government can reinterpret the repressive event as something less severe and more legitimate (Martin, 2015). Last, the authorities may obtain statements from experts or officials, put together formal inquiries or other official analyses, and use these to delegitimate the dissidents (Jansen & Martin, 2004). By applying one or a combination of these tactics, states may increase the chances of the public viewing the repression as legitimate, thus stopping micro-mobilization processes and preventing a backfire.

In the next section, I will use the presented literature and theoretical mechanisms to assess how repressive Covid-19 restrictions may have affected protests during the Covid-19 pandemic. The essential factor being how the public views the repression: as legitimate or illegitimate.

3.2. Assessing the legitimacy of repressive Covid-19 restrictions

The effect repression has on protest is conditioned on how the public views it. Should they view it as illegitimate, this may start micro-mobilization processes and cause a backfire. However, should the repression be viewed as legitimate, it may have a negative effect on protest through the increased cost of protesting. Thus, assessing the legitimacy of repressive events essential in understanding how repressive Covid-19 restrictions may affect the level of protest. Further, should political authorities use Covid-19 restrictions to repress an ongoing protest, it is also essential to understand how the public views the protesters and theirs demands (Della Porta and Reiter, 1998; Wisler and Guigni, 1999).

First, as discussed in the definition section, one key characteristic of a protest is that people gather in groups. Further, the chances of people contracting Covid-19 from an infected person increase as the distances decreased (Lai et al., 2020). Thus, protesting during the Covid-19 pandemic could be considered riskier than it would pre-pandemic. States can employ this logic should they want to legitimize the repression of an ongoing protests. Also, should the protester's demands fundamentally be considered legitimate by the public, this may be overshadowed by the protest event itself increasing the chances of rising Covid-19 infections.

Further, the use of violence against peaceful protesters is often considered illegitimate by the public (Carey, 2006). However, this effect may weaken during the Covid-19 pandemic. The public may view the protesters as a group of people risking the public's health to promote their demands. The use of violence, in general, is often deemed illegitimate by the public. For example, Hess and Martin (2006) use police brutality as an example of violent repression, which may cause backfire through being viewed as illegitimate by the public. Police brutality has been observed in several cases during the pandemic. While enforcing Covid-19 restrictions, police forces have used tear gas, live ammunition, and physical violence, and in some cases, the violence resulted in deaths (Kishi, 2021; Edgell et al., 2020). The public may view events like these as more legitimate during the pandemic because it is the enforcement of Covid-19 restrictions, which may hinder the spread of a dangerous virus and thus be to the public's good.

This brings us to another aspect that can legitimize repression and have a dampening effect on the level of protest, namely legal or institutional means of repression. Such repression adds cost to protesting through arrests and following legal difficulties and receives less criticism due to it being viewed by the public as more legitimate (Barkan, 1994; Koopmans, 1997). Security forces often perform Covid-19 restrictions within bounds of legal framework (Alizada et al., 2021), implemented under the guise of dealing with the pandemic, but in many cases used to stifle challenges to the authorities. For example, in Sierra Leone, opposition protests have been banned under the pretext of a response to the pandemic (Bruijne & Bisson, 2020). In Venezuela, ongoing protests in opposition to political authorities were limited due to Covid-19 induced lockdowns (Kishi, 2021). In Egypt, the president ratified new amendments in response to the pandemic, granting him powers to ban or limit public gatherings. However, most amendments could not be clearly tied up to public health concerns (Kishi, 2021).
In Algeria, state authorities used Covid-19 restrictions to suppress political dissent, prosecuting activists, journalists, and opposition supporters (Kishi, 2021). Further, this form of legal repression has been employed against the media as well. With the excuse of upholding strict adherence to health security standards, there has been observed violence against journalists and restrictions on media. ACLED reports that this is especially the case in authoritarian states (Kishi, 2021), but V-dem reports show that as much as 2/3 of countries have implemented restrictions on media (Alizada et al., 2021).

To summarize, due to the act of protesting could be viewed as a hazardous activity during the Covid-19 pandemic, state repression of a protest may be considered more legitimate by the public, even though the movement's demands are otherwise considered legitimate. Further, should political authorities use violence against protesters or citizens in general, this could also be viewed as more legitimate if the violence is done under the guise of fighting the pandemic. Last, political authorities may use Covid-19 restrictions as legal means of repression, which the public may consider a more legitimate form of repression.

These mechanisms do though depend on how information about the repressive event is communicated to the public. Therefore, using the communication tactics described by Martin and Hess (2006), I will now look at how states may apply these during the Covid-19 pandemic, and using examples showing how they may have been applied. As I argue, it seems the pandemic has given states a favourable opportunity to legitimize a repressive event through different communication tactics.

The first tactic is covering up the repression through spreading misinformation and manipulating the media (Marx, 1979). Here, governments may manipulate the media to focus on aspects of the repressive event favorable for the authorities. For example, when police forces used Covid-19 restrictions to stop ongoing protests in Chile (Guardian, 2020), the focus may be that the protesters are spreading the virus and ignoring quarantine restrictions, and not focusing on the reasons behind the protest, which may be legitimate. During the pandemic, 2/3 of countries have used Covid-19 related emergency legislation to implement restrictions on media freedom (Alizada et al., 2021), which coincide with the several states repressing their citizens through Covid-19 restrictions (Kishi, 2021). What we are observing here may be some states applying this tactic to legitimize the repressive Covid-19 restrictions.

Second, governments can devalue or stigmatized the targets of the repression by drawing on racism, using derogatory labels, spreading rumors, and publicizing unfavorable information (Martin, 2015). For example, in Sri Lanka, senior government members have made public remarks associating the Muslim community with Covid-19 infections (Human Rights Watch, 2020a). According to Martin (2015), such devaluation may make the public less offended if the government should repress Muslims.

Third, the repressive event may be reinterpreted as something other than repression through lying, blaming, minimizing, or framing (Martin, 2015). For example, in El Salvador, police forces arbitrarily detained hundreds of people while enforcing Covid-19 restrictions, an action President Bukele defended by tweeting, “five people will not decide the death of hundreds of thousands Salvadorans” (Human Rights Watch, 2020b). By lying about the number of arrested and framing the wrongful imprisonment as being motivated by public health concerns, the President may have justified the action and decreased the chances of a backfire (Martin, 2015).

Fourthly, the authorities may obtain statements from experts or officials, put together formal inquiries or other kinds of official analysis, and use these to legitimize a repressive event (Martin, 2015). Given that international organization like the WHO have campaigns encouraging social distancing (WHO, 2020), governments may use such campaigns to discredit a protest event or legitimize repressive Covid-19 restrictions

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The communication tactics illustrate that the Covid-19 pandemic has given political authorities a favorable position to justify repression. First, by using Covid-19 restrictions as means of repression, the political authorities may reinterpret the event and/or manipulate the media to make the repression seem motivated by public health concerns. Further, governments may use the pandemic to devalue targets of repression by spreading rumors or publicizing unfavorable information. Last, states may use information from internationally recognized organizations like WHO to justify their actions.

To summarize, should states repress a protest event, this can be done under the guise of upholding Covid-19 restrictions meant to fight the virus. Thus, increasing the chances of the public viewing the repression as legitimate, even though the protester's demands may be legitimate. Further, should security forces violently enforce Covid-19 restrictions, the public may view this as legitimate due to the enforcement of restrictions may decrease Covid-19 infections. Further, since the restrictions allow for legal means of repression, this will decrease the chances of people viewing it as illegitimate. Adding to this, states may apply communication tactics to further increase the chances of the public viewing the repressive Covid-19 restrictions as legitimate.

As mentioned at the start of the theory chapter, repression may have a negative effect on protests due to the added cost of protesting (Oberschall, 1973; Jenkins & Perrow, 1977; Tilly, 1978). However, if the repression was viewed as illegitimate by the public, this could activate micro-mobilization processes (Opp & Ruehl, 1990) and lead to a backfire (Hess & Martin, 2006). But as I have argued, repressive Covid-19 restrictions may be a form of repression that the public finds legitimate, therefore not activating the micro-mobilization processes.
This argument leads to my hypothesis: *Repressive Covid-19 restrictions will have a negative effect on the level of protests*

3. Methodology

To empirically investigate how repressive Covid-19 restrictions have affected the level of protest during the pandemic, I employ a quantitative research design. To make this possible, I have constructed a dataset based on three sources: Data on protest from ACLED, data on repressive Covid-19 restrictions from V-dem, and data on Covid-19 infections from John Hopkins University. In this section, I present all the variables that make up the analysis. Further, I elaborate on different characteristics of the data set, assumptions of the data, and how these are accounted for in the analysis. Next, I present literature on how we may differentiate between autocratic countries and democratic countries. I also discuss potential drawbacks withs the data. Last, I present all the models.

Units of analysis

The dataset contains 109 countries, which is the number of countries that contained the necessary data from all sources. The time units used in the analysis are weeks, stretching from week 1 to 49, in the year 2020. Previous studies exploring the relationship between repression and dissent have used yearly and monthly aggregation of events, but as Maher and Peterson (2008) argue, this is too high given the more immediate response to repression from dissident actors. Using days as time units can also be problematic since states and dissidents cannot always respond to each other immediately (Shellman, 2004; Freeman, 1989). This makes weeks a favourable time unit when exploring the relationship between repression and dissent.

3.1. Variables

3.1.1. Dependent variable - Protest

I use data from The Armed Conflic Location & Event Data Project (ACLED) to construct my dependent variable. They gather dates, actors, locations, the number of people killed, and all types of reported political violence and protests in Africa, East Asia, South East Asia, the Middle East, Central Asia, Latin America, the Caribbean, the Caucasus, Europe and the United States of America (ACLED, 2020a). The data material is coded by experienced researchers who collect information from news reports, using guidelines from ACLED's codebook to collect data. The data from ACLED are structured so that a battle lasting over two days will be recorded as two events, one for each day. Further, if two kinds of events happen during one day (e.g., a protest event and an act of violence against civilians), these will be two distinctive observations in the dataset. (ACLED, 2020b).

The dependent variable is constructed based on ACLEDS variable measuring event types. These include battles; explosion/remote violence; violence against civilians; riots; protest; and strategic developments (ACLED, 2020c). To construct my dependent variable I use data from the event type "protest". This includes peaceful protest; protest with intervention; and excessive force against protesters. Given that the thesis definition of protest also includes violent protest, I include data from the event type "riots". This variable includes the needed data for violent protests. However, it also includes mob violence, which does not meet the thesis definition of protest, thus lowering the validity of the dependent variable to some extent.

The data is collapsed into sum of protests per week given that this is the most appropriate time units for analysing the relationship between repression and protest (Maher and Peterson, 2008).

3.1.2. Independent variables

To measure repressive Covid-19 restrictions, I use data from the "The Pandemic Backsliding Project" [9]. V-dem has published data measuring states' responses to the Covid-19 pandemic and what effect these responses have had on the overall quality of democracy in the respective countries. These responses are referred to as "emergency measures", which is the general term for all government responses taken concerning Covid-19. The data generation aims to capture the extent to which democratic standards have been violated at the national level during these emergency measures (Kolvani et al., 2020)

They have identified seven types of violations of democratic standards and classified these into three different categories. *Illiberal practices* that violate human rights (discriminatory measures, derogation of non-derogable rights or abusive enforcement). *Authoritarian practices* that sabotage accountability by limiting access to information and disabling voice (no time limit of the measures, limitations on the legislature, official disinformation campaigns). Last, *restrictions on media*, which act as both an illiberal and authoritarian practice "because it simultaneously infringes human rights and undermines accountability" (Kolvani et al., 2020).

Using the types of violation in the categories *Illiberal practices* and *restrictions on media*, I construct four independent variables measuring repressive Covid-19 restrictions: Discriminating restrictions; violation of rights; abusive enforcement; and restrictions on media.

What follows is a review of each of the independent variables as described by V-dem. Since I use this to measure repressive Covid-19 restriction, each variable is discussed using the definition presented in chapter "2.2. Repression".

All information is about the variables is gathered from V-dem's codebook "Pandemic Backsliding: Democracy during Covid-19 (PanDem)"[10].

[9] The full documentation of coding, data sources, and comments for each country and variable are accessible online at www.github.com/vdeminstitute/pandem
Full policy brief can be accessed here: https://www.v-dem.net/media/filer_public/13/1a/131a6ef5-4602-4746-a907-8f549a5518b2/v-dem_policybrief-26_201214_v31.pdf

[10] Codebook can be accessed here: https://github.com/vdeminstitute/pandem/blob/master/codebook/pandem_codebook_V5.pdf

Discriminating restrictions

Question: D*uring this time period, have any of the emergency measures that place restrictions on democratic rights or freedoms discriminated "solely on the ground of race, colour, sex, language, religion or social origin".*

The variable measures whether the emergency measures have affected some groups' democratic rights and freedoms disproportionately based on their race, colour, sex, language, religion or social origin, in ways that cannot be justified by the concerns of public health. Democratic rights and freedoms are defined as the freedom of movement, assembly, association, and expression. This includes, for example, quarantines for specific social groups without explicit suspicion of Covid-19 infections. This does not include if measures are applied to neighbourhoods with many Covid-19 cases. Coders are instructed not to include cases of discrimination dealing with access to medical care, testing, or supplies.

Scale: Ordinal between 0-3

0. No, not at all.

1- Not de-jure[11], but minor de-facto[12] discrimination.

2- Minor de-jure discrimination

3- Yes, major, systematic de-jure or de-facto discrimination

Understood as repression

Should restrictions be discriminating based on religion, this is understood as a form of repression due to it violating freedom of belief. More interesting, the variable measure the disproportionate repression of some groups. High scores on this variable mean that some groups' freedom of movement, assembly, association, and expression has been affected, which corresponds well with this thesis definition of protest due to it violating several First Amendment-type rights. Further, as mentioned in the definition of repression, the freedom of movement can be understood as repression if it is not motivated by legitimate public health

[11] De-jure: Any official government instrument used to make or enforce the emergency measures, including (but not limited to) laws, decrees, and official pronouncements or directives.
[12] De-facto: Action staken on the part of the government or its agents in an official capacity regardless of whether those actions were allowed de-jure.

concerns. An example of a high score in this variable illustrates this point: In Serbia, where housing centers for refugees, migrants, and asylum seekers were still under 24-hour quarantine, even after the state of emergency was lifted from the general population. Despite there being no Covid-19 cases in the housing centres (Kolvani et al., 2020).

Violation of rights

Question: *During this time period, have any of the emergency measures violated non-derogable rights as defined by the ICCPR[13]?*

Non-derogable rights include: Right to life

- Freedom from torture and cruel/inhuman treatment
- Prohibition of slavery and servitude
- Prohibition of imprisonment due to inability to fulfil a contractual obligation
- No conviction for a crime which was not a crime at the time of commitment
- Right as a person before the law
- Freedom of thought, conscience and religion

A temporary ban on religious services does not count as a violation of freedom of religion as long as all religions are targeted equally.

Scale: Binary 0-1, 0 being No, 1 being Yes.

Understood as repression

This variable measures several aspects of repression due to the use of physical sanctions, a threat to personal integrity, and violation of first amendment-type rights. The examples provided by V-dem for (1=Yes) in the variable illustrate this. In the Philippines, people who broke social distancing rules were put in dog cages, got their hair cut, and had their clothes removed. Here we see aspects of repression through physical sanctions and a threat to personal integrity. Further, in the Philippines, President Duterte ordered the police to shoot people who did not follow lockdown regulations. This is also a threat to personal integrity, due to such killings would be considered extrajudicial executions (Amnesty, 2020). In El Salvador, hundreds of people were detained without legal grounds for not following quarantine restrictions. Which is a violation personal integrity rights due to wrongful

[13] The detailed ICCPR provisions can be found here: www.ohchr.org/en/professionalinterest/pages/ccpr.aspx

imprisonment. Further, in Sri-Lanka and Pakistan, there have been violations of freedom of religion, which violates the freedom of belief (Edgell et al., 2020; Kolvani et al., 2020). We see through these examples that the non-derogable rights are related to the First Amendment-type rights and the rights concerning personal integrity, which the definition of repression is based on—making it a valid measurement of repressive Covid-19 restrictions.

Abusive enforcement

Question: *During this time period, how often have security forces, such as the civilian police or military, engaged in excessive physical violence to execute the emergency measures?*

Physical violence refers to the use of force or intimidation to harm or kill another individual, forced unlawful confinement, or harassment (including physical, psychological, and sexual in nature).

Scale: Ordinal between 0-3.

0- Never or almost never. Security forces seem to have engaged in little to no violence to execute the emergency measures.
1- Rarely. A few isolated incidents of security forces engaging in some non-lethal violence has been reported.
2- Sometimes. There are several reports of security forces engaging in violence to execute the emergency measures, and/or reports of deaths at the hands of security forces in response to Covid-19 enforcement.
3- Often. There are widespread reports about use of violence, sometimes with lethal outcomes, by security forces when executing emergency measures taken with reference to Covid-19.

Understood as repression

This variable measures a type of repression due to the use of physical sanctions against individuals. Further, a high score here would be a clear threat to the security of personal integrity due to the chance of a lethal outcome. Making this variable a valid measurement of repressive Covid-19 restriction. The examples used for high scores on this variable include the use of teargas, rubber bullets, and violence to enforce different restrictions. Further, high scores include the use of Covid-19 restrictions to stop ongoing protests, which was the most registered use of abusive enforcement in Latin and Central America (Edgell et al., 2020; Kolvani et al., 2020).

Restrictions on media freedom

This variable is an index based on a total of seven variables. These measure to what extent any emergency measures de-jure limit media freedom; if the media has faced de-facto limitations on reporting about the nature of the Covid-19 virus; if the media has faced de-facto limitations on reporting about the government response to the Covid-19 pandemic; has the government placed de-facto limitations on the reporting about non-Covid-19 related news, but with reference to the pandemic; have the government or its agents verbally harassed journalists reporting about Covid-19; have the government or its agents has physically harassed journalists reporting about Covid-19; and how often the government and its agents limit media access to Covid-19 related information.

This scale is then measured one a scale from 0-3: None (0), Minor (1), Some (2), and Major (3).

Understood as repression

To summarize, this variable measures whether states have applied Covid-19 restrictions on media, either de-jure or de-facto. Further, it also includes both verbal and physical harassment of journalists by government agents. Last, it includes the government withholding Covid-19 information. Overall, it measures restrictions on media freedom. A high score here would be a violation of the freedom of the press. Further, the use of physical sanctions against journalists would be considered repression. The examples used by V-dem also show that a high score could mean a threat to personal integrity through violation of the freedom from wrongful imprisonment. In Bangladesh, at least a dozen journalists have been arrested and face life-time in prison due to criticizing the government handling of the pandemic (Edgell et al., 2020)

Time measurement of the independent variables

The data from V-dem is coded with quarterly time units. Second quarter being 11th of mars until 30th of June, third quarter being July, August and September, and fourth quarter being from 1th of October until the 10th of December. Every variable in the dataset is given a value reflecting the mean of violations for each quarterly time unit, which means that the values on the independent variables only change between time units and country units. For example, if Sweden had many instances of abusive enforcement between the 11th of mars and the 30th of July, Sweden will have a high score in the second quarter. Should there be fewer instances of abusive enforcement in August and September, this would be reflected in a lower score for the third quarter.

The quarterly time units recoded to the corresponding weeks as time units. Q2 is now week 11 until week 26, Q3 is week 27 until week 39, and Q4 is week 40 until week 50. Further, I have filled in the values of the variables in every week based on the quarters. For example, was Sweden given the value 2 for Q2 and 3 for Q3, Sweden will now have the value of 2 all the weeks between week 11 and 26, and 3 in all weeks from week 27 to 39.

To get a more exact measurement, I have implemented some further alterations. The V-dem dataset also provides a variable named "emstart", with a specific date specifying when countries first implemented a legal instrument[14] to enact a national-level emergency response to the Covid-19 pandemic. In many cases this date differs some weeks from the 11th of Mars. Therefore, the different types of violation are coded in such a way that the respective scores for Q2 starts at the date provided by the "emstart" variable.

[14] Legal instruments include:

- Declaration of state of emergency, within existing legal framework.
- Declaration of state of public health emergency, within exiting legal framework that distinguishes between a public health emergency and a state of emergency.
- Declaration of state of disaster/catastrophe, whitin existing legal frameworks where this differs from a state of emergency.
- Other legislation, where this differs from a sate of emergency, public health emergency, or disaster/catastrophe.
- None, the state has a national-level emergency response without specific reference to legal instruments.

Data collection – V-dem

V-dem base its coding primarily upon data collected by a team of trained research assistants. The sources they use include official government documents/websites, academic databases, trusted inter-governmental, state, or independent organizations, and trusted media outlets. The specific source used when making a particular coding decision can be accessed directly in the dataset.

The project uses what they refer to as a "multistep strategy" to ensure data validity. This means one coder was assigned to one country, and for some countries, two coders were assigned. If there were disagreement between the two coders and the principal investigators reconciled the information. Country experts, regional experts, or the principal investigators have reviewed the coding of most countries. If the country managers, regional experts, or the principal investigators found errors, the research assistants were instructed to change their coding.

3.1.3. Control variables

Covid-19 infections

One variable I must control for, which will affect both the restrictions and level of protest, is, of course, the Covid-19 pandemic itself. The chances of getting infected with Covid-19, increases significantly when close to an infected person (Lai et al., 2020). Thus, it is safe to presume that people will have second thoughts about gathering in big groups – like a protest – during the Covid-19 pandemic in fear of being infected. Without going into psychological literature, I would also like to highlight the aspect of social stigma. Likely, people will also avoid going to protests because of social stigma. People going to protests during the pandemic could be labelled as infection spreaders and thus risking social consequences. Lastly, the number of infected people will also affect the independent variable measuring repressive Covid-19 restrictions. Should the number of infected people rise, the government may have to employ different restrictions to combat this.

To operationalize this, I'm using data from John Hopkins University. How they collect data varies from country to country. Their primary data source is an online platform run by the Chinese medical community, which uses local media and government reports as sources. For countries and regions outside mainland China (including Hong Kong, Macau, and Taiwan), John Hopkins University also monitors various Twitter feeds, online news services, and direct communication sent through their Covid-19 dashboard[15]. Before manually updating the dashboard, they confirm the case numbers with regional and local health departments (Lancet, 2020).

The variable has been collapsed into the mean number of infected people per week. Further, we can assume that a decline in new cases per week would lead to less fear and social stigma of gathering in big groups and fewer incentives for authorities to implement restrictions. Thus, making total cases throughout the pandemic not ideal for measuring these aspects. The variable will therefore show new cases per week (T-T1).

[15] John Hopkins University Covid-19 dashboard: https://coronavirus.jhu.edu/map.html

Past protest

The total number of protests the past two to four weeks before (T-2+T-3+T-4) will also be used as a control variable for several reasons. First, the past level of protest affects the current level of protest (Sullivan, Loyle and Daveport, 2012). Secondly, dissident activities may also cause repression (Carey, 2006). Third, protests may cause increased numbers of Covid-19 infections through people being in close contact with other people, causing states to take measures to slow this down, which will affect the independent variable. Given that the Covid-19 virus infects through social contact and most people will get symptoms after 10 days (Lai et al., 2020), the total number of protests two to four weeks in the past will be a good control for protest induced Covid-19 infections. Even though many people get symptoms 4-5 days after being infected, most people will have gotten symptoms after 10 days. Further, if a protest happened on a Sunday, and the restrictions started on a Monday the next week, my data material would count this as a whole week. Thus, starting at two weeks will make this at least eight days from the last protest. Further, including two extra weeks gives us extra room to measure delays in testing since we can't assume that everyone takes a Covid-19 test the same day as they get symptoms.

Time trends

I also include the variable measuring time units as a control variable. The variable is included as a continuous variable to control any underlying time trends that are not included in the model. With the fixed effect specifications, the models control for all unmeasured variables that do not change significantly from week 1 to 49 during 2020. Given that 2020 has been a rather hectic year, I suspect there exist some unmeasured time trends that my variables do not measure. For example, it is plausible to suspect that people become less afraid of Covid-19 as the months pass, thus being more willing to join a protest event, even though Covid-19 infection numbers are rising. Further, governments may change their approach toward the pandemic in different ways that my independent variables do not measure. Thus, controlling for unmeasured time trends will produce a more robust model.

3.2. Dataset

Descriptive Statistics

Table 1. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Protest	5390	21.921	77.081	0	2934
Discriminating restrictions	5390	.208	.693	0	3
Violation of rights	5390	.037	.189	0	1
Abusive enforcement	5390	.471	.836	0	3
Restrictions on media freedom	5390	.526	.872	0	2
Covid_change	5390	10993.569	54838.056	-43.857	1347330.1
Past protest	5060	21.859	71.706	0	2177
Event week	5390	25	14.143	1	49

Log-transforming and negative binomial regression

The variable "protest" has a mean of 21.921, but a standard deviation of 77.081, indicating that the variable contains outliers (Table 1.) For example, the US, with an average of 446 protests per week, experienced a total of 2309 in week 22, and 2934 the following week due to the Black Lives Matter protest (Kishi & Jones, 2020). To make outliers like these not driving the results, a solution would be to remove the US and other countries containing outliers from the data material. Another solution that prevents the loss of data is to log-transform the "protest" variable. This pulls in the outliers and makes the distribution more symmetrical (Mehmetoglu & Jakobsen, 2017, p.329). For the same reason, the control variable "past protest" will be log-transformed. The "covid change" variable is also skewed, with a standard deviation five times the mean, and therefore will also be log-transformed.

The log-transformed dependent variable «protest» will only be used when running OLS regressions. I will also run negative binomial regressions, a type of regression often applied to count data. This type of regression allows for over-dispersed[16] dependent variables, thus eliminating the need for a log-transformed dependent variable (UCLA, n.d.).

[16] Over-dispersed variables have a variance that's greater than the mean.

Table 2. Descriptive Statistics – Log-transformed variables [17]

Variable	Obs	Mean	Std. Dev.	Min	Max
lnprotest	5390	1.88	1.447	0	7.984
lncovid change	5389	5.169	3.598	-.56	14.114
lnpast_protest	4950	2.81	1.623	0	8.784

Time series cross section-data

The data set has the same characteristics as panel data with different units measured over several time points. However, the data set I'm using differs some from panel data due to its structure. Panel data has many units measured at relatively few time points, unlike my data which has a relatively small number of units (countries), measured over many time points (weeks). Data with this kind of structure is called Time series cross section (TSCS)-data (Mehmetoglu & Jakobsen, 2017: 252). The data consist of 109 countries (appendix) measured through 49 weeks. All units are measured through the same amount of time points, making the panel strongly balanced.

There are many benefits of using time series data like panel and TSCS data. First, it makes it possible to research causal direction due to the same units being observed over time. Thus, one can see which effect one variable has on another later in time (Mehmetoglu and Jakobsen, 2017: 252). As with cross-sectional data, TSCS data has certain assumptions that should be met. If not, we cannot trust the estimates our model produces to be correct. I will now go through the different assumptions with a brief review of whether these are met or not.

Autocorrelation and heteroscedasticity

An assumption that panel- and TSCS-data often violates is autocorrelation, meaning that the different observations in the data set are not independent of each other. In OLS-regressions, this could lead to incorrect p-values (Mehmetoglu & Jakobsen, 2017: 233). Even though we can expect that our model is suffering from autocorrelation since we observe the same units over time, we can also test this statistically. Drukker (2003) has developed a test with the null hypothesis that there is no autocorrelation. The test is performed using the log-transformed

[17] Note: The variables «protest», "protest infections" and "covid_change" contains 0-values. Due to this, the original variable is added a value of 1 to prevent loss of data when log-transforming.

variables and on a total of 4 models with each of the independent variables. All the tests produce a p-values close to zero, which indicates autocorrelation.

The presence of autocorrelation can also lead to heteroscedasticity, which means that the model predicts some values of the dependent variable more precisely than others (Mehmetoglu & Jakobsen, 2017: 234). This can be tested statistically with the Breusch-Pagan/Cook-Weisberg test. This test is also done on the same models as described above. All the tests produce significant results, indicating heteroscedasticity within the models.

Beck (2008) argues that including a lagged dependent variable as a control variable will eliminate almost all dependency between the units. Further, we can use robust standard errors to deal with both autocorrelation and heteroscedasticity. Mehmetmo and Jakobsen (2017) recommend using Huber-White robust standard errors. This will not affect the estimation of coefficients but will give us reasonable exact p-values. Given that I already include a lagged dependent variable (T2+T3+T3), the autocorrelation is likely to be limited. To deal with the heteroscedasticity, models with the Huber-White robust standard are also estimated

Non-stationarity

Due to the time-series dimension in the TSCS-data, problems may arise around non-stationarity. Stationary data signifies that parameters as mean and variance doesn't change over time, even though there's fluctuations time point to time point. If the parameters change, we have an issue with non-stationarity. This may be due to the fact that two countries have the same time trend and will thus produce false significant correlations (Beck, 2008). We can test for this by using a Dickey-Fuller (Dickey & Fuller, 1979) test where the null-hypothesis is that the time-series data is non-stationary and contains a unit root. The test does not allow the use of panel data, so the test must be done on each country separately. Out of the 109 countries, 37 had significant results in the Dickey-Fuller test, indicating that there may be a time trend in the data material. Further, I have a theoretical reason to believe the dataset contain a time trend. Even though overall levels of protest went down in the start of the pandemic, protest soon resurged, resulting in an increase in number of protests in 2020 compared to 2019 (Kishi, 2021). Meaning, in the year 2020, several countries experienced a rise in protest, which may result in non-stationarity in the data.
One solution to this, is including a lagged dependent variable in the model (Beck, 2008). This is already included with the control variable "past_protest".

Heterogeneity and fixed effects model

TSCS-data assumes that the units are heterogeneous, meaning the units are different from each other. Therefore, we must control for this to get correct estimates. The easiest way of accepting the unit heterogeneity is to look at change inside the units using a fixed effects model, which will center all observations inside the units. The question will thus be how time variation in X will affect time variation in Y, and all cross-sectional effects will be eliminated (Beck, 2008). In general, a fixed effects model is recommended for TSCS-data, and Hsiao (1986) consider it the most appropriate model for TSCS-data.

Fixed effect has many advantages, but also some drawbacks. The strength of this modelling lies in the fact that one can control for all variables that do not change throughout the time units. The consequences are that one may only estimate variables that do change over time. If one is not dependent on estimating time-constant variables, a fixed effect model will be ideal for estimating TSCS-data (Beck, 2008).

Given the short time frame (49 weeks), using a fixed effect model will thus allow me to control for a myriad of variables. Leaving only variables that change significantly during this time frame, which theoretically should be protest levels, Covid-19 infections numbers and the Covid-19 restrictions.

Dividing up countries

Given that we can expect different effects from repression in democracies and autocracies (Sing & Sprague, 1993), I will run separate regression with democratic country units and autocratic country units.

To do this, a thorough review of what constitutes a democratic country, and an autocratic country, is necessary. As Lührmann, Tanneberg, and Lindberg (2018) mention, classifying political regimes has never been more challenging. Holding elections with universal suffrage is not enough to be classified as a democracy. An electorate chosen by de-jure multiparty elections with universal suffrage does not mean that the political rulers are being held accountable by said electorate. Lührmann, Tanneberg, and Lindberg (2018) therefore recommend basing regime classification on the de-facto implementation of democratic institutions and processes. The challenge then becomes to make a meaningful distinction between electoral democracies and electoral autocracies. Such data is provided by the same institute I use to measure repressive corona restrictions: Varieties of Democracy (V-dem)

(Coppedge et al., 2017). Based on the V-Dem data, Lührmann, Tanneberg and Lindberg (2018) classify countries into regime categories. In closed autocracies, the chief executive is either not subjected to elections or no meaningful de-facto competition in elections. In electoral autocracies, they hold de-facto multiparty elections for the chief executive. However, they fall short of democratic standards due to significant irregularities, limitations on party competition, or other violations of Dahl's institutional requisites for democracies [18]. In electoral democracies, there must be de facto free and fair multiparty elections, but also achieve the different institutional guarantees of democracy as described by Dahl. The most democratic category – liberal democracy – has in addition effective legislative and judicial oversight of the executive as well as protection of individual liberties and the rule of law.

We can expect that the citizens response to repression will vary based on the regime types as suggested by Lührmann, Tanneberg and Lindberg (2018), due to different levels of freedom of expression. Therefore, I divide the countries into two: One group with closed autocracies and electoral autocracies, and one group with electoral democracies and liberal democracies (appendix).

Drawbacks with the data

The most apparent drawback revolves around my independent variables. These are measured in quarterly time units, given a score measuring the level of repression of a Covid-19 restriction for the whole quarterly time unit. I recoded the independent variable so that the score for the first quarterly time unit did not start before the restrictions were implemented, thus making it possible to some extent to measure the repressive Covid-19 restrictions effect on protest the following weeks. For the quarterly time units, the models will only see how the score of the quarterly time units affects level of protest every week. This will able us to analyse whether the mean of protests during the quarterly time units will be affected by the score on the independent variables. However, we should consider the possibility of reversed causality, especially with positive results. Several studies have shown that when the level of protests increases, the political authorities may answer with repression (Lichbach, 1987; Moore, 1998; Carey, 2006). Results showing a positive correlation may thus be that an

[18] Institutional guarantees of democracy: Freedom of association, suffrage, clean elections, an elected executive, and freedom of expression. See (Coppedge, Lindberg, Skaaning, & Toerell, 2016; Dahl, 1971, 1998). (check sources).

increase in protest led to governments answering with repressive Covid-19 restriction. In contrast, results showing negative correlation should be more robust. To my knowledge, there are no studies finding that a rise in protest is followed by a decline in government repression. Last, I control for all variables I have a theoretical reason to believe will change significantly through my time units. There are though a chance that other unobserved variables change significantly, thus making the fixed effect estimation not controlling for this.

Summarizing and models

In this section I have explained my quantitative research design. The units of analysis are 109 countries measured over 49 weeks during 2020, the last week being week 49 (30th of October – 6th of November). The dependent variable measures number of protests per week. The independent variables measure four different forms of repressive Covid-19 restrictions. Low scores indicate that the Covid-19 restrictions were not repressive, while high scores indicate that they were repressive. New Covid-19 infections per week (covid_change), past protest (past_protest), and time units (event_week) are used as control variables. All models are estimated using fixed effect specifications, thus also making country units a control variable.

Covid_change and past_protest are skewed and thus log-transformed in all models. The dependent variable "protest" is log-transformed in the OLS-regression and the OLS-regression with estimated with Huber-White robust standard error, thus avoiding outliers driving the results. Protest is not log-transformed when estimated with negative binomial regression, which allows for over-dispersed dependent variables. Including the lagged dependent variable "past_protest" solves issues concerning autocorrelation and non-stationarity. Models estimated with Huber-White robust standard errors solve issues concerning both heteroscedasticity and autocorrelation. All independent variables and the control variable "covid_change" are lagged one week due to the proposed causal mechanisms. Repressive Covid-19 restrictions should affect protest, thus the independent variables precede the dependent variable. Further, the new number of Covid-19 infections may affect the Covid-19 restrictions and number of protests, thus preceding the independent and dependent variables. Last, past protests should also affect the Covid-19 restrictions and level of protest, but this variable is lagged pre-analysis (T-2+T-3+T-4).

In the next sections I present a total of 36 models. The effect of the four independent variables are estimated separately using three estimation methods: OLS regression, negative binomial regression, and OLS regression with Huber-White robust standard errors. All methods are

fitted with fixed effect spesifications. Further, the estimation methods are applied using three different panels: All country units, democratic country units, and autocratic country units.

4.1. Results

In this section I present my results. In Table 3. are the results with the panel containing all country units, Table 4. democratic country units, and Table 5. autocratic country units. Which units that constitutes the different panels can be find in the appendix.

For a more comprehensible presentation of the findings, only coefficients and significance levels are included in the tables. All models have the variable "protest" as dependent variable. Full regression tables with control variables are included in the appendix.

Table 3. All country units

Regression method (With fixed effect)	Discriminating restrictions (lagged)	Violation of rights (lagged)	Abusive enforcement (lagged)	Restrictions on media freedom (lagged)
Log dependent var. OLS	-.068**	-.16*	-.023	-.01
Negative binomial	-.067***	.001	.052***	.025**
Log dependent var. OLS + Huber-White	-.068*	-.16***	-.023	-.01

*** p<.01, ** p<.05, * p<.1*

Table 4. Democratic country units

Regression method (With fixed effect)	Discriminating restrictions (lagged)	Violation of rights (lagged)	Abusive enforcement (lagged)	Restrictions on media freedom (lagged)
Log dependent var. OLS	-.034	-.151	-.014	-.007
Negative binomial	-.006	.02	.084***	-.005
Log dependent var. OLS + Huber-White	-.034	-.151	-.014	-.007

*** p<.01, ** p<.05, * p<.1*

Table 5. Autocratic country units

Regression method (With fixed effect)	Discriminating restrictions (lagged)	Violation of rights (lagged)	Abusive enforcement (lagged)	Restrictions on media freedom (lagged)
Log dependent var. OLS	-.101**	-.189*	-.02	.003
Negative binomial	-.141***	-.07	.014	.037**
Log dependent var. OLS + Huber-White	-.101***	-.189***	-.02	.003

*** p<.01, ** p<.05, * p<.1*

The first variable "Discriminating restrictions" measures whether Covid-19 restrictions discriminatively repressed some groups based solely on the ground of race, colour, sex, language, religion, or social origin. High scores indicating that this has taken place. In Table 3. with all country units, all regression methods yield a significant negative correlation, though with varying significance level. The significant effect is lost when estimating with democratic country units (Table 4.). In the panel containing autocratic country units (Table 5.), all regression methods yield significant negative correlations (5%, 1% & 1%), which are lower p-values than the panel containing all countries (5%, 1% & 10%). These results indicate that the significant effect found in all countries stems from effects within autocratic countries. Therefore, the results suggest that Covid-19 restrictions which discriminatively represses certain groups significantly decreases level of protest in the following week in autocratic countries.

The second variable "Violation of rights" measures whether Covid-19 restrictions have violated certain rights[19]. The variable is dichotomous, 0 being "No", and 1 being "Yes". The results show the same trend as discriminating measures, namely that results are driven by effects in autocratic countries, though with weaker results. In panels containing all country units (Table 3.) and autocratic country units (Table 5.), OLS regression shows a significant negative correlation (1%), while OLS regression with Huber-White robust standard errors yields a negative correlation with a 10% significance level. The effect estimated with negative binomial regression is non-significant. None of the models containing democratic country units (Table 4.) yields significant results. The results suggest that should autocratic states apply Covid-19 restrictions that violate certain rights, this may negatively affect following levels of protest, but the results are inconsistent.

The third variable "Abusive enforcement" measures whether security forces have used violence while enforcing Covid-19 restriction. High scores indicating widespread use of violence, sometimes ending in lethal outcome. In panels containing all country units (Table 3), and democratic country units (Table 4.), the negative binomial regression shows a

[19] Rights include: Freedom from torture and cruel/inhuman treatment; prohibition of slavery and servitude; prohibition of imprisonment due to inability to fulfil a contractual obligation; conviction for a crime which was not a crime at the time of commitment; right as a person before the law; freedom of thought, conscience and religion.

significant (1%) positive correlation with the dependent variable. In contrast, the OLS regression and the OLS regression with Huber-White robust standard errors yield non-significant results. None of the regression methods yield significant results in the panel containing autocratic country units (Table 5). Thus, indicating the effects observed in all country units stems from effects within the democratic units. Therefore, the results from the negative binomial regression suggest that should security forces in democratic countries use violence while enforcing Covid-19 restriction, this may lead to a significant increase in following levels of protest. The evidence for this effect is though weak, given that the OLS regression and OLS regression with Huber-White robust standard errors yielded non-significant correlations.

The fourth variable "Restrictions on media freedom" is an index based on several variables. It measures whether states have restricted medias freedom through applying Covid-19 restrictions, whether journalists have been harassed, and whether governments withhold Covid-19 related information. High scores indicating that medias overall freedom has been restricted. In the panel containing all country units (Table 3), the only regression showing a significant result is the negative binomial regression, which yields a significant positive correlation (5%). The same results apply for the autocratic panel (Table 5.) where both OLS regression show non-significant effects, while the negative binomial regression shows a significant positive correlation (5%) with the dependent variable. With the democratic panel (Table 4.) all three regression methods yielding non-significant results. Thus, for the fourth time, the results indicate that the effect repressive Covid-19 restrictions have on protest may be conditional on regime type. Further, the results from the negative binomial regression suggest that in autocratic countries, should Covid-19 restriction violate medias overall freedom, this could lead to a significant increase following levels of protest. However, the evidence for this effect is weak, with both OLS regressions showing non-significant correlations in the autocratic country units.

Summarizing, the only robust effect I find concerns the effect of Covid-19 restrictions which discriminatively represses certain groups in autocratic countries, which yielded strong significant negative correlation in all models (5%, 1% & 1%). Suggesting that such repressive Covid-19 restrictions leads to a significant decrease in following levels of protest. Further, the results show some evidence that should autocratic states apply Covid-19 restrictions violating certain rights, this may have a significant negative effect on protest. But the results are

inconsistent with only OLS regressions yielding significant results (1% & 10%). Last, I find even weaker results regarding abusive enforcement of Covid-19 restrictions and Covid-19 restrictions limiting medias freedom. With abusive enforcement only yielding significant positive correlation (1%) with the negative binomial regression in all country units and democratic country units, and restrictions on media only showing a significant positive effect (5%) with the negative binomial regression in all country units and autocratic country units. Thus, the only type of repressive Covid-19 restriction supporting my hypothesis is discriminating repressive Covid-19 restrictions.

5. Discussion

The first result I will discuss is the discriminating repressive Covid-19 restriction. This type of repression yields significant negative results in all three models estimated with all country units and autocratic country units, making it the most robust findings in the analysis. The models containing democratic countries gave no significant results, indicating that the results from the models containing all country units were because of the effects seen in the autocratic countries. Therefore, I consider the effect of discriminating repressive Covid-19 restrictions to be conditioned on autocratic regime type.

The variable measures if a country has implemented restrictions that have affected some groups' democratic rights and freedoms disproportionately based on social origin, race, sex, language, colour or religion in ways not justified by health concerns. This could be understood as a form of repression through violating the freedom of belief, should states focus restrictions on religious groups. More relevant, a high score on this variable indicates that the state has repressed groups based on mentioned characteristics through the violation of freedom of speech, assembly, association, and movement. Some examples of this were observed in Serbia, where refugees and migrants were under 24-hours quarantine, even after restrictions were lifted from the general population, and despite there being no confirmed cases of Covid-19 in the housing centers where they lived (Kolvani et al., 2020). Further, In Uganda, security forces used Covid-19 restrictions to target LGBT+ people (Edgell et al., 2020).

The result suggests that this type of repressive Covid-19 restrictions lead to a significant decrease in level of protest in autocratic countries. Opp and Roehl (1990) argue that repression has a direct negative effect on protest through increased cost. However, if the

repression activities micro-mobilization processes, the cost can be neutralized and even lead to increased levels of protest. Thus, given the negative results, discriminating repressive Covid-19 restriction may be considered a legitimate form of repression by the public in autocratic countries.

Why we are observing this effect may be explained through the communication tactic described by Hess and Martin (2006) concerning devaluing or stigmatizing targets of repression. Political authorities may draw on racisms, spread rumors, use derogatory labels, and/or publicize unfavorable information, which may lower the status of the people being repressed, thus increasing the chances of the public viewing the repression as legitimate (Martin, 2015). This communication tactic has been observed in Sri Lanka, where senior government members have made public remarks that associate the Muslim community with Covid-19 infections (Human Rights Watch, 2020a). Similarly, in India, the media has in general associated Muslims with the spread of Covid-19, some describing it as "The overall tone suggests that Muslims invented the virus and have deliberately spread it as a form of Jihad" (Roy, 2020). Given the negative results, such tactics may have been employed to a great extent in autocratic countries when using Covid-19 restrictions to repress certain groups.

The next result I will discuss is the variable measuring if Covid-19 restrictions violates certain rights[20]. As discussed in the methodology, the variable measures several repressive aspects concerning violation of both first amendment-type rights and rights concerning personal integrity. The results are similar to those of discriminating restriction, showing significant negative correlation in all country units and autocratic country units, with no significant results in democratic countries. Meaning that the results in the models containing all country units, most likely are due to effects observed in the autocratic countries. The results are though inconsistent with only the two OLS regression yielding significant results (1% & 10%).

First, the violation of rights variable measures some aspects of repression, which also the discriminating restrictions variable measured. Whereas discriminating restrictions measured disproportionate repression of groups based on several criteria, which of one were religion,

[20] Rights include: Freedom from torture and cruel/inhuman treatment; prohibition of slavery and servitude; prohibition of imprisonment due to inability to fulfil a contractual obligation; conviction for a crime which was not a crime at the time of commitment; right as a person before the law; freedom of thought, conscience and religion.

the violation of rights measures the violation of freedom of belief. Meaning restrictions regulating certain religious groups practicing their belief. The same logic applies, though. Through communication tactics, the government may stigmatize and devalue religious groups, thus legitimize such repression.

Second, the variable measures wrongful imprisonment, which may be legitimized using reinterpretation as a communication tactic. By lying or framing the wrongful imprisonment as something other than repression this may legitimize the event (Martin, 2015). An example of this was observed in El Salvador. Following critique from the Supreme Court due to hundreds of people being arbitrarily detained by police forces enforcing Covid-19 restrictions, President Bukele tweeted, “five people will not decide the death of hundreds of thousands Salvadorans” (Human Rights Watch, 2020b). Thus, by lying about the numbers and framing the events not as wrongful imprisonment but as actions motivated by public health concerns, President Bukele has increased the chances of the public finding the event legitimate.

Third, this variable measures repressive Covid-19 restrictions through the use of physical sanctions and violation of personal integrity rights. For example, in the Philippines where people breaking curfew restrictions were put in dog cages and beaten (Kolvani et al., 2020). Such repression could me legitimized through reinterpretation or devaluing the targets, or through the Covid-19 restrictions being legal means of repression (Barkan, 1994; Koopmans, 1997).

Given that this form of repressive Covid-19 restrictions may considered legitimate by the public, this would not activate micro-mobilization processes. With the added cost repression adds (Opp & Roehl, 1990), a negative effect would be expected. But as mentioned, the results provide only weak evidence in autocratic countries proving this logic.

The third variable I am discussing is the abusive enforcement of covid-19 restrictions. High scores on this variable measure the use of violence by security forces while enforcing Covid-19 restriction. This was applied against individuals who broke different restrictions, but the abusive enforcement of Covid-19 restrictions was also used by states to stop ongoing protests (Edgell et al., 2020). The use of police brutality as a form of repression could be viewed as illegitimate by the public and lead to a backfire (Hess & Martin, 2006; Khawaja, 1993). Further, the use of violence against protesters may make the general population feel repulsed and frustrated with the government (Sharp, 1973), thus activating micro-mobilization

processes, increasing the chance of backfire (Opp & Ruehl, 1990). However, as I have argued, abusive Covid-19 restrictions may be legitimized by the government using the communication tactics and/or through it being legal means of repression (Hess & Martin, 2006; Barkan, 1994; Koopmans, 1997, and thus not activating micro-mobilization processes. This applies especially when repressing a protest. Due to the chance of being infected by Covid-19 increases when the distance between people decreases (Lai et al., 2020), a protest could lead to many infections. Thus, governments can devalue the protesters, labelling them as Covid-19 spreaders, and reinterpret the repression as a necessary evil to stop infections and save lives. This, combined with the now added cost of protesting that abusive Covid-19 restrictions introduce, we would expect a negative correlation between abusive Covid-19 restrictions and level of protest.

The results from the analysis do not reflect these arguments. In democratic countries, the results suggest that abusive enforcement of Covid-19 restrictions may lead to a backfire, but the results are inconsistent. Only the model estimated using negative binomial regression yielded a significant positive correlation (1)%, whereas the two other models with democratic units gave a non-significant negative correlation. The significant rise in protest would be in line with Gupta, Sing, and Sprague's (1993) argument that democratic countries cannot repress without compromising the government's legitimacy. However, given the inconsistencies in the results, there are no strong evidence for abusive Covid-19 restrictions causing a backfire in democratic countries. Further, given that governments may respond to an increase in protest with repression (Lichbach, 1987), we must consider the possibility that the significant positive correlation we find may be reversed, which means that a rise in protest leads to more abusive Covid-19 restrictions. The structure of the data also adds some fuel to this suspicion. Since the independent variable is given one value per quarter (3 months) based on number of incidents throughout the time period, it is possible that a rise in protest in week 15, made governments answer with abusive Covid-19 restrictions the following week. Thus, given the inconsistent results and the possibility of reversed causality, we should be careful drawing any conclusions.

The results from the autocratic countries does not either reflect the arguments, with non-significant results in all models. The results do though give some interesting insight. The use of violent repression against protesters and violent repression in general, have shown to increase the chance of a backlash (Carey, 2006; Sharp, 1973), which is not consistent with my findings, where we find no evidence of abusive Covid-19 restrictions leading to a backfire.

The next result is restrictions on media freedom. The literature provides little exploration of how repression of media freedom affects protests. Hess and Martin (2006) describe media censorship as one of the types of repression that may cause backfire if it is perceived as illegitimate by the public. However, they do not describe a theoretical mechanism for why censorship specifically may be considered illegitimate by the public. They do though describe the importance of the media when it comes to repression. When the political authorities are in medias spotlight, they may be more reluctant to employ violent repression (Wisler & Giugni, 1999). Further, censorship of media is one of the communication tactics states may employ to cover up a repressive event and decrease the chances of added frustration in the population (Marx, 1979). Given that several states have repressed their citizens through heavy-handed enforcement of Covid-19 restrictions, and several others have used Covid-19 restrictions to silence protesters (Bruijne, 2020), there may be that these states have limited media freedom in hopes of covering up these types of repression, and thus decrease the chances of the public viewing the repression as illegitimate. Which could be some of the explanation to why 2/3 of states have implemented Covid-19 restrictions on media (Alizada et al., 2021), and some states have used physical sanctions and wrongful imprisonment against journalists (Kishi, 2021).

A high score on the restrictions on media variable will mean that states have implemented major restrictions on media's overall freedom. This will make states capable of suppressing information about a repressive event and thus limit the chances of added frustration in the general population, and subsequently backfire. However, this assumes that there has been a repressive event prior, which makes this variable more an intermediate variable between repression and protest. Making it difficult to causally link how applying Covid-19 restrictions on medias freedom in itself will affect level of protest.

The results do reflect this argument to some degree. The only models yielding significant results is the negative binomial regression estimated with autocratic country units and all country units, which shows a positive correlation with protest (5%). This suggests that Covid-19 restrictions that repress media freedom may be viewed as illegitimate by the public and backfire, but the results are inconsistent. Further, given the lack of plausible causal mechanisms, the significant results may result from reversed causality. As discussed, the structure of data increases the chances of such results being produced. Further, should protests increase, states may respond with increased repression (Lichbach, 1987), which is a more plausible causal mechanism. Suppose a state experiences increased levels of protest. In that

case, the authorities may try to limit information about the event, thus silencing the protester to some degree. This was observed in Jordan, where the government issued a ban on all media coverage of protests by the country's teachers (RFS, 2020).

Repressive Covid-19 restrictions effect on protest

Throughout the discussion I have tried to solve the puzzle *"How have repressive Covid-19 restrictions affected the level of protest during the Covid-19 pandemic?".*
To summarize the discussion, the results show that the effect repressive Covid-19 restrictions have on protest is conditioned on the type of repression and regime type. The results suggest that should political authorities in autocratic countries use Covid-19 restrictions to repress certain groups, this will lead to a significant decrease in following levels of protest. Thus, indicating that the general population finds this form of repression legitimate (Opp and Roehl, 1990). The communication tactic surrounding devaluation or stigmatizing of repression targets (Hess & Martin, 2006) and the examples showing the use of these illustrate this point. Therefore, the Covid-19 pandemic may have allowed autocratic countries to use Covid-19 restrictions as a tool to repress minorities with following decreased levels of protest.

Covid-19 restrictions that violate certain rights, and Covid-19 restrictions that are enforced violently do have theoretical reasons to affect the level of protest negatively, but the results are too inconsistent to say that these have a significant effect on protest. When it comes to Covid-19 restrictions that limit media freedom there were no theoretical reasons as to why this form of repressive Covid-19 restriction should affect level of protest, which is reflected by inconsistent results.

6. Conclusion

In this thesis, I have examined the relationship between repressive Covid-19 restrictions and protest. I have gone through the existing literature on the relationship between repression and dissent, which provides different answers to how repression affects protest and different conditions that affect the relationship. To answer the puzzle, *"How have repressive Covid-19 restrictions affected the level of protest during the Covid-19 pandemic?"* I have mainly based my theoretical arguments on the work of Hess and Martin (2006) and Opp and Roehl (1990). Through Opp and Roehl (1990) I established that how the public view repressive Covid-19 restrictions is essential in understanding how it will affect protests. Should the public view it as illegitimate, this may activate micro-mobilization processes which may neutralize the cost that repression introduces and even lead to increased levels of protest. Therefore, I examined whether repressive Covid-19 restrictions would be viewed by the public as illegitimate or legitimate forms of repression. I argued that since repressive Covid-19 restrictions are often legal means of repression and are implemented under the guise of fighting the pandemic, the public may view it as legitimate and thus have a negative effect on protest. Therefore, I proposed the hypothesis: *Repressive Covid-19 restrictions will have a negative effect on level of protest*

To test this argument, I employed a quantitative research design. Using data from ACLED to measure protest, data from V-dem to measure repressive Covid-19 restrictions, and data from John Hopkins University to measure Covid-19 infections, I constructed a dataset containing 109 countries and 49 weekly time units. The data from V-dem provided four different measurements of repressive Covid-19 restrictions. First, "Discriminating restrictions" measured whether Covid-19 restrictions discriminatively repressed some groups. Second, "Violation of rights" was a broad measurement of repression, assessing whether Covid-19 restrictions violated certain rights. Third, "Abusive enforcement" measured whether security forces enforced Covid-19 restrictions violently. Last, "Restrictions on media freedom" was an index measuring whether Covid-19 restrictions limited medias overall freedom. To test which effect these variables had on the level of protest, I ran 36 models based on different estimation methods and different country panels. The only robust evidence I found supporting my hypothesis was with the variable "Discriminating restrictions" with autocratic country units, which showed significant negative correlation with protest in all regression methods.

Thus, the answer I find to the puzzle is that the effect repressive Covid-19 restrictions have on level of protest may be conditioned on type of regime and type of repression. The results suggest that Covid-19 restrictions that represses certain groups will lead to a significant decrease in level of protest in autocratic countries. However, the other types of repressive Covid-19 restrictions show only weak evidence for having a significantly effect on level of protest.

These results are somewhat concerning. The effects the pandemic has had on the decline of democracy are thought to be limited, but the final toll may turn out higher unless restrictions are eliminated immediately after the pandemic ends Alizada et al. (2021). Given that protesting can be an essential factor in democratization (Celestino & Gleditsch, 2013; Stephan & Chenoweth, 2008), the findings in this thesis are not reassuring. Though only one type of repressive Covid-19 restrictions had a significantly negative effect on level of protest, the thesis also failed to find any robust results indicating a backfire. Abusive enforcement and restrictions on media freedom showed weak indications of backfire, but the results were inconsistent, and there was a possibility that the significant positive correlation resulted from reverse causality. Thus, this thesis gives a small, but worrying, indication that autocratization may deepen through the absence of protest.

Should further studies on the relationship between repressive Covid-19 restrictions and protest be conducted, a weak aspect of this thesis methodology should be solved. As mentioned, the independent variables in this thesis are measured using quarterly time units (3 months). Meaning that the independent variable is given a value reflecting the mean of repressive Covid-19 restrictions throughout the quarterly time units. This makes it possible to see whether the mean of protest during the time period is affected by the score on the independent variable. However, more exact time measurements of repressive Covid-19 restrictions would provide more robust findings. Especially considering the more immediate response protesters have to repression (Maher and Peterson, 2008), and that positive correlation may result from reversed causality. Therefore, further studies should use an independent variable measured with weekly times unit. This makes it possible to lag the independent variable, ensuring that a repressive event happens prior to a protest.

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8. Appendix

OLS - Log-transformed dependent variable – All countries

	(Model 1b) lnprotest	(Model 1c) lnprotest	(Model 1d) lnprotest	(Model 1e) lnprotest
L. Discriminating restrictions	-.068**			
	(.027)			
L. Violation of rights		-.16*		
		(.089)		
L. Abusive enforcement			-.023	
			(.021)	
L. Media freedom				-.01
				(.011)
L.lncovid_change	-.03***	-.031***	-.03***	-.031***
	(.005)	(.005)	(.006)	(.005)
lnprotestsmitte	.292***	.295***	.296***	.295***
	(.014)	(.014)	(.014)	(.014)
event_week	.014***	.014***	.014***	.014***
	(.001)	(.001)	(.001)	(.001)
_cons	.86***	.847***	.847***	.849***
	(.043)	(.043)	(.043)	(.043)
Observations	4949	4949	4949	4949
R-squared	.152	.151	.151	.151

Negative binomial regression – All countries

	(Model 2b) protest	(Model 2c) protest	(Model 2d) protest	(Model 2e) protest
L. Discriminating restrictions	-.067***			
	(.023)			
L. Violation of rights		.001		
		(.077)		
L. Abusive enforcement			.052***	
			(.019)	
L. Media freedom				.025**
				(.012)
L.lncovid_change	-.039***	-.041***	-.046***	-.044***
	(.005)	(.005)	(.005)	(.005)
lnprotestsmitte	.296***	.298***	.299***	.301***
	(.013)	(.013)	(.013)	(.013)
event_week	.017***	.017***	.017***	.017***
	(.001)	(.001)	(.001)	(.001)
_cons	-.483***	-.5***	-.512***	-.518***
	(.054)	(.054)	(.054)	(.054)
Observations	4904	4904	4904	4904
Pseudo R^2	.z	.z	.z	.z

OLS – Log-transformed dependent variable – Huber white - All countries

	(2)	(3)	(4)	(5)
	lnprotest	lnprotest	lnprotest	lnprotest
L. Discriminating restrictions	-.068*			
	(.039)			
L. Violation of rights		-.16***		
		(.054)		
L. Abusive enforcement			-.023	
			(.031)	
L. Media freedom				-.01
				(.017)
L.lncovid_change	-.03***	-.031***	-.03***	-.031***
	(.01)	(.01)	(.01)	(.01)
lnprotestsmitte	.292***	.295***	.296***	.295***
	(.048)	(.047)	(.047)	(.047)
event_week	.014***	.014***	.014***	.014***
	(.002)	(.002)	(.002)	(.002)
_cons	.86***	.847***	.847***	.849***
	(.154)	(.152)	(.154)	(.153)
Observations	4949	4949	4949	4949
R-squared	.152	.151	.151	.151

OLS - Log-transformed dependent variable – Democratic countries

	(Model 3b) lnprotest	(Model 3c) lnprotest	(Model 3d) lnprotest	(Model 3e) lnprotest
L. Discriminating restrictions	-.034			
	(.034)			
L. Violation of rights		-.151		
		(.144)		
L. Abusive enforcement			-.014	
			(.036)	
L. Media freedom				-.007
				(.017)
L.lncovid_change	-.032***	-.033***	-.032***	-.033***
	(.007)	(.007)	(.008)	(.008)
lnprotestsmitte	.328***	.33***	.33***	.33***
	(.02)	(.019)	(.019)	(.019)
event_week	.017***	.017***	.017***	.017***
	(.002)	(.002)	(.002)	(.002)
_cons	.862***	.855***	.852***	.854***
	(.063)	(.063)	(.063)	(.063)
Observations	2655	2655	2655	2655
R-squared	.196	.196	.195	.195

Negative binomial regression – Democratic countries

	(Model 4b) protest	(Model 4c) protest	(Model 4d) protest	(Model 4e) protest
L. Discriminating restrictions	-.006			
	(.031)			
L. Violation of rights		.02		
		(.116)		
L. Abusive enforcement			.084***	
			(.028)	
L. Media freedom				-.005
				(.018)
L.lncovid_change	-.043***	-.043***	-.052***	-.043***
	(.007)	(.007)	(.007)	(.007)
lnprotestsmitte	.304***	.304***	.305***	.304***
	(.016)	(.016)	(.016)	(.016)
event_week	.019***	.019***	.02***	.019***
	(.002)	(.002)	(.002)	(.002)
_cons	-.666***	-.669***	-.681***	-.666***
	(.07)	(.069)	(.069)	(.069)
Observations	2655	2655	2655	2655
Pseudo R^2	.z	.z	.z	.z

OLS – Log-transformed dependent variable – Huber white – Democratic countries

	(2)	(3)	(4)	(5)
	lnprotest	lnprotest	lnprotest	lnprotest
L. Discriminating restrictions	-.034			
	(.056)			
L. Violation of rights		-.151		
		(.112)		
L. Abusive enforcement			-.014	
			(.06)	
L. Media freedom				-.007
				(.024)
L.lncovid_change	-.032**	-.033**	-.032**	-.033**
	(.014)	(.014)	(.015)	(.014)
lnprotestsmitte	.328***	.33***	.33***	.33***
	(.069)	(.069)	(.069)	(.069)
event_week	.017***	.017***	.017***	.017***
	(.003)	(.003)	(.003)	(.003)
_cons	.862***	.855***	.852***	.854***
	(.237)	(.234)	(.237)	(.235)
Observations	2655	2655	2655	2655
R-squared	.196	.196	.195	.195

OLS – Log-transformed dependent variable – Autocratic countries

	(Model 5b) lnprotest	(Model 5c) lnprotest	(Model 5d) lnprotest	(Model 5e) lnprotest
L. Discriminating restrictions	-.101**			
	(.042)			
L. Violation of rights		-.189*		
		(.11)		
L. Abusive enforcement			-.02	
			(.025)	
L. Media freedom				.003
				(.014)
L.lncovid_change	-.03***	-.03***	-.03***	-.032***
	(.007)	(.008)	(.008)	(.008)
lnprotestsmitte	.23***	.233***	.234***	.235***
	(.021)	(.021)	(.021)	(.021)
event_week	.011***	.011***	.011***	.011***
	(.002)	(.002)	(.002)	(.002)
_cons	.89***	.882***	.878***	.869***
	(.059)	(.058)	(.059)	(.06)
Observations	2249	2249	2249	2249
R-squared	.095	.094	.093	.093

Negative binomial regression – Autocratic countries

	(Model 6b) protest	(Model 6c) protest	(Model 6d) protest	(Model 6e) protest
L. Discriminating restrictions	-.141***			
	(.035)			
L. Violation of rights		-.07		
		(.102)		
L. Abusive enforcement			.014	
			(.025)	
L. Media freedom				.037**
				(.017)
L.lncovid_change	-.027***	-.03***	-.032***	-.039***
	(.008)	(.009)	(.009)	(.009)
lnprotestsmitte	.311***	.309***	.308***	.31***
	(.022)	(.022)	(.022)	(.022)
event_week	.013***	.012***	.012***	.012***
	(.002)	(.002)	(.002)	(.002)
_cons	-.275***	-.286***	-.291***	-.318***
	(.089)	(.089)	(.089)	(.09)
Observations	2204	2204	2204	2204
Pseudo R^2	.z	.z	.z	.z

OLS – Log-transformed dependent variable – Huber white - autocratic countries

	(2)	(3)	(4)	(5)
	lnprotest	lnprotest	lnprotest	lnprotest
L. Discriminating restrictions	-.101***			
	(.036)			
L. Violation of rights		-.189***		
		(.061)		
L. Abusive enforcement			-.02	
			(.034)	
L. Media freedom				.003
				(.024)
L.lncovid_change	-.03**	-.03**	-.03**	-.032**
	(.012)	(.012)	(.013)	(.014)
lnprotestsmitte	.23***	.233***	.234***	.235***
	(.058)	(.058)	(.057)	(.058)
event_week	.011***	.011***	.011***	.011***
	(.003)	(.003)	(.003)	(.003)
_cons	.89***	.882***	.878***	.869***
	(.176)	(.177)	(.174)	(.184)
Observations	2249	2249	2249	2249
R-squared	.095	.094	.093	.093

Autocratic country units

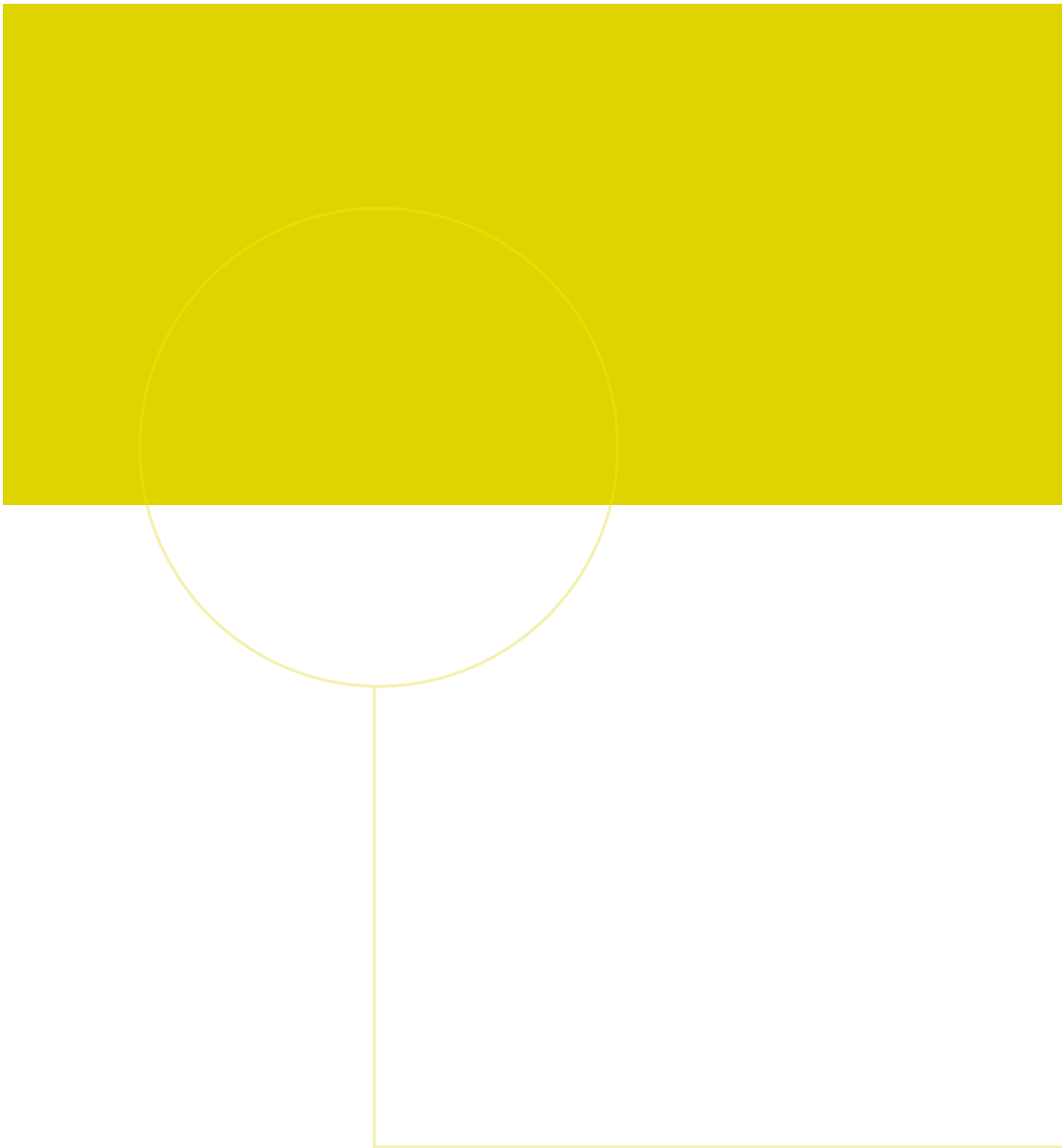
	Freq.	Percent	Cum.
Albania	49	2.00	2.00
Algeria	49	2.00	4.00
Angola	49	2.00	6.00
Armenia	49	2.00	8.00
Azerbaijan	49	2.00	10.00
Bangladesh	49	2.00	12.00
Belarus	49	2.00	14.00
Bolivia	49	2.00	16.00
Burkina Faso	49	2.00	18.00
Chad	49	2.00	20.00
China	49	2.00	22.00
Cuba	49	2.00	24.00
Democratic Republic of Congo	49	2.00	26.00
Ethiopia	49	2.00	28.00
Gabon	49	2.00	30.00
Guinea	49	2.00	32.00
Haiti	49	2.00	34.00
Honduras	49	2.00	36.00
Hungary	49	2.00	38.00
Jordan	49	2.00	40.00
Kazakhstan	49	2.00	42.00
Kenya	49	2.00	44.00
Kyrgyz Republic	49	2.00	46.00
Laos	49	2.00	48.00
Lebanon	49	2.00	50.00
Madagascar	49	2.00	52.00
Malawi	49	2.00	54.00
Malaysia	49	2.00	56.00
Mali	49	2.00	58.00
Mauritania	49	2.00	60.00
Morocco	49	2.00	62.00
Mozambique	49	2.00	64.00
Niger	49	2.00	66.00
Nigeria	49	2.00	68.00
Oman	49	2.00	70.00
Philippines	49	2.00	72.00
Russia	49	2.00	74.00
South Sudan	49	2.00	76.00
Sudan	49	2.00	78.00
Tajikistan	49	2.00	80.00
Thailand	49	2.00	82.00
Togo	49	2.00	84.00

Uganda	49	2.00	86.00
Ukraine	49	2.00	88.00
Uzbekistan	49	2.00	90.00
Venezuela	49	2.00	92.00
Yugoslavia	49	2.00	94.00
Zambia	49	2.00	96.00
Zimbabwe	49	2.00	98.00
republic of congo	49	2.00	100.00
Total	2450	100.00	

Democratic country units

	Freq.	Percent	Cum.
Argentina	49	1.69	1.69
Belgium	49	1.69	3.39
Bosnia and Herzegovina	49	1.69	5.08
Botswana	49	1.69	6.78
Brazil	49	1.69	8.47
Bulgaria	49	1.69	10.17
Chile	49	1.69	11.86
Colombia	49	1.69	13.56
Costa Rica	49	1.69	15.25
Cote d'Ivoire	49	1.69	16.95
Croatia	49	1.69	18.64
Czech Republic	49	1.69	20.34
Denmark	49	1.69	22.03
Dominican Republic	49	1.69	23.73
Ecuador	49	1.69	25.42
El Salvador	49	1.69	27.12
Finland	49	1.69	28.81
France	49	1.69	30.51
Gambia	49	1.69	32.20
Georgia	49	1.69	33.90
Ghana	49	1.69	35.59
Greece	49	1.69	37.29
Guatemala	49	1.69	38.98
India	49	1.69	40.68
Indonesia	49	1.69	42.37
Ireland	49	1.69	44.07
Israel	49	1.69	45.76
Italy	49	1.69	47.46
Jamaica	49	1.69	49.15

Japan	49	1.69	50.85
Lesotho	49	1.69	52.54
Liberia	49	1.69	54.24
Lithuania	49	1.69	55.93
Mexico	49	1.69	57.63
Moldova	49	1.69	59.32
Mongolia	49	1.69	61.02
Namibia	49	1.69	62.71
Nepal	49	1.69	64.41
Norway	49	1.69	66.10
Panama	49	1.69	67.80
Paraguay	49	1.69	69.49
Peru	49	1.69	71.19
Poland	49	1.69	72.88
Portugal	49	1.69	74.58
Romania	49	1.69	76.27
Senegal	49	1.69	77.97
Sierra Leone	49	1.69	79.66
Slovak Republic	49	1.69	81.36
Slovenia	49	1.69	83.05
South Africa	49	1.69	84.75
Spain	49	1.69	86.44
Sweden	49	1.69	88.14
Switzerland	49	1.69	89.83
Taiwan	49	1.69	91.53
Tunisia	49	1.69	93.22
United Kingdom	49	1.69	94.92
United States	49	1.69	96.61
Uruguay	49	1.69	98.31
north macedonia	49	1.69	100.00
Total	2891	100.00	



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Kunnskap for en bedre verden