Cabinet Reshuffles following Civil Uprisings

A quantitative study of authoritarian
regimes in the Middle East and North Africa

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Abstract

Cabinet reshuffles happen on a regular basis, but can they be affected by civil uprisings? Protest movement's impact on autocratic regimes has been a subject of interest for political science scholars for decades. Ordinary people's ability to influence politics in authoritarian regimes is often measured through the ousting of regime leaders. We do however know less about changes that take place on a smaller scale in the aftermaths of protests. This thesis aims at filling this gap, by using evidence from the Middle East and North Africa to investigate protest movements' impact on cabinet reshuffles. Combining protest campaign data with data on cabinet compositions and autocratic regimes for the timeframe of 1966 to 2013 allows me to examine how protest movements impact the frequency of ministerial swaps in autocracies. Recent research suggests that diverse protest movements are more influential than those movements that are not. By using OLS regressions, I find evidence suggesting that the share of cabinet swaps increase following protest movements. This thesis provides evidence that the influence of protest movements increases in cases where the movements have been diverse. Moreover, the impact of diversity within movements seems to be even stronger when they are diverse along religious lines. Contrary to my expectations, protest movements' effect does not seem to vary notably between electoral and closed autocracies.

Finding out how protest movements influence cabinet compositions is important to understand more about power sharing dynamics and responses to uprisings in autocratic regimes. Protests do not always directly lead to regime change, but many smaller changes within a regime can add up and create greater, political transitions. Changing the structure of the ministry and the composition of the elites can be crucial for autocratic survival or demise. To the best of my knowledge, this is the first study conducted on the effect protest movements have on cabinet compositions in autocratic regimes. Hence, this thesis contributes to the literature by investigating (diverse) protest movements' effect on a cabinet level, as well as strategies of authoritarian power-sharing following uprisings.

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It is with both excitement and nostalgia I am handing in this thesis. This university has provided me with some of my best friends, great opportunities to live abroad, and a lot of newfound knowledge about the world. The process of shaping this dissertation has been rewarding, and at times frustrating. While I am excited for a new chapter to begin, I will truly miss this place where I have spent the last seven years of my life.

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All remaining errors are mine alone.

Oda Sofie Heien Larsen
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1 Introduction

There are several examples of cabinet swaps that follow protests, but little research and systematic evidence on the link between them. Since the Hirak movement started protesting the Algerian regime in 2019, several cabinet reshuffles have taken place (Redondo, 2023). When President Abdelmadjid Tebboune carried out his most recent changes to the cabinet in March of this year, it affected 11 ministers in total (ibid). Thousands of protesters organised against austerity measures in Jordan in 2019. These protests led to the fourth cabinet reshuffle the country has seen in two years, declared by Prime Minister Omar Razzaz (*Jordan Enacts Major Cabinet Reshuffle*, 2019). The same year, Iraq experienced violent uprisings, causing the death of more than a hundred protesters (Davison & Jalabi, 2019). Iraq's Prime Minister Adel Abdul Mahdi announced a cabinet reshuffle as an attempt to stifle the protests that lasted for days (ibid).

The scope of protests that has emerged throughout the past decade is unprecedented, increasing in frequency by an average of 11,5% between 2009 and 2019 (Haig et al., 2020). This trend seems to have been unaffected by the global pandemic but has rather re-emerged with new vitality. People are now taking to the streets, protesting against the increased prices on food, energy, and cost of living (Hossain & Hallock, 2022). Mass mobilisation for democracy is however not a recent trend. It was important both in Eastern Europe after the Soviet's fall and during the French Revolution (Alpaugh, 2006; Kuran, 1991). Parallel with a rise in civil uprisings, we are witnessing the third wave of autocratisation unfolding through democratic breakdowns or deterioration of democratic institutions (Lührmann & Lindberg, 2019, p. 1095). When we observe both democratic backsliding and a bloom of protests at the same time, it leaves the question of what effects protests really have? Can cabinet reshuffles following protests be a systematic phenomenon helping explain autocratic responses to civil uprisings?

Despite the many waves of protest movements emerging over the last decades, there is a dominating number of cases where they have been unable to directly create regime change. Research on protests mainly measures success through the ousting of autocratic leaders and a subsequent regime transition (Chenoweth & Belgioioso, 2019). Measuring exactly which event

leads to change is nevertheless difficult, such as in cases where large civil uprisings are being followed by a military coup (Djuve et al., 2020, p. 941). While a lot of research has been done on protest impact on regime change, there is a gap in the research literature when it comes to mapping out the smaller scale effects of civil uprisings in authoritarian regimes. Loyalty amongst the elites is key for regime survival, so the composition of cabinets is in many autocracies crucial for securing leader tenure (Bokobza et al., 2022). Subsequently, the replacement of cabinet ministers can impact regime stability, and should be of interest to researchers of protest movements and autocratic behaviour. The puzzle of how regimes use cabinet swaps as a response to protests will be analysed using empirical evidence from the Middle East and North Africa, and is captured in the following research questions:

> *Do protest movements affect cabinet reshuffles within authoritarian regimes in the Middle East and North Africa?*

This overarching research question will be addressed by studying the following sub-questions:

> *I. Do protest movements induce more frequent and extensive cabinet swaps?*
> *II. Do diverse protest movements have a stronger impact on cabinet swaps than homogenous protest movements?*
> *III. Does religious diversity contribute to the movements' impact?*
> *IV. Are the effects of protests on cabinets different in electoral autocracies than in autocracies that do not hold elections?*

Most often we hear about autocratic leaders responding to protests by using violent measures. Either through police brutality such as with the recent Mahsa Jina Amini protests in Iran, or by bringing in the military as with the anti-junta protests in Myanmar in 2021 (Khatam, 2023; *Protesters Targeted*, 2021). The image of violent responses from the regimes that is portrayed in mainstream media is somewhat accurate. In two thirds of the cases where concessions were made during the pro-democracy movements in the 90s and 00s, regimes had first tried to repress the protesters (Brancati, 2016, p. 107). The same regimes did however end up making concessions to about a third of these protests (ibid.). Repression can be a costly affair and can leave leaders faced with both critique and sanctions. Responding to protests by making concessions or co-opting the opposition can therefore be a more beneficial strategy for maintaining power and regime stability. A declared cabinet reshuffle can be both an attempt to

co-opt the opposition by absorbing them into the regime apparatus, or an attempt at making concessions by facilitating representation of specific groups or ousting ministers that are particularly unpopular.

Drawing on theories on autocratic behaviour, I assume that there will be an increase in the share of cabinet ministers that are being swapped following the presence of protest movements. The findings indicate that there is a causal relationship between protest movements and the average share of cabinet swaps. Furthermore, the strength of the effect seems to be stronger when movements are diverse. This corresponds with contemporary research, which has shown that movement success is also dependent upon their composition (Dahlum, 2023; Dahlum et al., 2019; Goldstone, 2011). Investigating the impact of diversity within social movements is crucial for understanding more about the chains of events that can contribute to creating change.

The impact of social movements varies between socio-demographic groups, and it is suggested that certain groups are more likely to achieve their goals when mobilising against the regime. Movements that manage to mobilise more than 3.5% of the population have in most cases been able to oust authoritarian leaders (Chenoweth & Belgioioso, 2019, p. 1088). Diverse movements have ties to a wider share of the population, and therefore have an easier chance of recruiting bigger crowds. As previously mentioned, the main threat for social movements is being met with repression. When movements consist of several socio-demographic groups, legitimation of repression becomes more difficult for the regime (Dahlum, 2023, p. 46; Goldstone, 2011, p. 457). I therefore argue that diversity is important for understanding the effects protest movements have on authoritarian behaviour, and on authoritarian leaders' responses to protests.

The Middle East and North Africa holds a unique case of analysis. The region consists of countries with a lot of similarities due to a joint colonial history, and centuries of migration and cooperation across borders. The countries also share several features important for the research of protest-regime dynamics, such as having a high frequency of protests with varying outcomes, a resilience of authoritarianism, high levels of economic inequality, and old tribal and religious divides that have been politicised and used to legitimise contemporary, autocratic structures. Several scholars argue that political elites in the Middle East and North Africa exploit religious and ethnic identities to further their own interests (Dixon, 2018; Jabar, 2000;

Salloukh et al., 2015). By playing up these divides, sectarianism is enhanced and used as a tool to divert attention away from dissatisfaction with the regimes (Dixon, 2018, p. 19). The salience of religious divides in the region leads me to believe that movements that can organise protesters from various religious groups should be more likely to mobilise broader segments of society and accordingly be more resilient towards repression. I therefore assume movements that are diverse along religious lines are associated with a higher share of swaps.

Both protest frequency and the share of cabinet swaps seems to vary between regime types. Electoral autocracies experience a higher level of protests due to increased coordination and mobilisations connected to the elections (Knutsen et al., 2017, p. 100). Additionally, autocratic rulers can use elections as an excuse to reshuffle the cabinet (Kroeger, 2018, p. 80). Elections might therefore contribute to the higher share of swaps observed in electoral autocracies compared to closed autocracies. I base my final research question on these findings and assume that the effect of protest movements is dependent upon whether a regime is an electoral or closed autocracy.

1.1 Data and research design

To answer the question of whether protest movements can impact the share of cabinet ministers that are swapped in authoritarian regimes in the Middle East and North Africa, I will use a quantitative research design with large-N data. While a qualitative analysis would have been valuable in analysing single occurrences of cabinet swaps and specific mechanisms linking protests to swaps, it does not allow for more generalised conclusions about the relationship between the two variables. Since the aim of the thesis is to analyse trends over time within the MENA region, a quantitative research design is best suited to answer the research question at hand. Furthermore, it is difficult to draw conclusions on autocratic behaviour from interviews or publicly available documents. Thus, analysing actual changes in the cabinet constellations will be a more reliable source for measuring autocratic responses. The hypotheses will be analysed using Ordinary Least Squares regression models, investigating whether the share of ministers that are swapped following protest movements is affected by the diversity of the movements or dependent on regime type.

For the dependent variable, I have used data from the WhoGov dataset which is based on the *Chief of State and Cabinet Members of Foreign Governments* directory assembled by the CIA (Nyrup & Bramwell, 2020, p. 1367). The cross-country version of this dataset contains information about the share of ministers that have been swapped for each country-year, which is the unit of analysis within this thesis. Furthermore, this dataset covers 177 countries in total, 115 of which have been categorised as autocracies at some point. WhoGov is the most comprehensive dataset on cabinet compositions and ministers that exists today (Nyrup & Bramwell, 2020), hence the most suitable for the purpose of this analysis. The scope of this thesis is limited to autocratic regimes, focusing on autocratic responses to civil uprisings. Based on the V-Dem dataset, I use the Regimes of the World (RoW) projects classification of political regimes to create the subset used in this analysis. Furthermore, RoW's regime index includes categories for electoral and closed autocracies (Coppedge, 2023). This categorisation allows me to analyse whether the effect of protest movements on the share of cabinet swaps is dependent on regime type.

The protest data used for the analysis is the Nonviolent and Violent Campaigns and Outcomes 2.1 dataset (NAVCO 2.1). NAVCO 2.1 analyses campaigns through campaign-years, rather than single protests. A campaign is defined by Chenoweth and Shay as to have discernible leadership, at least 1,000 participants, and a coherent organisation (2022, p. 876). The campaigns aim for regime change or "other goals" (e.g., policy concessions, removal of leader, political liberalisation) (ibid). The dataset originally contains information about 389 campaigns, spread out over 2717 campaign-years. The campaign-years are limited to 307 after filtering out those taking place outside the Middle East and North Africa. About 6,3% of the world's population lived in the countries in the sample of this thesis in 2021. However, 11,3% of the registered campaigns in NAVCO 2.1 have taken place within the same countries. This disproportionality shows the importance of analysing and understanding the specific dynamics between protest movements and autocratic regimes in the region. Another way to conduct the analysis would be to use protest event data instead of campaign data. There are however two issues with this approach. First, there is little evidence supporting the causal effect of single protests on neither regime change nor cabinet compositions. Second, the protest event datasets are more limited in time and would not allow me to analyse such a long-time interval.

There is not a clear consensus of which countries are included in the Middle East and North Africa. Cultural, historical, and geographical factors tend to be considered when defining the

region. For the scope of this thesis, I will use a wide definition of the Middle East and North Africa. Including the countries as defined by the Global Peace Index in 2023. These are Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, Turkey, United Arab Emirates and Yemen (*Global Peace Index 2023*, 2023, p. 16). NAVCO 2.1 does not contain data on Kuwait, Morocco, Palestine, Qatar, Saudi Arabia, nor the United Arab Emirates, which limits the sample. I further exclude Israel from the sample since it is not coded as autocratic for any of the years in the sample according to the RoW classification. How the countries' regime classification changes over time are reflected in Figure A.1 in the Appendix. The remaining countries still represent a variety of the regimes in the region and a balance between electoral and closed autocracies. I therefore find the sample to be sufficient for drawing conclusions on regional trends, but future research based on a more comprehensive database would be able to provide more nuanced and precise assumptions. The implications of these limitations are discussed further in Chapter 5.

1.2 Relevance and case selection

After protest movements spread like wildfire in 2019, Erica Chenoweth said in an interview with the New Yorker that these massive nonviolent movements were "the primary challenges to governments today" (Wright, 2019). People took to the streets from Chile to Lebanon, and from Hong Kong to Iraq. Regimes were even overthrown in countries such as Algeria and Sudan. These massive mobilisations have been taking place at the same time as the unfolding of the third wave of autocratisation. Democratic breakdowns or deterioration of democratic institutions have caused a situation where more than 70% of the world's population now lives in autocracies (Lührmann & Lindberg, 2019, p. 1095). When the pandemic hit in 2020, it provided an excuse for authoritarian leaders to further tighten the grip around grassroot organisation in many countries.

There are several reasons why the Middle East and North Africa holds an interesting case when investigating both protest movements and autocratic behaviour. While waves of civil uprisings and democratic or autocratic trends change over time, the Middle East and North Africa stands out for its "resilience of authoritarianism" (Hanieh, 2013, p. 3). Most of these regimes have solely been autocratic since they gained independence in the early or mid 1900's. Following the

third wave of democratisation, a great emphasis was placed on civil society as a central actor in democratic transitions. Conversely, many scholars studying the MENA region opposed this view, claiming that these authoritarian regimes were too successful in co-opting and depoliticising civil society actors (Salloukh et al., 2015, p. 52). Phrased differently, civil society in embedded autocracies can function as an extension of the regime rather than an independent force promoting change. The region is also the most unequal in the world (Assouad, 2020). Economic discontent is a common driver for protests, and the inequality of opportunity can influence protesters' motivation to take to the streets.

While civil uprisings are not a new phenomenon in the Middle East and North Africa, they have gained new momentum over the last decade. There has been an increase in protests in the region of 16.5% between 2009 and 2019 (Haig et al., 2020, p. 8). Another reason why the MENA region holds an interesting case is the diffusion of contention that takes place between countries. Trigger factors are often local, but there are many cases where diffusion occurs and the protests spread across borders (Bamert et al., 2015). The Arab Uprisings pose as a clear example of this. Diffusion can increase when the rate of direct interaction between the different actors is high, or when the new protesters identify with the ones who are already in the movement (ibid). This can help explain the spread of contention within the Middle East and North Africa, since the region is closely connected both geographically and culturally.

1.3 Thesis outline

This thesis will be structured as follows: Chapter 2 will define and discuss key concepts used in the thesis and give an overview of the existing literature and current debates within the field. Since I limit the geographical scope of the thesis to the Middle East and North Africa, Chapter 3 provides an overview of the political landscape of the region, arguing that it stands out due to its large number of protests, the diversity of its movements, and resilience of authoritarianism. The theoretical framework of the thesis is laid out in Chapter 4. I draw on elements from autocratic behaviour and contentious politics, developing a theory on how (diverse) protest movements influence authoritarian behaviour of regime leaders by provoking cabinet reshuffles. I further examine this dynamic considering autocratic regime variations. The hypotheses to be tested will be presented at the end of the chapter. Chapter 5 describes the data and Chapter 6 the methodology used to test the hypotheses. This includes a more thorough

discussion of the data sets and their limitations, as well as the operationalisation of the variables, and a discussion of the model choice and its implications. The results are presented in Chapter 7, together with a discussion of the robustness of the findings. Chapter 8 includes a summary of the main findings and their implications for the dynamics between social movements and authoritarian regimes, as well as suggestions for further research. Finally, some concluding remarks are presented in Chapter 9.

2 Literature review and core concepts

This chapter starts out with an overview of the current literature on the field of autocratic behaviour and protest movements. Section 2.1 concludes by clarifying the research gap this thesis is aiming to fill. Namely, how protest movements influence cabinet reshuffles in autocratic regimes, whether these effects are stronger when the movements are diverse, and if these effects are dependent on regime type. Following, Section 2.2 provides a clarification of the core concepts used in this thesis, namely autocratic regimes, protest movements and cabinet swaps.

2.1 Literature review

This thesis will address three scholarly debates that are often interconnected, namely the effect of protests, autocratic behaviour, and institutional variations of autocratic regimes. Firstly, it aims to partake in the debate on protest movements' success. The success of social movements is often measured through regime change and the ousting of regime leaders (Brownlee et al., 2015; Chenoweth & Belgioioso, 2019; Goldstone, 2011). I contribute to this field of literature by looking at other forms of impact than regime change. Instead, I analyse protest movements' effect on cabinet compositions and the ousting of cabinet ministers. A second aspect of the debate on protest movements' impact relates to whether diversity of movement composition plays a role in their success or not. I partake in this debate by analysing both movements that are diverse across socio-demographic groups, and movements that are diverse along religious lines more specifically.

Furthermore, this thesis aims at contributing to the literature on autocratic behaviour, particularly on how autocratic leaders respond to civil uprisings. Literature on movement-regime dynamics commonly focuses on three forms of responses to protests, herby repression, co-optation, and concessions (Brancati, 2016; Chenoweth & Belgioioso, 2019; Dahlum, 2023; Holdo, 2019; Lachapelle, 2022; Shriver et al., 2018; Tilly & Tarrow, 2015). My contribution to this field of literature is to analyse how autocratic leaders use their cabinets as a tool to balance between the threat of the masses and the elites. I do so by drawing on theories of co-optation and concession making. Finally, I partake in the debate on regime types by investigating whether protests' impact on the share of cabinet swaps differs between electoral and closed autocracies.

2.1.1 Protest movements

*"*Sometimes, a number of smaller changes to formal or informal rules, spaced out over a period of time, may incrementally add up to a substantial change" (Djuve et al., 2020, p. 934). Autocratic leaders have two main challengers: The masses and the elites (Gandhi, 2008, p. 74; Svolik, 2012, p. 2). Mass mobilisation for democracy is not a recent trend, and was important both in Eastern Europe after the Soviet's fall and during the French Revolution (Alpaugh, 2006; Kuran, 1991), but there is a larger number of cases where movements have lost their momentum and failed to establish lasting democracies, such as the Arab Uprisings or the pro-democracy movement in Hong Kong (Brownlee et al., 2015; Wang & Wong, 2021). Creating social movements within authoritarian regimes is often a challenge (Tilly & Tarrow, 2015, p. 147), and achieving specific goals proves even more difficult. Movement success is usually examined on a regime change level, focusing on the ousting of the regime leader. Outcomes of protest movements therefore vary a lot, and many seem unsuccessful on the surface. Yet, there is little research on the success or failure of protests on a smaller scale.

Chenoweth and Belgioioso commented on this in their paper, stating that: "Future research could attempt to identify other discrete outcomes of interest to various movements—such as the adoption or rejection of specific policy changes or reforms—that might allow assessment of movement impacts more broadly." (2019, p. 1089). Existing research on the smaller scale effects of protests has shown that protests can affect both government policy and how it is made (Goodwin, 2015, p. 387). Consequently, protest movements make a difference in many ways. Recent research suggests that concessions are correlated with protest escalation

(Leuschner & Hellmeier, 2023, p. 3). These smaller scale changes within the regime could in other words culminate in creating substantial changes in favour of democratisation over time. More focus should be directed towards studying the smaller scale effects of protests. These effects could be both concession making and attempts at co-optation. Hence, I will circle back to this point in the third part of the literature review, when outlining existing research on autocratic behaviour.

2.1.2 Diverse protests

During the Arab Uprisings in 2011, the world shifted its gaze towards the Middle East. Many have tried to understand how protest movements with no clear leadership, structures or ideology could spread so rapidly and mobilise in such numbers across the region (Assouad, 2020; Durac, 2015; Goldstone, 2011). Campaign structure and compositions are volatile to understanding how movements grow, persist, and achieve their goals. In the previous literature on social movements, it has been paid less attention to who the protesters are. After the Arab Uprisings in particular, more scholars started to look at movement compositions and how this could affect the outcomes of the protests. Crucially, protest movements vary considerably in terms of participants' social background, which further influence prospects for achieving political change. Some protests have a relatively homogenous social profile, mainly restricted to certain segments of society, while others build on broad coalitions across different social groups. Research on movement diversity has focused on the importance of specific groups, such as urban middle classes, peasants and industrial workers (Dahlum, 2023; Dahlum et al., 2019), and the value of coalitions across these lines (Goldstone, 2011). Both these lines of research contain much undiscovered territory. I will therefore deduce two hypotheses from this material in Chapter 4, touching upon both movements that are diverse across socio-demographic groups and those that are diverse along religious lines.

2.1.3 Autocratic behaviour

The shift from democratic hegemony to a rise of authoritarian rule over the last two decades has contributed to changing how regimes are being studied. Contemporary scholars within autocratic research have tried to understand the durability and stability of autocratic regimes, by focusing on legitimation, repression, and co-optation of the political opposition (Gandhi, 2008; Geddes, 1999; Gerschewski, 2013; Svolik, 2012). Opposing powers can appear from

both the elites and the masses, which form the basis of two aspects of authoritarian survival that are of utmost importance to consider when analysing the behaviour of autocratic leaders. First, is the problem of authoritarian control: A dictator always faces the threat of the masses (Gandhi, 2008; Svolik, 2012). By researching the smaller scale effects of protests, I hope to gain more knowledge on whether autocratic leaders attempt to stagger protest movements through nonrepressive means. Secondly, but more often the reason why dictators fall, is the problem of authoritarian power sharing: being challenged by the elites (ibid). While some literature has been written on how autocratic leaders respond to coup attempts by swapping out cabinet ministers (Bokobza et al., 2022; Kroeger, 2018; Ricart-Huguet, 2021; Woldense & Kroeger, 2023), less attention has been paid to the ousting (or retaining) of ministers following protests.

When faced with civil uprisings, autocratic leaders must choose how to respond. Literature on movement-regime dynamics generally focuses on three forms of responses, hereby repression, co-optation, and concessions (Brancati, 2016; Chenoweth & Belgioioso, 2019; Dahlum, 2023; Holdo, 2019; Lachapelle, 2022; Shriver et al., 2018; Tilly & Tarrow, 2015). Much emphasis is put on autocratic leaders' use of repressive tools to quiet down protesters, while less research is done on cases where they make concessions or co-opt the opposition. Several researchers place an emphasis on how opposition elites are motivated to jump ship when tempted with political or economic benefits from the regime (Frantz & Kendall-Taylor, 2014; Gandhi, 2008). The trade-off between co-optation and making concessions will be further discussed in Chapter 4 of this thesis and takes part in the current debate on autocratic behaviour by analysing autocratic leaders' motivations for swapping out members of the elite. This thesis will further contribute to the scholarly field of autocratic research by analysing how autocratic leaders utilise their cabinet to obtain regime stability and facilitate autocratic endurance.

2.1.4 Regime types

More recent studies of autocratic regimes investigate formal institutions that are essential for democracies, such as elections, legislatures, and political parties, to explain autocratic variations (Bokobza et al., 2022; Nyrup & Bramwell, 2020; Woldense & Kroeger, 2023). The ability of state leaders to make changes in their cabinets is contingent upon features of the regime, one being elections. Research on electoral autocracies finds that elections seem to escalate the frequency of both protests and cabinet swaps (Knutsen et al., 2017; Kroeger,

2018). Furthermore, literature on autocratic elections claims that elections might stabilise autocracies in the long run (Knutsen et al., 2017). This thesis contributes to the scholarly debate on formal institutions of autocratic regimes by investigating whether the effect of protest movements is dependent upon whether autocracies are categorised as electoral or closed.

2.1.5 Summary

Ousting of ministers happens on a regular basis, but can it be affected by civil uprisings? This thesis contributes to three separate, but closely connected, scholarly debates in the field of political science. Firstly, it takes part in the debate on the impact of protest movements. It investigates the smaller scale effects of protest movements in autocratic regimes, not focusing on the ousting of regime leaders, but rather the ousting of cabinet ministers. This is to my knowledge the first time anyone has studied the effect protests have on cabinet swaps. An additional contribution to the literature on protest movements takes effect when including the aspect of diversity. This thesis analyses the value of diverse protest movements when measuring their impact. The second scholarly debate where this thesis contributes is on autocratic behaviour. By studying how autocratic leaders adjust their strategies of authoritarian power-sharing as a response to protests, we can understand more on how autocracies rise and fall. Hence, this will be a contribution to the current literature on this field. Even though the ousting of ministers might not lead to regime change alone, it could have implications for the future dynamics between the elites and the leader, and potentially influence democratic or autocratic developments. Finally, this thesis contributes to the field of autocratic institutions by examining whether protest impact varies between electoral and closed autocracies.

2.2 Core concepts

2.2.1 Autocratic regimes

Autocracies are often defined in relation to democracy, even though autocracies prevail to be the most common regime type in the world today. More than 70 per cent of the world's population live in autocracies, making up about 5.4 billion people (Boese & Lindeberg, 2022, p. 12). The research question at hand should be the defining factor when selecting the most suitable measurement for regimes (Adcock & Collier, 2001), and this thesis requires a

definition of autocracies for two purposes. First, it demands a binary measurement of autocracies and democracies that provides a clear distinction between the two categories. Such a minimalist definition of autocracies does however not allow me to account for regime variations. The second requirement for this thesis is to specifically examine variations between electoral and closed autocracies.

Since the inclusion of regime attributes is relevant for my third hypothesis, I base my definition of regime type on the Regimes of the World (RoW) project from the V-Dem dataset. RoW is part of V-Dem and outlines a categorisation of political regimes which proves very useful for the regime distinctions vital to this thesis. The RoW measure divides the regimes of the world into four main categories: Closed autocracies, electoral autocracies, electoral democracies and liberal democracies (Coppedge, 2023, p. 287). The classification is based on the competitiveness of access to power in addition to liberal principles. Electoral autocracies hold multiparty elections for the chief executive, but fail to carry them out free and fair, or violate others institutional prerequisites for democracies (ibid). Closed autocracies on the other hand hold no multiparty elections for the chief executive or for the legislature.

2.2.2 Protests and social movements

While some protests are spontaneous and only take place over a short period of time, others can be neatly organised and last from days to years. Protests can take many different forms, such as riots, hunger strikes, marches, or public demonstrations. Protests can thus be understood as *coordinated, collective claims on authorities, [and] made through public performances* (Tarrow, 1998). When several protests take place, spread out over time or space, they become a protest movement, otherwise referred to as a campaign or a social movement. Chenoweth and Stephan define a campaign as (1) a series of observable, continual tactics, (2) in pursuit of a political objective, (3) that have discernible leadership, (4) and often names (2011, p. 14). This is what distinguishes them from random or spontaneous protest events.

It can be difficult to measure exactly which event or structure led to change, such as in cases where large civil uprisings are being followed by a military coup (Djuve et al., 2020, p. 941). Within this thesis, I will therefore use a definition of campaigns derived from Chenoweth and Stephan when addressing protest movements, to capture all protests which are not random nor single events. I interchangeably use the terms protest movements, social movements, and

campaigns. Protest movements can be diverse in a variety of ways. Their organisational structures can vary, as well as their goals or socio-demographic compositions. I have chosen to apply a definition of social movements' diversity focusing on socio-demographic categories that are probable to be connected through a shared social network (Dahlum, 2023, p. 43). Finally, I will refer to all single acts of anti-government resistance as civil uprisings or protests. Most of the campaigns in the NAVCO 2.1 dataset are coded as having unknown objectives (Chenoweth & Belgioioso, 2019, p. 18). The remaining campaigns have regime change as their main goal, as reflected in Figure A.2 in the Appendix. Other goals include significant institutional reform, policy change, territorial secession, greater autonomy, and anti-occupation (ibid). The aim of this thesis is to investigate the effect protest movements have on cabinet reshuffles. As all the goals mentioned above align with a change to the regime in some form, I choose to not distinguish between the various campaign goals.

2.2.3 Cabinet swaps

Cabinets are the executive branch of the government and thereby responsible for the daily management of politics. Cabinet compositions are dependent on regime leaders, especially in autocracies. The leader can change the composition of ministers in their cabinet through cabinet reshuffles, and then swap out ministers for various reasons. The balance between pleasing the masses and pleasing the elite shapes key features of authoritarian politics, institutions, and their survival rate. Dictators can solve the problem of authoritarian control and the problem of authoritarian power sharing by balancing between co-optation, concession making and repression (Gandhi, 2008, p. 78; Svolik, 2012, p. 9). Nominally democratic institutions facilitate co-optation through the distribution of rents and the creation of a space for political compromise (Gandhi, 2008, p. 100; Svolik, 2012, p. 13). Even in authoritarian regimes, cabinet ministers often hold significant influence. They are typically appointed by the ruling elite or head of state and are expected to align with the regime's objectives. In some cases, ministers might also serve as advisors to the ruler and contribute to shaping overall national policies.

Cabinet compositions can change due to various factors, including shifts in political alliances, policy disagreements, regime changes, coup attempts, or pressure from the masses through protests or civil uprisings. Cabinet reshuffles involve the replacement of ministers, which can impact the direction and priorities of the government. Throughout this thesis, I will use a

definition of cabinet swaps limited to ministers completely exiting the cabinet, not being assigned new positions.

3 The Middle East and North Africa

The dynamic between civil society and autocratic regimes in the Middle East and North Africa stands out. A high frequency of protests, resilience of authoritarianism, high levels of economic inequality, and old tribal and religious divides that have been politicised and used to legitimise contemporary autocratic structures all contribute to shaping the region. This chapter will call attention to the features of the MENA region that are important for how I theorise, test, and analyse the relationship between protest movements, cabinet compositions, diversity, and regime variations within this case.

3.1 Regime types

There is a growing number of multi-party elections that are being held in the region, paired with an increase in multi-party coalitions (Kraetzschmar & Cavatorta, 2023, p. 25). These developments correspond with the observations reflected in Table 3.1.[1] There is a clear shift in the region of autocracies going from being categorised as closed to electoral, or even becoming electoral democracies. While only three of the fourteen countries in the sample were categorised as electoral in 1966, this applied to nine of the same countries in 2013.[2] Whether elections are performative or an actual arena for political impact is subject for discussion. I will revisit the divide between closed and electoral autocracies including the implications of these developments in the theoretical framework laid out in Chapter 4.

[1] The distribution of regimes accounts for the first and last year in this sample.

[2] Two countries from the sample are not included in the table since they were coded as democracies in 2013. Libya is categorised as an electoral democracy for only one year in the V-Dem data frame, that is 2013. Tunisia is coded as an electoral democracy for 2012 and 2013.

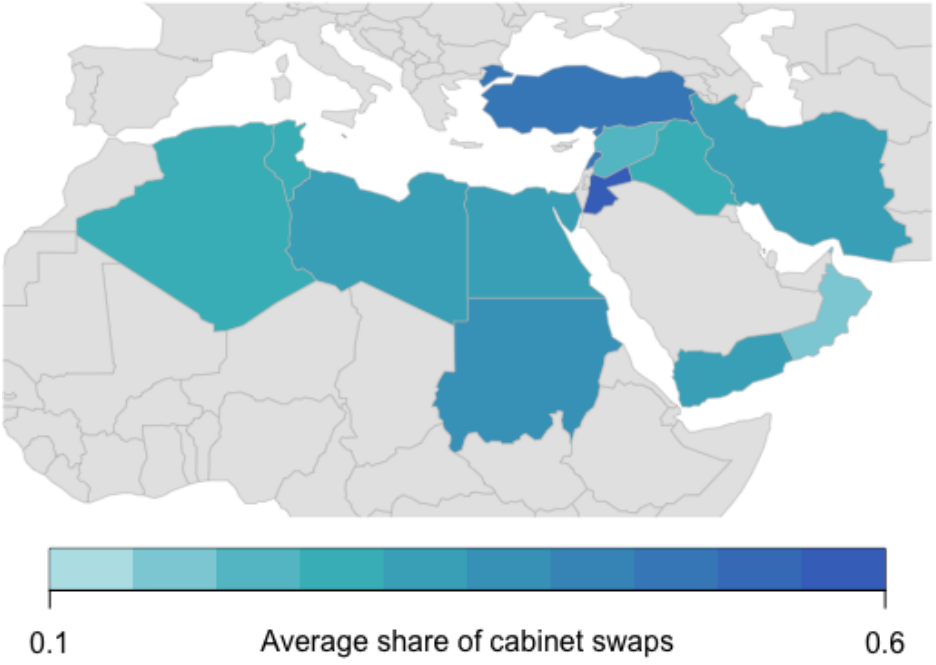
Table 3.1: Countries sorted by regime type		
	1966	2013
Electoral autocracies	Lebanon, Syria, Tunisia	Algeria, Iran, Iraq, Lebanon, Sudan, Turkey, Yemen
Closed autocracies	Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Lebanon, Oman, Sudan, Turkey	Bahrain, Egypt, Jordan, Oman, Syria

Source: V-Dem

3.2 Cabinet compositions

Even the most personalist autocratic leaders cannot rule entirely alone. They depend on support from members of the elite for regime survival, and continuously balance between sharing and maintaining power (Gandhi, 2008; Svolik, 2012). As most regimes have some form of cabinet where politics is being dealt with to some extent, cabinet compositions in authoritarian regimes are important for regime survival (Bokobza et al., 2022). Cabinets are used to balance power, sometimes disproportionally in favour of specific groups. This can be observed in Syria, where the Alawite minority make up the ruling elite (Pan, 2012). Or in Lebanon, where the various Christian groups still hold half of the seats in parliament even though it has been decades since they made up half the population (Brownlee et al., 2015, p. 204). Due to local variations, the average share of ministers that get swapped does not hold constant across the region. The map in Figure 3.1 illustrates the average share of swaps on a scale of 0 to 1 for each country in the analysis, from 1966 to 2013.

Figure 3.1: Average share of ministers replaced by country



Source: WhoGov

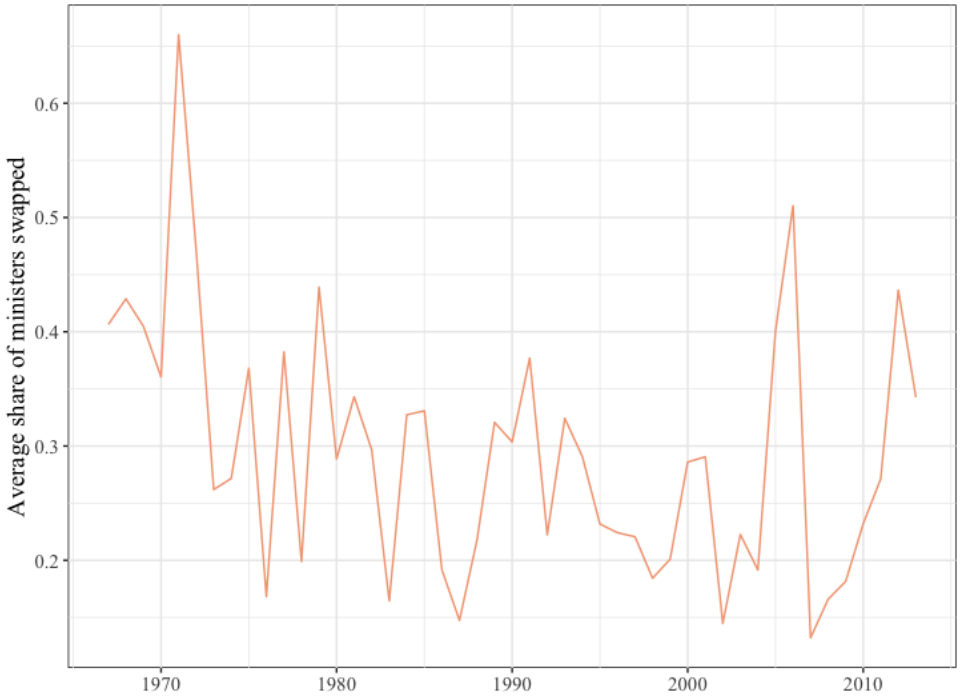
Furthest apart on the spectrum are Oman and Syria on the one hand, and Lebanon and Jordan on the other[3]. These four countries exhibit significant institutional differences. Oman is one of the Gulf monarchies, ruled by a family dynasty. The country is currently headed by Sultan Haitham bin Tariq Al Said. Syria is similarly ruled by the Assad family, supported by the elites in the Alawite minority. The Syrian military is controlled by the Ba'ath party, the only legal political party in the country. Lebanon is on the opposite side of the spectrum, being a parliamentary democracy based on confessionalism. The Lebanese version of a confessionalist system distributes the seats in parliament, as well as the positions for prime minister, president, and speaker of parliament, to specific religious communities (Salloukh et al., 2015). Finally, Jordan is another monarchy in this sample, shaped by tribal structures stemming from long before the country gained independence in 1946. The cabinet in Jordan is commonly used by the king to bolster against civil uprisings (Gandhi, 2008; Josua, 2016). Illustrated through these four cases, there are significant variations between the institutional features of the regimes in the Middle East and North Africa that we see today.

Structures of cabinet compositions do not only vary between countries or regime types, but also over time. There are some time periods during which the region has been more unstable and

[3] Oman: 16.1%, Syria: 24.7%, Lebanon: 48%, Jordan: 55.3%.

where the share of swaps in cabinets has escalated. Figure 3.2 gives an overview of these trends[4]. The share of swaps fluctuated somewhat until it reached a steep increase in the mid 2000s, illustrated by two clear peaks in the model. One before, and one after, the Arab Uprisings. The recent increase in share of cabinet swaps in the region is an interesting observation worth closer investigation.

Figure 3.2: Distribution of the average share of swaps over time



Source: WhoGov

There are several examples of cabinet reshuffles that would hold interesting cases for analysis in themselves. The anti-government protests that were held in Algeria by the Hirak movement starting in 2019 culminated in several cabinet reshuffles, most recently the ousting of eleven ministers in March this year (Redondo, 2023). The military coup orchestrated by Abdel Fattah El-Sisi and the Egyptian military in 2013 pose an example of co-optation. The youth movement, Tamarod, had been one of the most central actors during the ousting of President Hosni Mubarak in 2011 (Holdo, 2019, p. 451). Under the uprisings, they mobilised large numbers to the streets with a call for democratisation. When the military succeeded in

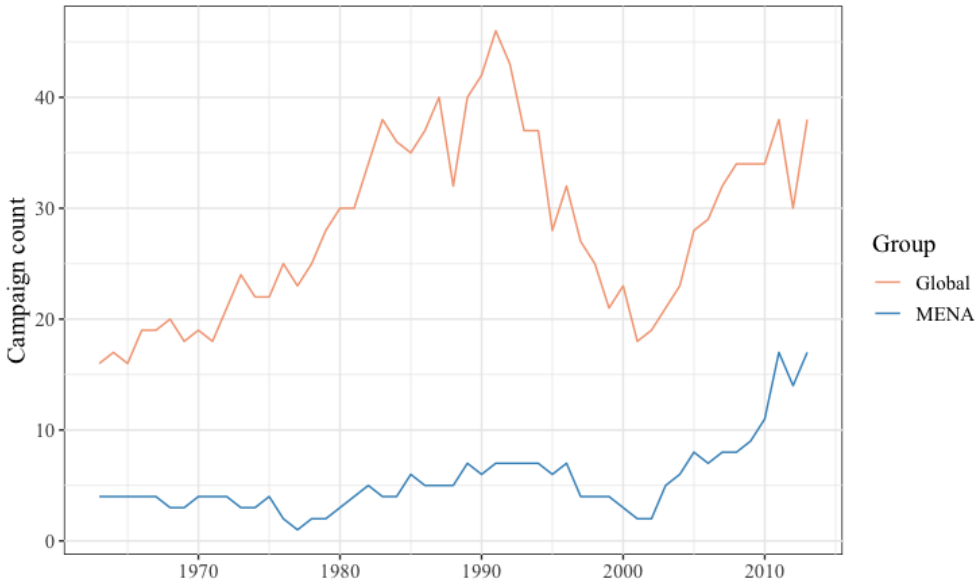
[4] The peak in 1970 is mainly due to the coding of the data, specifically the inclusion of several new countries in the WhoGov dataset.

obtaining the movement's support for a military coup in 2013, Tamarod lost all credibility as a progressive actor in Egyptian civil society (ibid).

3.3 Protests movements

While global protest movements reached their peak after the Soviet's fall, uprisings in the Middle East and North Africa were relatively few up until the 2000s. Leading up to and following the Arab Uprisings, this changed drastically. When contention spread across the region in 2011, the Middle East and North Africa ended up being the epicentre of almost half of the protest movements taking place in the world that year. This illustrates the growing importance of social movements and civil uprisings in the region.

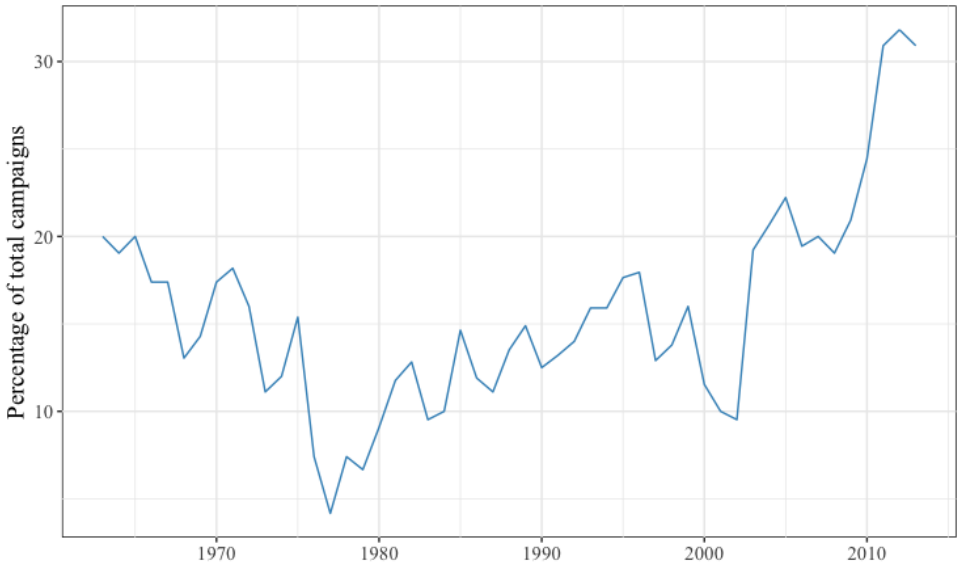
Figure 3.3: Global and regional campaign frequency



Source: NAVCO 2.1

The graph in Figure 3.3 displays the frequency of protest campaigns in the Middle East and North Africa from 1966 until 2013, as well as the global campaign frequency. The succeeding graph, Figure 3.4, displays the percentage of global protest campaigns that have occurred exclusively in the MENA region over the same period. This illustrates both the increase of protest frequency in the region, and the growing importance of analysing these movements as they continuously constitute a larger segment of the total share of global protests.

Figure 3.4: Percentage of global campaigns occurring in MENA



Source: NAVCO 2.1

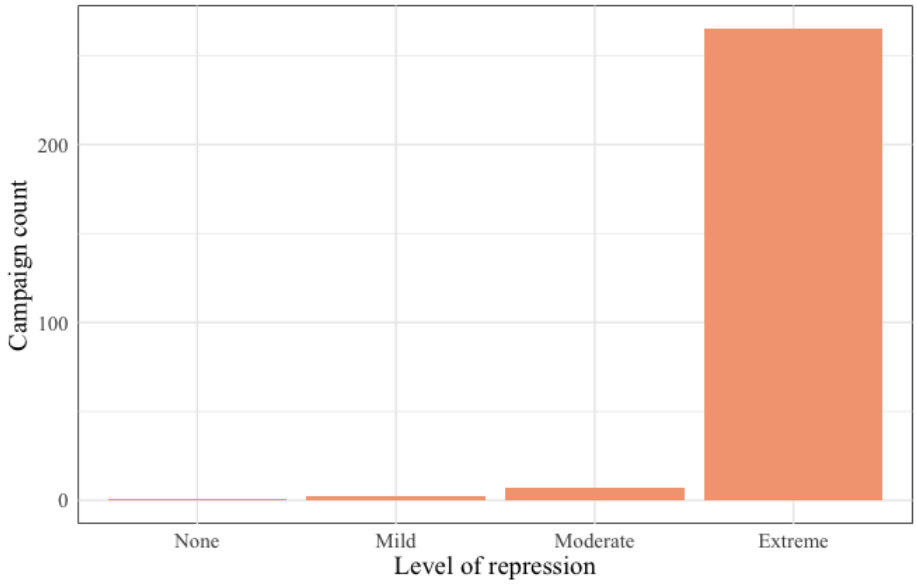
Protests in the Middle East and North Africa have adapted to changing economic and political conditions over the past decades. Simultaneously as most countries in the region gained independence from colonial rule during the first half of the 1900s, the movements for national liberation and independence grew. The continuous presence of Western nations sparked frustration, and space opened for new regimes to take place. The 23 July Revolution in Egypt in 1952 marked a significant turning point for both the country itself and the surrounding Arab states. King Farouk was ousted, and the British forces in the Suez Canal finally withdrew. The consecutive regime change was not only a consequence of the coup, but also years of civil resistance and military actions against British personnel (Hilmy, 2020, p. 93). Egypt's independence enforced the already existing anti-colonial sentiments and contributed to creating Arab nationalism, which proved important for the region in the upcoming years.

Following decolonisation, new lines of conflict became present in the region. The Gulf Cooperation Council (GCC) monarchies[5] started to fear the Iranian influence over their large Shiite minorities. Mohammara's black Wednesday on May 30th, 1979, marked one of the largest violent riots in the modern history of Saudi Arabia. Ninety thousand Shia Muslims gathered to mark the martyrdom of Imam Husayn, holding up posters of Ayatollah Khomeini and anti-Saudi slogans. It took the security forces three days to break up the demonstrations

[5] Bahrain, Saudi Arabia, Oman, Qatar, Kuwait, and the United Arab Emirates.

(Friedman, 2012, p. 75). Only two years later, the Islamic Front for the Liberation of Bahrain (IFLB) plotted to overthrow al-Khalifa in Bahrain. The attempted coup was one of several acts made against the regime by this protest movement that persisted for several years. The protesters were met with crackdowns, arrests, and deportations (ibid). There are two important takeaways from these events relevant to this thesis. Firstly, the protesters were met with harsh repression from the regimes. Secondly, religion was central to the initiation of the protests. The level of repression used by the governments in the Middle East and North Africa is in most cases categorised as extreme within the NAVCO 2.1 database, as rendered in Figure 3.5. This does however reflect the global trend, as illustrated in Figure A.3 in the Appendix.

Figure 3.5: Level of repression used towards protesters



Source: NAVCO 2.1

More recently, the Arab Uprisings in 2011 caught international attention particularly due to the scope of the protests. New elements came into play, such as the use of social media to share grievances and mobilise larger crowds and the rise of youth-led movements. The core dynamics were however resembling those from the past: Economic inequality fuelled the protesters, and they were once again met with harsh repression by the authorities. Historically, there have been many protest movements in the region, but with varying outcomes. Protests affecting cabinet compositions are not a new phenomenon. The recent reshuffles in Algeria, Jordan and Iraq mirror what seems to be a rather common response to uprisings by autocratic leaders.

3.4 Diversity of movements and sectarianisation of politics

Important to the structure of protest movements is that they connect through a shared social network (Dahlum, 2023, p. 43). Organising movements across various segments of society can therefore be difficult, and many protests have been driven by single socio-demographic groups. Protest movements can however be diverse in a variety of ways, whether their organisational structures differ, they have different goals or different socio-demographic compositions.

Various aspects of the movements played a crucial role in toppling the regimes in Egypt, Tunisia, and Libya. Notably, religious, regional and economic/class-based diversity were pivotal factors in all three cases (Goldstone, 2011, p. 460). The importance of diversity also became visible in the aftermaths of the uprisings. Even though several movements managed to oust their respective regime, not all were able to establish more democratic ones in the aftermaths of the protests. The Egyptian movement was largely confined to the urban middle class, while the one in Tunisia was more diverse, consisting of the urban middle class in addition to workers, students and unemployed. Scholars have suggested that this is one of the main reasons for the lasting success in Tunisia, in contrast to the authoritarian backlash which took place in Egypt in 2013 (Dahlum, 2023, p. 43). Identity, and in the case of the Middle East and North Africa, religion, is both polarising and salient in political life. Protest movements that mobilise across these lines are thus more threatening to a ruling dictator.

"Political institutions play an instrumental role in the production and reproduction of sectarian identities and modes of political mobilisation" (Salloukh et. al., 2015, p. 12). While sectarian identities are referred to as intrinsic to Middle Eastern society by elites within the regimes, many claim these divides are rather a recent construct (Dixon, 2018; Salloukh et. al., 2015). These scholars argue that political elites in the region exploit ethnic and religious identities to further their own interests (Dixon, 2018; Jabar, 2000; Salloukh et al., 2015). Specifically, sectarianisation is being used as a tool to enhance the salience of identity politics and divert attention away from economic and political conflicts of interest (Dixon, 2018, p. 19; Haddad, 2020, p. 23). The overarching idea behind the sectarian narrative is that the new elites that gained power after the end of colonial rule in the region contributed to enhance religious and ethnic divides to maintain their positions.

The Arab Uprisings in 2011 illustrate how the sectarian narrative is connected to the diversity of protest movements. Protesters across the Middle East and North Africa called for democratisation, economic reforms, and an end to corruption. The slogans were unique, in that they framed the people as one, standing up against the regime[6]. The image of the protesters as a unified front was however quickly turned around, when the protesters were framed by the governments as being sectarian in countries such as Bahrain, Syria, and Yemen. Especially did the religious divisions in Syria become clear, when both Saudi Arabia and Iran entered the civil war, supporting the military branches of Sunni and Shia religious groups (Salloukh et al., 2015, p. 1). Similarly, the sectarian narrative became prominent during the military coup in Egypt in 2013. To gain popular support for the coup, current prime minister Abdel Fattah El-Sisi and the rest of the Egyptian military framed the Muslim Brotherhood as sectarian (Holdo, 2019, pp. 450–451). Many scholars agree that pluralism of civil society and organisation through religious communities turned out to be a key factor in determining the outcome of the Arab Uprisings (Brownlee et al., 2015, p. 205; Goldstone, 2011, p. 460). The mechanisms behind this will be elaborated further in Chapter 4.

3.5 Summary

The Middle East and North Africa present an interesting case, both when it comes to studying protest movements and autocratic behaviour. Civil uprisings have been a continuous phenomenon in the region, but the escalation in frequency and strength over the last decades makes it even more relevant for contemporary research. While there are many similarities between the countries, there are also severe institutional differences. Power is generally concentrated on the hands of a small group of elites, surrounding an autocratic leader. Both regime stability and structure vary between the countries. Furthermore, there are two recent peaks in the share of ministers that have been swapped out of cabinet. Finally, the region is unique in the way tribal and religious divides have formed political institutions and keep on affecting politics to this day. Even though the region is characterised by unique attributes, the theoretical assumptions applied in this thesis can be relevant for other cases of autocratic regimes, where religious differences are salient, or where there is a high level of polarisation between different socio-demographic groups.

[6] One of the commonly used slogans under the uprisings: “Al-sha’b yurid isqat al-nizam”, meaning “The people want to overthrow the regime”.

4 Theoretical framework

There is an ongoing scholarly debate on how effective protest movements are in achieving their goals. Recent findings show that protest movements seeking to remove the regime leader or gain territorial independence have experienced decreasing success since 2001 (Chenoweth & Shay, 2022, p. 887). This trend seems to stem from the way movements organise, rather than increased repression or a lack of momentum (ibid). Much of the literature on social movements measure success in terms of leader depositions, but there are many smaller changes that can be made and still be of importance to long term political developments. Cabinet ministers in autocratic regimes hold important roles, even if the power they possess varies. Removing them from their positions could have important implications for representation, policies, and internal power dynamics within the elites. Minister tenure and loyalty is important for regime survival, still autocratic leaders are not shy to swap out ministers. How come autocratic leaders respond to civil uprisings by changing their cabinets?

This chapter is structured into four sections. First, I map out the theoretical mechanisms that connect protests to cabinet swaps, drawing on elements from social movement theory. Contemporary literature on autocratic behaviour contributes to explaining why autocratic leaders would respond to protest movements by making changes to their cabinets, rather than using repression. Secondly, I seek to explain how diverse protest movements have a greater impact on the share of cabinet swaps than homogeneous movements. Thirdly, I elaborate on autocratic regime characteristics and how I expect them to impact the effect of protests. Concluding the theoretical framework, I present my hypotheses on how (diverse) protest movements in the Middle East and North Africa have succeeded in impacting cabinet compositions through an increase in the share of ministers swapped out of cabinet. I further hypothesise that this effect is dependent upon regime type.

4.1 Protest movements

Protest movements make a difference in many ways. Their success is often measured in regime change, but regime change does not happen overnight. However, many smaller changes taking place over a longer period of time can culminate in important societal transformations. As mentioned in Chapter 2, research has shown that protests can affect both government policy and how it is made (Goodwin, 2015, p. 387). In addition to alternating governmental institutions, activism shapes the people and the broader culture (ibid.). A key attribute of protest movements is that they can shed light on facets of authoritarian regimes that people otherwise might not pay as much attention to. When met with pressure from protesters, the regime gets pushed to act and might end up doing things it otherwise would not do (Tilly & Tarrow, 2015). An overarching theoretical assumption for this thesis is that autocratic leaders seek to remain in power (De Mesquita & Downs, 2005; Svolik, 2012), therefore sometimes responding to protest movements by swapping out ministers (Gleditsch et al., 2022). Swaps might be a form of concession, inserting more representative ministers into the cabinet. Or of co-optation, where the aim is to absorb the opposition into the elite (Gerschewski, 2013). This section will map out the possible effects of protests, and link protests to the ousting of cabinet ministers.

4.1.1 The protest-cabinet nexus

The composition of the cabinet can reveal a lot about a regime. The number of cabinet changes can be a measure of inclusiveness (Gerschewski, 2013, p. 22), or a sign of regime instability (Bokobza et al., 2022). There are several explanations to the formation of cabinets in the current literature. Some focus on short term political gains, others on conflict minimization. Recent studies find that regional and historical contexts directly shape cabinet constellations (Ricart-Huguet, 2021, p. 2546). Benefits of changing cabinet compositions are two-sided. On the one hand, changing the cabinet can be a way of showing protesters that their demands for change are taken seriously. On the other hand, this gives them the opportunity to get rid of potential disloyal members of the elite. There are several factors that can trigger cabinet reshuffles, such as elections, failed (or successful) coup attempts, leadership transitions or shifts in the power balance between the leader and the elites (Woldense & Kroeger, 2023, p. 2). Most importantly, cabinet reshuffles are a necessity for regime survival.

Dictators are faced with two main challenges: Authoritarian control of the masses and authoritarian power sharing with the elites (Gandhi, 2008; Svolik, 2012). The balance between these two actors is crucial in shaping authoritarian behaviour. Protests are a threat to the stability of the regime since they can highlight grievances, injustices, or demands for political change. Protesters convince others of the importance and urgency of their claims, which spread contention and make movements grow (Goodwin et. al., 2015, p. 387). Movements might succeed in gradual liberalisation or in pressuring the autocratic leader to introduce multiparty coalitions (Dahlum, 2023, p. 45). Autocratic leaders therefore use different measures to restrain the protests before they escalate.

The primary threat to autocratic leaders does however come from within (Svolik, 2012). They consequently must avoid handing power, and subsequent cabinet seats, to actors that are capable of staging a coup. This dilemma is explained by the "competence-loyalty" trade-off, addressing how the hiring and firing of ministers depend upon a fine balance between the need for competent ministers whilst ensuring loyalty (Egorov & Sonin, 2011; Zakharov, 2016). Loyal ministers often have vested interests in maintaining the status quo (Bokobza et al., 2022), and there is therefore a natural link between the use of co-optation and the maintenance of regime stability. I will return to this point in the following section of this chapter.

4.1.2 Cabinet swaps: Making concessions or co-opting the opposition?

Literature on movement-regime dynamics generally focuses on three forms of responses to civil uprisings, herby repression, co-optation, and concessions (Brancati, 2016; Chenoweth & Belgioioso, 2019; Dahlum, 2023; Holdo, 2019; Lachapelle, 2022; Shriver et. al., 2018; Tilly & Tarrow, 2015). Since illegal repression can be met with negative sanctions from both the international community and the country's own population, legal repression, co-optation or even making concessions is more often the better choice for regimes wanting to deescalate protests without it having significant backlashes on them (Shriver et. al., 2018, p. 308). Regimes are prone to use economically and politically cost beneficial strategies. Which strategy is the cheapest depends on the resources available to them. Rentier states, such as the Gulf monarchies, are known to rely on co-optation through patronage and the distribution of rents (Lachapelle, 2022, p. 697). The aim when co-opting specific social groups is to gain the support of those seeking change, without giving them political advantages (Holdo, 2019, p.

444). Poverty undermines the regime's capacity to respond to discontent and reinforce conflicts between the elites (Chenoweth & Belgioioso, 2019, p. 1090). Regimes with a weak economy, but a strong coercive apparatus, such as Egypt, are therefore more prone to rely on repression (Lachapelle, 2022, p. 697). In other words, authoritarian leaders seek to maintain their power through the most beneficial means possible, given the resources available to them.

Concessions are often politically costly since the ruling elite might appear weak, or economically costly if they include a redistribution of resources. The effects of protest movements are however manifold. Smaller scale effects of protest movements can include achieving a specific political goal through policy implementations or legislations, or impacting the composition of the executive branch through reshuffles or calls for new elections. Brancati points to three forms of concessions used to accommodate democracy protests, being economic, political, or policy (2016, p. 107). Ousting cabinet ministers could be a form of concession making given that the new minister(s) inserted into cabinet are in fact representative of the protesters. More commonly, autocratic leaders try to co-opt central figures from the opposition to prevent protest escalation. Balancing between power sharing with the elites and controlling the masses can be a difficult task, and the cabinets are often used as a tool to co-opt opposition movements. Cabinet ministers oversee managing the various ministries, formulating policies, and administering bureaucracies within their fields. Since they are crucial for the regime leader's position, they gain certain perks, such as being wealthier, more educated, and having an elevated social status compared to ordinary people (Assiri & Al-Monoufi, 1988).

Cabinet ministers are in other words a privileged group, even though their actual power varies between ministers and between regimes. Co-optation is the process of exploiting these privileges to tie strategically relevant actors to the regime and prevent them from opposing it (Gerschewski, 2013, p. 22). This has a dual effect. On one hand, the opposition elites get certain benefits that make them more lenient towards regime survival (Frantz & Kendall-Taylor, 2014; Gandhi, 2008). This explains the opposition elites' motivation to shift loyalties. On the other hand, it takes away credibility and momentum from the movement, and can create cleavages between the protesters (Gandhi, 2008). When elites from the opposition become part of the regime, this delegitimizes the movement and makes it more difficult for them to coordinate their efforts (Holdo, 2019). Replacing ministers can be an efficient tool for authoritarian leaders to maintain power. Not only does it create an illusion of meeting the protesters demands by inserting more representative ministers, but it also works as a powerful

mechanism to delegitimize movements. Finally, co-optation is usually less costly than repression (Shriver et. al., 2018), diffusing contention without stirring up new waves of discontent in the general population.

An important assumption of authoritarian power sharing and control is that nominally democratic institutions are there to serve the dictator by facilitating power-sharing amongst the elites (Sassoon, 2016, p. 66; Svolik, 2012, p. 81). Furthermore, these institutions allow different fractions of the elite to reassure one another that they are not trying to shift the power balance (ibid). These institutions allow the leader to monitor the elite through increased transparency where they facilitate information exchange and assessment of compliance (Svolik, 2012, p. 13). When incidents threatening the regime leader occur, such as coup attempts, the average replacement rate of cabinet members increases (Bokobza et. al., 2022, p. 2). These purges are "instances in which regime elites are involuntarily pushed out of the ruling coalition by regime leaders" (Bokobza et. al., 2022, p. 4). I assume that the same mechanism can be seen in the aftermaths of mass uprisings, facilitating an increase in purges and a subsequent increase in swaps.

4.2 The value of broad coalitions

If protest movements can impact cabinet compositions, the next question to be asked is which movements make the greatest impact? Protests are dependent on movement composition for their success (Dahlum et. al., 2019; Goldstone, 2011). Investigating the mechanisms of how movement composition affects their success or failure is therefore crucial for understanding more about this phenomenon. The impact of social movements varies between socio-demographic groups, and it is suggested that certain groups are more likely to achieve their goals when mobilising against the regime (ibid). Due to their motivation and capacity to bring about change, groups such as the urban middle class and industrial workers have a higher chance of achieving democratisation through protests (Dahlum et. al., 2019, p. 1494-95). Protest movements can be diverse in a variety of ways, with varying organisational structures, different goals, or different socio-demographic compositions. This falls under a growing body of literature focusing on the strengthened effect of diverse movements. Goldstone goes as far as stating that "virtually all successful revolutions were forged by cross-class coalitions that bridge the diverse goals and interests of different groups" (2011, p. 457). The mechanisms

expected to be associated with the success of diverse movements will be explained in the following sections.

4.2.1 Mobilising effect

There are several reasons why scholars argue that diverse movements are more likely to impact authoritarian regimes. This was first mapped out in the social movement literature. It is argued that brokerage, meaning the process of creating new connections between previously unconnected groups in society, is a necessity for protest movements to succeed (Tilly & Tarrow, 2015, p. 31). By creating new connections, movements grow and contention spreads more easily. Diverse movements have ties to different segments of society, facilitating brokerage. This aligns with recent research arguing that diverse movements are more successful at mobilising bigger crowds (Dahlum, 2023, p. 46; Goldstone, 2011, p. 457). Increased mobilisation comes from an expansion of the pool from which protesters are recruited into several new social networks and broad coalitions that can create 'mega-networks' (ibid). There is power in numbers, as demonstrated by the fact that most uprisings that have mobilised 3.5% or more of the population against a dictatorship have managed to overthrow the regime (Chenoweth & Belgioioso, 2019, p. 1088). Since there is a clear link between diverse movements, their ability to mobilise larger numbers, and movement impact, diversity is an important factor when analysing civil uprisings.

Brokerage is not a phenomenon limited to the masses. Diverse movements have ties into various segments of society. These ties could also extend into the elites. Links between the protesters and the elites increase the chances of elites withdrawing their support for the regime, and mobilisation of new protesters may increase pressure among the elite to facilitate change (Chenoweth & Belgioioso, 2019, p. 1089; Dahlum, 2023, p. 46). This also applies to the military apparatus, where defectors have been crucial for the success of movements such as during the Arab Uprisings in Egypt (Brooks, 2017). These loyalty shifts can be decisive for the results of yearlong struggles by social movements (Chenoweth & Belgioioso, 2019, p. 1089). Diverse protest movements have more ties to different segments of society and should therefore be more prone to influence loyalty shifts disfavouring the regime leader.

4.2.2 Bolstering against repression

Protest activity often leads to state repression when it threatens elite interests and legitimacy (Shriver et. al., 2018, p. 307). Diverse movements have a better chance of survival and success, due to their robustness against repression from the regime. When movements are centred around one or a few groups, it becomes easier for the regime to frame the movement as a threat to society, allying with "the people". If the regime then manages to obtain support for this viewpoint from other social-demographic groups, use of repression can be perceived as more just (Dahlum, 2023, p. 46; Goldstone, 2011, p. 457). This legitimation strategy of repression has a dual effect. On the one hand, the regime manages to repress the protesters. On the other hand, it increases its legitimacy by signalling that it is capable of protecting bystanders[7] towards the perceived threat of the protesters. An example of this could be observed during the uprisings in Egypt in 2013. The imprisonment and killings of protesters that were members of the Muslim Brotherhood strengthened the legitimacy of Sisi's regime which had seized power through a military coup the same year (Lachapelle, 2022, p. 695).

The level of polarisation between different social groups in a society affects the regime's likelihood of initiating a strategy of repression. A greater level of polarisation allows the regime to divide and conquer using violent measures, faced with a lower level of resistance and discontent (Lachapelle, 2022, p. 696). Conversely, diverse protest movements are more resilient towards this form of repression, and more likely to gain support from bystanders. Diverse movements accommodate several interest groups at the same time, preventing polarisation between them. This helps explain why authoritarian leaders resort to co-optation or concessions as responses to diverse uprisings, rather than repression. The cost of repression increases parallel with movement diversity. Since diverse movements are more inclined to have ties to the elites, purges become a more beneficial response tactic for autocratic leaders. Scapegoating as a response to protests creates the ideal opportunity space for ousting cabinet ministers that are not deemed loyal to the regime. By using co-optation or concession as a response, autocratic leaders can have their cake and eat it too. This allows them to rid themselves of potentially disloyal cabinet ministers while maintaining legitimacy and staggering the opposition.

[7] Civilian groups that are not the explicit targets of violence.

4.3 Regime instability and forms of autocracies

State leaders' opportunities to reshuffle their cabinets is dependent on the characteristics of the regime. Personalist regimes are most likely to swap out ministers (Woldense & Kroeger, 2023, p. 9), but follow a more arbitrary pattern than other regime types when doing so (Kroeger, 2018, p. 80). Party-based rulers are more consequent and tend to use elections as an excuse to reshuffle the cabinet (ibid). The competitiveness of access to power is core to the classification of regime types (Coppedge, 2023, p. 287). Electoral autocracies hold multiparty elections for the chief executive, while closed autocracies do not. Hence, the path to power is longer in closed than in electoral autocracies.

The institutional character of electoral autocracies makes it plausible to assume that they experience a higher occurrence of cabinet reshuffles than closed autocracies. Elections can escalate the potential for both coups and protests. This is due to increased coordination and mobilisation connected to an upcoming election (Knutsen et. al., 2017, p. 100). Even though elections can cause temporary instability, there are strong incentives for autocratic leaders to facilitate them. Autocratic elections can stabilise autocracies in the long run, as elections create an opportunity for co-opting the opposition, to gain legitimacy, to deter the opposition, and allows for learning about the regime's current popularity within the population (Knutsen et. al., 2017). Another potential outcome of elections is that the opposition obtain seats which can later be used to achieve policy concession (ibid). The potential for some degree of electoral victory is present even in electoral autocracy, even though a high frequency of opposition wins might not be the dominating outcome.

Autocratic elections provide a natural arena for ousting and replacing cabinet ministers. One facet of autocratic elections is that they provide a long-term stabilising effect for autocratic regimes, utilising the cabinet to strengthen the regime. Another aspect of autocratic elections is the facilitation of autocratic responses to citizen demands. By addressing demands raised by the people prior to elections, autocratic leaders raise popular support and assure people of their competence (Lueders, 2022, p. 827). Forms of concessions could thus be expected leading up to an election. Even though protests are commonly associated with autocratic elections (Knutsen et al., 2017, p. 100), some mechanisms generate protest averse behaviour in the opposition. Competitive authoritarian elections can stagger uprisings when the potential

electoral success stears the focus of the opposition (Kahvecioğlu & Patan, 2021). Putting resources into elections rather than organising and supporting protests becomes more desirable when the expected consequence of protests is repression (ibid). Electoral autocracies seem to stagger the impact of civil uprisings, despite the increased momentum for mobilisation of opposition movements associated with elections. I therefore draw the assumption that the effect protests have on the share of cabinet swaps depends on whether regimes are electoral or closed autocracies.

4.4 Summary and hypotheses

Much has been written on whether protests can overthrow autocratic leaders or not, but less so on the smaller scale effects of protest movements. Outcomes vary between movements and even though there are many success stories of social movements ousting autocratic leaders, this is not the result for the majority of cases. More often, protesters are met with repression, or members of the opposition are co-opted by the regimes. Through the process of co-optation, cabinet seats can be handed to actors aligned with the protesters and members of the ruling elites may lose their positions. Cabinet swaps allow the leader to find scapegoats for the causes of protests, promising political change through new leadership, while simultaneously purging the cabinet of potential disloyal members of the elite. This leads to the first and primary hypothesis of this thesis:

H1: The share of cabinet members that are swapped in a given year increases if there has been an ongoing protest campaign prior to the cabinet reshuffle.

Socio-demographic divides have long been important for how people organise, both in political and everyday life. While religious and ethnic identity markers have been used to pit people against each other in the Middle East and North Africa, it has also contributed to a shift the focus away from ideological divides, class consciousness and economic interests. These dividers have become crucial for the organisation and strength of social movements. I assume that diverse movements could be more likely to bring about change within autocratic systems for several reasons. One being that the justification for repression becomes harder when the movements represent various segments of society. Another that diverse movements find it

easier to mobilise big crowds. Since repression becomes even more costly, the likelihood of regimes making concessions increases. This leads to the second hypothesis:

H2: Protest movements that are diverse have a stronger impact on the share of ministers that get swapped than those that are nondiverse.

Diversity within the Middle East and North Africa r takes on a shape unique for the region. The religious divisions are relevant for both political institutions and civil society. As previously mentioned, the framing of protesters as sectarian during the Arab Uprisings turned out to be an effective tool in curbing the protests. The more salient the divides, the greater effect is expected from diversity. I therefore expect religious diversity to influence the success of the protest movements in this analysis. Based on this assumption, I derive another hypothesis related to the one above:

H2a) Protest movements that are diverse along religious lines are expected to make a stronger impact on the share of cabinet swaps than movements that are diverse across other socio-demographic groups and those that are nondiverse.

State leaders' opportunity to reshuffle their cabinet is dependent on regime type. Electoral autocracies have some degree of competitiveness of access to power, even though this is limited. Regimes that fall within this classification are therefore expected to have a higher occurrence of cabinet reshuffles than closed autocracies. Furthermore, elections are associated with an increase in protests due to escalated coordination and mobilisation among the opposition. This leads me to my final hypothesis:

H3: The impact of protests on the share of cabinet swaps is stronger in electoral autocracies than in regimes that do not hold elections.

5 Data and operationalizations

In this chapter, I will present the data used in the analysis in addition to the operationalisation of the variables. First, I will give a general overview of the data. Following this, I dedicate three separate sections to operationalise the dependent and independent variables. There I also touch upon the specifics of the datasets, as well as a discussion on reliability and validity. Finally, I introduce the confounders and lay out the theoretical arguments for them to be included in the models.

5.1 Data frame

Analysing the relationship between protest movements and smaller scale regime changes, namely cabinet reshuffles, requires sufficient data on both phenomena. I have constructed a time-series cross-sectional panel data frame, combining data from WhoGov, NAVCO 2.1, and V-Dem. The unit of analysis is country-years, and the data set contains 681 rows of observations, including 279 campaign-years. This is limited to the period between 1966 and 2013. I have included country- and time-fixed effects in all the models, accounting for time trends and country specific circumstances, reducing potential bias from omitted variables. Benefits and challenges with fixed effects models will be further discussed in Chapter 6.

There are both practical and theoretical reasons for the cut offs in 1966 and 2013. NAVCO 2.1 contains data up until 2013 and was specifically updated to include campaigns from the Arab Uprisings in 2011 (Chenoweth & Shay, 2022). The wave of protests taking place across the region stands out, following decades of relatively low protest frequency, and is therefore crucial to include when studying civil uprisings and its effects. The second cut off, in 1966, is based on the first year of observations in the WhoGov dataset. Since most countries in my analysis gained independence in the mid 1900s, this time frame coincides well with the data available.

There were 21 countries included in my original definition of the Middle East and North Africa, as mentioned in Section 1.1. However, I have decided to exclude some countries from

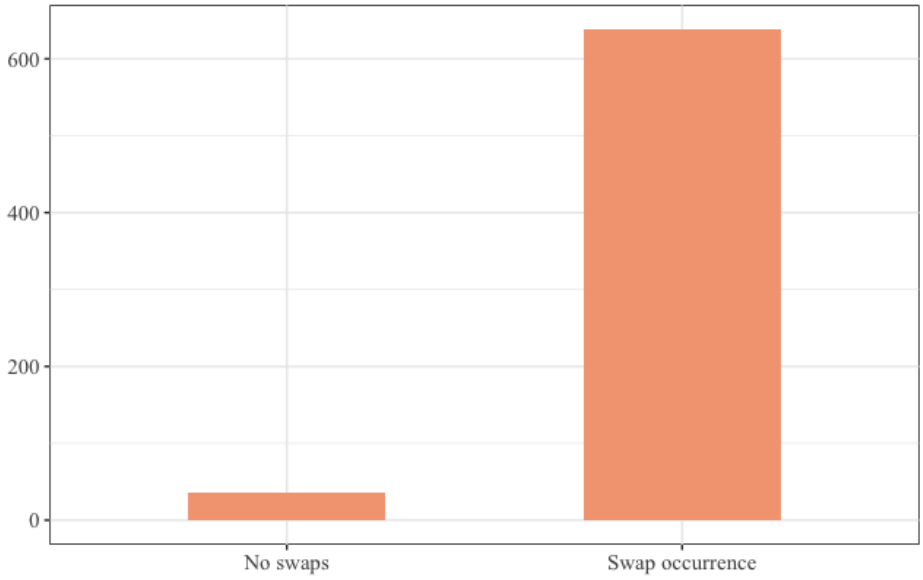
my study for various reasons. First, six countries are not part of the NAVCO 2.1 dataframe and therefore lacking information on protest occurrences. Second, the scope of this thesis is limited to countries classified as autocracies. One additional country[8] is therefore eliminated as it does not classify as an autocracy during the scope of this thesis. This cutoff leaves me with 14 countries from the Middle East and North Africa to be analysed[9]. These are all classified as either electoral or closed autocracies according to the RoW categorisation in my dataset for most of the scope of this study, and at least ten subsequent years each.

5.2 Dependent variable: Swaps

The dependent variable captures the share of ministers that have been swapped since the previous year. It is a flipped version of the *retention_rate_minister* variable from WhoGov, which measures the share of people in the cabinet who were in the cabinet the previous year. The variable is continuous from 0 to 1 which allows me to tell the specific percentage of cabinet swaps that have taken place. Furthermore, using a continuous variable retains more information from the original cabinet data, and allows for the study of the variation in swap intensity. I will return to the methodological implications of using a continuous dependent variable in the next chapter. As discussed in Section 3.2 and displayed through the graph in Figure 3.2, the share of ministers that are swapped varies over time. The distribution of country-years with and without swap occurrence is illustrated in Figure 5.1.

[8] Israel is classified as a democracy for the entire scope of this thesis.
[9] Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Lebanon, Libya, Oman, Syria, Sudan, Tunisia, Turkey, and Yemen.

Figure 5.1: Count of years with and without swap occurrence



Source: WhoGov

5.2.1 The WhoGov dataset

I have used the cross-country version of the WhoGov dataset to operationalise the dependent variable. WhoGov is based on the *Chief of State and Cabinet Members of Foreign Governments* directory assembled by the CIA (Nyrup & Bramwell, 2020, p. 1367). The cross-country dataset covers 177 countries, 115 of which are classified as autocracies at some point in time. It spans from 1963 to 2021 and contains 944 rows of observations. This is the most comprehensive dataset on cabinet compositions and ministers that exists today (ibid). There are two versions of this dataset. The within country version entails information about the individual cabinet members within a given country, while the cross-country holds information about trends, such as the frequency of cabinet reshuffles. Since I am looking at how protest movements affect the share of ministers that are being swapped, I use the cross-country dataset in this thesis.

5.2.2 Validity and reliability

While I argue WhoGov is the best available dataset for analysing cabinet compositions, there are however three concerns I want to note. Firstly, data gathering for the WhoGov dataset has primarily relied on automated methods, contrasting how other datasets usually are created through manual programming. This provides less control over the data. The researchers do

however cross-validate the main variables against other datasets containing similar data, noticing that all measurements correlate strongly (Nyrup & Bramwell, 2020, p. 1368). Secondly, there is not available information from all countries in the region. While WhoGov contains information on most countries in the analysis, Palestine is lacking. This does however not significantly affect the validity of the study, since the sample of 14 remaining countries represent a variation of regimes in the region. Thirdly, information on when the various swaps took place is lacking. This poses a challenge when attempting to infer causality. While this challenge is partially solved by running a model accounting for the month swaps were recorded as further explained in Section 7.4, this should be considered when utilising the data and drawing descriptive and causal inferences.

5.3 Independent variables: Protests

To test the hypotheses, I use five varieties of protest variables. The first three capture general traits of the protests, hence, protest occurrence, number of protest movements in a given year, and peak year for a specific protest movement. The following two are categorical with "no protests" as reference categories. One captures diverse movements, the other religiously diverse movements. There are two advantages of applying categorical, independent campaign variables in this thesis. The first is founded on the theoretical assumption that spontaneous and single protest events are not sufficient to affect the hiring and firing of ministers. The second is analytical since the categorical measurements are easier modelled and interpreted. The following sections will clarify the varieties between the variables, introduce the NAVCO 2.1 dataset from which they are derived, and reflect upon the validity and reliability of the independent variables.

5.3.1 NAVCO 2.1

For the protest variables, I have chosen to use the Nonviolent and Violent Campaigns and Outcomes 2.1 dataset which analyses campaigns though campaign-years, rather than single protest events. The dataset records information about various protest movements, including their goals, strategies, and outcomes, and originally contains 389 campaigns, including both violent and nonviolent ones from 1945 to 2013. This is disaggregated into 2717 rows of observations, namely campaign-years. NAVCO 2.1 tracks all maximalist campaigns. A

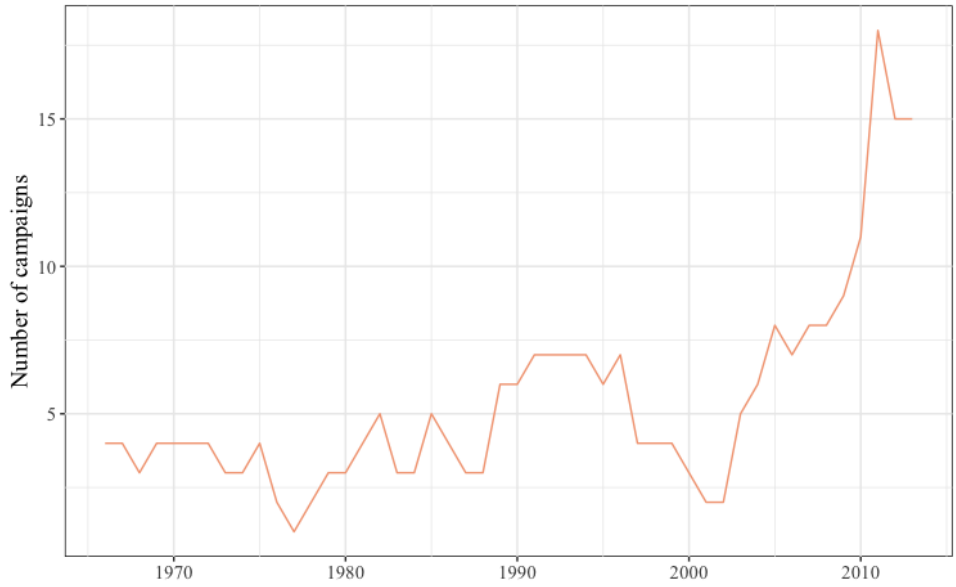
campaign is defined by Chenoweth and Shay as to have a discernible leadership and at least 1,000 participants (2022, p. 876). Furthermore, these participants must be coherent, and the protests sustained for the duration of two weeks (ibid). The campaigns aim specifically for regime change, or other goals related to regime change (e.g., significant institutional reform or greater autonomy). The distribution of campaign goals is reflected in figure A.2 in the Appendix. I choose to not exclude any campaigns since they all make claims on the sitting government.

While there are numerous datasets capturing protest data, NAVCO 2.1 dataset is the best suited for my research for two main reasons. Firstly, NAVCO 2.1 is the most comprehensive protest dataset based on campaigns rather than protest events. Since there is little evidence supporting the causal effect of one single protest on regime change, participation numbers and continuity of events are important when measuring protest impact. Secondly, it ranges over a timespan of almost 70 years, which creates a larger sample of protest-years. This is important to the thesis since the geographical scope is limited to a region where protest frequency has been relatively low up until recent decades.

5.3.2 General protest variables

As mentioned in Chapter 3, one of the reasons that the Middle East and North Africa holds such an interesting case when analysing protests and autocratic behaviour is the recent increase in protest occurrence in the region. As captured by the main independent variable, *protest occurrence*, and displayed in Figure 5.2, the region has been relatively stable for decades, before a spike occurred in the years preceding the Arab Uprisings.

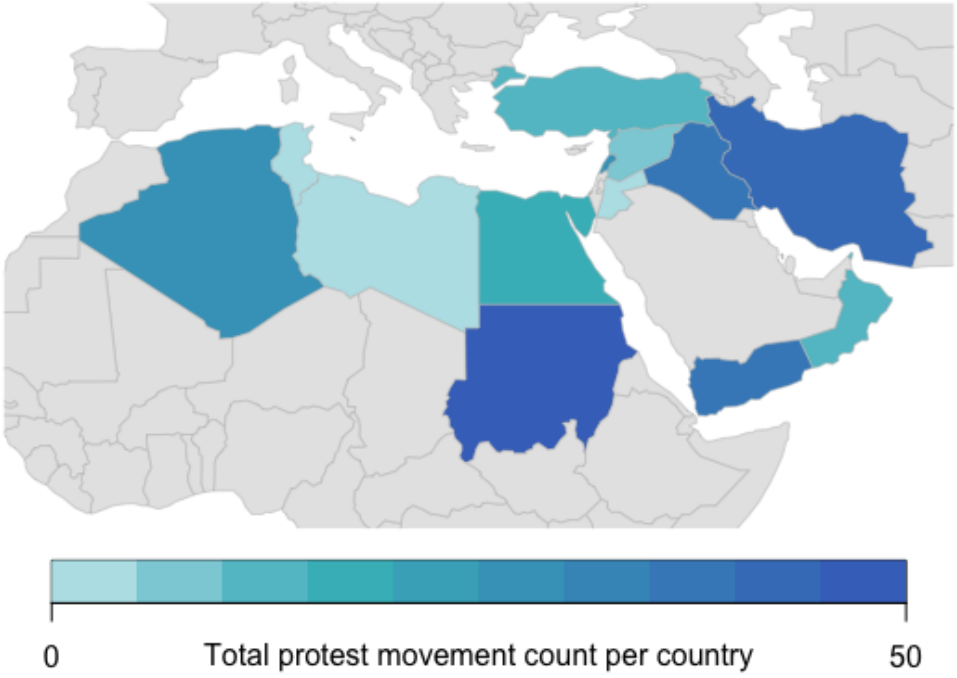
Figure 5.2: Distribution of campaigns over time



Source: NAVCO 2.1

The main independent variable, *protest occurrence*, is dichotomous and captures whether a protest movement has been present in any of the countries in the sample in a given year. The map displayed in Figure 5.3 illustrates how the frequency of protest movements vary among the different countries in the Middle East and North Africa. All countries in the sample are registered to have had campaigns take place between 1966 and 2013, ranging from one campaign in Libya to 43 campaigns in Iran.

Figure 5.3: Protest movement frequency from 1967 to 2013



Source: NAVCO 2.1

As displayed in Table 5.1, it is most commonly only one campaign that takes place in a country in a given year. However, there are a total of 81 campaign-years where two or more campaigns have taken place simultaneously. If there are several anti-government protest campaigns within a year, this might have a greater impact on cabinet instability. I therefore run one model with *number of campaigns* as the independent variable. Protests are expected to have a greater impact when more people participate.

Table 5.1: Number of campaigns in a country in a given year

Number of campaigns	0	1	2	3	4
Occurrence	388	179	52	21	8

Source: NAVCO 2.1

The third independent variable, peak campaign-year, captures the year the campaign was at its largest measured in the number of total participants. This is particularly relevant since some campaigns last very long while the frequency of protest activities and the intensity of the protests is relatively low. Furthermore, several studies show a positive link between the number of participants in protest movements that are at their peak and the likelihood of achieving their

goals (Dahlum, 2023, p. 45). The variable is dichotomous, with “non-peak years” as a reference category. This variable thus compares the peak years of the protest movements to years either without protest movement occurrence or where the movement was not at its peak. To better predict causality, all protest variables are lagged.

5.3.3 Diverse protest variables

To examine *H2*, I will use two categorical diversity variables from NAVCO 2.1. Both variables have three categories and are coded with “no campaigns” as a reference category. The first one, *diverse protests,* captures all campaigns that are diverse along one or more dimensions of inclusion within specific socio-demographic subcategories[10] (Chenoweth & Belgioioso, 2019, p. 17). The second one, *religiously diverse protests*, captures diversity within one of these subcategories, namely if a protest is diverse along religious lines. Both variables were first included in the NAVCO 2.1 data, coded to capture specific attributes for each campaign-year.

Table 5.2: Number of diverse campaigns

Categories	No campaign	Diverse	Nondiverse
Occurrence	397	224	53

Source: NAVCO 2.1

As displayed in Table 5.2, most campaigns are diverse along at least one dimension of inclusion. There is however only about one of eight campaign-years where the movements are diverse along religious lines, as displayed in Table 5.3.

Table 5.3: Number of religiously diverse campaigns

Categories	No campaign	Religiously diverse	Religiously nondiverse
Occurrence	397	56	221

Source: NAVCO 2.1

[10] These include gender, age, class, urban/rural, ideology, party, regional, ethnic, and religious diversity.

5.3.4 Protest data: Validity and reliability

Even though I still argue NAVCO 2.1 is the best dataset available when measuring protest impact in the Middle East and North Africa, two challenges arise when handling protest data. First and foremost, there is the possibility of coding errors or inaccuracies in the data collection impacting the reliability of the data. Since the dataset relies on publicly accessible information and many unobserved campaigns have been unknown to researchers while collecting the data, it might be subject to selection bias. Information about certain campaigns is harder to uncover, such as historical events, nonviolent campaigns or campaigns in rural areas (Day et al., 2015). Secondly, the ambiguity in categorization can undermine the validity of the dataset because it may lead to misclassifications and inaccuracies in characterising protest movements. It can be difficult for researchers to determine the correct classification for various observations, also some variables are coded along the "absence of evidence is evidence of absence" (AEEA) guideline, basing their code on the lack of documentation of a given aspect of the campaign (Chenoweth & Shay, 2019, p. 13). The NAVCO 2.1 codebook does however evaluate how reliable the source material is in terms of availability, scope, and accuracy (Chenoweth & Belgioioso, 2019, p. 13). This is reflected in Table 5.4, where an overwhelming majority of the observations are classified as the coders having "moderate" or "high" confidence in their reliability.

Table 5.4: Reliability of the observations

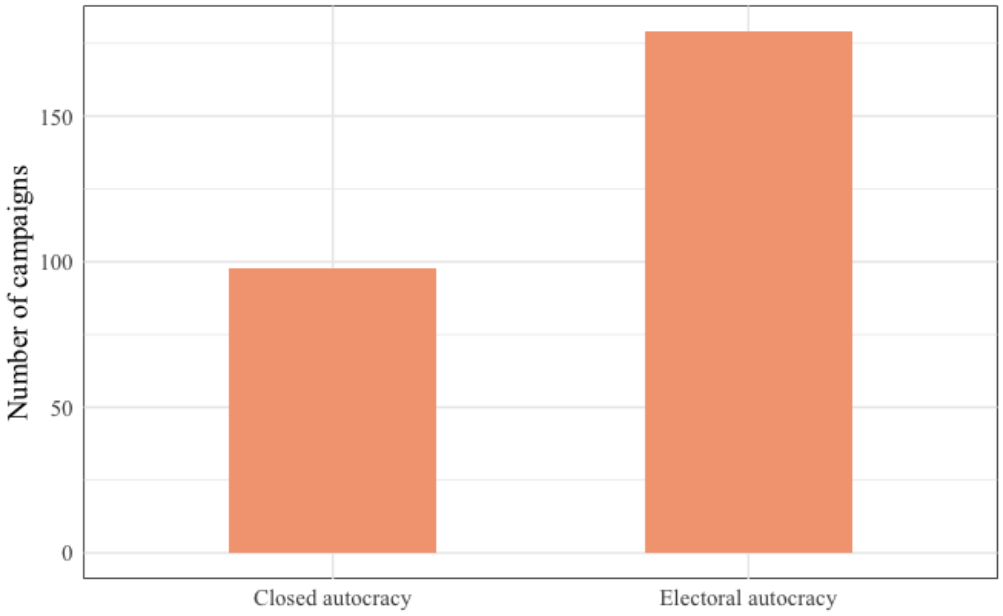
Confidence	Low	Moderate	High
Occurrence	11	127	81

Source: NAVCO 2.1

5.4 Independent variable: Regime

To test *H3*, I include an interaction term between regime type and the various protest variables. I do this since I assume that the effects of protests are dependent on whether the regimes hold elections or not. The variable *regime* is based on the *v2x_regime* variable from V-Dem. This is coded as 0 for closed autocracies and 1 for electoral autocracies. Most of the campaigns in the data frame used in this thesis have occurred in electoral autocracies, as reflected in Figure 5.4. The inclusion of the regime index allows me to examine variations between electoral and closed autocracies. The following sections will introduce the V-Dem dataset, which is the final component of the data frame used in this thesis and reflect upon the validity and reliability of the variable.

Figure 5.4: Distribution of campaigns by regime type



Source: NAVCO 2.1 and V-Dem

5.4.1 The V-Dem dataset

As mentioned in Chapter 2, I base my definition of regime type on the Regimes of the World (RoW) project from the V-Dem dataset. This outlines a categorisation of political regimes divided into four main categories: closed autocracies, electoral autocracies, electoral democracies, and liberal democracies (Coppedge, 2023, p. 287). The dataset used in this thesis only includes electoral autocracies that hold multiparty elections for the chief executive, but

fail to carry them out free and fair, or violate others of Dahl's institutional prerequisites for democracies (ibid), and closed autocracies that hold no multiparty elections for the chief executive or for the legislature. The V-Dem database measures more than 600 indicators annually from 1789 up until today and covers all countries of the world.

5.4.2 Validity and reliability

V-Dem is one of the world's largest social science data collection projects on democracy, and I hold that it is the best dataset available to examine variations between electoral and closed autocracies. The same two challenges as with NAVCO 2.1 do however arise. Like the rest of the V-Dem data frame, the indicators in the RoW-project are based on country expert coding of specific democratic components, aiming to ensure intercoder reliability. When coding errors or inaccuracies occur, this could lead to selection bias. Furthermore, the validity of the dataset can be disturbed if inaccuracies in the characterising of regimes occur.

5.5 Control variables

It is necessary to control for potential confounders to ensure that the estimated effects are not spurious. I restrict the list of controls to those theoretically well founded, in order to avoid issues of over-fitting and post-treatment bias (Achen, 2005; Ray, 2003, 2005). This includes five confounders linked to regime instability. I first include one variable capturing the economic context. *GDP per capita (logged)* captures the general economic wealth within a country and is a standard confounder in both protest models and models measuring cabinet instabilities (Chenoweth & Belgioioso, 2019; Dahlum, 2023). Since economic grievances are a recurring driver for civil unrest, it is important to account for this in the models. Contrastingly, people are less likely to protest in periods of economic growth (Arce & Bellinger, 2007). The second confounder is *population size (logged).* It is a common control variable when modelling protest onset and intensity since countries with a larger population are associated with higher protest intensity (Chenoweth & Ulfelder, 2017). Population size is somewhat accounted for when applying fixed effects, but population growth is not. Some of the countries in this analysis have experienced significant population growth (as reflected in Figure A.4 in the Appendix). This is directly linked to the spike in protests around 2011, as a growing young

population has been appointed one of the determining factors for the Arab Uprisings (Paasonen & Urdal, 2016).

Moving on to the third confounder, there is a broad scope of literature focusing on elections as a driver for civil unrest (Gandhi, 2008; Knutsen et al., 2017). Autocratic elections often coincide with protests, violence and even coup attempts, since elections create a space for people to voice their discontent with the regime (Knutsen et al., 2017, p. 136-137). People tend to become more engaged in politics in election periods. Accordingly, elections increase the immediate risk of regime instability, breakdown, and hence, cabinet swaps. I therefore include a binary, lagged *elections* variable, capturing whether elections have taken place or not. The fourth confounder is also lagged, namely *coup attempts*. In the aftermath of a failed coup attempt, autocratic leaders tend to respond by ousting all opponents linked to the coup through purges (Bokobza et al., 2022, p. 2). There is on average a replacement rate of 8-11% more cabinet members in the aftermaths of failed coups (ibid). If the coup turned out successful, it is reasonable to assume that a large turnover in cabinet ministers would follow. Finally, previous research has shown that the chance for ministers to lose their position increases significantly if the regime leader exits (Woldense & Kroeger, 2023, p. 9). Cabinets often consist of elites close to the regime leader. If the leader is ousted or in other ways loses power, ministers collaborating with the leader are likely to go down with her or him. I therefore include a binary, lagged variable, *leader exit*, capturing whether the regime leader has exited in a given year.

5.5.1 Descriptive statistics of variables

Table 5.5: Descriptive statistics

	vars	n	mean	sd	min	max	range	se
Dependent Variable								
Swaps	1	674	0.318	0.308	0	1	1	0.012
Independent Variables								
Protest occurrence	2	680	0.409	0.492	0	1	1	0.019
Number of campaigns	3	680	0.585	0.854	0	4	4	0.033
Peak campaign year	4	680	0.087	0.282	0	1	1	0.011
Regime type	5	680	0.501	0.500	0	1	1	0.019
Categorical Independent Variables								
Diverse movements	6	680						
Religiously diverse	7	680						
Confounders								
GDP per capita	8	680	1.833	0.729	0.329	3.448	3.119	0.029
Population	9	680	16.046	1.343	12.303	18.297	5.995	0.053
Election	10	680	0.221	0.415	0	1	1	0.016
Coup attempts	11	675	0.066	0.255	0	2	2	0.010
Leader exit	12	675	0.048	0.214	0	1	1	0.009

Sources: NAVCO 2.1, V-Dem and WhoGov

6 Methods

In this chapter, I present the methodological framework utilised to test the hypotheses laid out in Chapter 4. Since this thesis aims at delineating broader trends in the impact protest movements have on cabinet compositions, the research design of the thesis is quantitative. As outlined in the previous chapter, I am using a time-series cross-sectional panel data frame for the analysis. The data frame comprises 14 countries over the time span of 47 years. My dependent variable is *swaps*, operationalised as the share of ministers that exit cabinet in a given country-year. My independent variables measure protest occurrence through various attributes of the movements. Both the structure of the data and my aim to understand the effect the different protest variables have on the dependent variable are important for my modelling choices. In this chapter, I start by explaining my choice of statistical model before I assess potential threats to causality and ways to reduce them. Eventually, I argue that OLS regression models with country and time fixed effects is the best estimation method to test my hypotheses.

6.1 Choice of statistical model

The dependent variable is the deciding factor for which model to choose for the analysis. As mentioned in Chapter 5, there is an overwhelming majority of observations where swaps take place. I therefore use a continuous dependent variable, measuring the share of ministers in the cabinet that is swapped in a given country-year, rather than a dichotomous variable accounting for swap occurrence. The dependent variable *swaps* runs on a scale of 0 to 1. Linear regression is the most commonly used model when the dependent variable is continuous and the relationship between the dependent and the independent variable is assumed to be linear. Furthermore, I use a fixed effects regression, which is a modelling strategy that allows me to control for time-invariant unobserved individual characteristics potentially correlated with the independent variables (Christophersen, 2018, p. 171). By applying fixed effect methods, I make a theoretical choice to study the within-country and within-time relationship between protests and cabinet swaps (Bell & Jones, 2015). The downside of applying fixed effect models is that I sacrifice the opportunity to study the variance found between countries and over time. I do

however prioritise a more robust study of the effect protest movements have on the share of cabinet swaps.

6.1.1 Ordinary least squares estimation

The ordinary least squares (OLS) model minimises the sum of the squared differences between the dependent variable and those predicted by the function of the independent variable, when estimating the parameters in a regression model. There are three prerequisites for linear regression to be the best linear estimator: That the relationship between dependent and independent variables is linear, that there is an absence of perfect multicollinearity and that the models' residuals are approximately normally distributed, homoscedastic, and independent (Christophersen, 2018, p. 73). The regression for the primary hypothesis in this thesis is reflected in the equation[11] below:

$$share\ of\ swaps_{i,t} = \beta 0_{i,t} + \beta 1_{i,t} \cdot lagged\_protests + \beta 2_{i,t} \cdot log(gdp\_per\_capita) + \beta 3_{i,t} \cdot log(population) + \beta 4_{i,t} \cdot lagged\_election + \beta 5_{i,t} \cdot lagged\_coup\_attempt + \beta 6_{i,t} \cdot lagged\_leader\_exit + \alpha_i + \lambda_t + \varepsilon_{i,t}$$

The coefficients become biased and therefore unreliable if these model assumptions do not hold. While the linear model is recognized as a reliable estimator across a wide range of scenarios (Angrist & Pischke, 2009), I estimate several OLS regressions with diverse specifications to make sure the model is the best fit for my data. These will be further discussed in Chapter 7.

[11] α = country fixed effects; λ = time (year) fixed effects.

6.2 Methodological challenges and ways to meet them

As with any regression model, OLS faces several threats to causality. I address some of the most common ones and ways to prevent them in the following sections, including omitted variable bias, multicollinearity, endogeneity, and reverse causality.

6.2.1 Omitted variable bias and fixed effects

Omitted variable bias is the primary statistical challenge when using panel data (Allison, 2009; DeMaris, 2014; Wooldridge, 2010). Type-1 errors, concluding that the results are significant if they happened by chance, increase when relevant variables are excluded (Christophersen, 2018, p. 31). Since it is seldom possible to control for all potential cofounders, most models suffer the risk of potential omitted variable bias. This holds particularly true when dealing with data stretching across time and countries, since there is likely to be country- and time-specific effects correlated with both the dependent and independent variables. The models can therefore end up providing biased coefficient estimates. One way to meet this challenge is by including two-way fixed effects to the models. Country and time fixed effects take variation across country and time into account by confining attention across variables to a given country year. These variations often capture historic, cultural, or geographic trends or events. By controlling for all unobservable stable covariates, I reduce the risk of the potential bias from omitted variables.

6.2.2 Correlation and multicollinearity

Multicollinearity concerns cases where there is a high level of correlation among the independent variables and the controls in the models. One of the prerequisites for OLS regression models is the absence of perfect multicollinearity, as this can lead to unstable coefficients and incorrect significance-values (Christophersen, 2018, p. 144). Additionally, multicollinearity increases the risk of rejecting a true hypothesis. To check for multicollinearity, I ran Variance Inflation Factor (VIF) tests for the five models (one for each independent variable). The VIF tests detected multicollinearity, but the results were low in all the models, implying that the assumption of no perfect multicollinearity is being met (Table A.8 in the Appendix).

6.2.3 Endogeneity and reverse causality

Endogeneity refers to a situation where the effect of an independent variable on a dependent variable cannot be causally interpreted because it includes biased estimates. There are several factors that can cause endogeneity in the models: Omitted variable bias, measurement errors or multiway causality. Given the inherent interconnectedness of the world, this is a fundamental problem within the field of political science. Endogeneity in this thesis could stem from reverse causality, linked to multiway causality, covering cases where it is the dependent variable that causes the independent variable, not the other way around. To draw an example from the scope of this thesis: An increase in the share of cabinet swaps could be seen as a suitable window of opportunity to mobilise by the protesters since the regime already shows signs of instability. To tackle the challenge of endogeneity, I introduce lags to all my independent and control variables. This adjustment allows my models to estimate the influence of protest movements on cabinet swaps in the following year. This approach helps mitigate potential issues related to causality arising from endogeneity and reverse causality. Nevertheless, it is essential to acknowledge that these concerns cannot be entirely eradicated. Therefore, I rely on existing literature and theoretical foundations to inform my selection of control variables while maintaining a parsimonious model.

7 Results

In this chapter, I present the empirical analysis of the data and test their robustness. Section 7.1 focuses on the general relationship between protest movements and cabinet swaps. In Section 7.2, I examine diversity in the protest movements, while also considering the effect of religiously diverse protests on the share of cabinet swaps. The interaction between regime type and the effect of protest movements is further explored in Section 7.3. In Section 7.4, I run various OLS regression models to check whether the models are robust across the model specifications described in Chapter 5. There I also discuss the validity of the results. I first assess the internal validity, discussing the causal interpretation of the findings, and elaborate on some limitations related to the dataset. Finally, I turn to the external validity of the results and their scope conditions in Section 7.5.

All the models introduced in this chapter include time and country fixed effects, accounting for variations in the dependent variable that are related to changes over time and variations between countries. This can reduce potential omitted variable bias, which could cause misleading results in the analysis. The models presented in this chapter analyse the relationship between protests and minister turnover within cabinets in the Middle East and North Africa. All sections present a set of bivariate models, only including fixed effects on year and country, alongside the models including the controls discussed in Section 5.5.

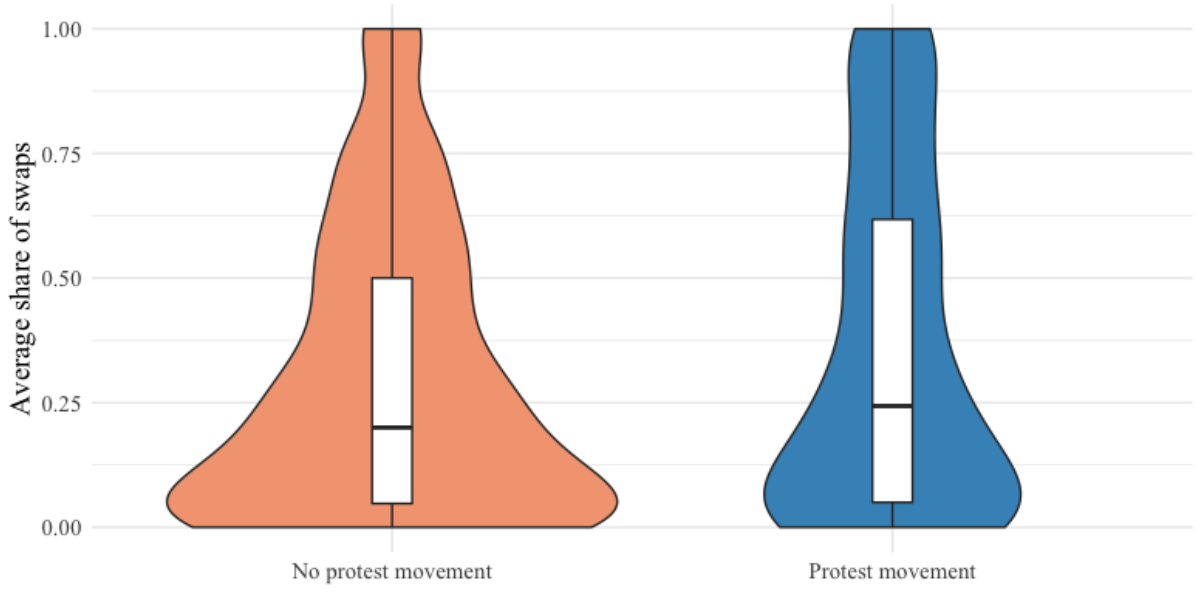
7.1 Share of cabinet swaps following protests

This section examines how protest movements impact the share of cabinet ministers that are replaced. The first hypothesis, *H1*, anticipates *that the share of ministers that are swapped in a given year increases if there has been an ongoing campaign prior to the cabinet reshuffle*.

7.1.1 Descriptive statistics

Starting with some descriptive statistics, Figure 7.1 presents the distribution of the share of ministers that are swapped out from the cabinet in years with and without protest movements. In years where no protest movements have been present, the median share of swaps is 20%, meaning that most of the cabinet members stay. Figure 7.1 further shows that the distribution of the share of swaps is very wide at the bottom, indicating that many cabinets have very low share of swaps in years without protest movements. Contrasting to this, the median share of swaps reaches 24,3% in years following protest movement occurrence. The distribution of the share of swaps for these years is more evenly spread out. This indicates that cabinets see a greater variation of replacement rates in years following protest movements. There are 278 observations for country-years with campaigns, and 402 for those without.

Figure 7.1: Distribution of the share of swaps
in years with and without protests movements



Source: NAVCO 2.1 and WhoGov

7.1.2 Regression models

Table 7.1 displays the results from the regression models using the main independent protest variables, capturing whether a protest movement occurred or not (Model 1 and 4), the number of protest campaigns (Model 2 and 4), and the peak year of the protest campaign (Model 3 and 6). The dependent variable in all models captures the share of ministers that are swapped out of the cabinet following protest movement occurrence. Model 1-3 are the baseline models, only including the variables of interests. Yet, as outlined in Section 5.5, there are several confounders assumed to be associated with both the dependent and independent variables. Model 4-6 incorporates these controls to address potential issues related to omitted variable biases. The primary objective of these extended models is however to assess whether the effects of the main independent variables remain robust while taking these potential confounders into account. Hence, the coefficients of the control variables themselves will not be the focus of detailed discussion in this context.

Starting off with Model 1 and 4, they estimate a positive and statistically significant effect of *protest occurrence* on the share of *swaps*. The results remain robust when including controls. Controlling for confounders, *protest occurrence* is associated with an increase of 7,9% in the share of ministers that are being swapped out of office. Moving on to Model 2 and 5, capturing the *number of campaigns* that are simultaneously taking place within a given country. The bivariate model, Model 2, is statistically significant and suggests that an increase of one protest campaign leads to a 3,2% increase in the average share of swaps. This effect does however fall below the conventional levels of statistical significance when including controls in Model 5. The last set of models capture years where the campaigns were at their peak. *Peak campaign year* in Model 3 and 6 hold the strongest results, estimating that the share of cabinet swaps increases by 10,7% in the aftermath of years where protest movements have the highest participation numbers. The results are significant and remain similar when including controls, demonstrated in Model 6.

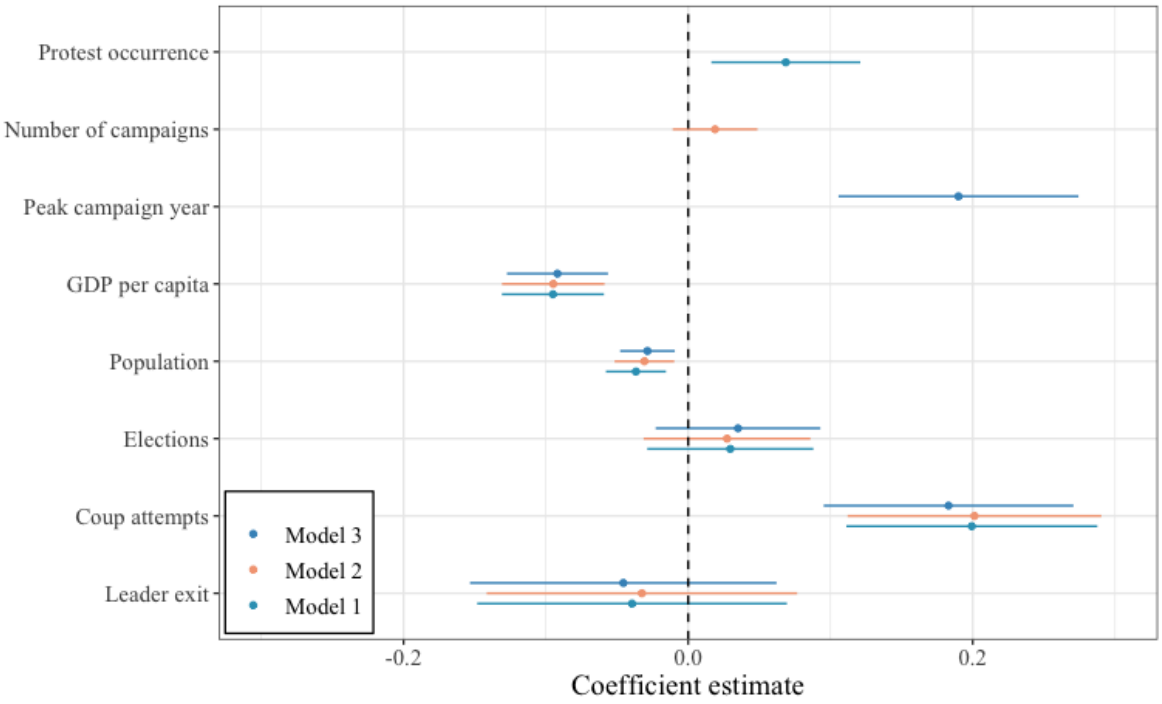
Table 7.1: Protest movement effect on the share of cabinet swaps

	Dependent variable:					
	Share of cabinet swaps					
	(1)	(2)	(3)	(4)	(5)	(6)
Protest occurrence	0.088***			0.079***		
	(0.027)			(0.030)		
Number of campaigns		0.038**			0.032*	
		(0.017)			(0.018)	
Peak campaign year			0.108***			0.107**
			(0.041)			(0.042)
GDP per capita				-0.032	-0.034	-0.048
				(0.045)	(0.045)	(0.044)
Population				-0.032	-0.114	-0.118
				(0.123)	(0.119)	(0.118)
Elections				0.033	0.032	0.031
				(0.027)	(0.027)	(0.027)
Coup attempts				0.157***	0.150***	0.150***
				(0.042)	(0.043)	(0.043)
Leader exit				-0.094*	-0.090*	-0.097*
				(0.053)	(0.053)	(0.053)
Constant	0.882***	0.906***	0.855***	1.412	2.770	2.806
	(0.080)	(0.080)	(0.084)	(2.021)	(1.943)	(1.935)
Fixed Effects included for Country and Year						
Observations	674	674	674	628	628	628
R^2	0.372	0.366	0.368	0.398	0.394	0.397
Adjusted R^2	0.309	0.303	0.305	0.327	0.322	0.326
Residual Std. Error	0.256 (df = 612)	0.257 (df = 612)	0.256 (df = 612)	0.254 (df = 561)	0.255 (df = 561)	0.254 (df = 561)
F Statistic	5.938*** (df = 61; 612)	5.794*** (df = 61; 612)	5.853*** (df = 61; 612)	5.616*** (df = 66; 561)	5.518*** (df = 66; 561)	5.598*** (df = 66; 561)
Note:						*p<0.1; **p<0.05; ***p<0.01

7.1.3 Validity of the results

To provide a more intuitive presentation of the results, Figure 7.2 presents the main results of the regression analyses described in the previous section. The figure plots the estimated coefficients, and the 95%-confidence interval. As illustrated, the two independent variables *protest occurrence* and *peak campaign year* have a positive effect on the share of cabinet swaps. The coloured lines extending from the coefficients represent the confidence intervals, hence the range which the true population coefficient is likely to fall within. The confidence intervals for the estimates of these two variables do not cross the value "0", which illustrates that the estimates are statistically significant at the 5%-level. Turning to the effect of *the number of campaigns*, Figure 7.2 helps illustrate why the independent variable *number of campaigns* is only statistically significant at the 10%-level in Model 5. Since the confidence interval includes zero, it is not possible to conclude that the independent variable *number of campaigns* has a positive effect on the dependent variable, when applying the conventional standard of a 5%-interval.

Figure 7.2: Coefficient plot for the primary models



Source: NAVCO 2.1, V-Dem and WhoGov

To sum up, the results from the models presented in Table 7.1 and illustrated in Figure 7.2 indicate that there is robust evidence in favour of the first hypothesis, suggesting that protest movements increase the average share of cabinet swaps. Which aspects of the movements are measured do however affect the strength and significance of the results.

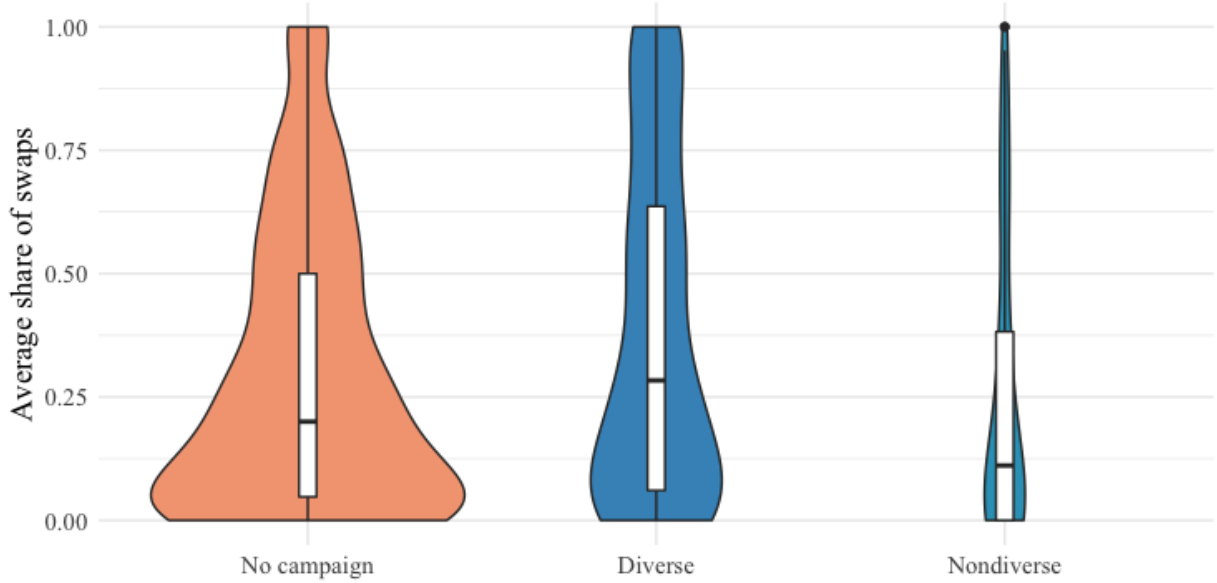
7.2 The effect of diverse movements

This section investigates how diverse movements impact the share of ministers in cabinet that get swapped. The second hypothesis, *H2*, anticipates that *protest movements that are diverse have a stronger impact on the share of ministers that get swapped than those that are nondiverse*. *H2* is followed by a sub-hypothesis, *H2a*, which specifies that protest movements that are diverse along religious lines are expected to have a stronger impact on the share of swaps than the movements that are diverse across socio-demographic groups.

7.2.1 Descriptive statistics

Figure 7.3 presents the distribution of the share of swaps in years with diverse and nondiverse protest movements. In years where nondiverse protest movements have been present, the median share of swaps is 11,1%. The figure further illustrates that the distribution of observations is relatively even through the overall narrow shape of the plot. While there are 225 observations of diverse movements, there are only 53 for movements that are nondiverse. The median share of swaps for diverse protests is 28,3%.

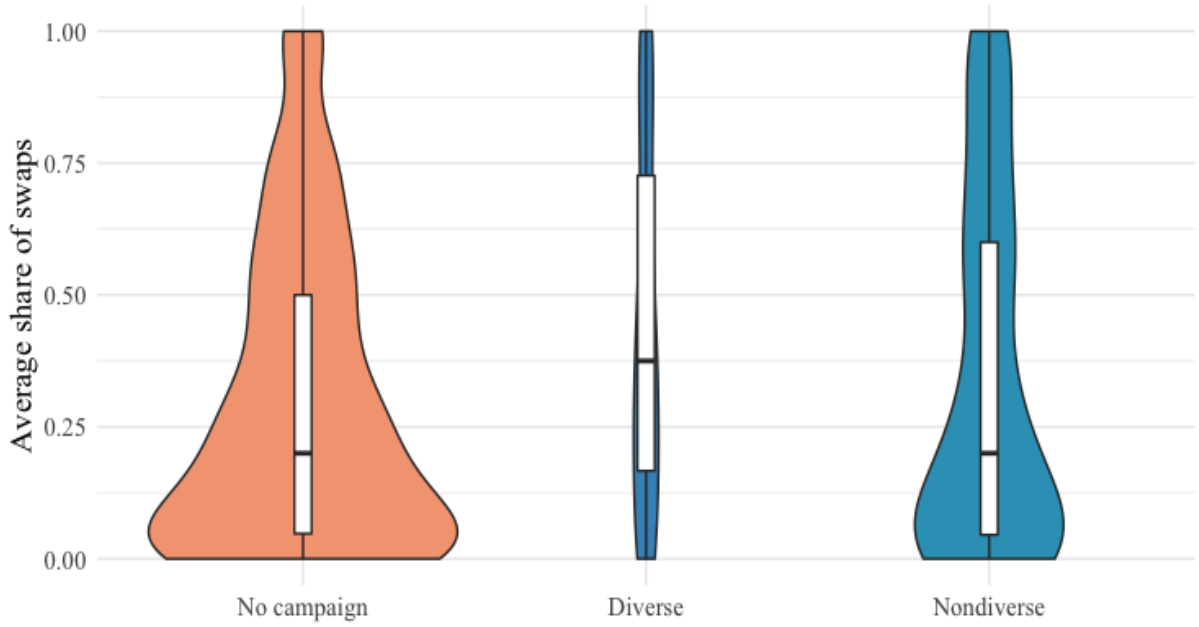
Figure 7.3: Distribution of the share of swaps
in years with and without diverse protests movements



Source: NAVCO 2.1 and WhoGov

Figure 7.4 presents the distribution of the share of swaps in years with protest movements that are religiously diverse or not. Like the previous variable, the distribution of *religiously diverse movements* is skewed. There are 56 observations of religiously diverse movements, and 222 of those who are religiously nondiverse. The median share of swaps for protest movements that are religiously diverse is 37,5%. This is almost the double of movements that are religiously nondiverse. The median share of swaps for religiously nondiverse movements is 20%, which is equal to years without protest movement occurrence.

Figure 7.4: Distribution of the share of swaps in years
with and without religiously diverse protests movements



Source: NAVCO 2.1 and WhoGov

7.2.2 Regression models

To test *H2* and *H2a*, I compare a set of bivariate models only controlling for country and time fixed effects, with the extended regression models including confounders on regime instability outlined in Chapter 5. The independent variables in all models are positively associated with the share of cabinet swaps and statistically significant. When controlling for potential confounders, the share of ministers that are replaced increases by 12% following the presence of diverse movements as reflected in Model 3. The results in Model 4 are even stronger, predicting an increase in the average share of swaps by 17% following years with religiously diverse protests. Movements that are not religiously diverse are associated with a 6,6% increase in the share of swaps. The results remain statistically significant and with approximately equal strength when controlling for confounders. Hence, the independent variables capturing diverse movements both retain their explanatory ability in the extended models.

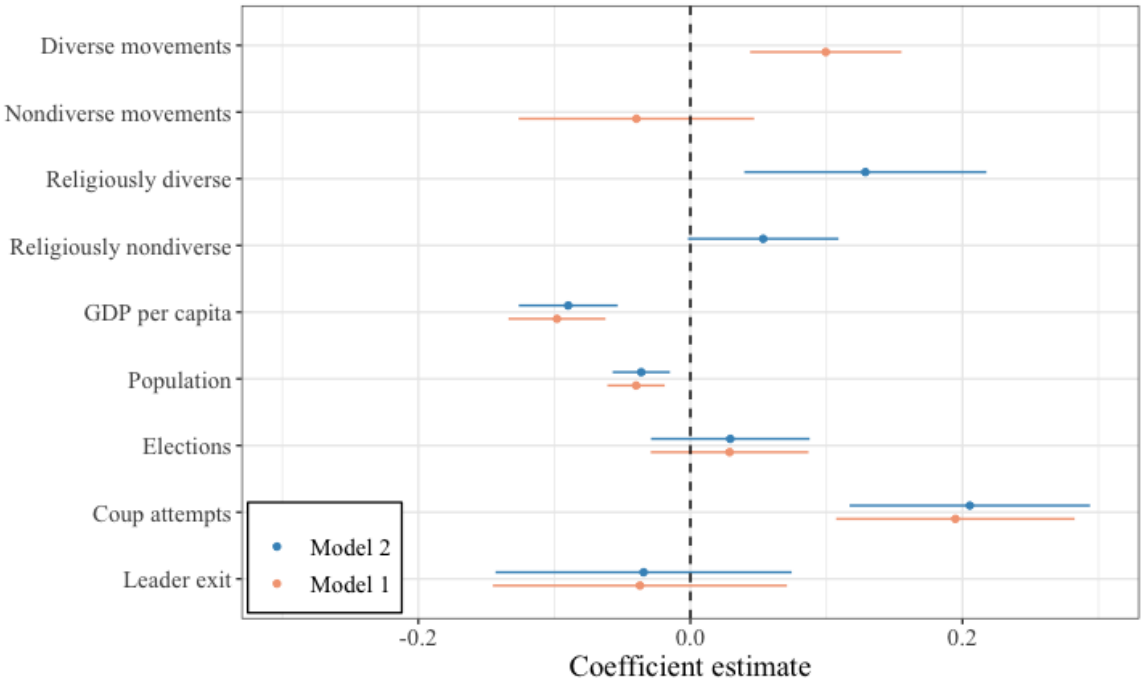
Table 7.2: Diverse protest movements effect on cabinet swaps

	Dependent variable:			
	Share of cabinet swaps			
	(1)	(2)	(3)	(4)
Diverse movements	0.126***		0.120***	
	(0.029)		(0.031)	
Nondiverse movements	-0.038		-0.049	
	(0.044)		(0.045)	
Religiously diverse		0.172***		0.170***
		(0.043)		(0.044)
Religiously nondiverse		0.066**		0.051*
		(0.029)		(0.031)
GDP per capita			-0.025	-0.031
			(0.044)	(0.045)
Population			-0.046	-0.069
			(0.122)	(0.123)
Elections			0.034	0.033
			(0.027)	(0.027)
Coup attempts			0.160***	0.166***
			(0.042)	(0.042)
Leader exit			-0.102*	-0.093*
			(0.053)	(0.053)
Constant	0.847***	0.894***	1.587	2.027
	(0.080)	(0.080)	(1.998)	(2.022)
Fixed Effects included for Country and Year				
Observations	674	674	628	628
R^2	0.385	0.378	0.413	0.406
Adjusted R^2	0.323	0.315	0.343	0.335
Residual Std. Error	0.253 (df = 611)	0.255 (df = 611)	0.251 (df = 560)	0.252 (df = 560)
F Statistic	6.181*** (df = 62; 611)	5.999*** (df = 62; 611)	5.884*** (df = 67; 560)	5.709*** (df = 67; 560)
Note:				*p<0.1; >**p<0.05; >***p<0.01

7.2.3 Validity of the results

The coefficient plot in figure 7.5 further illustrates that the diversity variables hold statistically significant results for the diverse categories. The confidence interval for *nondiverse movements* clearly crosses the cut-off, illustrating why the estimates are not statistically significant.

Figure 7.5: Coefficient plot for diversity models



Source: NAVCO 2.1, V-Dem and WhoGov

7.3 Electoral autocracies

Hypothesis *H3* anticipates the effects of protests on the share of cabinet swaps to be dependent upon whether regimes are electoral or closed autocracies. To test this hypothesis, I include an interaction term between the five protest variables applied in the above-mentioned regression models, and a variable capturing regime type. Including interaction terms in regression models allows for a better understanding of how the relationship between an independent variable and the dependent variable changes, depending on the level of another variable. As outlined in Chapter 4, I assume that the effect of protests on cabinet swaps depend on whether a country is an electoral or closed autocracy. Inclusion of the interaction terms therefore have important implications for the interpretation of the models.

7.3.1 Regression models

The interaction terms illustrate how the effect of the independent protest variables differs between countries that are electoral and closed autocracies. Closed autocracy is the reference category in all models. Thus, the coefficients for the interaction terms indicate the expected change in the share of cabinet swaps following protests for countries that are categorised as electoral autocracies. Since most of the findings are not statistically significant, I will not comment on them, but limit this section to the coefficients of the interaction terms that have statistically significant results.

First, the interaction term in Model 2 implies that an increase in the number of campaigns in electoral autocracies have a negative impact on the share of swaps. Hence, it is expected that the share of swaps decreases by 1%[12] in electoral autocracies for each additional campaign, compared to an increase of 11% in closed autocracies. Second, if a movement is religiously nondiverse, Model 5 implies that there is a slight expected decrease in the share of swaps by 0,1%[13] in autocracies categorised as electoral. These interaction terms indicate that the relationship between protests and cabinet swaps can vary depending on whether a country is classified as an electoral or closed autocracy, but do not provide strong evidence in favour of this hypothesis.

[12] Electoral: (0.110 + (-0.120) * 1) = -0.01 * 100 = 1%. Closed: (0.110 + (-0.120) * 0) = 0.11 * 100 = 11%.
[13] Electoral: (0.122 + (-0.123) * 1) = -0.001 * 100 = 0.1%. Closed: (0.122 + (-0.123) * 0) = 12.2%.

Table 7.3: Including interaction term for regime type

	Dependent variable:				
	Share of cabinet swaps				
	(1)	(2)	(3)	(4)	(5)
Protest occurrence	0.133***				
	(0.042)				
Number of campaigns		0.110***			
		(0.029)			
Peak campaign year			0.142**		
			(0.061)		
Diverse movements				0.164***	
				(0.043)	
Nondiverse movements				-0.012	
				(0.071)	
Religiously diverse					0.169**
					(0.068)
Religiously nondiverse					0.122***
					(0.044)
Interaction: Protest occurrence ∘ Regime type	-0.096*				
	(0.054)				
Interaction: Number of campaigns ∘ Regime type		-0.120***			
		(0.035)			
Interaction: Peak campaign year ∘ Regime type			-0.072		
			(0.079)		
Interaction: Diverse movements ∘ Regime type				-0.078	
				(0.056)	
Interaction: Nondiverse movements ∘ Regime type				-0.069	
				(0.087)	
Interaction: Religiously diverse ∘ Regime type					-0.015
					(0.085)
Interaction: Religiously nondiverse ∘ Regime type					-0.123**
					(0.057)
Regime type	-0.005	0.030	-0.038	-0.028	0.0003
	(0.045)	(0.043)	(0.037)	(0.045)	(0.045)
GDP per capita	-0.049	-0.042	-0.063	-0.046	-0.045
	(0.046)	(0.047)	(0.046)	(0.046)	(0.046)
Population	0.013	0.006	-0.095	-0.005	-0.024
	(0.125)	(0.122)	(0.119)	(0.123)	(0.125)
Elections	0.040	0.036	0.036	0.041	0.039
	(0.028)	(0.027)	(0.028)	(0.027)	(0.027)
Coup attempts	0.146***	0.118***	0.144***	0.150***	0.149***
	(0.042)	(0.043)	(0.043)	(0.042)	(0.043)
Leader exit	-0.096*	-0.101*	-0.103*	-0.105**	-0.094*
	(0.053)	(0.053)	(0.053)	(0.053)	(0.053)

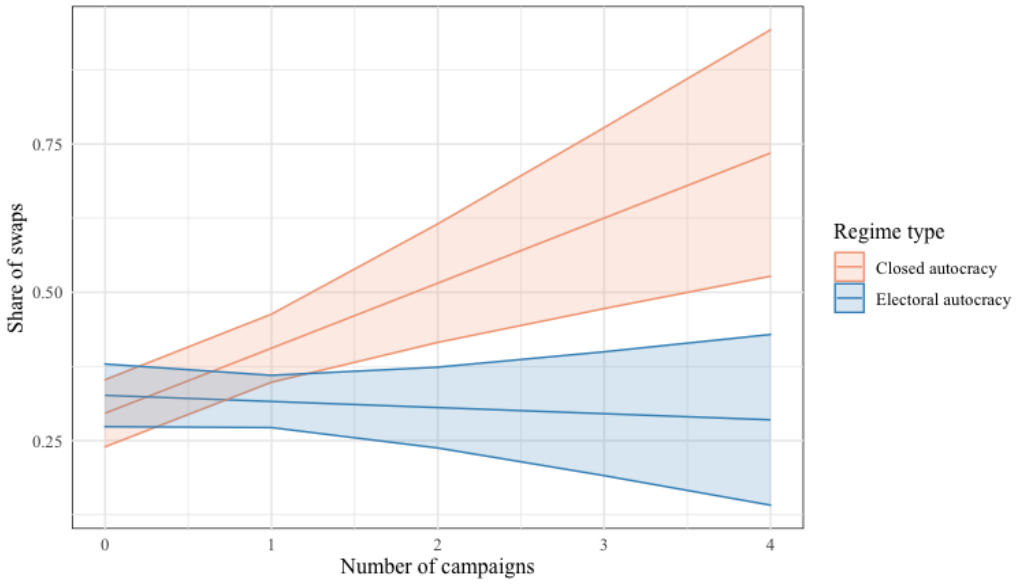
Fixed Effects included for Country and Year					
Observations	628	628	628	628	628
R^2	0.404	0.408	0.400	0.419	0.413
Adjusted R^2	0.331	0.336	0.327	0.346	0.339
Residual Std. Error	0.253 (df = 559)	0.252 (df = 559)	0.254 (df = 559)	0.250 (df = 557)	0.251 (df = 557)
F Statistic	5.663*** (df = 68; 559)	5.664*** (df = 68; 559)	5.472*** (df = 68; 559)	5.734*** (df = 70; 557)	5.594*** (df = 70; 557)
Note:					*p<0.1; >**p<0.05; >***p<0.01

7.3.2 Interaction effect between regime type and protest movements

The interaction effect between the models with statistically significant results, Model 2 and 5, is illustrated in the figures below. Figure 7.6 visualises the interaction effect between regime type and the effect of an increase in the number of protest movements on the share of swaps. The average share of swaps in years with no protest campaigns is 29,16%. This plot demonstrates that an increase in the number of protest movements has a positive effect on the share of cabinet swaps in closed autocracies. The effect decreases slightly in electoral autocracies.[14] There are however few incidents where several campaigns take place in the same year in closed autocracies. Thus, the distribution of the variable *number of campaigns* is skewed. The distribution of *number of campaigns* between regime types is reflected in Figure A.5 in the Appendix.

[14] Parallel lines would illustrate the absence of an interaction effect.

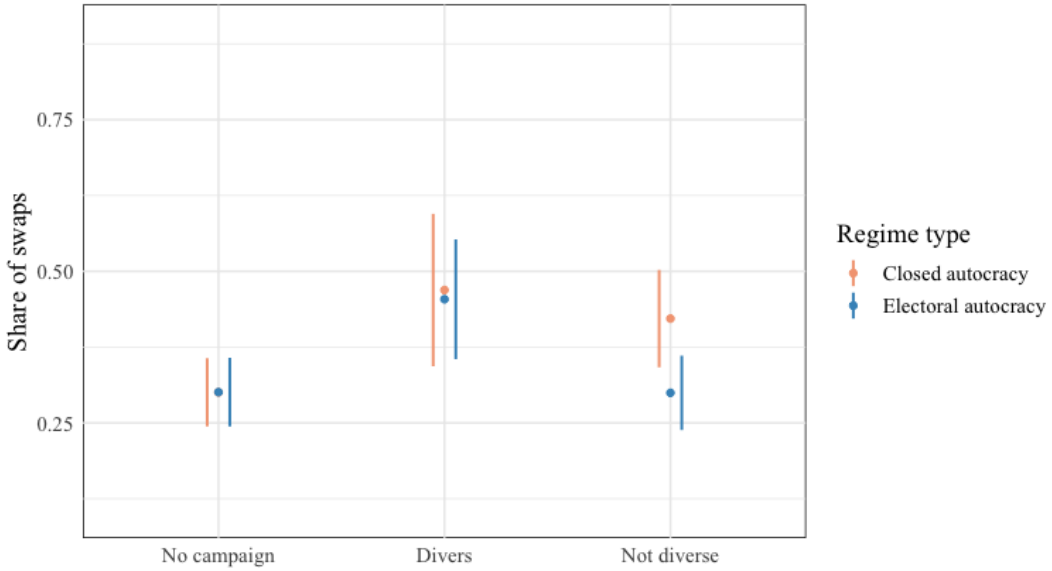
Figure 7.6: Interaction plot for number of campaigns



Source: NAVCO 2.1, V-Dem and WhoGov

Figure 7.7 illustrates the interaction effect between regime type and religiously diverse movements. The y-axis displays the predicted share of swaps following protest movements within the two regime types. While the effect for religiously diverse movements itself was not significant, Model 5 indicates that the effect of movements that are religiously nondiverse varies significantly between regime types.

Figure 7.7: Interaction plot for religiously diverse movements



Source: NAVCO 2.1, V-Dem and WhoGov

7.4 Robustness checks

In this section, I discuss my findings in terms of their internal validity. I consider alternative model specifications and conduct various robustness checks to test the robustness of my results. Finally, I address the assumption of causal inference in my models.

7.4.1 Internal validity

Validity refers to whether we actually measure what we set out to do (Bryman, 2016, p. 149). Internal validity refers to the accuracy of the results and whether they are not due to methodological errors, hence the degree of confidence in the causal relationship that is being tested (Gerring, 2005, p. 183). In the field of social science, the validity of the results partly depends on whether they are statistically significant at conventional levels of uncertainty, typically set to the 5%-level (Kleven et al., 2002). The 5%-level refers to there being a 5% chance that type-1 errors have been made within the results that are seemingly statistically significant. Estimates that do not reach this standard are more uncertain, and the null hypotheses for these estimates cannot be rejected. There are however several other threats to the internal validity of the findings, despite the statistical significance of (most of) the results.

7.4.2 Alternative model specifications

While the significance of the results is reflected and discussed through the tables previous in this chapter, this section investigates whether the findings remain robust when replicating the analysis using other model specifications. I argue that fixed effects models are the preferred modelling choice for the data applied in this analysis due to the spatial and temporal variations between the observations[15]. Fixed effects models can reduce bias from omitted variables and thereby reduce the risk of type 1-errors but are less efficient than pooled OLS regressions. Furthermore, fixed effects models reduce the degrees of freedom. This can increase the risk of type-2 errors in my findings, especially since my data frame contains relatively few observations. In this context, there exists a delicate balance between obtaining unbiased estimates and maximising efficiency (Worrall, 2010).

[15] Another potential model specification could have been difference-in-difference design. Recent research does however show that results do not vary considerably between these modelling options (Chiu et al., 2023).

I run all models with random effects, seeking to strengthen the robustness of my results. These models are reflected in Table A.1 and Table A.2 in the Appendix. The random effect (RE) models assume that the unobserved differences between the groups are random, contrary to fixed effect models which assume that each group has a distinct constant effect on the dependent variable. In the RE models without interaction terms, only the variable *number of campaigns* in Model 2 changed its explanatory ability and was no longer statistically significant. The RE models including interaction terms did however change substantially. While only two of the interaction terms in the FE models in Table 7.3 have statistically significant coefficients, all models in Table A.2 have statistically significant results. Furthermore, the effect of the variable *peak campaign year* shifts direction, implying that there is a 24,3%[16] increase in the share of swaps in electoral autocracies when protest movements are at their peak.

The robustness of the models with interaction terms is tested through a replication of the analysis using a subset for each regime type. The regression models for the two subsets, Table A.3 and A.4, are displayed in the Appendix. The coefficients remain positive, though not all of the independent variables in the electoral autocracy subset maintain statistically significant results. This may be due to a reduced number of observations. Another way to test the robustness of my findings could be to replicate the analysis using logistic regression. There is however an overwhelming majority of the observations where swaps did occur, and the variation in the dependent variable is therefore too low to run a logistic regression model that gives statistical or substantive meaning.

7.4.3 Reverse causality

The results from the models presented previous in this chapter are overall robust across various model specifications. Robustness is however not evidence of causality, implying that X leads to Y through a causal mechanism. Three conditions must be met when determining a causal relationship between two variables. Firstly, there should be empirical evidence of a relationship between X and Y. Secondly, the independent variable (Y) must precede the dependent variable (X) in time. Lastly, the relationship between X and Y cannot be spurious, meaning that its

[16] Electoral: 0.033 + 0.210 * 1 = 0.243 * 100 = 24.3%. Closed: 0.033 + 0.210 * 0 = 0.033 * 100 = 3.3%.

connection should not be incidental, but influenced by causal mechanisms. As displayed earlier in this chapter, the coefficients for the protest variables were statistically significant at the 5%-level across models and through various model specifications, providing empirical support for the relationship between swaps and protests. By lagging all independent variables, this strengthens the assumption that the independent variables precede the dependent variable in time.

Since protests may come after the reshuffle, the use of protest event data linked to the dependent variable would make it easier to establish causality. This would however cause two challenges. As previously mentioned, there is little evidence supporting the causal effect of one single protest on regime change. Both participation numbers and continuity of protests are best captured by campaign data rather than event data. Additionally, the datasets containing event data are focused on shorter and more recent time intervals, and limited countries, which would force me to lose information on several events. While NAVCO 2.1 does not include observations for Kuwait, Morocco, Palestine, Qatar, Saudi Arabia, and the United Arab Emirates, NAVCO 3.0 with protest event data is also lacking Iran, Lebanon and Oman. I do however run a robustness test included in the Appendix where I use the start dates of the campaigns to create a new independent variable (Table A.5). Since WhoGov is registered in July each year, I code all campaigns starting after July to be counted for in the consecutive year. The results hold similar levels of statistical significance, strengthening the assumption of causal inference in my models.

The final assumption of regression models when drawing causal inference is that the relationship between the dependent and independent variables is not spurious. By including confounders associated with regime instability and two-way fixed effects, I do control for some of the omitted variables in the models. Omitted variable bias is however, as previously discussed, difficult to avoid completely.

7.5 External validity and scope conditions

This section is dedicated to discussing the external validity of the thesis and its scope conditions. External validity entails whether the study is generalisable to a larger population (Gerring, 2005, p. 183). I argue that the sample used for this analysis is sufficiently representative for the Middle East and North Africa as a region to draw generalised conclusions. The external validity strengthens due to the application of large-N data where most of the countries in the sample are included for a majority of the time frame for the analysis. As mentioned in Chapter 7, there were however 7 out of 21 countries in the region that were excluded preliminary to the study. This limits the generalisability of the findings to the larger population to some extent. In particular, four out of the seven excluded countries are amongst the Gulf monarchies, making this part of the region disproportionately underrepresented.

Scope conditions refer to the specific conditions under which a hypothesis is expected to hold true. Since my thesis focuses on the Middle East and North Africa, it is not a given that the same results can be found elsewhere. To assess whether the mechanisms described in Chapter 4 are relevant on a global scale, I run the regression models for the five independent variables with a data frame covering a global scope. Even though the theoretical framework in this thesis is constructed based on existing features of the Middle East and North Africa, these theoretical assumptions stem from existing literature on authoritarian behaviour and contentious politics and could be applicable on a global scale. H2a is however likely to be more relevant in regions where religious divides are salient. Table A.6 and A.7 can be found in the Appendix. The results from the models without interaction terms in Table A.6 have similar, but somewhat weaker results than the main models. Model 1 and 4 from Table A.7 including interaction terms became statistically significant when applying a global data frame. This will be further commented on in the next chapter.

7.6 Summary

Overall, my findings are (mostly) statistically significant and yield interesting implications that will be further discussed in the following chapter. This empirical analysis supports the hypothesis H1: that protest movements affect the share of swaps that take place in cabinets in autocratic regimes in the Middle East and North Africa. Similarly, my findings support hypothesis H2: that diverse protest movements have a stronger impact on the share of ministers that get swapped than those movements that are nondiverse, and H2a: that protest movements that are diverse along religious lines are more likely to impact the share of cabinet swaps than general diverse movements. The results do however not provide strong evidence in favour of H3: that the effect of protest movements on the share of swaps is dependent upon whether a country is categorised as an electoral or closed autocracy. My results remain robust across multiple robustness checks, indicating that they are shaped by real-world empirical patterns, rather than errors in the models' specifications.

8 Discussion

This thesis explored the research question:

> *Do protest movements affect cabinet reshuffles within authoritarian regimes in the Middle East and North Africa?*

Drawing on theories on concession making, co-optation and autocratic stability, I expected protest movements to be positively correlated with an increase in the share of ministers swapped out of cabinet. Moreover, I assumed that diverse protest movements, and especially those movements that were diverse along religious lines, would be particularly impactful. My final expectation was that the effect of protests was conditioned on whether regimes were electoral or closed autocracies. In this chapter, I summarise my main findings and discuss their implications. Furthermore, I elaborate on some suggestions for future research. Lastly, I comment on some practical implications of the results.

8.1 Main findings and implications

This thesis has provided an in-depth understanding of how protests affect the share of ministers that are swapped out of cabinet by analysing five different aspects of protest movements. My primary hypothesis, H1, expected that the share of cabinet ministers that are swapped in a given year increases if there has been an ongoing campaign prior to the cabinet reshuffle. This expectation was derived from theories on autocratic behaviour and the use of concessions or co-optation to silence the opposition. To explore the effect of protest movements, I ran five regressions containing different independent variables capturing distinct features of the movements. The findings suggest that protest movements influence the share of ministers that are swapped. This effect is both stronger and more statistically significant when protest movements are in their peak year. Coherently with assumptions of protest impact, my findings support the claim that protests are more impactful when they can mobilise larger crowds. On the contrary, the campaign count variable did not show sufficient statistically significant results for them to be reliable. This suggests that there is little evidence to support the surplus value of

parallel protest movements taking place. Whether this is due to a fragmentation of resources, or some other explanatory factor is beyond the scope of this thesis and should be subject to future research.

The findings that protest movements impact the share of ministers that are swapped can be explained through theoretical mechanisms of autocratic behaviour mapped out in Chapter 4. To start, this provides evidence of the cabinet level impacts of protests. Existing literature on protests and social movements most commonly analyse the effect they have on regime change. This thesis contributes to analysing movements' effect on a smaller scale through examining changes in the share of ministers that are swapped following protests. Autocratic leaders can respond to protests by swapping out ministers in their cabinet for several reasons. Either they can aim to please the crowds by granting them concessions in the form of more representative or popular ministers. This presumes that autocratic leaders deem concessions as the best solution to silence oppositional voices. Granting concessions can however be a costly affair since it is associated with protest escalation rather than curtailing. A more commonly used tool to stagger the masses is therefore co-optation. By co-opting the opposition, autocratic leaders can succeed in fragmenting the opposition elites while silencing the protesters. Cabinet reshuffles further allows for the ousting of potentially disloyal members from the elites.

Contemporary studies of protests have found that diversity is an important factor when measuring their impact. Diverse protests have a higher success rate in achieving regime change than those protests consisting of single socio-demographic groups. My findings support this claim, providing additional evidence for the effect diverse protest movements have on cabinet reshuffles. This has implications for the future studies of protests and social movements. In addition to helping strengthen the empirical knowledge on the importance of diverse movements as reflected in hypothesis H2, my thesis contributes to filling the knowledge gap on the value of specific movement constellations. Having found evidence supporting H2a, this thesis provides important insights into the role of religion in politics. These findings imply that protest movements that are diverse along religious lines have a greater impact on the share of ministers that are ousted than movements that are nondiverse. This aligns with observations from qualitative studies in the region, such as the Egyptian revolution in 2011 and the subsequent military coup in 2013.

My final hypothesis, H3, expected that the effect of protests on the share of swaps would be dependent upon whether autocratic regimes are electoral or closed. I did not find strong evidence in support of this hypothesis. Contrary to my initial assumptions, there were some indications that the impact of parallel protest campaigns on the share of cabinet swaps is stronger in closed than electoral autocracies. One plausible explanation for this is that protest occurrence is more common in electoral autocracies, hence the effect is stronger in closed autocracies when they first occur. Even though I did not find much evidence linking protest effect to regime type in the Middle East and North Africa, several of the models from the global data frame indicated the opposite. The scope of this thesis is limited to the Middle East and North Africa, but these indications would be an interesting subject for future studies on a global scale.

8.2 Recommendations for future research

This thesis studies how the share of cabinet swaps is prone to change following periods of civil uprisings. There is however much undiscovered territory when researching protest movements in authoritarian regimes. I will therefore make a few interconnected recommendations for future research on the protest-cabinet nexus.

A key insight from this study is that the share of swaps in cabinets tend to increase following periods of civil unrest. This does however say little about the motivation behind the increase, or which ministers it affects. As discussed in the theoretical framework of this thesis, cabinet swaps following protests can be interpreted as either an authoritarian leader making concessions or attempting to co-opt the opposition. While there are many indications that authoritarian leaders prefer co-optation as a response to protests, more research should be done to uncover exactly which motivations they have when ousting ministers from their cabinet.

The field of protest movement studies is closely connected to research on autocratic elites. Unravelling which ministers are being replaced and which have long tenure can reveal much about how autocratic leaders deal with autocratic power-sharing. This insight would shed light on the decision making of autocratic leaders when balancing between a competence and loyalty trade off. Furthermore, this thesis did not examine the causal relationship cabinet swaps might have on protests. One main assumption from theories of autocracies and protest dynamics is

that protests die down when members of the opposition are being co-opted, and that they conversely can escalate if met with concessions. Future research should examine the effects of cabinet swaps on protest movements to unveil if the ousting of ministers produces the desired results. To further strengthen the assumption of a causal relationship between protests and cabinet reshuffles, future research could conduct this study applying protest event data rather than data on protest campaign. That would make it easier to pinpoint which specific events have the greatest impact.

As discusses previously, the interaction effect between protests and regime type seemed not to be present when conducting the analysis on a regional level but became significant when applying a global data frame. Examining if these findings are robust, and if the effect of protest movements on the share of cabinet swaps also exists globally would be an extension to the existing scope of research. Furthermore, it would be interesting to unveil whether protests impact on cabinet compositions differ between democracies and autocracies, or if a different regime categorisation was applied. How regimes are categorised varies between different measurements, and it is possible that the division between electoral and closed autocracies is not the most relevant for measuring autocratic regime variations.

A separate, but prominent line of research within the field of social movement studies, is the study of violent and nonviolent movements. Nonviolent movements tend to have a greater success rate than violent movements when measuring regime change (Chenoweth & Stephan, 2011). Examining how these movements differ in their effect on the share of cabinet swaps was beyond the scope of this thesis. However, since I conducted some preliminary studies with strong and statistically significant results it is worth mentioning. Literature on the field assumes that nonviolent protest movements are more likely to succeed in aims of democratisation and the ousting of regime leaders. One of the main arguments for this expectation is that nonviolent protests can more easily mobilise larger crowds, since the cost of participation lowers. This is in line with the expectation that diverse movements have a higher success rate than nondiverse movements, since they mobilise larger crowds due to their expanded networks. Examining if the assumption that nonviolent movements are more effective than violent movements also hold true on a cabinet level would be an addition to the existing literature.

8.3 Practical implications

To finalise this thesis, I will deliberate briefly on the practical implications of my findings. The results of my analyses contain important implications for those organising civil society and social movements in authoritarian regimes, and for those aiming to impact cabinet compositions.

First, how cabinets are composed poses implications for regime developments. Minister turnover matters for the level of representation in government, and elite compositions are important to autocratic or democratic trends. Furthermore, frequent cabinet reshuffles could be an indication that the regime leader feels threatened. Even though the level of power varies between ministers and cabinets, not even dictators can rule alone. Social movements working towards specific goals can bring about change not only through the ousting of regime leaders, but also by impacting which ministers hold political power.

Secondly, this thesis highlights the importance of diversity in protest movements. Civil society organisations should direct their resources towards mobilising broad segments of society, rather than limiting their campaigns to a specific socio-demographic group. Through the recruitment of diverse crowds, the risk of government repression decreases. Furthermore, diverse movements are more likely to mobilise larger crowds, which is directly linked to protest success. For regions where religious divides is particularly salient, such as the Middle East and North Africa, social movements could benefit greatly from organising across these divides.

9 Concluding remarks

There is a long strand of research conducted on how protest movements contribute to the rise and fall of autocratic regimes. We do however know less about the other impacts civil uprisings can bring about. This thesis has sought to contribute to filling this research gap by asking the question: *Do protest movements affect cabinet reshuffles within authoritarian regimes in the Middle East and North Africa?*

To answer the question, I have systematically examined the effects of protest movements in autocracies in the region between 1966 and 2013. Drawing on theories from autocratic behaviour, concessions, and co-optation, my theoretical framework is founded on the assumption that autocratic leaders are rational actors with the main goal of maintaining their power. Civil unrest calls for responses from the regime, and autocratic leaders tend to respond by either making concessions, or by co-opting or repressing the protesters. I theorise that co-optation is the most beneficial option for autocratic leaders since it curbs the opposition while creating the opportunity for getting rid of potential disloyal members of the elite. I therefore hypothesise that the share of cabinet ministers that get swapped will increase following civil uprisings.

I examine three additional hypotheses connected to the main assumptions. Firstly, I examine whether the share of swaps increases if the protest movements are diverse along sociodemographic lines. Secondly, I go further into the literature on diverse movements and investigate the effect of protest movements that are diverse along religious lines on the share of cabinet swaps. Finally, I examine if the effect of protest movements is dependent upon whether autocratic regimes are closed or electoral. To test my theoretical expectations, I combined protest campaign data from NAVCO 2.1 with data on cabinet compositions from WhoGov, and regime data on different autocratic components from V-Dem. By including relevant confounders, I created a panel dataset covering 14 countries in the Middle East and North Africa and the time interval of 1966 until 2013. This captures both the earliest decades after most states in the region gained independence, and the recent bloom of protest associated with the Arab Uprisings.

In my statistical analysis, I found some support for all four hypotheses. Starting with the first, the share of cabinet swaps seems to increase following protest movements. This implies that protest movements are prone to impact the composition of authoritarian regimes, even when the regime leader is not ousted. The effect proved strongest in years where the protest campaigns were at their peak, namely the years when most people participated. This coincides with existing literature on the field of social movement studies, claiming that movements are more likely to obtain their goals when larger parts of the population participate. I also found support for my second and third hypotheses, derived from the literature on protest diversity. The findings imply a causal relationship between diverse movements and an increase in the share of swaps. The effect is even stronger in the events where movements are religiously diverse. Finally, there was less evidence supporting the last hypothesis. Thus, this analysis does not provide proof in favour of the assumption that protest movements' effect on the share of swaps is dependent upon the institutional characteristics of autocratic regimes. There were however some contradicting results when the regression models were conducted on a global scope. These preliminary findings should be investigated closer in another study.

My findings contribute to the research on autocratic behaviour by examining the effects protest movements have on the share of minister turnover in cabinets. As far as I know, this is the first study to be conducted on the effect protest movements have on the share of cabinet swaps in authoritarian regimes. The study of autocratic responses and protest compositions yields insights into both the motives and acts of authoritarian leaders, and the structures and opportunities of protest movements. Even though not all protests directly induce regime change, this thesis underlines the importance of considering the various impacts that can be made by protest movements. My results further emphasise the significance of broad coalitions when seeking to create change. Finally, my findings highlight the importance of considering institutional mechanisms of autocracies when studying the dynamics between autocratic leaders, elites, and the people. This has implications for both future research and for the strategic choices made by civil society actors and protest movements when organising against autocratic regimes.

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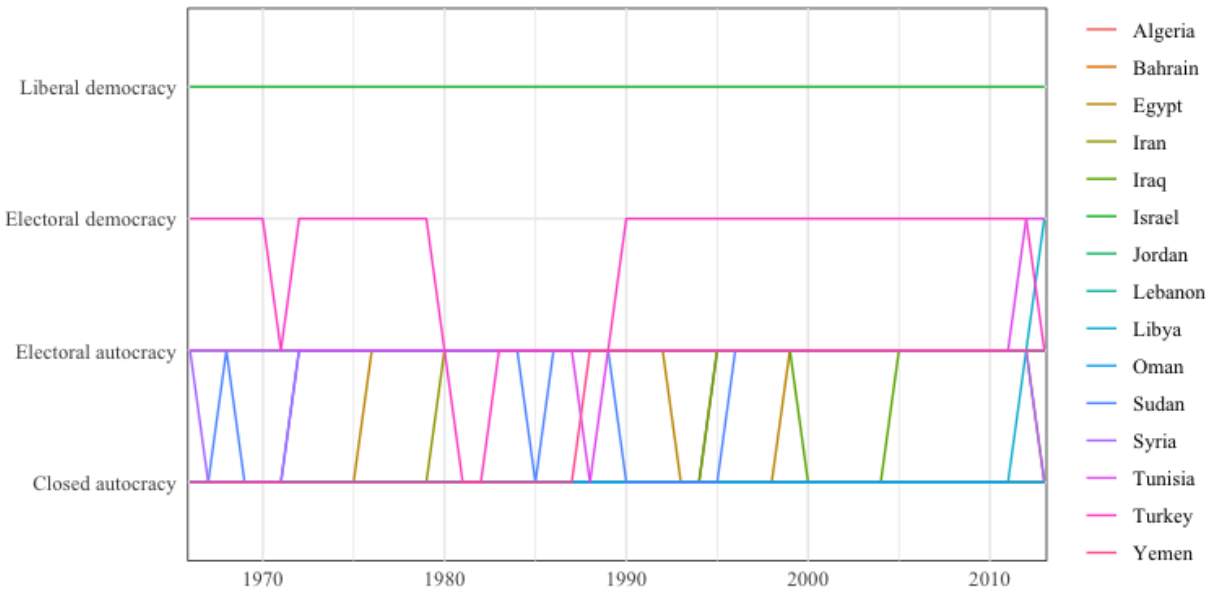
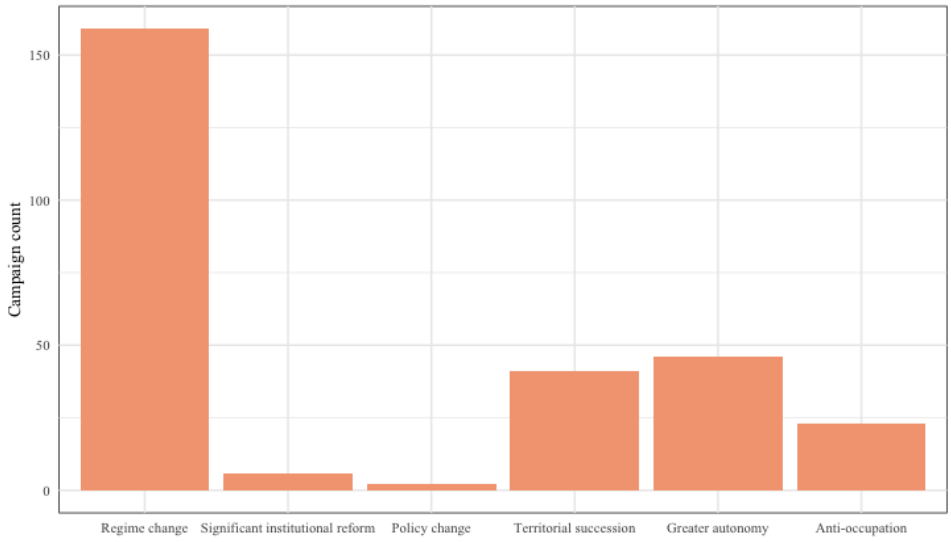
A Appendix

Figure A.1: Regime variations over time



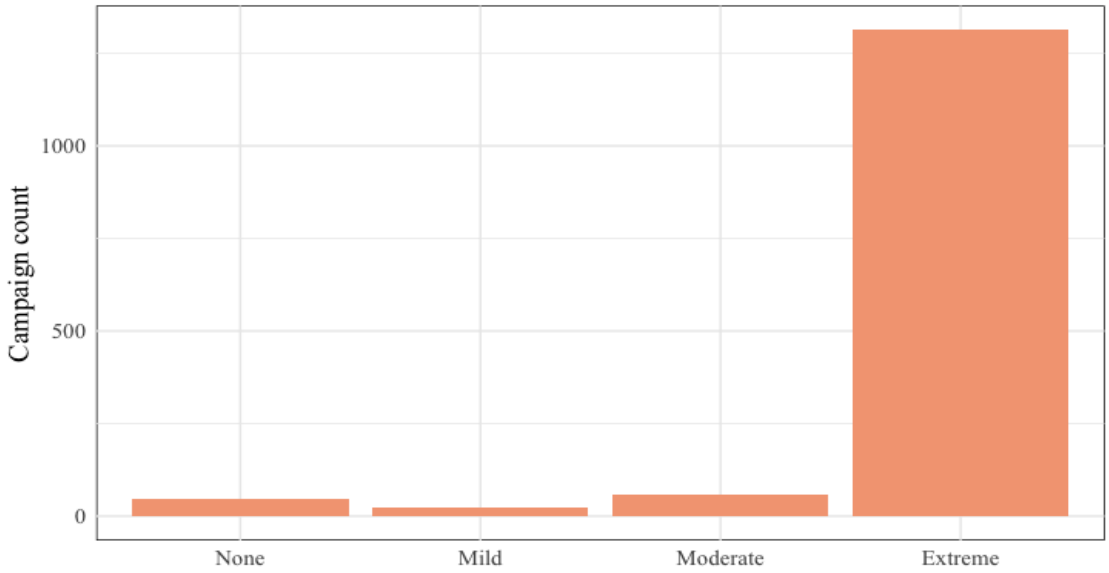
Source: V-Dem

Figure A.2: Distribution of campaign goals



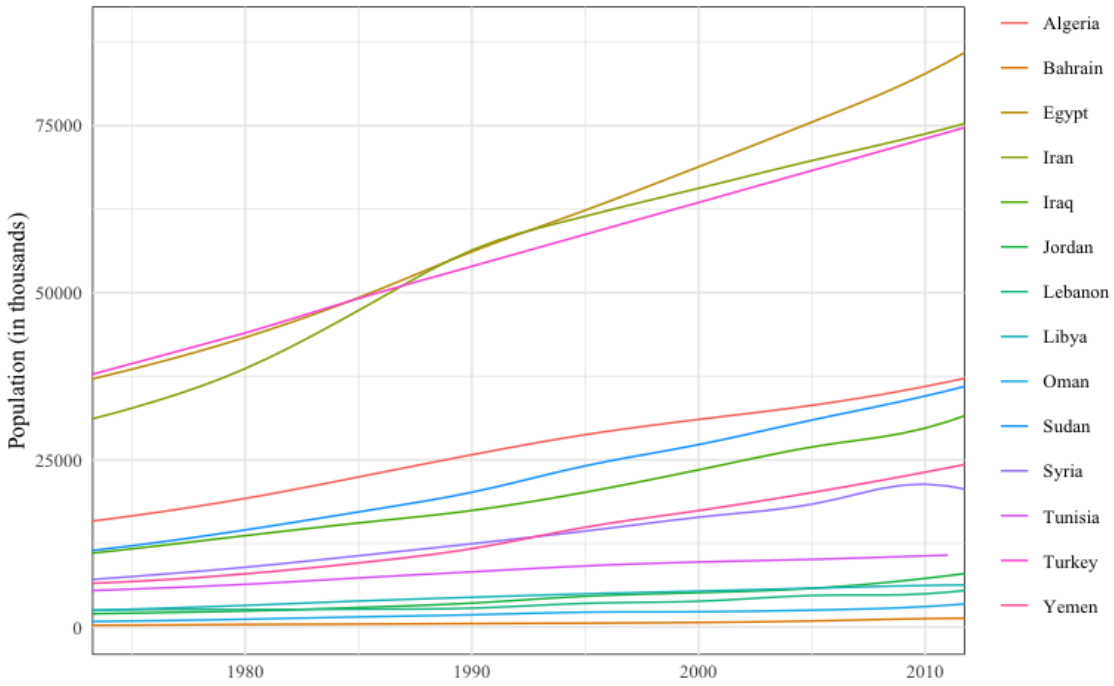
Source: NAVCO 2.1

Figure A.3: Level of repression used towards protesters on a global scale



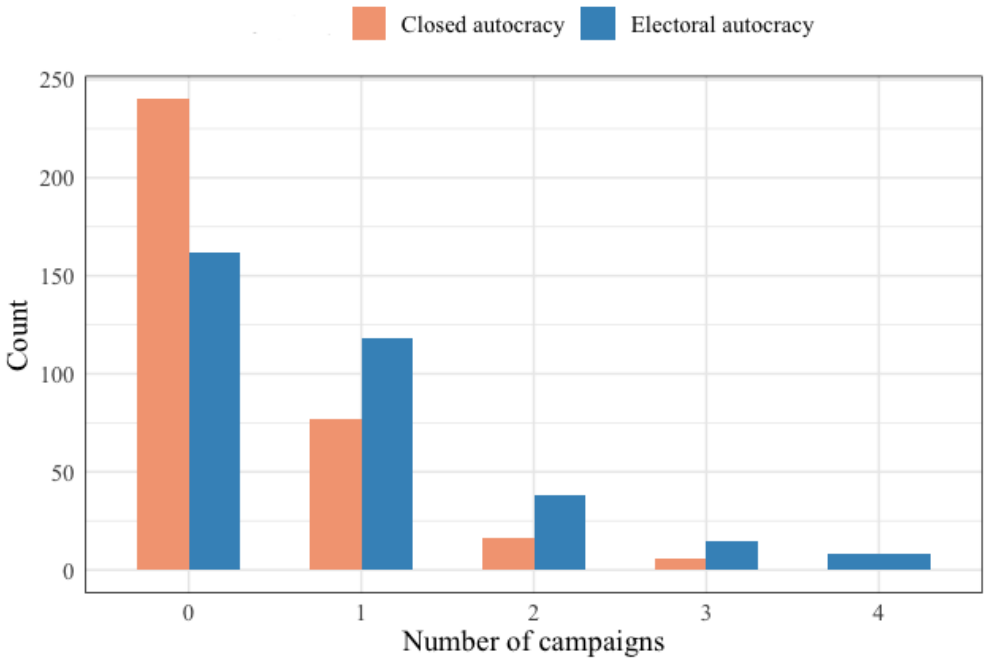
Source: NAVCO 2.1

Figure A.4: Population growth over time



Source: V-Dem

Figure A.5: Distribution of the number of campaigns



Source: NAVCO 2.1 and V-Dem

Random effects models

Table A.1: Regression models with random effects

	Dependent variable:				
	Share of cabinet swaps				
	(1)	(2)	(3)	(4)	(5)
Protest occurrence	0.064**				
	(0.026)				
Number of campaigns		0.022			
		(0.015)			
Peak campaign year			0.202***		
			(0.042)		
Diverse movement				0.092***	
				(0.028)	
Nondiverse movement				-0.030	
				(0.043)	
Religiously diverse					0.124***
					(0.045)
Religiously nondiverse					0.049*
					(0.028)
GDP per capita	-0.096***	-0.095***	-0.091***	-0.098***	-0.091***
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Population	-0.035***	-0.031***	-0.028***	-0.037***	-0.034***
	(0.011)	(0.011)	(0.010)	(0.011)	(0.011)
Elections	0.028	0.027	0.036	0.028	0.028
	(0.030)	(0.030)	(0.029)	(0.029)	(0.030)
Coup attempts	0.176***	0.176***	0.159***	0.172***	0.182***
	(0.046)	(0.047)	(0.046)	(0.046)	(0.046)
Leader exit	-0.027	-0.022	-0.040	-0.024	-0.023
	(0.056)	(0.056)	(0.056)	(0.056)	(0.056)
Constant	0.988***	0.935***	0.891***	1.036***	0.974***
	(0.181)	(0.181)	(0.171)	(0.181)	(0.181)
Observations	603	603	603	603	603
R^2	0.090	0.084	0.115	0.101	0.094
Adjusted R^2	0.081	0.075	0.106	0.091	0.083
Residual Std. Error	0.287 (df = 596)	0.288 (df = 596)	0.283 (df = 596)	0.285 (df = 595)	0.286 (df = 595)
F Statistic	9.811*** (df = 6; 596)	9.134*** (df = 6; 596)	12.924*** (df = 6; 596)	9.574*** (df = 7; 595)	8.821*** (df = 7; 595)

Note: *p<0.1; **p<0.05; ***p<0.01

Table A.2: Regression models including interaction term and random effects

	Dependent variable:				
	Share of cabinet swaps				
	(1)	(2)	(3)	(4)	(5)
Protest occurrence	0.183***				
	(0.053)				
Number of campaigns		0.173***			
		(0.047)			
Peak campaign year			0.033		
			(0.094)		
Diverse movements				0.195***	
				(0.054)	
Nondiverse movements				0.055	
				(0.146)	
Religiously diverse					0.206**
					(0.100)
Religiously nondiverse					0.180***
					(0.057)
Interaction: Protest occurrence ∘ Regime type	-0.157***				
	(0.060)				
Interaction: Number of campaigns ∘ Regime type		-0.165***			
		(0.049)			
Interaction: Peak campaign year ∘ Regime type			0.210**		
			(0.104)		
Interaction: Diverse movements ∘ Regime type				-0.140**	
				(0.063)	
Interaction: Nondiverse movements ∘ Regime type				-0.105	
				(0.153)	
Interaction: Religiously diverse ∘ Regime type					-0.110
					(0.110)
Interaction: Religiously nondiverse ∘ Regime type					-0.172***
					(0.065)
GDP per capita	-0.079***	-0.074***	-0.097***	-0.083***	-0.075***
	(0.019)	(0.019)	(0.018)	(0.019)	(0.020)

Population	-0.030**	-0.027**	-0.026**	-0.034***	-0.029**
	(0.012)	(0.011)	(0.011)	(0.012)	(0.012)
Elections	0.027	0.026	0.042	0.024	0.026
	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)
Coup attempts	0.176***	0.171***	0.158***	0.173***	0.181***
	(0.046)	(0.047)	(0.046)	(0.046)	(0.046)
Leader exit	-0.033	-0.030	-0.039	-0.030	-0.029
	(0.056)	(0.056)	(0.056)	(0.056)	(0.056)
Electoral autocracy	0.043	0.050	-0.030	0.046	0.046
	(0.037)	(0.036)	(0.032)	(0.037)	(0.037)
Constant	0.853***	0.807***	0.885***	0.925***	0.839***
	(0.193)	(0.188)	(0.177)	(0.195)	(0.193)
Observations	603	603	603	603	603
R^2	0.100	0.102	0.121	0.109	0.105
Adjusted R^2	0.088	0.090	0.110	0.094	0.090
Residual Std. Error	0.286 (df = 594)	0.285 (df = 594)	0.282 (df = 594)	0.285 (df = 592)	0.285 (df = 592)
F Statistic	8.265*** (df = 8; 594)	8.404*** (df = 8; 594)	10.262*** (df = 8; 594)	7.233*** (df = 10; 592)	6.947*** (df = 10; 592)

Note: *p<0.1; >**p<0.05; >***p<0.01

Subset analysis for regime type

Table A.3: Subset analysis for electoral autocracies

	Dependent variable:				
	Share of cabinet swaps				
	(1)	(2)	(3)	(4)	(5)
Protest occurrence	0.046				
	(0.034)				
Number of campaigns		0.016			
		(0.019)			
Peak campaign year			0.155***		
			(0.048)		
Diverse movements				0.083**	
				(0.037)	
Nondiverse movements				-0.036	
				(0.048)	
Religiously diverse					0.134***
					(0.050)
Religiously nondiverse					0.015
					(0.037)
GDP per capita	-0.121*	-0.119*	-0.132**	-0.105	-0.124*
	(0.065)	(0.065)	(0.064)	(0.065)	(0.065)
Population	-0.079	-0.096	-0.101	-0.079	-0.109
	(0.186)	(0.187)	(0.184)	(0.185)	(0.186)
Elections	0.039	0.039	0.039	0.040	0.038
	(0.030)	(0.030)	(0.029)	(0.029)	(0.029)
Coup attempts	0.258***	0.256***	0.242***	0.260***	0.267***
	(0.056)	(0.057)	(0.056)	(0.056)	(0.056)
Leader exit	-0.075	-0.076	-0.083	-0.077	-0.072
	(0.064)	(0.064)	(0.063)	(0.063)	(0.063)
Constant	2.238	2.533	2.489	2.194	2.753
	(3.086)	(3.100)	(3.050)	(3.064)	(3.072)
Fixed Effects included for Country and Year					
Observations	426	426	426	426	426
R^2	0.410	0.408	0.423	0.420	0.419
Adjusted R^2	0.303	0.301	0.319	0.313	0.313
Residual Std. Error	0.248 (df = 360)	0.249 (df = 360)	0.246 (df = 360)	0.247 (df = 359)	0.247 (df = 359)
F Statistic	3.847*** (df = 65; 360)	3.818*** (df = 65; 360)	4.068*** (df = 65; 360)	3.934*** (df = 66; 359)	3.930*** (df = 66; 359)
Note:					*p<0.1; **p<0.05; ***p<0.01

Table A.4: Subset analysis for closed autocracies

	Dependent variable:				
	Cabinet Swaps				
	(1)	(2)	(3)	(4)	(5)
Protest occurrence	0.117***				
	(0.038)				
Number of campaigns		0.088***			
		(0.027)			
Peak campaign year			0.125**		
			(0.050)		
Diverse movements				0.170***	
				(0.040)	
Nondiverse movements				-0.067	
				(0.062)	
Religiously diverse					0.158**
					(0.063)
Religiously nondiverse					0.108***
					(0.039)
GDP per capita	-0.072*	-0.064	-0.089**	-0.063	-0.072*
	(0.040)	(0.040)	(0.039)	(0.039)	(0.040)
Population	-0.134**	-0.122**	-0.151***	-0.144**	-0.134**
	(0.059)	(0.059)	(0.058)	(0.058)	(0.059)
Elections	0.038	0.036	0.032	0.038	0.037
	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)
Coup attempts	0.107**	0.082*	0.109**	0.112***	0.113***
	(0.042)	(0.043)	(0.042)	(0.041)	(0.043)
Leader exit	-0.069	-0.075	-0.066	-0.091	-0.068
	(0.063)	(0.063)	(0.063)	(0.062)	(0.063)
Constant	3.194***	2.989***	3.460***	3.312***	3.200***
	(0.994)	(1.006)	(0.987)	(0.981)	(0.995)
Fixed Effects included for Country and Year					
Observations	513	513	513	513	513
R^2	0.545	0.546	0.542	0.559	0.546
Adjusted R^2	0.473	0.474	0.469	0.487	0.472
Residual Std. Error	0.214 (df = 442)	0.214 (df = 442)	0.215 (df = 442)	0.211 (df = 441)	0.215 (df = 441)
F Statistic	7.558*** (df = 70; 442)	7.590*** (df = 70; 442)	7.459*** (df = 70; 442)	7.858*** (df = 71; 441)	7.455*** (df = 71; 441)
Note:					*p<0.1; >**p<0.05; >***p<0.01

Pre-swap models

Table A.5: Regression models with start date before swaps are coded

	Dependent variable:	
	Share of cabinet swaps	
	(1)	(2)
Pre swap protests	0.069**	0.197***
	(0.029)	(0.055)
GDP per capita	-0.096**	-0.089*
	(0.047)	(0.047)
Population	-0.208	-0.142
	(0.132)	(0.134)
Elections	0.030	0.028
	(0.028)	(0.029)
Coup attempts	0.173***	0.185***
	(0.044)	(0.044)
Leader exit	-0.096*	-0.107*
	(0.055)	(0.055)
Regime		0.046
		(0.039)
Interaction: Protest occurrence ∘ Regime type		-0.167***
		(0.060)
Constant	4.407**	3.256
	(2.161)	(2.200)
Fixed Effects included for Country and Year		
Observations	603	603
R^2	0.377	0.386
Adjusted R^2	0.302	0.309
Residual Std. Error	0.250 (df = 537)	0.249 (df = 535)
F Statistic	5.008*** (df = 65; 537)	5.026*** (df = 67; 535)
Note:		*p<0.1; **p<0.05; ***p<0.01

Global regressions

Table A.6: Global regression models

	Dependent variable:				
	Share of cabinet swaps				
	(1)	(2)	(3)	(4)	(5)
Protest occurrence	0.049***				
	(0.014)				
Number of campaigns		0.040***			
		(0.009)			
Peak campaign year			0.123***		
			(0.021)		
Diverse movement				0.063***	
				(0.014)	
Nondiverse movement				-0.050*	
				(0.029)	
Religiously diverse					0.074***
					(0.020)
Religiously nondiverse					0.038**
					(0.015)
GDP per capita	-0.034*	-0.037**	-0.042**	-0.033*	-0.034**
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Population	-0.078**	-0.081**	-0.086**	-0.072**	-0.078**
	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)
Elections	0.048***	0.048***	0.048***	0.048***	0.048***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Coup attempts	0.140***	0.138***	0.139***	0.141***	0.141***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Leader exit	-0.034*	-0.033*	-0.042**	-0.038**	-0.035*
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Constant	2.258***	2.312***	2.392***	2.158***	2.246***
	(0.585)	(0.582)	(0.580)	(0.584)	(0.585)
Fixed Effects included for Country and Year					
Observations	3,846	3,846	3,846	3,846	3,846
R^2	0.328	0.329	0.332	0.331	0.329
Adjusted R^2	0.296	0.297	0.300	0.299	0.296
Residual Std. Error	0.263 (df = 3668)	0.263 (df = 3668)	0.262 (df = 3668)	0.263 (df = 3667)	0.263 (df = 3667)
F Statistic	10.120*** (df = 177; 3668)	10.172*** (df = 177; 3668)	10.302*** (df = 177; 3668)	10.193*** (df = 178; 3667)	10.085*** (df = 178; 3667)
Note:					*p<0.1; **p<0.05; ***p<0.01

Table A.7: Global regression models with interaction term

	Dependent variable:				
	Share of cabinet swaps				
	(1)	(2)	(3)	(4)	(5)
Protest occurrence	0.085***				
	(0.019)				
Number of campaigns		0.057***			
		(0.013)			
Peak campaign year			0.160***		
			(0.032)		
Diverse movement				0.097***	
				(0.019)	
Nondiverse movement				-0.052	
				(0.046)	
Religiously diverse					0.108***
					(0.027)
Religiously nondiverse					0.074***
					(0.022)
Interaction: Protest occurrence ∘ Regime type	-0.064***				
	(0.023)				
Interaction: Number of campaigns ∘ Regime type		-0.030*			
		(0.015)			
Interaction: Peak campaign year ∘ Regime type			-0.063		
			(0.042)		
Interaction: Diverse movements ∘ Regime type				-0.063***	
				(0.024)	
Interaction: Nondiverse movements ∘ Regime type				0.004	
				(0.054)	
Interaction: Religiously diverse ∘ Regime type					-0.063*
					(0.034)
Interaction: Religiously nondiverse ∘ Regime type					-0.064**
					(0.027)
GDP per Capita	-0.030*	-0.034**	-0.042**	-0.029*	-0.030*
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Population	-0.068*	-0.074**	-0.085**	-0.063*	-0.067*
	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)

Elections	0.051***	0.051***	0.050***	0.051***	0.050***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Coup attempts	0.140***	0.138***	0.138***	0.141***	0.141***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Leader exit	-0.034*	-0.033*	-0.041**	-0.038**	-0.035*
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Electoral autocracy	0.008	-0.001	-0.015	0.006	0.010
	(0.017)	(0.016)	(0.014)	(0.017)	(0.017)
Constant	2.079***	2.193***	2.379***	2.010***	2.067***
	(0.588)	(0.586)	(0.580)	(0.588)	(0.588)
Fixed Effects included for Country and Year					
Observations	3,846	3,846	3,846	3,846	3,846
R^2	0.330	0.330	0.333	0.333	0.330
Adjusted R^2	0.297	0.298	0.300	0.300	0.297
Residual Std. Error	0.263 (df = 3666)	0.263 (df = 3666)	0.262 (df = 3666)	0.262 (df = 3664)	0.263 (df = 3664)
F Statistic	10.080*** (df = 179; 3666)	10.097*** (df = 179; 3666)	10.217*** (df = 179; 3666)	10.090*** (df = 181; 3664)	9.984*** (df = 181; 3664)
Note:					*p<0.1; **p<0.05; ***p<0.01

VIF Tests

Table A.8: VIF Scores

VIF (M1) Protest Occurrence		
	Variable	**VIF Values**
1	Protest Occurrence	1.223
2	GDP per Capita	1.223
3	Elections	1.097
4	Coup Attempts	1.096
5	Leader Exit	1.065
6	Population	1.484

VIF (M2) Number of Campaigns		
	Variable	**VIF Values**
1	Number of Campaigns	1.237
2	GDP per Capita	1.224
3	Elections	1.097
4	Coup Attempts	1.114
5	Leader Exit	1.063
6	Population	1.469

VIF (M3) Peak Campaign Year		
	Variable	**VIF Values**
1	Peak Campaign Year	1.049
2	GDP per Capita	1.226
3	Elections	1.1
4	Coup Attempts	1.105
5	Leader Exit	1.068
6	Population	1.279

VIF (M4) Diverse Movements		
	Variable	**VIF Values**
1	Diverse Movements	1.237
2	GDP per Capita	1.227
3	Elections	1.097
4	Coup Attempts	1.097
5	Leader Exit	1.065
6	Population	1.497

VIF (M5) Religiously Diverse		
	Variable	**VIF Values**
1	Religiously Diverse	1.263
2	GDP per Capita	1.251
3	Elections	1.097
4	Coup Attempts	1.102
5	Leader Exit	1.067
6	Population	1.485