

# The Many Faces of Authoritarian Persistence

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For Fuchur

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### **Abstract**

This dissertation investigates into strategies of autocratic power maintenance. The cumulative thesis consists of four studies which conjointly examine why and how authoritarian regimes manage to survive. The first study inquires how different authoritarian regimes make use of the Internet to legitimate their rule. By proposing a new concept of e-government in autocracies, the qualitative analysis shows that while the non-competitive regimes of Turkmenistan and Uzbekistan use their official websites primarily to impress an international audience, the platforms of the competitive regimes of Kazakhstan and Russia reveal a surprising citizen responsiveness. The second study, co-authored with Carsten Q. Schneider, empirically tests Gerschewski's (2013) three pillars which suggest that autocratic stability is stipulated by various forms of repression, cooptation, and legitimation. The fuzzy-set Qualitative Comparative Analysis illustrates that it is indeed not one of these aspects in isolation but rather their combined effects which keep electoral regimes stable. The third study continues the inquiry about authoritarian persistence in autocracies in general. It conceptualizes the theoretical framework of the hexagon - a modified version of the three pillars which is rooted in set theory - and points to five combinations of the various strategies of repression, cooptation, and legitimation which authoritarian regimes use to remain in power. The last study applies quantitative and qualitative text analysis to examine the rhetoric strategies of autocrats. The study reveals that hegemonic regimes attempt to speak like democrats to simulate pluralism and thereby strengthen their rule. Overall, this dissertation provides a deeper understanding of authoritarian claims to legitimacy. Furthermore, the results of the various analyses collectively contribute to novel and multifaceted perspectives on authoritarian persistence.

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And these people call me a dictator.

They should look up what dictator means!

Recep Tayyip Erdoğan (ZEIT, 2017)

The increasingly authoritarian personality of Recep Tayyip Erdoğan becomes rather obvious when reading the recent interview of the German newspaper ZEIT with the Turkish president.<sup>1</sup> His request for a definite meaning of what "dictator" actually means nevertheless touches upon crucial problems in modern autocracy research. In the age of backsliding democracies and authoritarian diffusion (e.g. Greskovits, 2015; Bader, 2014), the varying notions of dictators and their styles of ruling pose new challenges to the field.

Today's dictators are different to the totalitarian rulers of the first half of the 20th century. Based on the dreadful experiences with Hitler, Stalin and Mussolini, absolute power and complete control seemed to be typical characteristics of autocrats. Yet, in light of globalization, the Internet and an increasing interconnectedness, the dictators of today have less absolute power and face more constraints in form of informational and institutional uncertainties (Schedler, 2013).

As responses to these uncertainties of authoritarian rule, autocrats apply new tools and strategies to ensure their survival. They use and abuse the Internet in order to prevent and detect threats to their rule. Satellite parties and severe manipulations of the electoral system enable them to remain in power despite allowing

<sup>&</sup>lt;sup>1</sup>For the English version of the interview, see ZEIT (2017).

for regular elections. The cunning use of other seemingly democratic institutions, sophisticated communication strategies and personality cults help them to gain legitimacy and popularity. While hard repression and strict limitations of civil liberties are still commonly applied, today's autocratic rulers do not want to be perceived as isolated and ruthless dictators. Contrarily, they seek (economic) cooperation, join regional organizations or set up highly professional websites to propagate openness and modernity in the international arena. Furthermore, they invest in costly but prestigious mega events such as this year's EXPO in Kazakhstan's capital Astana or next year's football World Cup in Russia. Generally, they deny the autocratic nature of their rule and some of them even attempt to speak like democrats in order to simulate a pluralistic style of leadership.

The motivation for this cumulative dissertation is the investigation into these novel practices and techniques of autocratic power maintenance. What holds the four articles together is a theory-guided inquiry of why and how authoritarian regimes<sup>2</sup> manage to survive. By looking into different strategies of stabilizing and legitimating authoritarian rule, the four studies collectively contribute to illuminate the multifaceted phenomenon of authoritarian persistence.

The introduction is structured as follows: The next section provides a general literature review, points to research gaps and highlights the contribution of the four studies. Subsequently, I discuss the nascent strand of literature on legitimating authoritarianism in more details. Based on this, I outline the overarching theoretical framework for the analysis of authoritarian persistence. After the theoretical section, I explain my choice of methods, followed by a detailed structure of the dissertation which also summarizes the main findings of each article.

#### **Research Focus and Contribution**

For over a decade, research on autocracies has been one of the most rapidly growing areas in comparative politics and political economy (Croissant and Wurster,

<sup>&</sup>lt;sup>2</sup>I use autocracy, dictatorship and authoritarian regime interchangeably. The glossary explains these and other key terms in this dissertation and provides definitions used throughout the work.

2013). Gerschewski (2013, 15-16) calls this period of productive research the "third wave of modern autocracy research." Following his schema, the first wave of modern autocracy research is characterized by the pioneer works of Arendt (1951) or Friedrich and Brzezinski (1965) and their in-depth studies of the totalitarian systems of Bolshevist Russia, Fascist Italy and National Socialist Germany. By arguing that totalitarianism is a case sui generis, these contributions offer detailed and descriptive accounts of ideology and terror. The second wave was initiated by Linz (2000, orig. 1975) and his seminal distinction between authoritarian and totalitarian regimes. Several studies on the socio-economic specifics of authoritarian regimes were generated during this time (e.g. Collier and Cardoso 1979, O'Donnell 1988). Yet, the interest in the field was increasingly replaced by discussions about the many democratic transitions in Latin America, Asia, and also Eastern Europe towards the end of the 20th century (Huntington, 1991).

After the collapse of the Soviet Union, expectations and hopes for democratization in the newly independent states were high. Optimists declared it as a rule that post-communist transitions would lead on a single-track to democracy, ensuring peace and stability (Nodia, 2000, 271). Promoting democracy became popular in the fields of international cooperation and financially strong programs were launched by Western countries (Freise, 2004). However, several of the former Soviet regions were devastated by nationalistic conflicts within and between transitional states, and bloody fights for territory and power ensued (Mansfield and Snyder, 2002). Soon, the positive assumptions were discarded and contributions on "illiberal democracies" (Zakaria, 1997), "competitive authoritarianism" (Levitsky and Way, 2002) or "defective democracies" (Merkel, 2004) damped the previously optimistic expectations, giving way to a more realistic picture of the new states' formations. Frequently, regime transition did not mean a process of democratization but rather a transition from (communist) authoritarian rule to other types of autocracy. Several of these regimes have been remarkably persistent for nearly three decades. The varying experiences and failures of democratization in the post-Soviet space as well as in other regions of the world revived the field of

autocracy research. The "bias in favor of democracy" (Levitsky and Way, 2002) was gradually surmounted by the third wave of autocracy research.

The numerous contributions of the third wave of autocracy research engage with the new forms of authoritarianism in a globalized, post-cold war world. A range of qualitative studies offer detailed and contextualized analyses of the mechanisms of autocratic rule in one or a few cases (e.g. Brownlee, 2007; Slater, 2010b; Hemment, 2015; Lee, 2015). They further reveal crucial aspects of particular types of autocracies and illustrate, for example, how electoral regimes make use of ballots to prolong their rule (Schedler, 2006; Magaloni, 2006; Levitsky and Way, 2010; Morgenbesser, 2016).

The novel patterns of autocratic rule are also scrutinized in quantitative studies which demonstrate that the seemingly democratic institutions in modern autocracies are the result of strategic choices and not just window dressing. Thus, authoritarian rulers exploit elections, legislatures, parties and constitutions to facilitate elite cohesion and handle the double challenge of sharing power while controlling the masses (Gandhi and Przeworski, 2007; Gandhi, 2008; Svolik, 2012; Boix and Svolik, 2013; Ginsburg and Simpser, 2014). Based on the assumption that authoritarian institutions matter, several new data sets on autocratic regime types have been proposed (Geddes, 1999; Cheibub et al., 2010; Hadenius and Teorell, 2007; Wahman et al., 2013; Geddes et al., 2014). By looking at the most prominent institutional characteristic of a regime, these varying categorizations of contemporary autocracies in monarchies, personalist, military or party-based regimes counter their simplified classification as merely non-democratic. The novel data sets have been applied in a plethora of quantitative comparisons and triggered a vigorous debate on the performance and persistence of different types of autocratic regimes (e.g. Wilson and Piazza, 2013; Miller, 2015; Roberts, 2015b; Kailitz and Stockemer, 2017; Bak and Moon, 2016).

The theoretical reflections and empirical analyses in this dissertation benefit from these fruitful insights about modern authoritarianism but also critically engage with their limitations. Essentially, the dissertation identifies three major

shortcomings in current autocracy research. In the following, I further explain these shortcomings and illustrate how each of the studies individually and all of them collectively contribute to fill these research gaps.

First, and as pointed out by other scholars in the field (Gerschewski, 2013; Kailitz, 2013), many studies of autocratic survival disregard the relevance of legitimation. The above outlined "institutional turn in comparative authoritarianism" (Pepinsky, 2014) illustrate that autocrats do not solely rely on repression, but also institutionalize clever ways of cooptation to ensure elite cohesion and cooperation. Yet, as outlined in more details in the next section, there is a still young but currently growing strand of literature which shows how authoritarian regimes additionally depend on their leaders' claim to legitimacy. The four studies of my dissertation significantly contribute to this nascent research. The first study illustrates how some autocracies make use of the Internet by setting up highly professional e-government websites to appear as modern and open states and thereby gain national and international legitimacy. The second and third study demonstrate how different strategies of legitimation contribute to the survival of electoral regimes and autocracies in general. The last study shows how the leaders of hegemonic regimes strategically use a democratic style of language to fake a participatory style of government and boost their legitimacy.

Second, while recent autocracy research has generated a range of valuable studies which illustrate how one institutional setting such as the electoral system or the military can impact autocratic survival, there is a lack of approaches which look at the combined effects of several institutions on authoritarian persistence. By proposing the three pillars of stability - repression, cooptation, and legitimation - Gerschewski (2013) offers a first theoretical framework to illuminate the institutional interplay of autocratic rule. The second study of this dissertation empirically tests this model and shows that it is indeed the combinations of the pillars which explain the survival of electoral regimes. By transforming the three pillars of stability into the hexagon of authoritarian persistence, the dissertation further develops the theory of autocratic survival. The third study applies this new framework

in autocracies in general and illustrates how persistent autocratic regimes of any type combine the various institutions of repression, cooptation, and legitimation as their strategies of survival.

Third, the above outlined functional perspectives of authoritarian institutions as merely strategic tools do not account for the highly ambiguous institutional settings in autocratic regimes. Opposing this rather limited view on authoritarian institutions, Schedler's (2013) theory of uncertainty in authoritarian regimes argues that all autocracies suffer from problems of informational as well as institutional uncertainties. This is why authoritarian elections can turn out to be much more than just simple strategic tools of authoritarian leaders. Particularly in the case of multiparty elections, the role of institutions is ambiguous and the inner logic of authoritarian politics is influenced by the struggle of competing actors within and over uncertainty. Following Schedler (2013), the third study of this dissertation looks at how some authoritarian regimes manage to endure despite rather unstable conditions and increased uncertainties. Beyond that, the overarching theoretical framework of this dissertation is based on the assumption of ambiguity in authoritarian institutions and thereby contributes to a more fine-graded perspective on authoritarian persistence, as illustrated in this introduction's section on the model of the hexagon.

## The Renaissance of Legitimation in Autocracy Research

The question of legitimate authority has a long history in the social sciences. Max Weber's account of legitimacy in his extensive volume "Economy and Society" is still highly influential in this regard. As per Weber (2002, orig. 1922, Part 1, Chapter 3), legitimate authority emerges from a shared acceptance for action. He introduces three ideal types of legitimate authority: First, legal authority which rests on the belief in the legality of rules and commands. Second, traditional authority which is bound to the belief in the sanctity of traditions. Third, charismatic authority which refers to special qualities and appeal of an individual. Distinctive

legitimating formulas enable submission to these three types of authority which reflect the organizational structures of (1) bureaucracy, (2) patrimonialism, and (3) personal followings. Starting with Weber's tripartite notion of legitimate authority, the concept of legitimacy was further developed and enhanced - especially in the context of democratic systems. Beetham (1991), as one notable example, proposes a more broad and also normative theory about legitimate authority. Yet, from normative points of view, a legitimate form of authoritarian rule can be easily dismissed as an oxymoron. Thus, it is the non-normative nature of Weber's concept which makes it applicable to autocratic settings.

In modern autocracy research, it was particularly during the above mentioned first wave that the relationship between the rulers and the ruled was in focus. Arendt (1951), for example, provides a comprehensive study of the unconditional loyalty of the masses and the popular support in totalitarian regimes. Also Friedrich and Brzezinski's (1965) work describes in great detail how these regimes gained legitimacy by constructing and propagating a totalitarian ideology. Yet, due to their linkages to the polemics of the Cold War, these concepts of totalitarianism were increasingly questioned (e.g. during the so-called historian's dispute, initiated by Nolte, 1986, and Habermas, 1986). In addition, Linz's (2000) concept of authoritarianism described newly observed forms of autocratic systems which had neither an elaborated and guiding ideology nor intensive mass mobilization. This further turned the attention of researchers to the authoritarian rulers' sophisticated methods of co-opting elites rather than to their relationship with the population at large. As a result, the study of autocracy gradually lost sight of the question of how autocratic rulers gain legitimacy (Gerschewski, 2013, 18).

Gerschewski's (2013) model of the three pillars of autocratic stability, which proposes repression, cooptation, and legitimation as the fundamental principles of lasting autocratic rule, reincorporated the study of authoritarian legitimating patterns in autocracy research. His groundbreaking article was followed by a growing number of contributions which engage with the relevance of legitimation for autocratic survival. This section summarizes some of the conceptual and empiri-

cal works of this burgeoning strand of literature, illustrates how each study in this dissertation further contributes to the field, and points to several desiderata for future research.

As a starting point for conceptualizing autocratic legitimation, the model of the three pillars suggest a rather broad concept which is based on Weber's perspective on legitimation as an empirical process of institutionalized persuasion. Gerschewski (2013, 18) further borrows from Easton's (1965) system theory and distinguishes between specific and diffuse support to measure a regime's sources of gaining legitimacy. The concept of diffuse support accounts for "classic" patterns of legitimation such as formulating and propagating an ideology, referring to religion or tradition, or relying on the charismatic personality of the ruler to make the population belief in the legitimate authority of the regime. Specific support allows to include also the performance-dependent techniques of legitimation which have been increasingly observed in modern authoritarianism, e.g. providing the population with socio-economic benefits or supplying domestic security and stability (Gerschewski, 2013, 18).

Dukalskis and Gerschewski (2017) take this two-fold concept of legitimation a step further and propose to study autocratic legitimation by looking at four mechanisms, namely indoctrination, performance, passivity, and democratic-procedural. These four mechanisms are used by autocratic regimes in varying degrees. As the historic outline of Dukalskis and Gerschewski (2017, 3-9) shows, ideological indoctrination was particularly emphasized in the totalitarian regimes of the early 20th century and - with few exceptions such as North Korea and Niyazov's Turkmenistan - is less used in current autocracies. In contrast to this, the newly emerging forms of authoritarianism during the 1970s in Latin America and beyond were characterized by pushing economic performance while fostering passivity and political indifference among the population. As it is also illustrated in the first and last study of this dissertation, using seemingly democratic techniques and institutions such as parties, elections, constitutions, e-government tools and a liberal style of language is what Dukalskis and Gerschewski (2017) call the democratic-procedural legitimation mechanism and prominent in today's authoritarian regimes.

While these and other conceptualizations (von Haldenwang, 2017; Kneuer, 2017) theoretically advance the blossoming research area on autocratic legitimation, their actual measurement poses a remaining challenge to the field. Generally, autocracy research suffers from problems of poor data availability, preference falsification, and reliability (Roller, 2013). Particularly the collection of data during field work goes along with several obstacles and risks (Gentile, 2013). For measuring autocratic legitimation in the Weberian tradition as the population's *belief* in the rightful authority of an autocratic regimes, an additional obstacle is that the results of conducting interviews and surveys are scientifically problematic since the respondents have plausible reasons to hide their true beliefs - especially in those autocracies which apply severe repression. Yet, despite these difficulties, some constructive research suggestions have been made (e.g. von Haldenwang, 2017) and a range of empirical contributions have recently emerged.

A large number of these novel contributions qualitatively assess the different patterns of legitimating authoritarian rule in one or a few cases (among others: Pruzan-Jørgensen, 2010; Kudaibergenova, 2015; Omelicheva, 2016; Lorch and Bunk, 2017; Maerz, 2017). In his comprehensive volume, Dukalskis (2017) illuminates how the authoritarian regimes of North Korea, Burma, and China control political discourse and use the public sphere for their legitimation messages to strengthen their rule. By looking at Central Asian forms of authoritarianism, Polese et al. (2017) investigate how the current Turkmen regime under Gurbanguly Berdymuhamedov effectively adjust the strategies of legitimation after the death of the former president Saparmurat Niyazov to prevent legitimacy crises and remain in power. Fauve (2015) studies the creation of Astana as the new capital and symbol of Kazakhstan and thereby illustrates the impressive efforts the Kazakh regime invests into nation branding as one tool of gaining legitimacy. The first study in this dissertation adds to these analyses of legitimating authoritarianism in Central Asia. By showing how Turkmenistan, Uzbekistan, Kazakhstan, and Russia make use of the Internet to legitimate their rule, the study points to notable differences between the "electronic faces" of these regimes.

These and other qualitative case studies on autocratic legitimation fruitfully advance our knowledge about the varying methods and techniques autocrats use to justify their authority. As significant contributions to this new field of research, the results of the second and third study in this dissertation clearly illustrate that such legitimation mechanisms are not epiphenomenal but indeed relevant aspects of stabilizing authoritarian rule in electoral regimes (second study) and autocracies in general (third study). Nevertheless, there is the need to further analyze the processes and effects of autocratic legitimation. Due to the mentioned difficulties of assessing whether and how much the population deems the regime to be legitimate, most of the current studies measure legitimation by looking at the ruler's claims to legitimacy. However, a pressing question in this regard is how effective these claims to legitimacy are. Thus, one crucial task for future research is to find more reliable ways of assessing the actual amount of legitimacy belief in the population. First steps in this directions are Mazepus's (2017) or Thyen's (2017) survey findings in (temporarily) more open forms of authoritarianism. Yet, there is the need for further in-depth research and innovative methods to scrutinize the perceived legitimacy in authoritarian regimes.

The existing measurement problems make the quantification of autocratic legitimation particularly tricky. While there are first quantitative approaches to evaluate the impact of legitimation on performance and persistence (Lueders and Croissant, 2015; Cassani, 2017; Kailitz et al., 2017), a common problem of such large-N studies is the operationalization of legitimation. The expert survey of von Soest and Grauvogel (2017a) offers data on legitimacy claims in a number of contemporary authoritarian regimes. Yet, as discussed in more detail in the third study of this dissertation, this data lacks time-sensitivity and is limited in scope which further highlights the need for more fine-graded and comprehensive data sets. By making use of quantitative text analysis and assessing 2,074 speeches from political leaders in 22 countries, the fourth study in this dissertation is an exploratory analysis which points to the potentials of transforming the mushrooming texts provided on the official websites of autocratic regimes into valid legitimation data.

### The Hexagon of Authoritarian Persistence

#### Repression, Cooptation, and Legitimation

The four studies of this cumulative dissertation illuminate different aspects of how and why authoritarian regimes manage to survive. As a general theoretical framework for the analysis of enduring authoritarianism I conceptualize the so-called "hexagon of authoritarian persistence." The hexagon builds on key aspects of Gerschewski's (2013) three pillars of stability but suggests also several important modifications. The empirical test of the three pillars in the second study of this dissertation illustrates that the model has explanatory power in the context of electoral regimes. Yet, in order to analyze the varying forms of repression, cooptation and legitimation in autocracies in general, this dissertation further develops the theory of autocratic survival. In contrast to the three pillars, the model of the hexagon is able to reflect the diverse institutional configurations in persistent autocracies of any type and accounts also for their ambiguity, as I argue in the following.

The central argument of the model of the three pillars is that any type of autocratic regime relies on legitimation, repression, and cooptation. What differs between autocracies is the degree of institutionalizing these three pillars. Gerschewski (2013) conceptualizes the three pillars as having two dimensions each: specific and diffuse support of legitimation, high and low-intensity repression, formal and informal cooptation. While he explains the varying institutionalization by referring to exogenous, endogenous and reciprocal reinforcement effects among the pillars, the relationship between the different dimensions in each pillar is not discussed. For his theory of the two worlds of autocracies as the only two stable configurations of the pillars, he assumes all dimensions except for high and low-intensity repression to be mutually exclusive (Gerschewski, 2013, 29).

In opposition to this, I suggest to look at the dimensions not as mutually exclusive specifications of repression, cooptation, and legitimation but as individual features of authoritarian persistence, visualized with the shape of a hexagon, as shown in Figure 1.

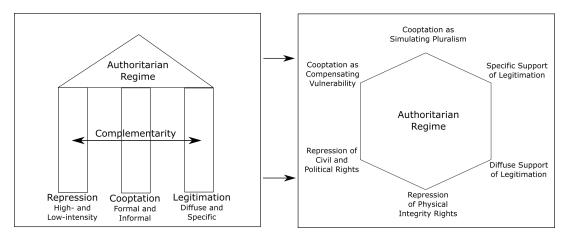


Figure 1: From Gerschewski's Three Pillars to the Hexagon of Authoritarian Persistence

Similar to the three pillars (Gerschewski, 2013, 20), the hexagon of authoritarian persistence draws upon the non-normative concept of legitimation by Weber (2002). Particularly in modern authoritarianism, this belief of legitimacy is not only generated by ideological indoctrination but also performance dependent (Dukalskis and Gerschewski, 2017; Polese et al., 2017). To illustrate the two sources of legitimation, I follow Gerschewski and use Easton's (1965) differentiation between specific support (socio-economic performance, the fulfillment of the demands for domestic security, etc.) and diffuse support (ideologies, religious, nationalistic, traditional claims, the charisma of autocratic leaders). It is particularly the first and the last study in this dissertation which shed light on various forms of specific and diffuse support by analyzing how autocrats use the Internet and e-government platforms or a particular style of language to legitimize their rule.

For the concept of repression, Gerschewski (2013, 21) distinguishes between highly visible, violent acts that target a large number of people or well-known individuals and less visible forms of coercion such as surveillance, harassment or the denial of employment and education (Levitsky and Way, 2010, 57). I adopt these two forms of coercion, yet, I change the slightly misleading names since the labels high-intensity and low-intensity suggest that these are the end points of the same underlying concept. Borrowing the names for both forms of repression from the CIRI Human Rights Data Project (Cingranelli and Richards, 2013), I call the first form repression of physical integrity rights and the second repression of civil and political rights.

One crucial change when transforming the three pillars into the hexagon concerns the two dimensions of cooptation. While it is theoretically compelling to conceptualize them as formal and informal ways of tying strategic partners to the regime, I hold that such a clear-cut separation is empirically not feasible since formal and informal institutions<sup>3</sup> of cooptation are often inseparably fused (Isaacs, 2014). Furthermore, finding valid indicators for measuring informal institutions is a highly challenging task, particularly for a large number of cases (Helmke and Levitsky, 2004). Therefore, I propose two different perspectives on cooptation. Following Schmotz (2015, 442), I conceptualize the first form of cooptation as compensation of vulnerability. The multi-level concept of Schmotz defines cooptation as the capacity of a regime to compensate for various pressure groups (military, capital, parties, labor, ethnic groups, and landowners) by offering material benefits or institutional inclusion. The second form is cooptation as simulating pluralism, typically done by establishing fake multiparty systems and pretending competitiveness. The name is inspired by the explanations of Sartori (2005, 205-206) on hegemonic party systems in which he illustrates that this tactical simulation of pluralism in form of toy parliaments and rubber stamp politics is a cunning strategy of cooptation since it gives the elites the feeling that some power is allocated to them while all power remains in the inner circles of the regime. The third and fourth study in this dissertation further engage with this strategy of cooptation and illustrate how some types of autocracies, the so-called hegemonic regimes, effectively use it in combination with repression of physical integrity rights and diffuse support of legitimation to prolong their rule.

Another modification refers to theoretical reflections about the interplay of the institutions of repression, cooptation and legitimation. Gerschewski (2013) proposes institutional complementarity between the three pillars, a concept which is adopted from the varieties of capitalism literature and was developed on the basis of recurring institutional patterns in liberal or coordinated market economies

<sup>&</sup>lt;sup>3</sup>Similar to the three pillars (Gerschewski, 2013, 25), the hexagon relies on a rather broad historic institutionalist definition of institutions as behavioral patterns, formal and informal procedures, routines, norms, principles and conventions (Hall and Taylor 1996, 6).

(Deeg, 2007; Hall and Soskice, 2001). Gerschewski (2013, 29) borrows Deeg's (2007) claim that complementarity between institutions presumes only a limited amount of successful institutional combinations. Based on Deeg's theory of institutional clustering as reappearing configurations across a large set of cases, Gerschewski (2013, 30) expects stable autocracies to cluster around two stable configurations - the two worlds of autocracies.

As opposed to this, I argue that the concept of institutional complementarity cannot be simply transferred to the institutional settings of autocracies. Authoritarianism is characterized by a highly asymmetric but constant struggle between pro-regime and anti-regime actors over the power to shape the institutional settings. Ambiguity is an immanent feature of the relationship between authoritarian institutions (Schedler, 2013). Authoritarian regimes such as Tajikistan<sup>4</sup> endure despite unstable conditions, pointing to crucial differences between the three pillars' stability and the hexagon's persistence. After having managed the stabilization processes, Gerschewski (2013, 23) suggests that stable autocratic regimes rest on the three pillars of stability. Yet, the hexagon is not based on this distinction between process and result since it defines persistence as a regime's endurance over time - occasionally under conditions which seem to be rather unstable. In line with Schedler (2013, 12), I hold that autocratic rulers can never "sit back and relax" but need to adapt to new challenges and situations. Therefore, I assume varying institutional relations - be it conflictive, neutral or indeed complementary - between all the six features of the hexagon. Based on this, the third study of this dissertation finds more than two configurations of the hexagon which generate authoritarian persistence.5

<sup>&</sup>lt;sup>4</sup>Repeated uprisings in Gorno-Badakhshan keep challenging president Rahmon's rule. The remote and autonomous region of Tajikistan's East was a bastion for the opposition already during the Civil War (1992-1997) and remained a risk factor for the regime ever since.

<sup>&</sup>lt;sup>5</sup>The third study also explains how the hexagon is rooted in set theory.

#### **Outlook: Institutional Change in Persistent Autocracies**

Authoritarian regimes have varying abilities to change and adapt to new circumstances. The concept of the hexagon accounts for different forms of institutional change in authoritarian settings. These forms include sudden ruptures which might even lead to regime change or incremental transformations and steady shifts over longer periods of time which can help to further strengthen the regime.

The three common theoretical strands of the new institutionalism (rational choice, historical and sociological institutionalism, Hall and Taylor, 1996) face problems in explaining institutional change. While most contributions focus on explaining institutional stability, change - if at all - is mainly explained as a result of exogenous ruptures (Mahoney and Thelen, 2010, 4-5). This is also true for Gerschewski's (2013) framework of the three pillars of autocratic stability: Following the concept of critical junctures in historical institutionalism, Gerschewski et al. (2012, 13) show that such junctures start threatening the stability of a regime if one pillar is facing serious problems which the other pillars cannot compensate. Although this accounts for consequences of exogenous shocks on autocratic stability, endogenously caused step-by-step transformations and their effects on the stabilization processes are not taken into consideration.

Reflecting on the issues of explaining institutional change, the literature on historical institutionalism offers first attempts to incorporate incremental institutional changes into the analysis (Capoccia 2016). Streeck and Thelen (2005) put forward five different modes of gradual institutional change, called displacement, layering, drift, conversion and exhaustion. Based on the view that "change and stability are in fact inextricably linked", Mahoney and Thelen (2010, 9) further elaborate this theory on steady shifts in institutions. However, these and other contributions are the result of analyzing institutional change in the capitalist systems of liberal democracies and are only to a limited extend applicable to the context of authoritarian institutions.

Research on gradual institutional change in authoritarian settings has been scarce. As one of the few exceptions, Tsai (2006) examines how changing infor-

mal institutions gradually change formal institutions by looking into the case of China. Notable is also the contribution of Slater (2010a) who analyzes how incremental institutional change in Indonesia led to significant changes in the structure of the regime. By closely examining Suharto's strategies of institutional shaping, Slater (2010a, 138) reveals that the regime gradually transformed from a military-dominated regime to a highly personalist one.

The hexagon of authoritarian persistence provides a theoretical framework to study change in authoritarian institutions and its effects on regime survival. Similar to the model of the three pillars, the hexagon adopts the historical institutionalist concept of critical junctures to account for sudden events which create branching points from which historical development *can* move onto a new path (Hall and Taylor, 1996, 10). I follow the definition of Capoccia and Kelemen (2007, 348) of critical junctures "as relatively short periods of time during which there is a substantially heightened probability that agents' choices will affect the outcome of interest." Thus, a critical juncture affecting one or several institutions of a regime can have a de-stabilizing impact - yet, there is also the possibility that the institutional setting of the regime manages to compensate for this shaky moment.

Beside critical junctures as a possible source of abrupt institutional change, the hexagon is based on the assumption that there are constant adaptation processes and subtle changes occurring within and between the institutional settings of authoritarian regimes. Gerschewski (2013, 23-25) already hints at these processes by suggesting not only exogenous but also endogenous and reciprocal mechanisms in and between the three pillars. But this theory is not taken to its end since Gerschewski assumes them to be automatically in a complementarity relationship with each other in stable authoritarian regimes. This explanation of autocratic stability comes close to the theoretically appealing concept of self-enforcing path dependency which is only interruptible by critical junctures. However, as Capoccia and Kelemen (2007, 368) point out, such institutional settings are empirically rather rare phenomena. In contrast to this, I argue that the above illustrated *varying* institutional relations and general institutional uncertainty in authoritarian regimes encourage gradual institutional change.

The first impulses for gradual change occur within institutions as the result of actors bringing in new ideas. There is a burgeoning strand of literature in autocracy research which engages with these diffusion effects, authoritarian learning and other international aspects of authoritarianism (Tansey, 2016; Lankina et al., 2016; Bank and Josua, 2017). Yet, such innovations and external influences are most frequently faced with institutional inertia (Carstensen, 2011; Kornprobst and Senn, 2017). Particularly in authoritarian contexts, the resistance to change is high due to the ambiguity of institutions and asymmetric power relations. Instead of sudden changes, there are incremental adaptation processes, followed by a gradual change of the institutional setting at large. Over time, these gradual institutional changes can lead to significant transformations (Mahoney and Thelen, 2010, 3). Figure 2 illustrates such extreme developments in each of the institutional settings of the hexagon.

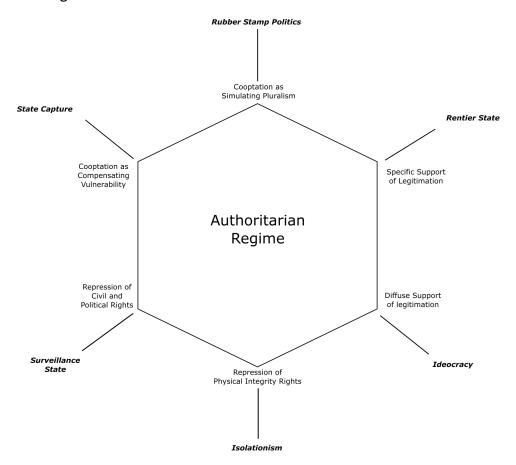


Figure 2: Extreme Developments of the Hexagon

Intensively oppressing civil and political rights results in a surveillance state. Regimes which apply extremely high amounts of hard repression end up in international isolation, etc. Yet, as argued above, it is not the extreme development of merely one institutional setting which fosters authoritarian persistence. While one of these extreme institutionalizations might become a prominent characteristic of a regime, the second and third study in this dissertation empirically show that it is the combination of the different forms of repression, cooptation, and legitimation which keep authoritarian regimes persistent. As further illustrated in the third study, hegemonic regimes typically simulate pluralism by setting up non-competitive multiparty systems. However, these rubber stamp politics alone do not make them resilient. Their core survival strategy is rather to combine this form of cooptation with an intense repression of civil and political rights and high amounts of diffuse support of legitimation. The fourth study illuminates, for example, how the leaders of hegemonic regimes make use of a surprisingly democratic style of language to gain legitimacy and rhetorically support the façade of pluralism in the highly authoritarian surroundings of their countries.

This dissertation conceptualizes authoritarian persistence as a regime's continuance over time. As it has been argued above, this continuance does not automatically imply constant stability and can also be characterized by unstable conditions and gradual changes. The empirical analyses in this dissertation illustrate the multifaceted nature of authoritarian persistence and point to several configurations of the hexagon which stipulate autocratic survival. However, the analyses do not yet grasp the actual process of gradual change in persistent authoritarian regimes. Due to data constraints and methodological limitations, they merely reflect the result of the interplay of several extremely developed institutions as successful authoritarian survival strategies. Further and more detailed analyses about the adaptation mechanisms in persistent autocracies are needed. As an outlook for future research, the conceptualization of the framework of the hexagon in this section provides the theoretical ground for such analyses.

#### Methods and Structure of the Dissertation

One strength of this cumulative dissertation is its multimethod approach. By applying qualitative techniques, set methods and quantitative text analysis, the four studies provide crucial insights into authoritarianism from very different angles. The diversity of methods also helps to cross-validate the results and, more generally, contributes to plurality in the field. In addition, it is noteworthy to point out that three out of the four studies make use of highly innovative and cuttingedge techniques of set methods and quantitative text analysis. The second study includes a set-theoretic evaluation of theory (Schneider and Wagemann, 2012, Chapter 11.3). The third study develops new ways of illustrating QCA results. It also applies Schneider and Rohlfing's (2013) categorization in typical, most typical, uniquely covered, and deviant cases. Based on this, it makes detailed suggestions for fruitful post-QCA case studies. As one of the first contributions which apply quantitative text mining methods for a larger number of authoritarian regimes, the last study develops a sophisticated dictionary and transforms the text of 2,074 political speeches into data by using a logit scaling model (Lowe et al., 2011).

The choice of method in each single study was strongly guided by the respective research question. The first study analyzes how different types of authoritarian regimes use e-government platforms to legitimate their rule. The phenomenon of autocracies setting up professional websites to propagate efficiency and modernity is relatively new and has hardly been researched so far. While the UN E-government survey (UNPACS, 2014) offers first data on the worldwide development of the countries' official websites, this index does not account for the crucial differences between autocratic and democratic forms of government to make use of these websites. Qualitatively assessing and comparing the e-government platforms of a limited number of cases facilitates in-depth understandings of the different mechanisms in authoritarian regimes before further generalizations are made. The second and third study provide detailed explanations of why a set-theoretic approach is most suitable for applying the model of the three pillars and the hexagon of authoritarian persistence. Because both models are based on the assump-

tion that it is not repression, cooptation or legitimation alone but rather the combined impact of different forms of repression, cooptation, and legitimation which enables autocratic survival, empirical assessments need to account for these reciprocal effects. The fuzzy-set Qualitative Comparative Analyses of the survival of electoral regimes (second study) and autocracies in general (third study) are able to grasp this causal complexity. The fourth study benefits from new quantitative text mining methods and tools which allow to analyze the rapidly growing amounts of texts and speeches which autocrats make available on their official websites. Based on this methodological approach, the results of this study highlight how autocrats of different regime types make strategic use of a democratic or autocratic style of language.

Figure 3 illustrates the structure of this dissertation and demonstrates how the four studies are theoretically interlinked. The first study focuses on single aspects of autocratic legitimation by analyzing a small number of cases. The second and third study refer to larger amounts of cases and look at how autocratic regimes combine various forms of legitimation with repression and cooptation to ensure their survival. In this sense, it is the third study which constitutes the core of the dissertation because it offers the most comprehensive and generalizable perspective on the various survival strategies of authoritarian regimes. As the ellipse in Figure 3 shows, the last study moves from this general level back to more specific aspects of cooptation and legitimation. While the quantitative part of the last study still refers to 22 cases, the qualitative part focuses only on three authoritarian regimes. As a whole, all the four studies equally contribute to illuminate the many faces of authoritarian persistence.

Beside the theoretical linkages, Figure 3 summarizes the entire research cycle of this dissertation and indicates the methodological choice and empirical scope of each study, as explained above. Similar to Schneider and Rohlfing (2013), I divide this cycle in a pre-QCA, QCA, and post-QCA phase. The in-depth analyses during the pre-QCA phase of how autocrats use the Internet to legitimate their rule served in many ways as the basis for the subsequent research and was par-

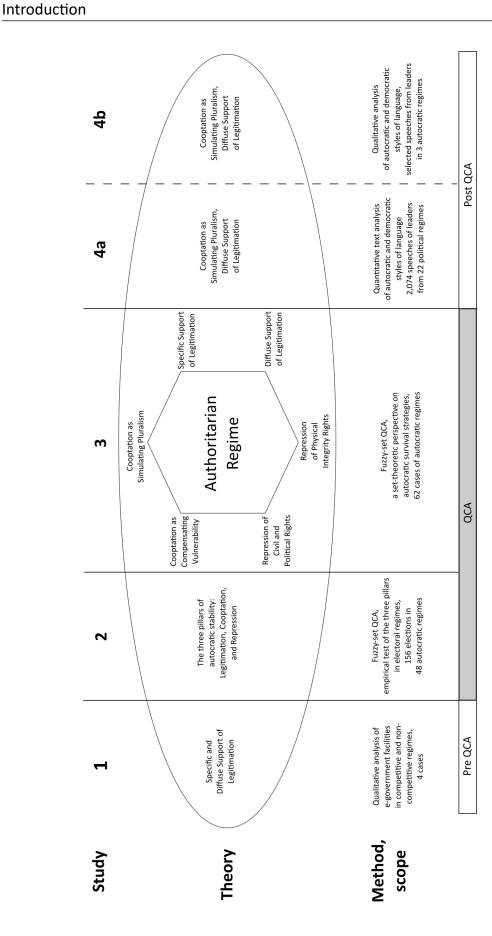


Figure 3: Theretical Linkages, Methods, and Scope of the Four Studies

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ticularly useful for the choice and calibration of the conditions in the subsequent QCA studies (Schneider and Rohlfing, 2013, 561). Conceptually, it helped me to better understand the novel ways today's autocrats use to gain legitimacy. It also highlighted the importance of including the different forms of specific and diffuse support of legitimation as conditions for the fsQCA in the second and third study. Empirically, this exploration enhanced my "external" knowledge about legitimation as a fruitful basis for valid calibrations (Ragin, 73, 2008 and Schneider and Wagemann, 32, 2012).

The quantitative and qualitative text analyses in the post-QCA phase of this dissertation follow some of the research suggestions in the third study which are based on the QCA results. Inspired by the interest in persistent "hegemonic" autocracies as those regimes which combine diffuse legitimation, repression of civil and political rights, and cooptation as simulating pluralism as their survival strategy (see the QCA solution paths illustrated in Table 3.6), the last study analyzes the cooptation and legitimation techniques of these regimes in more details. The quantitative part compares the official rhetoric of hegemonic regimes with the language styles used in other regime types. The qualitative part of the fourth study analyzes Uzbekistan as the most typical case of the hegemonic configuration. However, while this last study in the dissertation further illuminates the survival mechanisms of these regimes, it is merely a first step in the comprehensive post-QCA case study scheme as proposed by Schneider and Rohlfing (2013). The discussion of the findings in the third study of this dissertation further explains how future research could continue these post-QCA explorations.

# **Summary and Main Findings of the Four Studies**

The first study is a reprint from Government Information Quarterly, Vol 33/4, Seraphine F. Maerz, "The Electronic Face of Authoritarianism: E-Government as a Tool for Gaining Legitimacy in Competitive and Non-Competitive Regimes," 727-735, Copyright (2016), with permission from Elsevier.

The first study in this dissertation investigates into e-government in autocracies as a seemingly democratic pattern of legitimation which became increasingly popular during the last decade. The most current data of the UN e-government survey (2014) show that several autocracies massively expand their online facilities. Recent studies question the widespread assumptions that such initiatives improve transparency and foster democratization. They propose the hypothesis that authoritarian regimes set up e-government as a response to globalization pressures and to demonstrate modernity and legitimacy to the international community. However, this first study of the dissertation argues that the hypothesis does not account for the variations of e-government across different types of authoritarian regimes and suggests a refinement. The qualitative assessment of four post-Soviet authoritarian regimes points to crucial differences of how e-government is used to legitimate authoritarianism. While the non-competitive regimes of Turkmenistan and Uzbekistan create their web presences primarily for an international audience, the study finds a surprising citizen-responsiveness on the websites of the competitive regimes of Kazakhstan and Russia. This study proposes a new concept of e-government in autocracies and illustrates that some type of competitive authoritarian regimes use their websites not only for gaining external legitimacy but also as an efficient tool for obtaining the support of their people by offering online services and simulating transparency and participation.

The second study is a reprint from "Zeitschrift für vergleichende Politikwissenschaft" (Comparative Governance and Politics), Vol 11/2, Carsten Q. Schneider, Seraphine F. Maerz, "Legitimation, Cooptation, and Repression and the Survival of Electoral Autocracies," 213-235, Copyright (2017), with permission from Springer.

The second study in this dissertation analyzes the survival of electoral autocracies. Conceptualizing the "three pillars of stability", Gerschewski (2013) proposes legitimation, cooptation and repression as the fundamental principles of lasting autocratic rule. Recent studies put this so-called WZB model to an empirical test

and probe the effects these three factors have on regime survival in light of autocratic elections (Lueders et al., 2014). Their finding that the WZB model has only limited explanatory power in competitive autocracies has sparked a broader debate about the empirical application of the model as such (Kailitz and Tanneberg, 2015; Lueders and Croissant, 2015). The third study of this dissertation, co-authored with Carsten Q. Schneider, contributes to this debate in several ways: (1) rather than analyzing each pillar's effect in isolation, we investigate their combined effects; (2) rather than assuming causal symmetry, we expect to find different explanations for autocratic stability and breakdown, respectively; (3) by focusing on configurations of pillars, we are in the position to identify distinct types - or "worlds" (Gerschewski, 2013) - of (un)stable autocracies. Using the data from Lueders et al. (2014) on elections in hegemonic and competitive authoritarian regimes between 1990 and 2009, we apply fuzzy-set Qualitative Comparative Analysis to empirically investigate which, if any, combination of the dimensions of legitimation, cooptation, and repression lead to the survival of autocratic regimes and which ones to their breakdown. Our findings suggest that single pillars in isolation are causally irrelevant; that the WZB model is, indeed, capable of identifying stable autocracy types but it does not perform well in identifying the reasons why autocracies break down; and that the two viable types of autocracies identified by us are meaningfully distinguished by their different legitimation strategies.

The third study is currently under review for publication. The full title of the manuscript is "The Many Faces of Authoritarian Persistence. A Set-Theoretic Perspective on the Survival Strategies of Authoritarian Regimes."

The third study in this dissertation examines how authoritarian regimes combine various strategies of repression, cooptation, and legitimation to remain in power. In several ways, this study is a continuation of the second study in this dissertation. Thus, it refers not only to electoral regimes but autocracies in general. In addition, its theoretical framework - the hexagon of authoritarian persistence - is partly based on Gerschewski's (2013) three pillars but further develops the theory

of autocratic survival. The contribution of the study is two-fold: First, I conceptualize the hexagon of authoritarian persistence as a framework to explain how authoritarian regimes manage to survive. In contrast to the model of the three pillars, the hexagon can grasp the causal complexity of autocratic survival because it is rooted in set theory and accounts for asymmetric causal relations, conjunctural causation, and equifinality. Based on this, it illuminates how authoritarian regimes use multiple, mutually non-exclusive survival strategies. The second contribution is an empirical exploration which applies the hexagon and provides a case-orientated analysis of 62 persistent and non-persistent authoritarian regimes (1991-2010). By using fuzzy-set Qualitative Comparative Analysis, the findings of this assessment illustrate five configurations of the hexagon as those combinations of strategies which facilitate authoritarian survival.

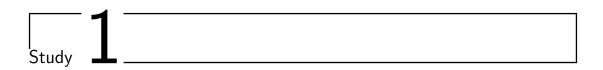
The fourth study was prepared for the APSA Annual Meeting 2017 in San Francisco and has been submitted to a peer-reviewed journal. The full title is "Simulating Pluralism: The Language of Democracy in Hegemonic Authoritarianism."

The last study of this dissertation analyzes the language authoritarian leaders use to legitimate their rule. It examines the official speeches of autocrats in hegemonic regimes and compares them to the rhetoric styles of leaders in closed or competitive regimes and democracies. While recent autocracy research has drawn most attention to the phenomenon of competitive authoritarianism, the survival strategies of hegemonic regimes are less explored. Thus, the study focuses on the simulation of pluralism as a key feature of hegemonic regimes. By installing noncompetitive multiparty systems which merely pretend pluralism, these regimes maintain a strong grip on power. The study finds that the leaders of hegemonic regimes use a surprisingly democratic style of language to sustain this façade of pluralism. The dictionary-based quantitative text analysis of 2,074 speeches of current leaders in 22 countries illustrates that compared to other autocracies, hegemonic regimes over-emphasize the (non-existing) democratic procedures in their

country to fake a participatory form of government and gain national and international legitimacy. The subsequent case studies of Uzbekistan, Saudi Arabia, and Russia further reveal the differences in context and motives for autocrats in hegemonic, closed, and competitive regimes to use autocratic or democratic styles of language.

The four studies of this cumulative dissertation are succeeded by some concluding remarks which offer a final summary of the dissertation's major contributions, point to some of its constraints, and engage with alternative explanations. In addition, the conclusion discusses broader implications of the four studies' findings about authoritarian persistence and suggests several avenues for future research.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup>The concluding remarks are followed by a glossary which provides definitions for a range of key terms used in this dissertation. The glossary also clarifies that for several terms, the operationalization was improved throughout the dissertation because indicators were fruitfully combined or used in a new way and novel data became available.



## The Electronic Face of Authoritarianism

This study is a reprint from Government Information Quarterly, Vol 33/4, Seraphine F. Maerz, "The Electronic Face of Authoritarianism: E-Government as a Tool for Gaining Legitimacy in Competitive and Non-Competitive Regimes," 727-735, Copyright (2016), with permission from Elsevier.<sup>1</sup>

### 1.1 The Rise of E-Government in Autocracies

One theoretical merit of the currently reviving field of autocracy research is the reintegration of legitimation as a crucial factor of autocratic persistence (Gerschewski, 2013). A range of new contributions engage with the different patterns of legitimating authoritarianism (Ahrens et al., 2015; Hoffmann, 2015; Beichelt, 2014; Grauvogel and von Soest, 2014) and suggest novel cross-national typologies on autocratic legitimation (Kailitz, 2013). This analysis adds to this nascent strand of literature and examines how e-government is used as a tool for gaining legitimacy in competitive and non-competitive authoritarian regimes.

Since the early times of the Internet, an ever increasing number of governments has seized the opportunity of improving the efficiency and transparency of

<sup>&</sup>lt;sup>1</sup>As per this agreement, no modification of the originally published text have been made.

<sup>&</sup>lt;sup>2</sup>Autocracy is used here as an umbrella term for all non-democratic regimes, comprising both the distinctions between authoritarian and (post-)totalitarian made by Linz (2000) and other recent classifications (Geddes et al., 2014). A regime is a set of formal and informal institutions (Schedler, 2013, 23) and legitimation is understood as the process of legitimating whereas legitimacy refers to its result (Beichelt, 2014).

their administrations by setting up e-government platforms. Benefiting from the rapid diffusion of the new information and communication technologies (ICTs), they created an "electronic face of government." which would help them to engage citizens, provide services and thereby enhance their legitimacy (Chadwick, 2001, 425) Such efforts of promoting citizen participation and interaction are generally perceived as fundamental elements of democratic politics and until recently, e-government has been prevalently associated with democracies. However, as shown by the UN E-Government Development Index for the last decade, the wave of e-government in democracies has been promptly followed by a second wave of online initiatives in autocracies. In fact, setting up official websites and investing in e-government and e-participation became very fashionable in authoritarian regimes and by now, some of their e-participation platforms even outrun those of Western liberal democracies (UNPACS, 2014).

Recent contributions on the political impact of ICTs address the massive growth of e-government in autocracies and challenge the widespread assumptions that such initiatives improve transparency and the prospects for democratization. Indepth case studies show that e-government is not a one-way road to e-democracy (Kardan and Sadeghiani, 2011) and illustrate how authoritarian rulers use ICTs to consolidate and promote their regime (Johnson et al., 2010; Göbel, 2013).

Other research conduct large-N comparisons and reveal a correlation between the establishment of e-participation platforms in autocracies and a decrease of Internet freedom (Linde and Karlsson, 2013) or generally inquire about the different political determinants of e-government in democracies and autocracies (Stier, 2015b). Åström et al. (2012) particularly focus on the rise of e-participation in autocracies. By examining domestic and international factors, their findings indicate that economic globalization and technological development are the strongest driving forces for the extensive growth - regardless of the country's level of democratization. They argue that in contrast to the domestically driven e-participation initiatives in democracies, authoritarian regimes respond to global pressures and

<sup>&</sup>lt;sup>3</sup>The title of this article is partly inspired by Chadwick (2001).

set up e-participation platforms to demonstrate modernity and legitimacy to the international environment.

In light of the current advances in the field of autocracy research, this "legitimation hypothesis" of Aström et al. (2012, 144) is highly compelling and their study provide important insights into e-government in autocracies. However, this article argues that it suffers from a crucial shortcoming: By not distinguishing between different types of authoritarian regimes and merely applying a measurement of degree, the proposed generalizations about the driving forces for setting up eparticipation facilities in autocracies are flawed. In drawing a clear line between competitive and non-competitive authoritarian regimes and illustrating how the patterns of using e-government and e-participation as a tool for gaining legitimacy can differ in both regime types, this article offers a more nuanced perspective on the electronic face of authoritarianism and suggests a refinement of their legitimation hypothesis: The article finds that the examined non-competitive regimes do set up their e-government platforms first and foremost as a response to external legitimation pressures. Yet, the modern and technically sophisticated websites of some competitive authoritarian regimes mainly aim for internal legitimacy by simulating transparency and participation and offering a significant amount of "real" services to their citizens.

The article proceeds as follows: After conceptualizing e-government and e-participation in authoritarian settings (2) and explaining the methodological approach (3), the core part of the article (4) outlines and discusses the results of the analysis. The concluding part (5) summarizes the article and offers a brief agenda for future research.

# 1.2 Conceptualizing E-Government in Autocracies

The burgeoning literature on e-government and e-participation suggests a plethora of definitions for both terms. Linde and Karlsson define e-government as "all efforts of governments to use ICTs, particularly the Internet, in order to support government operations, engage citizens, and provide government services." They specify e-participation as a kind of sub-concept of e-government which "refers to government initiated efforts to stimulate and increase citizen participation and interaction with government authorities (which is a fundamental value of democratic politics) with the support of ICTs." (Linde and Karlsson, 2013, 269).

These and other definitions exhibit a bias in favor of democracy and do not reflect the above mentioned insights into the specific nature of e-government in autocracies. Therefore, this article suggests an adjusted definition of e-government and e-participation which particularly refers to authoritarian contexts and accounts for its purpose of legitimating authoritarian rule, as pointed out by Aström et al. (2012) and Johnson et al. (2010). While the definition relies on their observations as well as on some aspects of Linde and Karlsson (2013), it also borrows from Stier (2015b, 270-271) who puts an emphasis on the economic dimension of e-government. Thus, the concept of e-government in autocracies is understood here as all efforts of the regime to use ICTs, especially the Internet, in order to enhance its legitimacy. Hereby, the regime applies propagandistic language and symbolism but can also exhibit citizen-responsiveness by offering services, access to government-related information and possibilities for interaction which enhance the efficiency, accountability and modernity of the regime and stimulate economic growth. E-participation in autocracies is seen as a sub-category of e-government in autocracies which offers political inclusion. E-participation in autocracies is generally expected to be either underdeveloped or as relating to sham or mere routine interactions.

## 1.3 Methodology and Operationalization

The post-Soviet region reveals one of the most significant growth rates of e-government and e-participation in autocracies during the last decade (UNPACS, 2014; Åström et al., 2012). The case selection for this analysis is partly guided by the rise of e-participation as indicated in the last column of Table 1.1. Thus, out of all post-

Soviet competitive authoritarian regimes, Kazakhstan and Russia display the highest numbers of rank change while Uzbekistan and Turkmenistan are the only post-Soviet non-competitive authoritarian regimes.<sup>4</sup> The UN index of e-government and e-participation does not account for the conceptual differences of the terms in democratic and authoritarian settings as suggested in this article and the ranking in Table 1.1 should not be misunderstood in terms of democratization levels or trends.

Country	Rank 2003	Rank 2014	Rank Change
Netherlands	8	1	7
France	8	4	4
United Kingdom	1	4	-3
Italy	17	19	-2
Spain	56	19	37
Kazakhstan	69	22	47
Finland	20	24	-4
Germany	15	24	-9
Norway	32	30	2
Russian Federation	91	30	61
Ireland	12	33	-21
Portugal	20	33	-13
Austria	61	40	21
Belgium	37	40	-3
Sweden	12	45	-33
Denmark	20	54	-34
Luxembourg	37	54	-17
Uzbekistan	151	71	80
Azerbaijan	123	77	46
Kyrgyzstan	102	81	21
Switzerland	17	91	-74
Belarus	102	92	10
Tajikistan	151	158	-7
Turkmenistan	123	158	-35

**Table 1.1:** The Growth of E-Participation in Post-Soviet Authoritarian Regimes Compared to Western European Democracies, e-participation index (UNPACS, 2014). The selected cases for the analysis are in bold.

<sup>&</sup>lt;sup>4</sup>As opposed to the other three cases, Turkmenistan shows a negative development regarding rank changes. It is nevertheless considered as a case since the analysis inquires about how egovernment is used for legitimating competitive and non-competitive authoritarian regimes rather than generally explaining the recent growth of e-government in autocracies.

In their study of e-government websites in Central Asia, Johnson et al. (2010, 21) also warn of misinterpreting e-participation initiatives in authoritarian regimes and their manipulation of e-government facilities at large as any sign of democratization.

In order to examine the e-government websites of the four cases, the article applies qualitative content analysis and formulates three analytical categories: (1) Audience, Style and Purpose, (2) Information and Transparency, (3) Service, Interaction and Participation. Each category comprises a range of questions which guided the analysis of the cases and facilitated their comparison. The analysis sought to select a similar set of official websites in all cases which typically included a country's government portal, its e-government platform(s), the president's websites and occasionally also the capital's official website. The first page of the websites was generally most relevant for answering the questions in category one. However, for the other two categories, most websites were analyzed up to three or more levels deeper.

Overall, this proceeding broadly follows Johnson and Kolko's (2010) fruitful suggestions regarding methods and operationalization - yet, their categories and questions were mostly reformulated and adapted to the specific interest of this article in how authoritarian regimes use e-government as a tool for legitimizing their rule. Furthermore, in contrast to Johnson and Kolko's long-term observation (2004-2008), this article refers only to the captures of official websites in December 2015. Johnson and Kolko illustrate the major characteristics of e-government in autocracies by examining the development of national- and city-level e-government websites in Kyrgyzstan, Kazakhstan and Uzbekistan. Their findings on how some type of authoritarian regimes make use of ICTs to respond to international legitimation pressures are in line with the mentioned legitimation hypothesis of Åström et al. (2012) and their thorough analysis can be considered as a seminal work on e-government in authoritarian regimes. Yet, their period of examination lasts only until 2008 and therefore does not account for the recent explosion of e-

<sup>&</sup>lt;sup>5</sup>See Appendix A for the guiding questions used in each category.

government initiatives in post-Soviet regimes (UNPACS, 2014). In addition, it does not grasp the changing patterns of legitimation to be observed in some types of authoritarian regimes which became known as competitive or electoral regimes (Levitsky and Way, 2010; Schedler, 2006). Therefore, this article recognizes the need for updating their results and offers a more current and nuanced analysis of e-government in authoritarian regimes by accounting for recent developments and distinguishing between competitive and non-competitive regimes.

This article follows Levitsky and Way's (2010) definition of competitive authoritarian regimes.<sup>6</sup> For operationalizing the concept of competitiveness, the analysis applies Hyde and Marinov's data set which examines national elections across democracy and autocracy (NELDA). By defining minimal conditions for electoral competition, the data set draws a clear borderline between competitive and noncompetitive regimes and thereby sidesteps many of the measurement problems detected in the literature on competitive regimes (Hyde and Marinov, 2012). The threshold between competitive authoritarian regimes and democracies is determined by the minimal and procedural definition of democracy applied in the data set of Geddes et al. (2014). These two data sets used for categorizing Russia and Kazakhstan as competitive and Turkmenistan and Uzbekistan as non-competitive regimes cover only the years until 2010 (Geddes et al.) and 2012 (NELDA). Yet, this classification is still valid in 2015 since these regimes did not undergo any significant changes (Anceschi, 2015) or, if there were some shifts toward a more authoritarian rule such as in the case of Russia, the regime is still perceived as competitive in the current literature (von Soest, 2015).

<sup>&</sup>lt;sup>6</sup>Levitsky and Way (2010, 5) define competitive authoritarianism as "civilian regimes in which formal democratic institutions exist and are widely used as the primary means of gaining power, but in which incumbents' abuse of the state places them at a significant advantage vis-à-vis their opponents. Such regimes are competitive, in that opposition parties use democratic institutions to contest seriously for power, but they are not democratic, as the playing field is heavily skewed in favor of incumbents. Competition is thus real but unfair."

<sup>&</sup>lt;sup>7</sup>This minimal definition of competitiveness is guided by three questions: Was opposition allowed? Was more than one party legal? Was there a choice of candidates on the ballot? (Hyde and Marinov, 2012, 194).

### 1.4 Results and Discussion

This section is divided into two parts: The first outlines major findings for each of the four cases and occasionally juxtaposes country pairs. The second part further compares these findings on a cross-country basis, generally discusses their scope of relevance and engages with alternative explanations.

### 1.4.1 E-Government in Non-Competitive Regimes

#### **Turkmenistan**

Although the highly authoritarian and still rather isolated<sup>8</sup> country of Turkmenistan is not performing well in terms of its UN e-government rating (UNPACS, 2014), the regime does invest in its online appearance and is currently maintaining several official websites, which are regularly updated. This article examines "Turkmenistan - the Golden Age" (TUR, 2015) as the country's web presence which comes closest to the concept of e-government in autocracies and additionally studies the websites of the Turkmen News Agency (TDH, 2015) and the Ministry of Foreign Affairs (MFA, 2015). Furthermore, the website of Turkmenistan's capital (Ashgabat, 2015) was included in the analysis.<sup>9</sup>

Many of Johnson and Kolko's (2010) findings about the early usage of ICTs in Kazakhstan, Kyrgyzstan and Uzbekistan during 2004-2008 are similar to this article's observations on how the Turkmen regime uses the Internet. Thus, all official websites lag behind in terms of professionalism and technical sophistication. None of them provides any interactive function which goes beyond the search function. The layout of the websites is poorly done, information is not well arranged and in many cases, announced sections turn out to be empty. The principal language of all websites is Russian - yet, Turkmen and English translations are available and more or less up-to-date with the Russian content, although the English version is

<sup>&</sup>lt;sup>8</sup>Since the death of Turkmenistan's former president Niyazov in 2006, the current president Berdymukhammedov has been only gradually abandoning the isolationist thrust of his predecessor (Anceschi, 2010).

<sup>&</sup>lt;sup>9</sup>In order to prevent asymmetric data bodies, the analysis considered the website of a country's capital as an additional source when e-government was comparatively less developed.

often of poor quality. Generally, the websites provide only a minimum amount of information about the government and make heavy use of propagandistic language, praising the achievements of the regime and its president. The ideological texts promoting the apparent modernity of the country and its "peaceful neutrality" are richly decorated with national symbols and pictures of nationalistic, folkloric festivities or international events, showing the Turkmen president meeting representatives from other countries. The mission statements clearly address an international audience. The flag counter on the government's website also shows that most of its visitors do indeed come from Russia (TUR, 2015).

Overall, it is rather obvious that none of these websites offer any significant service to Turkmen citizens and that they are clearly different from the notion of e-government in democratic settings or from the recent realizations of the concept in some competitive regimes. The comparatively low percentage of the Turkmen people having access to the Internet (9,6 percent in 2013, cf. Figure 1.1 in this article) further strengthens this assumption and shows that Turkmenistan's usage of the new ICTs is a typical case of the "legitimation hypothesis" as proposed by Åström et al. (2012): The non-competitive authoritarian regime sets up official websites as a response to globalization pressures and aims at increasing its legitimacy in the international community by creating an electronic face of the regime which is supposed to reflect "responsiveness, impartiality, frankness and quality" (TUR, 2015) - yet, the websites reveal to be mere Potemkin portals.

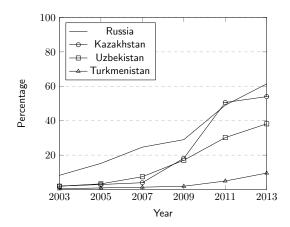


Figure 1.1: Percentage of Individuals Using the Internet, ITU (2015).

#### Uzbekistan

Of all the four examined cases, Uzbekistan's e-government environment turns out to be the most vibrant and puzzling case. Generally, the non-competitive authoritarian regime is known for its static, paternalistic and centralized organization of political and socio-economic life (Frye, 2010). This is why the diversity of the regime's official web presences is rather surprising: The analysis of the Uzbek e-government platform (UZ, 2015), its Single Portal for Interactive State Services (SPISS, 2015), a beta-version of a new portal to be launched soon (UZbeta, 2015), the website of the president's press service (Karimov, 2015) and the online environment of the capital (Tashkent, 2015) revealed that the official sites highly differ in terms of content, degree of informatization, quality, professionalism and style.

Long-running Uzbek president Islam Karimov repeatedly demonstrated his strong grip to power throughout the last two decades and enforced a very personalistic rule of the regime (Ambrosio, 2015). However, the simplistic, not very modern and slowly working website of the president's press service is rather underwhelming, particularly when compared to the impressive web presences of the Kazakh or Russian president. Yet, also in light of Uzbekistan's other official websites, these poorly maintained pages stick out as old-fashioned. Similar to the Turkmen websites, they do not offer any interactive functions, make use of propagandistic language and provide merely selected information about the current activities and achievements of president Karimov, described here as "the hero of Uzbekistan" (Karimov, 2015). Noteworthy is also that this website is not serviced by any of the local IT companies overseeing the operations of Uzbekistan's other official web presences and strangely, the website is not even linked to these sites. One can only assume that this might be a vague indicator of the regime's early arrangements for a post-Karimov survival.

Contrarily to this, the Uzbek e-government platform is heavily linked to the corresponding interactive portal as well as to the so-called open-data platform and a range of other official and semi-official websites (UZ, 2015). At first glance, the Uzbek e-government environment appears remarkably professional and service-

orientated. The government website is regularly updated in four different languages (Uzbek, Russian, Karakalpak and English) and offers two Uzbek versions (Cyrillic or Latin alphabet). The interactive portal claims to provide basic administrative and consular services and prominently announces the option of submitting "appeals to state authority" (SPISS, 2015). The government platform is an unexpectedly rich source of information which posts job vacancies and links to the regime's social media accounts or a forum (all in Russian). Comprehensive technical assistance and detailed contact information further increase the services of these websites which were mostly set up in 2015 - a year which saw many new laws and regulations on e-government in Uzbekistan (Lex.uz, 2015). Considering these and other recent changes, it seems that the Uzbek regime follows the trend of being responsive and offering "real" services and even the prospect of e-participation to its citizens as to be observed in Kazakhstan or Russia.

At the second glance, however, the Uzbek e-government websites reveal to be hollow imitations of the online platforms set up by its northern neighbors. As per a report published on the beta-version of the new platform to be launched in 2016, the development of e-government in Uzbekistan is guided by the criteria of the UN e-government index and aims at gaining a high score during the assessment in 2016: "To improve Uzbekistan's rating by the 2016, first thing is to compile list of 6 state organs services which are assessed by UN [sic!]. (...) The next is perfecting and modernizing the state organs' web sites based on the assessing criteria and requirements made by UN." (UZbeta Report, 2015). Indeed, many of the websites' sections do make the impression of being set up to promptly convince the UN committee and impress an international audience rather than offering de facto services to the Uzbek population. The beta-version of the new platform drops a variety of buzzwords such as "transparent dialogue," "efficiency" or "full information" and remarkably states that "the first objective of Uzbekistan's foreign policy is building a democratic society" (UZbeta, 2015). Although these and other keywords and phrases are not so prominently used on the current websites, the interactive portal announces functions such as the evaluation and discussion of

"pending legislation." Yet, hardly any of the 408 uploaded legislative texts<sup>10</sup> since January 2015 had been commented on by more than a handful of users - in fact, most "drafts" received 0 comments throughout the two-week period of open discussion (SPISS, 2015). The hurdle of the registration process, which requires detailed personal information of potential users or the terms of use of the interactive portal which threaten with legal consequences in case of false denunciations, might cause this lack of participation. Yet, another reason could also be that these and other functions are not set up to reach out to Uzbek citizens but rather follow the guidelines of the UN e-government development committee.

The statistics and counting functions given on the websites further support the assumption about the actual audience of the platform: The current interactive portal, launched in 2013, has an average number of 70 000 visitors each month (SPISS, 2015). Given that nearly 40 percent of Uzbekistan's 30 million inhabitants have access to the Internet (see Figure 1.1 in this article), this is a rather small amount of users and indicates that the regime's e-government facilities are not broadly used by the Uzbek population. Furthermore, on close inspection, the informatization of the government portal is either comparatively narrow or simply implausible. The section "government" contains abstract text-book like descriptions of various official posts rather than giving concrete details about any of the persons in office. Yet, strangely, the section on state bodies provides a name index on several hundred officials and business men, indicates their detailed contact information and even specifies day and hour of reception (UZ, 2015). Offering to the entire Uzbek population the option to visit the office hours of Azimov Rustam Sodikovich, Uzbekistan's First Deputy Prime Minister and Minister of Finance, might evoke the spirit of dialogue and democracy in some people's mind - yet, indicating public office hours of a comparably high-ranking official on the e-government sites of a democratic country with a similar amount of population would surely provoke highly chaotic situations in the government's buildings. Other dubious information concern the results of online surveys published on the interactive platforms. In one of these

<sup>&</sup>lt;sup>10</sup>The legislative texts are only uploaded in Russian, not in Uzbek or Karakalpak.

surveys, users "voted" for their favorite service used on the platform. Refilling a Visa card via the platform's payment system is currently the top service, chosen by just a little more than 5 000 people (SPISS, 2015).

In summary, these and other examples of the official Uzbek websites show that the regime has a rather ambivalent web presence. The mixed appearance is further increased by the different IT companies maintaining the sites. Furthermore, most of the platforms are obviously work in progress. Although the newly established Ministry for Development of Information Technologies and Communications (MITC, 2015) seems to be in charge of the current redevelopments and modernization, the organization of the regime's Internet presence appears scattered and not very well coordinated. The user statistics clearly illustrate that the Uzbek e-government portals are not widely used yet - however, this can change in the near future. It remains to be seen whether and how the regime will enhance its online services and how it will use the facilities in the country for its advantage. Yet, for now the platforms do not qualify as mostly citizen-orientated services but rather as a tool for gaining international recognition by pretending to have a responsive and transparent style of e-government.

## **1.4.2** E-Government in Competitive Regimes

#### Kazakhstan

The similarities and differences between the Uzbek and Kazakh pathways since the countries' independence have been frequently pointed out (Ahrens et al., 2015; McGlinchey, 2011; Rustemova, 2011; Adams and Rustemova, 2009; Jones Luong and Weinthal, 2002). Factors such as the Soviet and other historic legacies, natural resources, the organization of the economy, leadership style, informal politics and different patterns of legitimation are also reflected in the appearance of both regimes' official websites. Since this article explores e-government in competitive and non-competitive regimes, it is particularly interested in comparing the web presences of the neighboring countries which reveal many parallels but are two authoritarian regimes of a different kind.

When looking at the welcome page of both countries' government portal (UZ, 2015; KZ, 2015), one aspect is immediately eye-catching: Instead of prominently displaying pictures of the president as done on the Uzbek portal, the Kazakh page - offered in Kazakh, Russian or English - shows a discrete photo gallery of its prime minister, Karim Massimov, meeting international representatives. While it is difficult to find even the name of the current prime minister on the Uzbek pages, the Kazakh version provides a "government" section which contains names, a picture and a short biography of all ministers. A central topic on the Kazakh page is the propagation of the ideological state program "Kazakhstan 2050." Yet, generally, the style of the Kazakh page is simple and modern, information is well-arranged and the site is not as overloaded as its Uzbek counterpart. In other words, interactive functions are not flamboyantly announced but simply offered: The link "blogs of government" directs to a separate page on which users can address questions and appeals to high-ranking officials. The page counts over 300 000 received inquiries and in contrast to the Uzbek version, all posts are re-callable and also available for non-registered users. While some of the questions seem to remain unacknowledged, others are personally answered by the respective officials with more or less details.

The e-government platforms of Uzbekistan and Kazakhstan seem very similar when compared in terms of layout and presentation. However, there are at least three crucial differences: First, the Kazakh mission statement claims the purpose of its e-government platforms to be the fulfillment of its citizens' demands and promotes Kazakhstan as a "state for people" (Egov.kz, 2015). Although the propagandistic nature of these phrases is evident, it is clearly different from the Uzbek statement which does not even mention the word "citizen" (SPISS, 2015). Second, the statistics provided by a service on the Kazakh platform show that these sites are frequented each month by around 1.2 million users and over 16 million visitors. Furthermore, the site was ranked 21 of the most frequently visited websites in Kazakhstan on the day of capturing for this analysis (Zero, 2015). This article is

<sup>&</sup>lt;sup>11</sup>Kudaibergenova (2015) offers a detailed analysis of this program and illustrates how it is used by the regime for legitimating its rule.

aware of the issues and reliability problems which can occur when relying on data provided by authoritarian states (Roller, 2013). Nevertheless, these numbers are in stark contrast to the user statistics of the Uzbek site, as mentioned above. As Figure 1.1 in this article shows, the percentage of the people using the Internet has been recently higher in Kazakhstan than in Uzbekistan - yet, the latter has a more numerous population and this comparatively little difference alone cannot explain the significantly fewer users of the Uzbek portal. A third distinction between both regimes' e-government facilities concerns the provided services. While the Uzbek portal proudly claims to offer already 257 services (UZ, 2015), many of the service sections reveal only little information and transparency about the actual procedure and some sections turn out to be not much more than empty shells (e.g. "Sports and Culture," SPISS, 2015). As opposed to this, the Kazakh site provides a detailed information sheet about each single service which includes specifications about fees, length of process, service delivery location and others. Furthermore, the site offers training videos and virtual assistance for most services and the option to check the status of the processed documents. It goes beyond the scope of this article to further compare and assess the efficiency and impact of the provided services on both platforms, yet, the discussed examples show that the official websites of Kazakhstan offer plausible possibilities for interaction and a higher degree of transparency as well as informatization. Furthermore, the websites primarily address Kazakh citizens of whom a large part seems to make regular use of the government's services. The Kazakh regime is currently rebuilding its online environment and promotes a new and impressively modern site on "open government" (Open Government KZ, 2015). Here, an even larger amount of information, transparency and services such as open petitions and the assessment of government agencies' activities are annunciated to come in 2016 but none of the services has been enacted yet.

Although there are qualitative differences between the Uzbek and Kazakh egovernment facilities, Kazakhstan's current web presence is still revealing an electronic face of authoritarianism. In other words, the regime's efforts of providing substantial services to its citizens should not be mistaken as a sign of democratization but rather as the regime's attempts of increasing the support of its population and hence, gaining internal legitimacy. Based on the twofold concept by Easton (1965), specific support of legitimacy refers to concrete fulfillment of citizens' demands such as a good socio-economic performance or, in this case, efficient administrative procedures offered via the Internet which decrease bureaucracy and foster economic growth. The other component is diffuse support, gained by the charisma of a leader, nationalistic and traditional claims and ideologies. In the context of the Kazakh e-government environment, the official and private websites of president Nursultan Nazarbayev (Akorda, 2015; Nazarbayev, 2015) are clearly sources of diffuse support: In contrast to the neutral and technocratic style of the Kazakh e-government portal, they intensively propagate the president's achievements and personality by using glaring pictures, national symbols and hortative language. Taken together, these sources of specific and diffuse support belie the illiberal nature of the regime and aim at making the population believe in its legitimacy.

#### Russia

Compared to Kazakhstan's categorization as competitive regime - which is a rather ambiguous borderline case that could also pass as non-competitive, depending on the applied criteria - Russia exhibits several of the seemingly democratic institutions and typical features of competitive or hybrid regimes (Levitsky and Way, 2010). This is also true for the country's official websites: As opposed to the Central Asian versions of e-government, Russia's online portals and interactive platforms (RU, 2015; Kremlin, 2015; Gosuslugi, 2015; Open Government Russia, 2015) reveal a stunning presentational professionalism. They seem, in the first instance at least, very similar to e-government facilities in democracies. Furthermore, Russia's recent expansion and modernization of its e-government environment goes parallel with some of the current developments in democratic contexts. For example, the Russian websites display an increased sensitivity in terms of data security and

protection, something which is barely discussed on the websites of the examined Central Asian cases. Thus, the site of the Kremlin contains a detailed statement on how it deals with personal data of users (Kremlin, 2015), the e-government platform gives instructions on how to ensure security in the Internet and on the platform and the government portal has a Creative Commons license. A detailed comparative analysis of Russia's websites and a democratic e-government environment is needed to make any profound judgment on whether the broad range of services and functions of the Russian e-government come up to the standards of official websites in democracies. Yet, in this article it is important to note that these services are offered to citizens, legal entities and business organizations and thereby clearly aimed at a national audience.

Related to this are the strategies of dealing with user statistics and translations into other languages. The Russian government sees no need to install tools for counting users and visitors of its official websites as it is done by the Central Asian regimes to prove their relevance in the international arena. In contrast to the e-government websites of Kazakhstan, Uzbekistan or Turkmenistan, Russia's e-government portal provides only narrow versions in other languages than Russian - the English, French and German translations are significantly shortened and offer solely consular services, which further indicates that the portal is mainly set up for and used by Russian citizens.

Although the Russian government puts effort in making a possibly democratic impression on the Internet and its websites reveal a comparatively high degree of informatization, they also show some of the typical characteristics of e-government in autocratic settings. The "open government" website, for instance, announces several possibilities for political engagement and participation, but such initiatives seem - if at all - only superficially implemented (Open Government Russia, 2015). In 2013, Russia recalled its membership in the Open Government Partnership (OGP), an international collaboration which is committed to more transparent and accountable governments (OGP, 2015). While the regime did not clearly communicate the reasons for its withdrawal, it has been assumed that the OGP's

commitments to transparency were not in line with Russia's strategies of dealing with the Internet. Instead, the regime launched its own version of an "open government" platform, allowing for a more controllable solution (Howard, 2013; Open Government Russia, 2015).

The quality and range of services and information on the Russian e-government pages are more capacious than those of the Kazakh, Uzbek and particularly of the Turkmen websites. Nevertheless, it is rather evident that Russia's online platforms serve in many ways as a model for the Central Asian regimes. The terminology and structure applied on the Uzbek interactive portal resembles the e-government facilities of Russia (SPISS, 2015; Gosuslugi, 2015). The Kazakh government portal is strikingly similar to the structure, color and layout of the Russian portal (KZ, 2015; RU, 2015). The not yet fully maintained "open government" platform of the Kazakh regime matches the layout of Russia's new e-government portal - currently available as beta version (Gosuslugibeta, 2015). There are further similarities in form and content, particularly when it comes down to the rather biased news reporting on the government portal, centering on the accomplishments of Prime Minister Medvedev (RU, 2015), or other issues in terms of limited transparency. These characteristics of the websites show that Russia's e-government facilities are similar to the Kazakh counterparts and serve the purpose of alluring the population by providing efficient services and simulating an openness and degree of participation which are de facto non-existent.

## 1.4.3 Comparing and Discussing Major Findings

Table 1.2 provides an overview of the most important findings when comparing the performance of e-government in Turkmenistan, Uzbekistan, Kazakhstan and Russia as cases of competitive and non-competitive regimes.

Although there are crucial differences between Turkmenistan's rather underdeveloped official websites which barely resemble e-government and Uzbekistan's newly launched and technologically sophisticated platforms, both sets of websites mainly address an international audience and do not broadly engage with their citizens. Similar to the Turkmen websites, the texts on the Uzbek portals portray the government as modern by making rather implausible claims of accountability and responsiveness - however, none of the online facilities provide any substantial evidence for these claims. In contrast to Turkmenistan, the Uzbek regime puts visible efforts in developing websites which make the impression of offering numerous citizen-centric services and possibilities for interaction. Yet, many of the services are not enacted and the online platforms are generally not much frequented by the population of which a majority is still not using the Internet. The websites of both countries are overloaded with pictures, symbols and, in the Uzbek case, fancy icons or functions which further emphasize the regimes' attempts of appearing "at their best" in the international arena.

As opposed to the Turkmen and Uzbek official websites, Kazakhstan's and Russia's e-government facilities do indeed offer a broad range of services, which seem widely used by the population. Some of the Kazakh and Russian official web pages also speak to the international community by trying to make a possibly modern and "open" impression, yet, the preceding sections elucidated that the core part of their e-government environment addresses a national audience. Further similarities of the Kazakh and Russian regimes' online facilities concern the style of the presidents' official and private websites (Kremlin, 2015; Putin, 2015; Akorda, 2015; Nazarbayev, 2015). While the e-government portals of Kazakhstan and Russia follow a neutral, professional and simplistic design, the elaborate pages of the presidents are set up to gain diffuse support within the population by emphasizing the leaders' virtues and successes. 12 Vladimir Putin's websites, for example, offer selected reporting about his activities and successes, blended with the propagation of a range of animal welfare projects in which he plays a prominent role by saving endangered species. Both websites are linked to those projects which provide for videos of Putin in the wilderness, tracing an Amur tiger or Beluga whale for veterinary examination. Yet, setting up websites of the head of government

<sup>&</sup>lt;sup>12</sup>The Uzbek and Turkmen regime have either none (Turkmenistan) or only a poorly maintained website of the president (Uzbekistan) and propagate their leaders' strength on the government portals instead.

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	Audience, Style and Purpose	Information and Transparency	Service, Interaction and Participation
Turkmenistan		Selected news, mainly about the president, sport events or implausible information which portray the regime as modern or responsive. No further information about the government bodies, many sections of the websites are empty, no substantial transparency.	No services or interactive functions. Most websites do not even have the standard contact form. The layout is unprofessional but the websites are relatively up-to-date. The user statistics of the government's website show that most visitors come from Russia.
Uzbekistan	Most websites address an international audience and aim for external legitimation. The efforts of reaching out to a broader national audience are visible but so far not convincing. The websites appear in up to four languages. The style ranges from propagandistic to relatively neutral but overloaded designs.	There are very limited news about the ongoing political processes, centering around the president. Some businessrelated information and a number of dubious details about the government and its officials are provided. A comprehensive collection of legislative text is accessible.	The e-government portals pretentiously announce a great number of services and make the impression of technically sophisticated platforms. Yet, many of the services and interactive functions are not enabled or rarely used. Users can evaluate the websites, but there are no efforts for political inclusion.
Kazakhstan	The websites address national and international audiences and are published in three languages. The style is mostly simple, efficient and modern. The service-orientated e-government platforms were clearly set up for national users.	Information about government-related issues is comparatively rich. Selected news about current political events, large amounts of legislative texts. The newly launched "Open Government" website is not yet fully functioning but announces more transparency.	Broad range of services, generally used by citizens (as per user statistics). Various documented forms of interaction between government and citizens. Links to government's social media sites. Participation does not go beyond evaluating the official websites.
Russia	E-government platforms address a national audience and gain for internal legitimacy. Versions in other languages than Russian are not as detailed and mainly refer to visa issues and tourism. The style is modern and follows the layout of European e-government websites.	The websites offer detailed information about the government and its responsibilities. There are some news on current political events and government's decisions. Legislative texts and other documents are accessible and generally, the degree of transparency seems to some extent higher than in the other cases.	All websites are highly professional, offering substantial services and opportunities for interaction. Links to government's social media sites. The "open government" website - published only in Russian - announces options for political participation but they seem superficial or not implemented.

 Table 1.2:
 Comparing E-Government Performance in Non-Competitive and Competitive Regimes.

for gaining diffuse support in the population is not a distinct characteristic of autocracies, as the website of the German chancellor Angela Merkel shows. While Putin is portrayed as a strong and masculine leader without fear, Merkel's website illustrates her as a caring housewife who grows vegetables in her garden and preferably cooks roulades with potato soup (Merkel, 2015).

This points to obtrusive similarities between e-government in autocracies and democracies. However, the decisive difference is that while some autocratic regimes such as Kazakhstan and Russia maintain highly professional and service-orientated websites, their electronic faces do not aim for more transparency or democratization. Offering efficient web services to the population is one of their strategies for gaining internal legitimacy since these regimes allow for competitive elections and therefore face an increased amount of internal legitimation pressures.

How far can this reformulation of the "legitimation hypothesis" travel? In other words, do competitive authoritarian regimes in general use their e-government platforms to respond to increased internal legitimation pressures? When taking a look at Singapore or Malaysia as other autocracies which stick out in terms of their highly modern and well-developed e-government services, one finds confirmation for this assumption since these regimes are indeed categorized as competitive. Yet, other competitive regimes with less economic growth and a low diffusion of the Internet such as Tajikistan do rather compare to the poorly developed egovernment of Turkmenistan. Furthermore, Bahrain, Saudi Arabia and the United Arab Emirates - all non-competitive regimes which are rich in natural resources rival with the high-ranking competitive autocracies in terms of their e-government and e-participation index (UNPACS, 2014). However, as the case of Uzbekistan highlights, these rankings can be misleading since a good performance in the UN e-participation index does not automatically mean that the official websites reach out for the country's population by offering actual services. Overall, these examples show that further research is needed before the reformulated "legitimation hypothesis" can be expanded beyond the cases studied in this article.

Another question is whether the variation of e-government performance in autocracies as illustrated in this article could also be explained by other domestic factors than the increased internal legitimation pressures in competitive authoritarian regimes. Stier (2015b), for example, illuminates in his study on political determinants of e-government performance in democracies and autocracies that government capacity or effectiveness becomes increasingly important in this regard. Indeed, the 2014 Worldwide Governance Indicator for government effectiveness resembles the described alteration in this article, ranking from a rather weak performance in the case of Turkmenistan and Uzbekistan to better results for Kazakhstan and Russia (WGI, 2014). Apart from this, the above mentioned indicator for Internet diffusion mirrors the varying e-government performance even better (cf. Table 1.1). However, while these alternative variables can predict the degree of e-government maturation in the examined cases to some extent, the variable of regime type importantly illuminates the different kind of legitimation mechanisms in non-competitive and competitive autocracies which result in a differing usage of e-government, as described in this article.

## 1.5 Conclusion

This article inquired about how different types of authoritarian regimes use e-government to legitimate their rule. It illustrated that Turkmenistan, a non-competitive autocracy with a comparatively low percentage of Internet diffusion, uses its official websites mainly for demonstrating legitimacy to the international community. It was further demonstrated that the e-government facilities in non-competitive Uzbekistan also rather address an international audience than offering substantial services to the broad Uzbek population - although this might change in the near future since the regime is currently refurbishing its online environment to a large extent. However, in contrast to these two cases the article showed how the competitive regimes of Kazakhstan and Russia significantly enhanced their e-government platforms and use them as efficient tools for gaining internal legiti-

macy. By facilitating administrative services via the Internet, decreasing bureaucratization and pretending to increase transparency as well as citizens' engagement, these regimes aim at generating the support of their people.

In summary, this article argued that e-government in autocracies is not only determined by economic globalization and international pressures for demonstrating modernity and legitimacy but is also increasingly driven by internal legitimation pressures. This new pattern of stimulating the support of the people has been observed in some competitive regimes - yet, in light of the growing technological diffusion and the dynamics of the e-government development in autocracies, it can be expected that more and more non-competitive regimes will follow this trend. As an agenda for future research, this article points to the need for more contextualized and qualitative analyses which assess the implications of this gradual shift. In addition, it would be fruitful to further analyze the varying causal mechanisms and effects of using e-government in authoritarian settings by referring to a larger set of cases. These and other inquiries about the differences between the drivers of e-government in autocracies and democracies will shed light on how authoritarian regimes manipulate e-government for stabilizing their rule.

Study 2

## The Survival of Electoral Autocracies

This study is a reprint from "Zeitschrift für vergleichende Politikwissenschaft" (Comparative Governance and Politics), Vol 11/2, Carsten Q. Schneider, Seraphine F. Maerz, "Legitimation, Cooptation, and Repression and the Survival of Electoral Autocracies," 213-235, Copyright (2017), with permission from Springer.<sup>1</sup>

### 2.1 Introduction

Legitimation, cooptation, and repression have been proposed as basic principles of authoritarian stability in the currently reviving field of autocracy research. These "three pillars of stability," conceptualized at the WZB in Berlin by Gerschewski (2013) and his colleagues (Gerschewski et al., 2012), are claimed to be observable in all types of autocracies.<sup>2</sup> What differs between autocracies is the degree of institutionalization and actual use of these strategies. This in turn, so the claim, affects the longevity of a particular regime.

In a recent study, Lueders et al. (2014) test the WZB model in the context of autocratic elections and come to the controversially debated conclusion that the model cannot explain electoral outcomes in competitive authoritarian regimes. This paper follows up on the questions about the empirical application and explanatory power of the WZB model. While the regression analysis of Lueders et al. (2014) examines each pillar in isolation, we argue that any empirical analysis of

<sup>&</sup>lt;sup>1</sup>As per this agreement, no modification of the originally published text have been made. See Appendix B for co-authorship statement.

<sup>&</sup>lt;sup>2</sup>We use the terms autocracy and authoritarian regime interchangeably.

the model needs to test for the combined effects of the pillars. We further hold that the reasons for autocrats losing elections need to be separately investigated from the reasons of why autocrats do not lose elections. By taking the data from Lueders et al. (2014) on elections in competitive and hegemonic autocracies from 1990 to 2009, we conduct a fuzzy-set Qualitative Comparative Analysis (QCA). We thereby look at the six dimensions of the WZB model (each pillar has two dimensions: specific and diffuse support of legitimation, formal and informal cooptation, hard and soft repression, cf. Gerschewski 2013, 18-23) as the conditions for the outcome electoral defeat and no electoral defeat, respectively.

Our analyses reveal the following. First, it is not any single pillar that explains autocratic stability but only combinations of them. Second, the WZB model performs relatively well in explaining the survival of autocracies. It seems to be an inadequate framework for identifying the reasons for why autocrats lose elections, though. Third, we identify two stable autocracy types which partially overlap with Gerschewski's (2013) "two worlds of autocracies." Fourth, our findings suggest that legitimation matters for the stability of authoritarian regimes - yet, the two types of stable autocracies apply different strategies of gaining legitimacy.

We proceed as follows: In section 2.2, we provide a selective summary of the current debate on the WZB model, spell out the gaps of this debate and illustrate how the use of fuzzy-set Qualitative Comparative Analysis is adequate for filling these gaps. After explaining our empirical strategy (section 2.3), we present (section 2.4) and discuss (section 2.5) our findings. Section 2.6 summarizes the results and spells out avenues for further research on the stability of autocracies.

## 2.2 Filling the Gaps

Lueders et al.'s (2014) regression analysis of 265 elections in 68 hegemonic and competitive authoritarian regimes between 1990 and 2009 suggests that the WZB model cannot explain the electoral outcomes in competitive authoritarian regimes. In hegemonic regimes, however, it seems that cooptation and hard repression

make electoral defeat less likely, whereas soft repression increases the probability of autocrats losing elections. Interestingly, in their analysis legitimation turns out to have no statistically significant effect. This finding runs counter to what the WZB model is often praised for: the reintegration of legitimation as a crucial aspect of autocratic stability (Ahrens et al., 2015; Hoffmann, 2015; Kailitz, 2013). Essentially, all these conclusions are based on testing the statistical significance level of each pillar in isolation in a multivariate regression model with partially non-independent cases and a skewed dichotomous dependent variable.

The analyses of the WZB model are pushed forward by critical comments by Kailitz and Tanneberg (2015) and replies by Lueders and Croissant (2015). Their discussions raise various important issues. For instance, they disagree on whether or not the WZB model claims to universally apply to all forms of autocracy and, if so, whether or not it can be tested by only looking at the specific subsets of competitive and hegemonic (but not closed) autocracies. They also discuss the importance of the effect size rather than only statistical significance of each pillar in isolation. Furthermore, the operationalization of cooptation is critically debated.

While the exchange between Kailitz and Tanneberg (2015) and Lueders et al. (2014); Lueders and Croissant (2015) is highly fruitful for progressing the study of autocracies, several issues are left untouched. First, all authors apparently concur that the estimation of the effects of the three pillars *in isolation* is in line with the gist of the WZB model. Second, all authors seem to agree that there is no difference in explaining the survival and the non-survival of autocracies. Kailitz and Tanneberg (2015, 76) do hint at the possibility that autocratic breakdown follows a different logic and dynamic than its survival when they point out that the very fact that elections are held which the autocrat might lose indicates that the three pillars have already stopped working. They do not, however, bring this idea to its logical end, namely, to perform separate analyses of the survival and the breakdown of autocracy and to expect the WZB model to only perform well with the former outcome and not with the latter. Third, by focusing on the effect of the pillars in isolation, none of the authors can directly address an interesting implication

of the WZB model, i.e. that there ought to be only a limited number of distinct autocratic regime types that produce autocratic stability. In fact, Gerschewski (2013, 29-30) hypothesizes that out of all logically possible configurations of the (non-) use of legitimation, cooptation, and repression, only two should be viable for the survival of autocracies. These "two worlds of autocracies" combine either high usage of soft and hard repression, diffuse support and formal cooptation (overpoliticized autocracy type) or soft repression, specific legitimation and informal cooptation (de-politicized autocracy type). Fourth, issues of crucial theoretical importance and policy relevance are left undecided. In particular, one merit of the WZB model is that it resurrects the role of legitimation from its step-motherly role in the study of autocracies. Yet, the current empirical tests come to inconclusive, if not contradictory findings with regard to the role of legitimation. Fifth, and related, some autocratic features might be shared by all stable autocracies (i.e. they might be necessary for stability), whereas others might be shared by some stable autocracies, but not all (i.e. sufficient for stability), thus indicating that there are different ways of how autocracies can remain stable. Our paper contributes to the debate by filling in these five gaps.

First, our paper argues that an adequate empirical test of the WZB model must take into account that it postulates joint effects of the "three pillars" on autocratic stability (Gerschewski, 2013). Because multivariate (logistic) regression models treat these pillars in isolation from each other, they cannot adequately test this crucial interactive component. We therefore subject the data by Lueders et al. (2014) to a fuzzy-set Qualitative Comparative Analysis (Ragin, 1987, 2008; Schneider and Wagemann, 2012). QCA aims at unraveling the *combinations* of conditions producing the outcome.

Second, with set-theoretic methods like QCA, there is no need to assume causal symmetry, whereby the explanation for survival must also explain breakdown. In fact, with QCA, there are always separate analyses to be performed for the occurrence of the outcome of interest and its non-occurrence. The use of QCA therefore enables us to empirically test if the WZB model is good at explaining autocratic *stability*, autocratic *breakdown*, both, or none.

Third, because of our focus on combinations of conditions, we are in the position to put to an empirical test Gerschewski's claim that there can only be two viable forms of combining the pillars into a stable autocratic regime. Due to its inductive nature, QCA explores all logically possible autocracy types in order to identify those that lead to stability and to breakdown, respectively. Whether only the hypothesized types emerge or rather more or different ones, is subject to empirical investigation.

Fourth, our search for types of autocracies will also shed new light on the hitherto inconclusive discussion on the role of legitimation in present-day autocracies. We do not have to expect that legitimation alone plays a role. Rather, we expect it to have a context-dependent effect, whereby context is defined by the constellation of the other pillars. In other words, we investigate whether legitimation is an INUS condition.<sup>3</sup>

Fifth, in our analyses, we perform separate searches for necessary and sufficient conditions. These two forms of set relations have different theoretical and policy implications.<sup>4</sup>

# 2.3 Empirical Strategy

In this section, we briefly present the concepts and measurement of our outcomes of interest (electoral defeat and non-defeat, 2.3.1) and the conditions (the six dimensions of the WZB model, 2.3.2) and spell out the qualitative anchors that are used for turning the raw data into set membership scores. The last part (2.3.3) provides some basic information about QCA as a method.

<sup>&</sup>lt;sup>3</sup>INUS stands for a condition that itself is not sufficient while being a necessary parts of a combination of conditions that is unnecessary but sufficient for the outcome (Mackie, 1965).

<sup>&</sup>lt;sup>4</sup>Highly unequally distributed sets such as the skewed outcome in Lueders et al.'s (2014) data, create analytic problems not only in logistic regression, but also in set-theoretic methods (Schneider and Wagemann, 2012, chap 9.2). We take those challenges head on and employ recently developed parameters that are adequate for distinguishing meaningful set relations from those that are mere artifacts of the skewed data. For the analysis of necessity, this means that we test whether a superset of the outcome is empirically trivial because it is so much bigger than the outcome set and/or its own negated set. For the analysis of sufficiency, we test whether a given subset of the outcome is empirically trivial because it is so small that it is also a subset of the negation of the outcome (Ragin, 2008; Schneider and Wagemann, 2012).

### 2.3.1 Conceptualizing and Measuring the Outcomes

The dependent variable in Lueders et al. (2014) is electoral defeat in competitive and hegemonic authoritarian regimes. For this, Lueders et al. (2014, 336) draw on Hyde and Marinov's (2012) data set on national elections across democracy and autocracy (NELDA). They further rely on Brownlee (2009) and the DPI indicators (Beck et al., 2001) on the competitiveness of legislative (LIEC) and executive (EIEC) elections when referring to the category of electoral authoritarianism and distinguishing between its subtypes competitive and hegemonic regimes. For terminological clarity, Figure 2.1 provides an overview of the applied regime definitions and operationalizations.

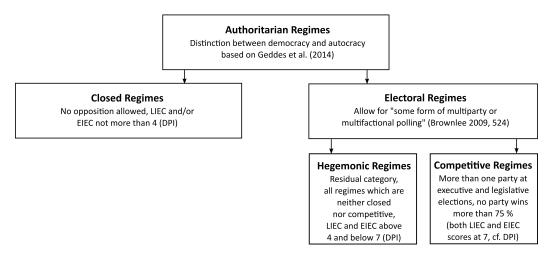


Figure 2.1: Operationalization of Regime Types by Lueders and Croissant (2014)

We adopt Lueders et al.'s (2014) operationalization of these regime categories for our analysis. Unlike them, we do not report separate analyses for competitive and hegemonic regimes for two reasons. First, preliminary analyses reveal similar results for the two autocracy types. Second, the analysis of only hegemonic regimes lacks variation in the outcome. Out of 81 only 4 autocrats were defeated in this regime type. Another difference is that while Lueders et al. (2014) analyze (up to) 265 elections in competitive or hegemonic regimes (depending on the selected indicators), we only have 156 elections (i.e. cases). This is because we use all indicators of the WZB model in *one* analysis and missing values on these different indicators yield a smaller number of cases without missing data. Table B.1

in the Appendix<sup>5</sup> provides an overview of the 156 elections, including the respective countries, years, their score in the outcome electoral defeat and in the six conditions.

The outcome sets electoral defeat and no electoral defeat in our QCA are crisp sets, that is, autocrats have either lost elections or they have not.<sup>6</sup> All conditions are constructed as fuzzy sets.

### 2.3.2 Operationalizing and Calibrating the WZB Model

The three pillars of legitimation, cooptation and repression are conceptualized as having two dimensions each (Gerschewski, 2013, 18-23). Following the nonnormative concept of legitimacy belief by Weber (2002) and Easton's (1965) theory of political systems, Gerschewski divides the pillar of legitimation into specific and diffuse support. Specific legitimation is performance-dependent and draws upon socio-economic development and physical security for gaining the support of the people. In contrast to this, diffuse legitimation is based on ideology, religious, nationalistic, and traditional claims or the charisma of autocratic leaders. Cooptation aims at tying actors of strategic importance to the regime and takes place via formal and informal channels (Gerschewski, 2013, 22). Thus, authoritarian rulers adopt parties, parliaments and elections or use informal networks, patronage, clientelism and corruption (Gandhi, 2008; Collins, 2006). For hard and soft repression, Gerschewski (2013, 21) refers to Levitsky and Way's (2010) distinction between high and low intensity coercion. We broadly follow the operationalization of the WZB model by Lueders et al. (2014)<sup>7</sup> in our analysis. Table 2.1 displays the pillars and dimensions of the WZB model and lists the indicators used.

The challenges of measuring legitimation (process) or legitimacy (result) have been extensively discussed in the literature.<sup>8</sup> Lueders et al. (2014, 338) are aware

<sup>&</sup>lt;sup>5</sup>The Appendix is available at Schneider's Dataverse (https://dataverse.harvard.edu/dataverse.xhtml?alias=cqs).

<sup>&</sup>lt;sup>6</sup>Future research might use a more fine-grained distinction and use fuzzy sets and incorporate information on how close (non-) defeat was.

<sup>&</sup>lt;sup>7</sup>See the Appendix of Lueders et al. (2014) for detailed information about their indicators.

<sup>&</sup>lt;sup>8</sup>For a current overview on the debate about measuring legitimacy, see von Haldenwang (2016).

Pillar	Dimens.	Operationalization, mostly adopted from Lueders et al. (2014)
Legitimation	Specific	Economic growth (GDP), change of infant mortality rate (World Bank)
	Diffuse	Protests of population and elites, CNTS (Banks and Wilson, 2013)
Cooptation	Formal	Party institut. (Cheibub et al., 2010), public sector (Gwartney 2012)
Cooptation	Informal	External rents (WTO, Heston et al. 2012)
Repression	Hard	CIRI: torture, extrajud. killing, disappearance, political imprisonment
repression	Soft	CIRI: workers' rights, elect. self-determ., freedom of speech, assembly

**Table 2.1:** Pillars and Dimensions of the WZB Model

of these issues and apply an indirect measure of legitimation by counting protests in the population and among the elites. As they correctly point out, this indicator is problematic since it assumes the population's ability to protest. Furthermore, it does not distinguish between specific and diffuse support. For this reason, they additionally use GDP growth and changes in infant mortality rates as indicators for measuring specific support.<sup>9</sup>

By referring to recent contributions on cooptation in authoritarian regimes, Lueders et al. (2014, 338-339) take the degree of party institutionalization as an indicator for formal cooptation (Gandhi, 2008). Additionally, they refer to rents derived from the export of natural resources and the size of the public sector to measure a regime's ability for cooptation. Also here, the authors do not explicitly distinguish between the pillars' two dimensions, namely formal and informal cooptation. Yet, in their response to Kailitz and Tanneberg (2015) they point out that the variable of external rents is commonly used in the literature for measuring informal cooptation (Lueders and Croissant, 2015, 186).

As suggested by Gerschewski (2013), Lueders et al. (2014, 337) rely on the CIRI Human Rights Data Project (Cingranelli and Richards, 2013) for operationalizing the two dimensions of repression. The "New Empowerment Index" used for

Gerschewski (2013) and also Roller (2013) generally discuss availability and reliability problems of data in authoritarian settings.

<sup>&</sup>lt;sup>9</sup>We are aware of the potential pitfalls of these legitimation indicators, however, use them as well since our goal is not to innovate indicators but rather to test the WZB model from a settheoretic perspective by using the same data and operationalization as Lueders et al. (2014).

<sup>&</sup>lt;sup>10</sup>As already observed by Kailitz and Tanneberg (2015), this operationalization is highly problematic when referring to the category of electoral regimes since it is merely an artifact of the applied definition for this type of autocracy. We discuss the implications of this operationalization for our findings in section 2.4.2.

measuring soft repression is a scale ranging from 0 to 8 (higher values indicate less amounts of soft repression) which jointly assesses workers' rights, electoral self-determination, freedom of speech and freedom of assembly. The variables of the "Physical Rights Index" on torture, extrajudicial killing, disappearance and political imprisonment capture hard repression (scale from 0 to 8, higher values indicate less amounts of hard repression).

Given our goal to unravel different combinations of the pillars that lead to autocratic stability and breakdown, respectively, we use QCA. As a set-theoretic method, QCA requires that all raw data is transformed into membership scores in sets, the so-called set calibration.<sup>11</sup> Table 2.2 shows the qualitative anchors we impose in order to transform the indicators in Table 2.1 into fuzzy sets.

Table 2.2: Calibration Strategies for the Six Conditions

Set Label	Abbr.	Base Variable	Type of set	Fully Out	Cross Over	Fully In
High specific support	leg_spec	GDP	Fuzzy	3	5	10
		Infant Mortality	Fuzzy	-2	-5	-15
High diffuse support	leg_diff	Protests population	Fuzzy	2	1.5	0
		Protests elites	Crisp	1	0.5	0
High formal cooptation	coop_form	Party institutionalization	Crisp	0	1	2
		Public sector	Fuzzy	15	25	40
High informal cooptation	coop_inf	External rents	Fuzzy	10	20	100
High hard repression	rep_h	CIRI New Empowerment Index	Fuzzy	7	5.5	4
High soft repression	rep_s	CIRI Physical Rights Index	Fuzzy	6	4.5	3

The choice of qualitative anchors, especially the cross-over point at 0.5, is guided by the meaning of the set. Since there is often a range of values where these anchors can plausibly be placed, we performed robustness tests (see Appendix) with anchors varying within these reasonable ranges. These tests suggest that our findings are robust with regard to our choices of the cross-over points. The six dimensions of the WZB model are operationalized with one or two indicators (cf. Table 2.2). In case of two indicators, these indicators are combined by

<sup>&</sup>lt;sup>11</sup>The Appendix includes histograms of each base variable and calibrated fuzzy set. It also contains scatter plots of each fuzzy set plotted against its base variable. For further information about the raw data, see Lueders et al. (2014, 341).

using the logical OR once they are calibrated as sets (Schneider and Wagemann, 2012, chap 2.2) in order to obtain each case's membership in the six conditions of specific and diffuse legitimation, formal and informal cooptation, and hard and soft repression.

### 2.3.3 Method

In QCA, the analysis of necessary conditions is separate from, and comes prior to, the analysis of sufficient conditions (Schneider and Wagemann, 2012, chap 9.1). For both forms of subset relations, two basic empirical criteria are assessed. First, whether condition X is a superset (necessity) or a subset (sufficiency) of the outcome Y. For this assessment, the so-called consistency parameter is used. For those condition sets that pass the consistency threshold, the second question is whether the set relation is empirically important or trivial. For this, the parameters of relevance (Schneider and Wagemann, 2012, 236) and coverage (Ragin, 2006) are used.

The analysis of necessity starts by testing each single condition and its negation and may then proceed to testing disjunctions of conditions. The analysis of sufficiency, instead, proceeds in the opposite direction. First, all logically possible conjunctions between conditions and their negation are tested as to whether they are consistent subsets of the outcome. Those that are consistent are then subjected to a process of logical minimization in order to delete logical redundancies.

Truth tables are the core element of any QCA and central to the analysis of sufficient conditions (Schneider and Wagemann, 2012, chap 4). In a truth table, each row stands for one of the logically possible combinations of conditions. With k number of conditions, a truth table row has 2k rows. Some rows contain not enough empirical information - so-called logical remainders - in order to assess if that row is a subset of the outcome (for more information about this phenomenon of limited diversity, see Schneider and Wagemann 2012, chap 6). Among those rows that do contain enough empirical evidence, a distinction is made as to whether

or not they pass the consistency threshold. Those that do are considered to be sufficient for the outcome. Those that do not are not sufficient.

Only those rows are used for the logical minimization that have been found consistently sufficient for the outcome. Researchers can make assumptions on the logical remainders. If they do not, they obtain the so-called conservative solution formula. If they allow for easy counterfactuals (Ragin, 2008), they obtain the intermediate solution formula. And if they include all simplifying assumptions (easy and difficult counterfactuals), then the most parsimonious solution is obtained. For our analysis, we mostly rely on the conservative and intermediate solution formulas. The parsimonious solutions can be found in the Appendix. All operations are done in *R* by using the packages QCA (Dusa and Thiem, 2016) and SetMethods (Medzihorsky et al., 2016).

# 2.4 Findings

Our analysis is divided into two parts. Part 2.4.1 aims at finding necessary and/or sufficient conditions for the outcome electoral defeat. Part 2.4.2 does the same for the outcome no electoral defeat.

#### 2.4.1 Conditions of Electoral Defeat

None of the six WZB model's dimensions, nor their logical negation passes the test of necessity (see Table B.3 in the Appendix for details). 12 It is quite unusual not to find a superset if and when the outcome set is so small as that of autocratic defeat. In other words, given that there are only relatively few instances of autocratic electoral defeat, one would expect that those few cases do share some commonalities. Perhaps they do, but the dimensions derived from the WZB model do not point into this direction. We count this as first evidence that the WZB model might not be the right place to start with when analyzing electoral defeat of autocrats.

<sup>&</sup>lt;sup>12</sup>We also do not identify any meaningful disjunction as a superset of the outcome.

The truth table for our sufficiency analysis is displayed in Table B.4, Appendix. Out of the  $2^6$  = 64 logically possible combinations, 44 are logical remainders. Out of the remaining 20 rows with enough empirical evidence,<sup>13</sup> only one passes the lowest possible consistency threshold of 0.7. Row 41 contains the cases of lost elections in Hungary (1990) and two electoral defeats in Madagascar in 1993.

The low consistency of all the other rows is a further indication that the conditions specified in the WZB model cannot explain why autocracies break down. Among the cases that are listed in the rows with OUT = 0 of the truth table (Table B.4, Appendix), there are 27 autocracies that were defeated in elections. The problem is that they fall into the same truth table rows as those autocracies that did *not* lose elections. In other words, the WZB model cannot identify commonalities among only those autocracies that lost elections. In order to find reasons for electoral defeat of autocrats, researchers would need to look at factors unrelated to the WZB model.

The logical minimization of a truth table with only one row being consistently sufficient is not very informative. For the sake of completeness, we show the conservative solution formula<sup>14</sup> in Table 2.3. It is simply a restatement of the one consistent truth table row, with the further information that a meager 0.077 percent of the outcome is covered by this term.

Table 2.3: Conservative Solution Formula for the Outcome Electoral Defeat

Solution terms <sup>a</sup>	Consistency	PRIb	Cov.rc
LEG_SPEC*leg_diff*COOP_FORM*coop_inf*rep_h*rep_s	0.937	0.937	0.077

<sup>&</sup>lt;sup>a</sup> Capital letters indicate presence, small letters absence, \* denotes logical AND.

<sup>&</sup>lt;sup>b</sup> PRI = proportional reduction in inconsistency (Mendel and Ragin 2011, see also Schneider and Wagemann 2012, p. 242).

<sup>&</sup>lt;sup>c</sup> Cov.r indicates the raw coverage.

 $<sup>^{13}\</sup>mbox{We consider rows with two or more cases as having enough empirical evidence (n.cut <math display="inline">\geq 2$ ). For larger N QCA, it is common practice to raise the frequency cutoff in order to take the increased chance of misclassified cases into account. It is also important to point out that for the outcome electoral defeat results remain unchanged even with n.cut=1. In short, our finding that the WZB model is not good at explaining electoral defeat of autocrats is *not* an artifact of our choice of frequency thresholds.

<sup>&</sup>lt;sup>14</sup>Since no assumption on any of the logical remainder passes as an easy counterfactual, the intermediate solution is identical to the conservative solution. For the parsimonious solution formula, see the Appendix.

Why does the WZB model fail to be good at explaining defeat of autocrats in elections? We see several, mutually non-exclusive reasons. First, in general, predicting point events such as electoral outcomes is difficult in the social sciences (e.g. Kitschelt, 2003). *Ex ante* they seem under-determined and *ex post* overdetermined. Second, structural factors, such as those stipulated by the WZB model are generally bad in predicting point events. Since they usually do not change much over time, their value remains unchanged shortly before and after the occurrence of electoral defeat. Third, several democratization scholars point to international factors, such as *Zeitgeist*, snowballing, or diffusion (Huntington, 1991; Whitehead, 1996) as the reasons for autocratic breakdowns rather than domestic long-term strategic mistakes committed by autocrats

In sum, the most important result for the analysis of the outcome electoral defeat is that the conditions of the WZB model cannot explain why some autocratic rulers in our set of 48 authoritarian regimes (156 cases of elections) were indeed defeated during elections. As mentioned above and also pointed out by Kailitz and Tanneberg (2015), this suggests that the three pillars must have lost their stabilizing power already before the elections took place. But it also suggests that in order to provide for a complete test of the WZB model, a separate empirical analysis of the non-occurrence of electoral defeat is warranted. We now turn to this.

#### 2.4.2 Conditions of No Electoral Defeat

We again start with the analysis of necessity, now for the outcome no electoral defeat. Table 2.4 displays the parameters of fit for the six dimensions and their logical negation.

Formal cooptation (coop\_form) shows a consistency of 0.921.<sup>15</sup> It also passes the two tests of empirical relevance (coverage 0.833), but the relevance of necessity (RoN) parameter at 0.417 already indicates some doubts.<sup>16</sup> Our analysis

<sup>&</sup>lt;sup>15</sup>Out of the 126 cases of elections with outcome no electoral defeat, only seven are inconsistent in kind and another seven inconsistent in degree (Schneider and Rohlfing, 2013; Rohlfing, 2012).

<sup>&</sup>lt;sup>16</sup>Notice that condition diff\_leg also passes the consistency threshold but not that of RoN. Likewise, none of the disjunctions between single conditions passes the empirical criteria for being non-trivially necessary.

Table 2.4: Parameters of Fit, Necessity for the Outcome No Electoral Defeat

Conditions	Consistency of Necessity	Coverage of Necessity	Relevance of Necessity
leg_spec	0.793	0.799	0.552
leg_diff	0.957	0.835	0.330
coop_form	0.921	0.833	0.417
coop_inf	0.310	0.928	0.974
rep_h	0.819	0.800	0.510
rep_s	0.797	0.836	0.646
not leg_spec	0.207	0.843	0.963
not leg_diff	0.043	0.468	0.959
not coop_form	0.079	0.598	0.954
not coop_inf	0.690	0.763	0.610
not rep_h	0.181	0.846	0.969
not rep_s	0.203	0.713	0.921

seems to provide some empirical support for formal cooptation being a necessary condition for the stability of autocracies when confronted in an electoral competition. This would resonate with several recent studies on autocratic persistence in which the stabilizing impact of formal cooptation is given a central role. In fact, the so-called "institutional turn in comparative authoritarianism" (Pepinsky, 2014) argues that autocratic institutions such as parties, elections, and constitutions are not just window dressing but used as efficient tools for cooptation (e.g. Gandhi, 2008; Svolik, 2012; Ginsburg and Simpser, 2014; Morgenbesser, 2016). Yet, we hasten to add a note of caution. Our finding of formal cooptation being a necessary condition might be a mere artifact of the way Lueders et al. (2014) operationalize it and how the electoral autocratic regime type is defined: high party institutionalization (= multiparty elections) is used as a partial indicator for both high formal cooptation and for identifying electoral regimes (defined as multiparty polling), something Kailitz and Tanneberg (2015, 80) already problematize. We are therefore hesitant to declare formal cooptation as a necessary condition for autocratic regime survival unless alternative operationalizations of formal cooptation also point in the same direction.

Table 2.5: Truth Table for the Outcome No Electoral Defeat

row	leg_	_spec leg_diff	coop	_form coop_inf	rep	_h rep_s	Outcome	n	incl	PRI	cases
62	1	1	1	1	0	1	1	10	0.990	0.990	GAB_05,GAB_09,NAM_09,BWA_04 BWA_09,SGP_91,SGP_93,SGP_01, SGP_06,NAM_09.1
61	1	1	1	1	0	0	1	4	0.986	0.986	GAB 97,GAB 98,GAB 01,MYS 90
58	1	1	1	0	0	1	1	2	0.920	0.920	ZWE 95,KGZ 09
64	1	1	1	1	1	1	1	30	0.914	0.914	VEN_06,RUS_04,RUS_07,RUS_08 ,AZE_01,AZE_03,AZE_08,GAB_06, ZMB_08,DZA_97,DZA_09, DZA_02,DZA_04,DZA_07,DZA_09, TUN_09,IRN_92,IRN_93,IRN_96, IRN_97,IRN_98,IRN_04,IRN_08, IRN_09,MYS_95,MYS_99,MYS_04, MYS_08,SGP_97,TUN_09.1
63	1	1	1	1	1	0	1	2	0.864	0.864	RUS 03,COG 09
28	0	1	1	0	1	1	1	15	0.821	0.821	TGO_99,TGO_02,TGO_03,TGO_05, TGO_07,CMR_02,CMR_04,CMR_07 CAF_05,KEN_94,KEN_97, ZWE_96,ZWE_02,CAF_05.1,KEN_91
60	1	1	1	0	1	1	1	47	0.814	0.814	GTM_91,SLV_91,NIC_90,ARM_07, ARM_08,SEN_00,NER_99,BFA_05, TGO_98,CMR_97,KEN_02, TZA_00,TZA_05,RWA_03,RWA_08, ETH_05,MOZ_09,ZMB_06,ZWE_05, ZWE_08,ZAF_94,TUN_97,UN_04, EGY_90,EGY_93,EGY_95,EGY_99, EGY_00,EGY_05,EGY_07,KGZ_05, KGZ_07,NPL_91,NIC_90.1,CMR_97, NGA_99,KEN_02.1,TZA_00.1,TZA_C RWA_03.1,MOZ_09.1,ZMB_01, ZWA_05.1,KGZ_05.1,KGZ_05.1,EGS_06.1,FZA_C RWA_03.1,MOZ_09.1,ZMB_01, EGY_05.1,KGZ_05.1,
25	0	1	1	0	0	0	0	2	0.798	0.798	NAM 04,NAM 04.1
57	1	1	1	0	0	0	0	4	0.783	0.783	PRY 93,GHA 00,PRY 93.1,GHA 0
12	0	0	1	0	1	1	0	3	0.749	0.749	CIV 01,KEN 92,KEN 92.1
59	1	1	1	0	1	0	0	13	0.732	0.732	MEX_91,MEX_94,MEX_97,MEX_0 SLV_94,PER_00,SEN_93,MEX_94.1 MEX_00.1,SLV_94.1,PER_00.1, SEN_93.1,LKA_94
56	1	1	0	1	1	1	0	2	0.684	0.684	IRN_00,IRN_01
20	0	1	0	0	1	1	0	2	0.667	0.667	CIV_00,CIV_00.1
52	1	1	0	0	1	1	0	10	0.609	0.609	PER_95,UGA_96,UGA_01,UGA_06 BGD_08,THA_92,THA_07,PER_95.1 UGA_06.1,THA_92.1
						•	•	-	0.404	0.404	
43	1	0	1	0	1	0	()	2	0.484	0.484	MDG 92.H11 00
43 44	1	0	1 1	0 0	1	0 1	0 0	2 2	0.484 0.354	0.484 0.354	MDG_92,HTI_00 PAK_08,IDN_99

Table 2.5 displays the truth table for the outcome no electoral defeat. Also here, we consider rows with less than two cases (n.cut  $\geq$  2) as logical remainders (44 rows, not displayed here). Rows with a consistency of higher than 0.8 are considered sufficient for the outcome. In contrast to the truth table for the outcome electoral defeat (Table B.4, Appendix), there are now seven such rows that pass our consistency threshold. The remaining ten rows do not pass the consistency test and are considered not sufficient for the outcome. For the logical minimization, we formulate directional expectations on two conditions. We expect that both the presence of high specific support of legitimacy and of formal cooptation should contribute to non-defeat of autocrats. With this setup, we obtain the inter-

 $<sup>^{17}</sup>$ Our results of outcome no electoral defeat are robust against the alternative frequency threshold of 1 (see Appendix). The reason for this is straightforward: by raising n.cut from  $\geq$ 1 to  $\geq$ 2, only one truth table row is turned into a logical remainder row (row 48, cf. Table B.7 in the Appendix).  $^{18}$ The R script includes robustness tests using higher and lower consistency thresholds.

mediate solution<sup>19</sup> displayed in Table 2.6.

Table 2.6: Intermediate Solution Formula, Outcome No Electoral Defeat

Туре	Sufficient terms, connected by logical OR <sup>a</sup>	Consistency	Cov.rc	Cov.uc	
ا مرجم م	LEG_SPEC*LEG_DIFF*COOP_FORM*COOP_INF	0.925	0.925	0.273	0.025
Adaptive{	LEG_SPEC*LEG_DIFF*COOP_FORM*REP_S	0.871	0.871	0.584	0.060
Rigid	LEG_DIFF*COOP_FORM*coop_inf*REP_H*REP_S	0.832	0.832	0.448	0.097
	Overall solution	0.876	0.876	0.706	

<sup>&</sup>lt;sup>a</sup> Capital letters indicate presence, small letters absence, \* denotes logical AND.

The solution formula consists of three sufficient terms. Typical for QCA, we find an equifinal and conjunctural explanation for why autocrats do not lose elections. Overall, the solution formula covers, or explains, around 70 percent of all the instances in which autocrats did not lose elections. This indicates that for the outcome no electoral defeat, the WZB model does, indeed, have explanatory power. Table 2.7 lists, among others, those persistent autocracies that are not explained by our QCA. These so-called deviant cases coverage (Schneider and Rohlfing, 2013) comprise, for instance, several elections in Mexico, Peru, Senegal or Uganda.

All three sufficient terms contain the condition formal cooptation (coop\_form) and diffuse legitimation (leg\_diff) as conjuncts. The first two terms highly overlap. Both combine the presence of high specific and diffuse legitimation together with formal cooptation. This is combined with either informal cooptation and/or soft repression. The third term consists of high diffuse legitimation, formal cooptation, hard and soft repression, combined with the *absence* of informal cooptation. All terms have relatively high consistency and raw coverage values (except the first term with a raw coverage of 0.273). The unique coverage of each term is low because several cases are members of more than one sufficient term.

The two first sufficient terms correspond to common expectations. In essence, they stipulate that if autocrats employ most of the strategies indicated in the WZB model, they are not defeated in elections. Due to their overlap, we interpret both

<sup>&</sup>lt;sup>b</sup> PRI = proportional reduction in inconsistency (Mendel and Ragin 2011, see also Schneider and Wagemann 2012, p. 242).

<sup>&</sup>lt;sup>c</sup> Cov.r = the raw coverage; Cov.u = unique coverage.

<sup>&</sup>lt;sup>19</sup>Since no assumption on any of the logical remainder passes as an easy counterfactual, the intermediate solution is identical to the conservative solution.

terms as functional equivalents and summarize them as one type of autocracy, which we call *adaptive authoritarianism*. Adaptive because those regimes abstain from using high amounts of hard repression and rather rely on sham democratic institutions of cooptation and legitimation.

Uniquely covered typical cases (Schneider and Rohlfing, 2013)<sup>20</sup> for this type of autocracy are, for instance, Russia, Azerbaijan, Gabon, Botswana, Algeria, Malaysia or Singapore (see Table 2.7). In all of these regimes, autocrats did win several elections.<sup>21</sup> Table 2.7 contains a full list of other typical cases which are not uniquely covered.

Table 2.7: Categorization of Cases, Outcome No Electoral Defeat

Case Types	Term 1+2: Adaptive Authoritarianism	Term 3: Rigid Authoritarianism
Typical	VEN_06, RUS_03, RUS_04, RUS_07, RUS_08, AZE_01, AZE_03, AZE_08, GAB_97, GAB_98, GAB_01, GAB_05, GAB_06, GAB_09, COG_09, ZMB_08, NAM_09, BWA_04, BWA_09, DZA_97, DZA_99, DZA_02, DZA_04, DZA_07, DZA_09, TUN_09, IRN_92, IRN_93, IRN_96, IRN_08, IRN_09, MYS_90, MYS_95, MYS_99, MYS_04, MYS_08, SGP_91, SGP_97, SGP_01, SGP_06, NAM_09.1, TUN_09.1, SIV_91, ARM_07, ARM_08, BFA_05, TGO_98, CMR_97, TZA_00, TZA_05, RWA_03, RWA_08, ETH_05, MOZ_09, ZMB_06, ZWE_95, ZWE_05, ZWE_08, TUN_99, TUN_04, EGY_90, EGY_93, EGY_95, EGY_99, EGY_00, EGY_05, EGY_07, KGZ_05, KGZ_07, KGZ_09, NPL_91, CMR_97.1, TZA_00.1, TZA_05.1, RWA_03.1, MOZ_09.1	SLV_91, ARM_07, ARM_08, BFA_05, TGO_98, TGO_99, TGO_02, TGO_03, TGO_05, TGO_07, CMR_97, CMR_02, CMR_04, CMR_07, CAF_05, KEN_94, KEN_97, TZA_00, TZA_05, RWA_08, ETH_05, MOZ_09, ZMB_06, ZWE_96, ZWE_02, ZWE_05, \( \frac{ZWE_08}{ZWE_08}, \text{TUN_99}, \text{TUN_99}, \text{TUN_99}, \text{TUN_99}, \text{TUN_99}, \text{TUN_99}, \text{TUN_99}, \text{TUN_99}, \text{EGY_90}, \text{EGY_90}, \text{EGY_90}, \text{EGY_97}, \text{KGZ_05}, \text{KGZ_07}, \text{NPL_91}, \text{CMR_97.1}, \text{CAF_05.1}, \text{KEN_97.1}, \text{TZA_00.1}, \text{TZA_05.1}, \text{RWA_03.1}, \text{MOZ_09.1}, \text{ZMB_01}, \text{ZMB_06.1}, \text{TUN_99.1}, \text{EGY_05.1}, \text{KGZ_05.1}
Uniquely Covered Typical	VEN_06, RUS_03, RUS_04, RUS_07, RUS_08, AZE_01, AZE_03, AZE_08, GAB_97, GAB_98, GAB_01, GAB_05, GAB_06, GAB_09, COG_09, ZMB_08, NAM_09, BWA_04, BWA_09, DZA_97, DZA_09, DZA_02, DZA_04, DZA_07, DZA_09, TUN_09, IRN_92, IRN_93, IRN_96, IRN_08, IRN_09, MYS_90, MYS_95, MYS_99, MYS_04, MYS_08, SGP_91, SGP_93, SGP_97, SGP_01, SGP_06, NAM_09.1, TUN_09.1, ZWE_95, KGZ_09	TGO_99, TGO_02, TGO_03, TGO_05, TGO_07, CMR_02, CMR_04, CMR_07, CAF_05, KEN_94, KEN_97, ZWE_96, ZWE_02, CAF_05.1, KEN_97.1
Deviant Consistency	INN_97. JRN_98, INR_04, GTM_91, NIC_90, SEN_00, NER_99, KEN_02, ZAF_94, NIC_90.1, NGA_99, KEN_02.1, ZWE_08.1	GTM_91, NIC_90, SEN_00, NER_99, KEN_02, ZAF_94, NIC_90.1, NGA_99, KEN_02.1, ZWE_08.1
Deviant Coverage for Solution Formula	AZE_06, CIV_00.1, CIV_01, HTI_00, IRN_00, IRN_01, KEN_9 MEX_97, NAM_04, NAM_04.1, PER_00, PER_00.1, PER_ SEN_93.1, SEN_98, SIV_94, SIV_94.1, UGA_01, UGA_06, UGA_01	95, PER_95.1, PRY_93, PRY_93.1, SEN_93,

<sup>&</sup>lt;sup>a</sup> Underlined case names = most typical cases.

Regarding the general features of adaptive authoritarianism, the two solution terms highlight the use of both diffuse and specific legitimation. In addition, this autocracy type is characterized by its emphasis on procedures and formal institutions, such as elections and parties as successful stabilization strategies. We

 $<sup>^{20}</sup>$ These are cases that are members of the adaptive but not the rigid authoritarian type (see below).

<sup>&</sup>lt;sup>21</sup>Some cases contradict our claim that adaptive authoritarian regimes are resilient. They are listed as deviant consistency cases in Table 2.7. Notice, though, that autocratic defeat in elections does not necessarily mean democratization. In Iran, for instance, the autocratic electoral defeats in 1997, 1998 and 2004 refer to the beginning and end of the reformist but nevertheless authoritarian Khatami regime.

typically find economically well developed countries in this category that have the resources to push for performance-orientated strategies. Notice also that because hard repression is found to be logically redundant for adaptive authoritarian regimes, several of them do survive without the use of hard repression - at least as conceptualized and operationalized in this study. These findings coincide with some of the recent observations in autocracy research. As pointed out by Gerschewski (2013, 28), repression is a double-edged sword as its excessive usage risks to hamper legitimation efforts by autocrats. By avoiding extensive use of hard repression, autocrats become more adaptive and "learn" how to effectively manipulate seemingly democratic institutions for remaining in power (Magaloni, 2010; Schedler, 2013; Ortmann and Thompson, 2013). Indeed, decreasing hard repression while using propaganda, censorship, and other new information-based strategies is considered to be the "key innovation" in modern autocracies (Guriev and Treisman, 2015).

How does the classification of adaptive authoritarianism fit to existing categories of autocracies? Contrary to our expectations, the uniquely covered typical cases do not all belong to the category of competitive regimes. Azerbaijan, Botswana and the high performer Singapore are classified as hegemonic. The most recent elections in Gabon were also held under the rule of a hegemonic regime. When looking at alternative categorizations in the literature, our set of uniquely covered typical cases is a blend of personal, party-based or multi-party and military regimes (e.g. Geddes et al., 2014; Wahman et al., 2013).<sup>22</sup> Overall, this suggests that our adaptive authoritarian type cuts across existing classification by highlighting a specific mix of legitimation and cooptation.

The defining feature of the third sufficient term, in contrast to the previous two, is that it requires the absence of informal cooptation and the presence of hard repression. We label it as *rigid authoritarianism* since applying high levels of hard repression decreases a regime's flexibility. Due to the risks of a legitimacy crisis, Gerschewski (2013, 28) describes the joint usage of hard repression and le-

<sup>&</sup>lt;sup>22</sup>Botswana is even categorized as democracy in the dataset of Wahman et al. (2013).

gitimation as the "Achilles heel" of authoritarian regimes. While there might be some compatibility between diffuse support of legitimation (e.g. ideologies) and hard repression, the specific and performance-orientated dimension of legitimation is weakened. Hence, the rigid authoritarianism type has less capacities for innovative legitimation strategies or new procedures. This is also reflected in our findings since the rigid authoritarianism term includes only diffuse and not specific support of legitimation. Figure 2.2 provides a graphical representation of the QCA solution formula and the way we interpret it in terms of adaptive and rigid authoritarianism.<sup>23</sup>

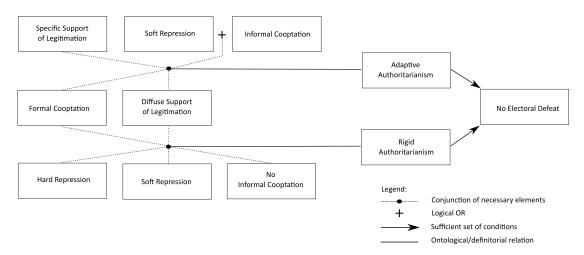


Figure 2.2: Graphical Illustration of the Intermediate Solution Term for No Electoral Defeat

As the coverage for the third term in Table 2.6 indicates, there are fewer rigid than adaptive authoritarian regimes. Uniquely covered typical cases are, for instance, numerous elections in Togo, Cameroon, Central African Republic, Kenya in the 1990s and Zimbabwe. Interestingly, this set of cases includes only African regimes. Yet, we cannot rule out that this is due to unavailability of data from similar authoritarian countries in other world regions. Inconsistent cases of rigid authoritarianism are elections in Nicaragua, but also Kenya in 2002 and other regimes (see Table 2.7).

We believe that the list of uniquely covered typical cases of rigid authoritarianism lends support to our interpretation. All these regimes are known for being

<sup>&</sup>lt;sup>23</sup>The logic of this graph is adopted from Goertz and Mahoney (2005), see also Mello (2012).

highly repressive. In addition, they share the feature of having either not very developed economies and/or high poverty rates (World Bank, 2016). This means that authoritarian leaders in rigid regimes have fewer resources or incentives to opt for performance-based legitimation and, instead, rely on hard repression. What might be somewhat puzzling, though, is that according to our QCA, this regime type requires the absence of informal cooptation. This might be particularly surprising in light of the much discussed neopatrimonial leadership styles in some of the mentioned African regimes (Eisenstadt, 1973; Bratton and Van de Walle, 1994; Bach and Gazibo, 2013). Notice, however, that measuring informal structures is highly problematic (Helmke and Levitsky, 2004) and that our proxy indicator for informal cooptation merely assesses external rents. From this point of view, the absence of external rents (aka informal cooptation) lends further supports to our interpretation that rigid authoritarian regimes have less capacity for innovations of the kind shown by adaptive authoritarian regimes.

Regarding existing classifications of the regimes covered by rigid authoritarianism, we again find a mixture of competitive (e.g. Kenya, Central African Republic) and hegemonic regimes (Togo, Cameroon, Zimbabwe). Furthermore, the uniquely covered typical cases are mostly categorized as party-based, personalist or military autocracies (Geddes et al., 2014; Wahman et al., 2013). This, again, shows that the WZB model's strength is to capture general stabilization strategies that are used across various forms of autocratic regimes.

## 2.5 Discussion

What are the insights of these findings *vis-a-vis* the discussion about the WZB model's performance in explaining autocratic stability?

First, no single dimension of the WZB model alone can explain autocratic stability. Instead, we identify specific combinations that are sufficient for not losing elections (conjunctural causation). Furthermore, we find different such combinations (equifinality). Second, and related to the previous point, we also reveal evidence

for causal asymmetry. The high coverage of the solution term indicates that the WZB model performs well when trying to explain no electoral defeat. When trying to explain electoral defeat, the dimensions invoked by the WZB model perform poorly, though.

Third, our two autocracy types only partially overlap with Gerschewski's two worlds of autocracies. The over-politicized autocracy type (Gerschewski, 2013, 30) is very similar to what we call rigid authoritarianism. The difference simply consists of our rigid type additionally implying no informal cooptation. Yet, our adaptive authoritarianism includes - next to the elements of Gerschewski's under-politicized type (specific support of legitimation, informal cooptation and soft repression) - also formal cooptation and diffuse legitimation.

In order to assess more formally the extent to which our findings overlap with Gerschewski's claim of "two worlds of autocracies," the tool of theory evaluation (Ragin, 1987, p. 118-121, Schneider and Wagemann, 2012, chap. 11.3) can be employed. Theory evaluation identifies the areas of (non-) overlap between the theoretical expectations T (here Gerschewski's two worlds) and our empirical findings E (see Table 2.6). The overlap between T and E (TE) can be expressed in Boolean terms, the same as each of the other three areas (T~E, ~TE, ~T~E).<sup>24</sup> Area TE indicates where theory and empirical findings overlap; area ~TE where theory might need to be expanded; T~E where theory might need to be restricted; and ~T~E where both the theory and the empirical solution fail to explain why outcome Y occurs.

Table 2.8 reports the number of cases that fall into each of the four areas.<sup>25</sup> This allows for an empirical assessment of how strong the (non-) overlap between our findings and Gerschewski's model is.<sup>26</sup> As can be seen in the upper left cell (TE), most of our stable autocratic regimes are both predicted by Gerschewski's model and our QCA result. Out of a total of 126 stable autocracies in our data, 89 are expected both by Gerschewski's and our QCA model. Along the same lines,

<sup>&</sup>lt;sup>24</sup>Table B.10 in the Appendix specifies the Boolean expression for each of the four areas.

<sup>&</sup>lt;sup>25</sup>See Table B.11 in the Appendix for the names of the cases.

<sup>&</sup>lt;sup>26</sup>See the R script for the use of the theory evaluation functions from the SetMethods package (Medzihorsky et al., 2016).

the 17 non-stable autocracies in cell ~T~E are expected to be non-stable autocracies by both Gerschewski and us.<sup>27</sup> The empirical overlap is not perfect, though, as the cases in cells T~E and ~TE attest. We manage to capture 8 instances of stable autocracies that Gerschewski's model does not. All of these cases fall into our category of adaptive authoritarianism. This points to the need of enhancing the theories about the stabilization mechanisms in this type of regimes.

**Table 2.8:** Intersections of Gerschewski's (2013) two worlds of autocracies (T) and empirical findings (E)

	Our QCA solution formula identifies:										
		Stable autocracies (E)	Non-stable autocracies (~E)								
	Stable	TE	T~E								
Gerschewski predicts:	autocracies Y:ª Co (T) ~Y: Inc	Y:a Covered most likely cases [89]b ~Y: Inconsist. most likely cases [13]	Y: Uncovered most likely cases [3] ~Y: Consist. most likely cases [0]								
hew	Non-stable	~ TE	~ T~E								
Gersc	autocracies (~T)	Y: Covered least likely cases [8] ~Y: Inconsist. least likely cases [0]	Y: Uncovered least likely cases [26] ~Y: Consist. least likely cases [17]								

<sup>&</sup>lt;sup>a</sup> Y: cases with fuzzy set membership in outcome no electoral defeat of higher than 0.5, ~Y: cases with fuzzy set membership in outcome no electoral defeat of lower than 0.5.

Fourth, legitimation - or more specifically, the dimension of diffuse support - is part of all sufficient terms and therefore a defining feature of our two autocracy types. This indicates the crucial role of legitimation for the survival of autocracies and highlights the importance of resurrecting legitimation as a key feature in research on contemporary autocracies. Contrary to Lueders et al. (2014), our analysis therefore supports the recently proposed claims in the literature that legitimation matters for the stability of authoritarian regimes (Kailitz, 2013; Ahrens et al., 2015; von Soest and Grauvogel, 2017b). More specifically, we find that while our

<sup>&</sup>lt;sup>b</sup> The numbers in squared brackets indicate the number of cases being member of each of the four intersections between T and Y and that are members of the outcome Y and ~T Y, respectively.

<sup>&</sup>lt;sup>27</sup>Puzzling cases and in need for closer within-case scrutiny are the non-stable autocracies in area TE and the stable autocracies in ~T~E, for they contradict both Gerschewski's and our model. See the Appendix for further insights to be gained from the theory evaluation.

rigid autocracies rely solely on diffuse sources of legitimacy, the more numerous adaptive regimes are using both diffuse and specific sources of support. By using economic success for gaining popular support and by employing new technologies for fostering indoctrination and surveillance efforts (often instead of heavy coercion), adaptive authoritarianism appears to be more flexible in reacting to external shocks and thus more resilient.

## 2.6 Conclusion

This article tested the WZB model in the context of autocratic elections, using data previously analyzed by Lueders et al. (2014), but this time applying fuzzy-set Qualitative Comparative Analysis. This methodological choice was driven by the belief that the WZB model's core claim is that its six dimensions are expected to work in combinations rather than in isolation and that it, in essence, aims at explaining autocratic resilience rather than breakdown. Our QCA reveals that, while the WZB model cannot explain why autocrats lose elections, it performs well in identifying meaningful types of autocracies that manage to survive electoral challenges. More specifically, we identified two stable types of electoral authoritarianism. One is the adaptive autocracy type, which is more prevalent and seems to rely less on hard repression and thereby becomes more flexible in applying specific, performance-orientated legitimation strategies. The other is the rigid autocracy type, which has less resources, capacities, or incentives for such innovative autocratic measures and instead relies on hard repression and diffuse sources of legitimation.

The jury is still out as to whether the WZB model applies, as claimed by Gerschewski (2013, 13), to all autocracy types. Just like Lueders et al. (2014); Kailitz and Tanneberg (2015); Lueders and Croissant (2015), also our paper could not resolve this question for the simple fact that it would require a different data set with all regime types in it and a different measure of autocratic resilience. By definition, electoral defeat is ruled out in closed autocracies, a fact already pointed out by Lueders et al. (2014, 336).

We see several avenues for future research on autocratic stability, in general, and the WZB model, in particular. First, in light of the growing attention paid to autocratic legitimation, there is need for further inquiries into the precise tactics and techniques employed by autocrats.<sup>28</sup> There are already several interesting steps in this direction that consist of qualitative assessments of how these regimes make use of economic progress, modernization, and new information technologies to legitimate their rule (Kudaibergenova, 2015; Lewis, 2016; Maerz, 2016). Second, further tests of the WZB model will need to employ better indicators of the model's six dimensions. This applies in particular to the measurement of legitimation and cooptation. Unfortunately, these are also notoriously difficult to operationalize, especially in larger-N comparisons. As noted above, the absence of protests is only a rough indicator for diffuse support. Finding more direct assessment of legitimacy in authoritarian regimes remains a challenging task. Attempts, such as (qualitative) content analysis of the media, school books, or public events and mass surveys are time-consuming and bear several risks in terms of accessibility and reliability (Gentile, 2013). Growing research on public opinion in less restricted autocracies and hybrid regimes are promising ways forward (e.g. Mazepus, 2016). Exploratory expert surveys and first data on different legitimation strategies as in von Soest and Grauvogel (2017b) offer a fruitful basis in the quest for new and more refined indicators. With regard to measuring formal cooptation, an important contribution is Schmotz's (2015) index which combines several indicators into a multilevel concept of cooptation. Last but not least, follow-up studies should make systematic use of the newly emerging (set-theoretic) tools of multi-method research (Schneider and Rohlfing, 2013, 2014). Rather than speculating about the potential mechanisms that link our autocracy types to autocratic resilience, more rigorous process tracing will need to be performed in purposefully chosen typical and deviant cases. Our paper has prepared the ground for such case studies.

<sup>&</sup>lt;sup>28</sup>Such more in-depth investigations seem particularly needed in adaptive autocracies because this type of authoritarianism seems to be on the rise.

Study 3

# The Many Faces of Authoritarian Persistence

This study is currently under review for publication. The full title of the manuscript is "The Many Faces of Authoritarian Persistence. A Set-Theoretic Perspective on the Survival Strategies of Authoritarian Regimes."

## 3.1 Introduction

Recent autocracy research illustrates that authoritarian regimes¹ do not only rely on repression but institutionalize also sophisticated forms of cooptation (Gandhi and Przeworski, 2007; Gandhi, 2008; Ginsburg and Simpser, 2014; Morgenbesser, 2016). In addition, there is a nascent strand of literature which shows that autocrats apply different strategies of legitimation to prolong their rule (Gerschewski, 2013; Grauvogel and von Soest, 2014; Dukalskis, 2017). Several new typologies categorize authoritarian regimes as per these institutional features and, based on average regime lengths in each category, propose more or less enduring autocracy types (e.g. Wahman et al., 2013; Kailitz, 2013; Geddes et al., 2014). These contributions highlight crucial factors of autocratic survival - yet, by focusing on single aspects of authoritarian rule, they cannot sufficiently explain why some authoritarian regimes are more resilient than others.

<sup>&</sup>lt;sup>1</sup>Autocracy, autocratic or authoritarian regime and dictatorship are interchangeably used.

This article examines how authoritarian regimes combine various strategies of repression, cooptation, and legitimation to remain in power. The contribution of the article is two-fold: First, I conceptualize the hexagon of authoritarian persistence as a framework to explain how authoritarian regimes manage to survive. The hexagon is a modified version of Gerschewski's (2013) three pillars of stability and conjointly looks at six core strategies of autocratic rule (repression of physical integrity rights, repression of civil and political rights, cooptation as compensating vulnerability or as simulating pluralism, specific and diffuse support of legitimation). Based on set theory, the hexagon can account for the causal complexity of autocratic survival and breakdown. Second, the empirical part of the article applies the hexagon by using fuzzy-set Qualitative Comparative Analysis (fsQCA). The exploratory and case-orientated analysis refers to 62 authoritarian regimes of various types (1991-2010) and examines the combined effects of the several strategies on authoritarian persistence. The resulting five configurations of the hexagon provide a new and more fine-graded picture of autocratic survival.

The article proceeds as follows: The subsequent theoretical sections offer a literature review and illustrate the added value of the hexagon as a new framework to explain authoritarian persistence. Before spelling out the operationalization of the hexagon, I outline the methodological approach and demonstrate why fsQCA is most suitable to assess the different strategies of autocratic power maintenance. The last part summarizes the analysis and discusses five configurations of the hexagon as the major findings of this article, followed by some concluding remarks.

# 3.2 Repression, Cooptation, and Legitimation

The burgeoning research about autocracies illuminates crucial aspects of autocratic survival. Several contributions offer detailed qualitative analyses of modern authoritarianism in on one or a few cases (Brownlee, 2007; Slater, 2010b; Hemment, 2015). They further study the strategies and techniques in single types of autocracies and illuminate, for example, how electoral regimes make use of seem-

ingly democratic institutions to prolong their rule (Schedler, 2006; Levitsky and Way, 2010; Morgenbesser, 2016).

Sharing a strong focus on authoritarian institutions, there are also a range of quantitative studies which reveal that authoritarian regimes do not solely rely on repression but institutionalize clever ways of cooptation to handle the challenges of sharing power with influential elites while controlling the population at large (Gandhi and Przeworski, 2007; Gandhi, 2008; Svolik, 2012; Ginsburg and Simpser, 2014). By looking at the most prominent institutional characteristic of a regime, several new categorizations of autocracies in monarchies, personalist, military or single- and multiparty regimes have been proposed (Geddes, 1999; Hadenius and Teorell, 2007; Cheibub et al., 2010; Wahman et al., 2013; Kailitz, 2013; Geddes et al., 2014). The novel data sets have been applied in numerous large-N comparisons and triggered a lively debate about the resilience and performance of the different authoritarian regime types (e.g. Miller, 2015; Roberts, 2015b; Kailitz and Stockemer, 2017).

The typologies of authoritarian regimes offer different explanations about the survival strategies in each regime type. Geddes (1999) argues that single-party regimes are more resilient than other regime types because party cadres are more likely to negotiate. By using game theory, she illustrates that cooptation rather than exclusion is the rule in this regime type since everyone is better off if all factions can hold to office. Hadenius and Teorell (2007, 153) argue that multiparty regimes are least resilient and most likely to democratize because their electoral system allows for some contestation which makes these regimes amenable to gradual improvements. These and other accounts of autocratic longevity are theoretically compelling - yet, there are significant empirical variations concerning the regimes' durability in each of the proposed categories. Several multiparty regimes, for example, make strategic use of the minimally competitive elections and seem particularly persistent (Bogaards, 2013). Generally, the typologies are based on different concepts of autocracy, refer to divergent empirical scopes and make contrary statements about the resilience of the various regime types. The

comparisons of the data sets by Wilson (2014), Roller (2013), and Wahman et al. (2013) illustrate that the choice of the data set can have significant effects on the results of empirical analyses.<sup>2</sup> Beside this and critical for the analysis in this article is that while the new typologies highlight single factors of authoritarian rule, their unidimensional classifications as per the most outstanding institutional characteristic of a regime do not explain the multifaceted nature of authoritarian survival.

In contrast to this, Gerschewski's (2013) model of the three pillars is a seminal framework which attempts to synthesize the multiple factors of autocratic stability. By arguing that recent autocracy research focuses mainly on repression and cooptation and has lost sight of legitimation, the pillars are based on the assumption that any type of autocratic regime makes use of these three core principles of autocratic rule. The difference between regimes is that they institutionalize the strategies of repression, cooptation, and legitimation in varying degrees. There is a nascent strand of literature which illustrates that claims to legitimacy are crucial aspects of autocratic survival (e.g. Grauvogel and von Soest, 2014; Omelicheva, 2016; Polese et al., 2017; Dukalskis, 2017; Maerz, 2017). Furthermore, Schneider and Maerz (2017) analyze how the interplay of repression, cooptation, and legitimation effects the survival of electoral regimes. However, as I illustrate in the following section, in order to assess the different strategies of authoritarian power maintenance in autocracies at large, the theory of autocratic persistence needs to be further developed.

# 3.3 The Hexagon of Authoritarian Persistence

This article conceptualizes the hexagon of authoritarian persistence as a theoretical framework to analyze the multi-causal phenomenon of authoritarian persistence. The hexagon is based on Gerschewski's (2013) three pillars of stability and defines the institutionalization<sup>3</sup> of various forms of repression, cooptation, and

<sup>&</sup>lt;sup>2</sup>See also the critique by Svolik (2012, 17).

<sup>&</sup>lt;sup>3</sup>Institutions are formal and informal procedures, routines, norms and conventions (historical institutionalism, Hall and Taylor, 1996, 938). While institutionalization as a strategy implies strong actors, the resulting institutional interplay can be also constraining Capoccia (2016, 1100). Future

legitimation as the core survival strategies of autocratic rule. Decisive for the endurance or breakdown of an autocratic regime are the combined effects of these strategies. While Gerschewski illustrates in great details why repression, cooptation, and legitimation are the core strategies of autocratic survival, this article outlines these aspects only briefly and rather focuses on explaining how the hexagon of authoritarian persistence differs from the three pillars of stability. To further develop the theory of autocratic persistence, I propose two major modifications of Gerschewski's three pillars. First, I suggest different concepts of cooptation. Second and more importantly, instead of the rather static model of the three pillars I introduce the hexagon as an enhanced framework which is based on set theory and accounts for the causal complexity of autocratic survival.

The three pillars have two dimensions each: specific and diffuse support of legitimation, high and low-intensity repression, formal and informal cooptation (Gerschewski, 2013, 23). While it is theoretically compelling to conceptualize cooptation as formal and informal ways of tying strategic partners to the regime, I hold that such a clear-cut separation is empirically not feasible since formal and informal institutions of cooptation are often inseparably fused (Isaacs, 2014). Furthermore, finding valid indicators for measuring informal institutions is a highly challenging task, particularly for large numbers of cases (Helmke and Levitsky, 2004). Therefore, I propose two different and empirically more valid concepts and distinguish between cooptation as compensating vulnerability and cooptation as simulating pluralism. Following Schmotz (2015, 442), cooptation as compensating vulnerability is defined as the capacity of a regime to compensate for various pressure groups (military, capital, parties, labor, ethnic groups, landowners) by providing institutional inclusion or material benefits. In contrast to this, the second form of cooptation is not about real compensation but rather a simulation of it. By establishing fake multiparty systems and pretending competitiveness, this strategy of cooptation is typically observed in hegemonic party systems which are supposed to make the elites believe that some power is allocated to them while research might analyze how gradual institutional change affects this interplay in autocracies.

it is only the most inner circle of the regime which maintains full control (Sartori, 2005, 205-206). Beside this, I adopt Gerschewski's (2013) two concepts of repression as either highly visible, violent acts (repression of physical integrity rights) or more subtle modes of coercion, called here repression of civil and political rights (Cingranelli and Richards, 2013). As Gerschewski (2013, 20), I also draw upon the non-normative concept of legitimation by Weber (2002) and distinguish between specific support (e.g. gained by a good socio-economic performance or domestic security) and diffuse support of legitimation (e.g. ideologies, religious, nationalistic, traditional claims, the charisma of autocratic leaders, cf. Easton, 1965).

Gerschewski (2013, 23) explains the varying institutionalization between the pillars by referring to exogenous, endogenous, and reciprocal reinforcement effects – yet, the relationship between the different dimensions in each pillar is not discussed. For his theory of the "two worlds of autocracies" as the only two stable configurations of the pillars, he assumes all dimensions except for high and low-intensity repression to be mutually exclusive (Gerschewski, 2013, 29).

In contrast to this, I look at the different forms of repression, cooptation, and legitimation not as mutually exclusive end points of the same underlying concept but rather as individual features of authoritarian persistence, visualized with the shape of a hexagon as shown in Figure 3.1. Based on this enhanced perspective, the model of the hexagon can reflect the diverse combinations of survival strategies in persistent autocracies of various types and is not limited to "two worlds." Furthermore, the hexagon assumes the relationship between the institutionalized forms of repression, cooptation, and legitimation to be varying instead of always complementary, as it is conceptualized for the three pillars (Gerschewski, 2013, 29). Following Schedler (2013), I hold that the institutional settings in authoritarian regimes are ambiguous due to informational as well as institutional uncertainties. Different to the three pillars, authoritarian persistence is not understood as a static concept of stability but rather as the endurance of authoritarian regimes over time, occasionally also under rather unstable conditions or with counter-intuitive combinations of the six strategies, as the empirical explorations in this article show.

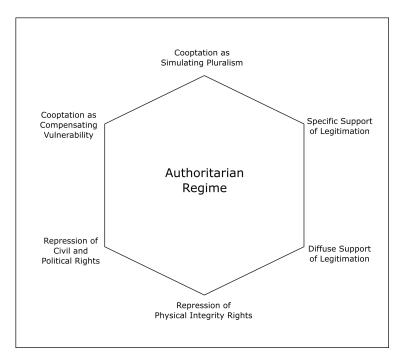


Figure 3.1: The Hexagon of Authoritarian Persistence

The hexagon of authoritarian persistence is rooted in set theory. A set-theoretic perspective on authoritarianism allows to grasp the causal complexity of the survival or breakdown of authoritarian regimes because it accounts for *asymmetric causal relations*, *conjunctural causation*, and *equifinality* (Ragin, 1987). Autocracy is not simply the opposite of democracy. Geddes (1999, 121) seminal contribution and her statement that "different kinds of authoritarianism differ from each other as much as they differ from democracy" hint at these asymmetric causal relations and counter the simplified classification of autocracies as merely non-democratic. Along these lines, the hexagon is also based on the assumption of causal asymmetry: The reasons for autocratic regimes to endure are not simply the opposite of what explains autocratic breakdown.

The hexagon enables to look at several aspects of autocratic rule at once and examine how this interplay affects authoritarian persistence. The basic idea of this so-called conjunctural causation is that authoritarian persistence emerges from the intersection of these aspects as appropriate pre-conditions (Ragin, 1987, 25). In other words, in the absence of any one of the several aspects, authoritarian persistence does not emerge. In contrast to the above outlined typologies which

classify authoritarian regimes by merely looking at its most eminent institutional characteristic (e.g. the electoral system or the military), the hexagon looks at combinations of conditions which conjointly cause authoritarian persistence. Configurations of the hexagon therefore cut across existing typologies and have the potential to reveal, for example, that it is not just the enhanced cooptation capabilities of a single-party regime which fosters its endurance but it is rather the combination of these cooptation capabilities with a strict limitation of civil and political rights and sophisticated claims to legitimacy which keeps the regime resilient.

The hexagon is based on the assumption of equifinality, meaning that there are different, mutually non-exclusive explanations of authoritarian persistence (Schneider and Wagemann, 2012, 78). While some authoritarian regimes might indeed endure because they apply an effective cooptation strategy which compensates vulnerabilities combined with limitations of civil and political rights and sophisticated claims to legitimacy, other persistent regimes might rather rely on severe repression combined with a strongly propagated ideology and a fake multiparty system which simulates pluralism and thereby facilitates elite cohesion.

In sum, the purpose of the hexagon is to identify which strategies authoritarian regimes combine to ensure their survival. Compared to the three pillars, the hexagon is not based on the assumption that there are only two successful combinations of strategies – Gerschewski's (2013, 30) "two worlds of autocracies" – but allows for much more empirical variation. The resulting configurations of the hexagon are similar to what Elman (2005) called an explanatory typology. Due to the hexagon's accounts of asymmetric causal relations, conjunctural causation and equifinality, such configurations clearly differ from conventional understandings of categories in typologies (Collier et al., 2008, 157) because they are neither mutually exclusive nor collectively exhaustive. Metaphorically speaking, the hexagon is a toolbox of authoritarian rule out of which authoritarian regimes take their set of strategies. As a matter of course, some authoritarian regimes apply similar sets of strategies which is why combinations of strategies can (partly) overlap. The added value of this set-theoretic perspective on the survival strategies of authori-

tarian regimes is that it unravels the causal complexity of these survival strategies and thereby provides a new and more fine-graded picture on authoritarian persistence.

## 3.4 Research Design

#### 3.4.1 Method

The theoretical framework of the hexagon is based on set theory which strongly suggests to use set methods for an empirical application of the framework. Similar to Schneider and Maerz (2017), this article applies fuzzy-set Qualitative Comparative Analysis (fsQCA) to analyze authoritarian survival strategies. Set methods employ formal logic and Boolean as well as fuzzy algebra and refer to a rather unusual terminology which is why this section explains key terms and provides a short outline of how fsQCA is applied.<sup>4</sup>

The strength of fsQCA and its particular suitability for the analysis in this article is that instead of looking at single factors in isolation of each other, it allows to examine the combined effects of several factors on authoritarian persistence. In set-theoretic terminology, the six strategies illustrated in the hexagon are called the *conditions* which - depending on their combinations - generate authoritarian persistence or no authoritarian persistence as the two qualitative states of the *outcome*. The different combinations of the six strategies are so-called *configurations* of the hexagon.

In fsQCA, asymmetric causal relations are tested by separate analyses for the occurrence and non-occurrence of the outcome (Schneider and Wagemann, 2012, 81). Accordingly, the summary of the findings in this article is divided into the analysis of authoritarian persistence and the analysis of no authoritarian persistence.

In essence, fsQCA consists of two different procedures: the test of *necessity* and the test of *sufficiency*. The analysis of necessity comes prior to the analysis

<sup>&</sup>lt;sup>4</sup>See Ragin (1987) and Schneider and Wagemann (2012) for more details and comprehensive explanations about QCA and set methods in general.

of sufficiency and assesses whether a condition or disjunctions of conditions are supersets of the outcome, meaning that the outcome cannot be achieved without these conditions. The test of sufficiency looks at whether a condition or conjunctions of conditions (conjunctural causation) are subsets of the outcome. Because perfect super- or subset relations are empirically rare, both of these tests make use of consistency and coverage parameters (Ragin, 2006). For the test of necessity, those conditions which pass the consistency and coverage thresholds are further tested for their empirical relevance (Schneider and Wagemann, 2012, 236).

At the core of the test of sufficiency is the so-called  $truth\ table$  analysis. Each row of a truth table stands for one of the logically possible combinations of conditions. Ergo, an analysis with k number of conditions has a truth table with 2k rows. Those rows which pass the thresholds for consistency and coverage and contain one or more cases are considered sufficient for the outcome. These rows are used for the logical minimization which typically produces different and mutually non-exclusive explanations for the outcome of interest (equifinality). Those rows which do not contain any cases as empirical evidence - the logical remainders - can still be included in the process of logical minimization, yet, only based on assumptions (Schneider and Wagemann, 2012, chap 6). Depending on these assumptions, the conservative (no assumptions), the most parsimonious (assumptions on all logical remainders) or the intermediate (some assumptions, the so-called easy counterfactuals) solution formula is obtained.

## 3.4.2 Operationalization

Due to the general problems of data accessibility in autocracies, the analysis in this article is constrained in terms of its empirical scope and time-sensitivity and thus rather exploratory in its nature. Measuring legitimation in authoritarian regimes is extremely challenging, particularly if done for a larger amount of cases. While data about protests or child mortality rates and GDP growth are merely indirect measures, this analysis relies on the expert survey of von Soest and Grauvogel (2017a) which provides a first data set on legitimacy claims of authoritarian regimes. Yet,

the survey data is limited in terms of cases, goes only until 2010 and offers observations per regime span and not per year. A second and more general constraint is that due to its combinatorial nature, the analysis in this article looks at all indicators for the hexagon at once. Because of missing values in each of these indicators, the number of cases is further limited.

The analysis refers to 62 cases<sup>5</sup> of authoritarian regimes, starting in 1991. One rationale for choosing this point of time is linked to the many new state formations after the downfall of the Soviet Union. At first, this period of transformation in the early 1990s had been enthusiastically called a latecomer of the third wave of democratization (Huntington, 1991). Yet, it soon turned out that this labeling was overly optimistic and that authoritarianism became more real again (Geddes, 1999; McFaul, 2002). After several stumbles and initial signs of democratization, many of the newly independent states had transformed into fully-fledged autocracies by the end of the 1990s. The second reason for choosing 1991 concerns the general transformation of authoritarianism in a post-Cold War and increasingly globalized world. Today's dictators employ new strategies and a range of seemingly democratic practices to stabilize their rule (Gandhi, 2008; Schedler, 2013). The time frame of the analysis from 1991 to 2010 allows me to assess the impact of these novel strategies on authoritarian persistence.

The case selection is further guided by this article's definition of autocracy. I borrow from Geddes et al. (2014) who propose a rather minimalistic definition, allowing for a clear borderline between democracies and autocratic regimes. Their comprehensive data set on autocratic regimes (1946-2010) forms the basis for the cases of my analysis. The data set classifies autocracies as such if (1) the executive achieved power by other means than fair, competitive and free elections, (2) the executive achieved power by fair, competitive and free elections but changed these rules afterwards or (3) the military prevents the compliance with these rules or changes them (Geddes et al., 2014, 317).

<sup>&</sup>lt;sup>5</sup>See Table C.1 in the Appendix for a list of all cases.

<sup>&</sup>lt;sup>6</sup>Because the population of Bahrain and Qatar is below one million people, they are not included in the data set of Geddes et al. (2014). Yet, I argue that the large amounts of non-nationals which permanently live in these countries are also affected by the regimes' style of leadership. Adding up the nationals and non-nationals in each country exceeds one million which is why I include both countries in the analysis.

One key element of Geddes et al.'s (2014) data is that based on their definition of autocracy, they use a combination of rigorous criteria to clearly identify the beginnings and ends of autocratic regimes rather than inferring them from yearly democracy codes as it is done in other data sets (Cheibub et al., 2010; Wahman et al., 2013). Based on this, a regime end is a change of the basic rules about the identity of the leadership group which *can* but not necessarily has to lead to a transition to democracy. The fine-graded assessment distinguishes between intraregime leadership successions (e.g. in monarchies or Turkmenistan in 2006, coded as no regime end) and other leadership successions which also affect the composition of the leadership group at large (coded as regime end). Following Geddes et al. (2014), I code those regimes as persistent which do not end between 1991 and 2010. All regimes which end before 2010 are seen as non-persistent regimes. This means that out of the 62 cases of authoritarian regimes, 51 are coded as persistent and 11 as non-persistent.<sup>7</sup>

The conditions for the analysis are the six core concepts of the hexagon: repression of physical integrity rights (repp), repression of civil and political rights (repc), cooptation as compensating vulnerability (coopv), cooptation as simulating pluralism (coops), and diffuse and specific support of legitimation (legd, legs). I measure the two forms of repression by drawing on Cingranelli and Richards (2013). The names of both forms are inspired by the two main indices in their data set and make the operationalization straightforward, as summarized in Table 3.1.

For the operationalization of the first form of cooptation, I follow Schmotz (2015) and his innovative way of defining cooptation as compensating vulnerability. Schmotz constructs a comprehensive index<sup>8</sup> that looks at 6 different socio-

<sup>&</sup>lt;sup>7</sup>One trade-off here is that due to the censored data used, the category of persistent regimes does not distinguish between those regimes which last already for several decades and those which have started a relatively short time before 2010. For the latter cases, I assessed qualitatively whether the respective regime can indeed be considered as persistent. For example, the analysis covers only 2 years of the regime of Mauritania which was preceded by coups in 2008 and 2005 and is therefore not considered as persistent. Future research might use more fine-graded distinctions in this regard.

<sup>&</sup>lt;sup>8</sup>The index of Schmotz (2015) provides data until 2009. Yet, since the unit of analysis in this article is not single regime years but longer time spans of regimes, the effect of this missing year of observation in one indicator is assumed to be rather small.

Table 3.1: Operationalization of Repression and Cooptation

Abbr.	Full Name and Operationalization	Source
repp	Repression of physical integrity rights: combined index which mea-	
	sures torture, extrajudicial killing, disappearance and political imprisonment.	Cingranelli and Richards
repc	Repression of civil and political rights: combined index which measures foreign movement, domestic movement, freedom of speech, freedom of assembly and association, workers' rights, electoral self-determination, and freedom of religion.	(2013)
coopv	Cooptation as compensating vulnerability: comprehensive index which measures a regime's capacity to compensate for six pressure groups: military, capital, parties, labor, landowners, and ethnic groups.	Schmotz (2015)
coops	Cooptation as simulating pluralism: regimes with multiple (satellite) parties which do not allow for electoral competition. Two DPI indices on competitiveness of legislative and executive elections, combined by logical OR (scores above 4 and below 7 on a scale of 1-7).	Beck et al. (2001)

economic pressure groups (military, capital, parties, labor, ethnic groups, landowners), their individual strength AND ambition to exert pressure and the regime's capacity to compensate for these pressures by providing material benefits OR institutional inclusion. This measurement of vulnerability and compensation offers a new picture on cooptation in autocratic regimes and contributes to more valid results since hitherto used indices of cooptation are rather coarse, as further illustrated below.

Concerning cooptation as simulating pluralism, I refer to the DPI indicators on competitiveness in legislative and executive elections (Beck et al., 2001). I consider those regimes as simulating multiparty systems which score in the two indicators on legislative OR executive elections below 7 and above 4.9 This operationalization of cooptation differs from previous approaches in two regards. First, I distinguish between fake and real electoral competition in authoritarian regimes and exclude the latter when measuring simulated pluralism. Recent contributions frequently refer to Cheibub et al.'s (2010) trinomial indicator of party institution-

<sup>&</sup>lt;sup>9</sup>One exception is Iran. Politics in the Khamenei era are certainly not based on real competition as the brute suppression of the protests after the assumed electoral fraud in favor of Ahmadinejad in 2009 have shown. Yet, despite these disadvantageous conditions, the reform movement in Iran has been comparatively strong throughout the regime span and politics have been much more contested as those in the regimes conceptualized as simulating pluralism (Brownlee, 2007, 157-181). Therefore, Iran is re-coded as a non-member of the set despite its scores in the DPI indicators.

alization when operationalizing cooptation. While the values of 0 and 1 indicate either no legislature or a legislature with members only from the regime party, the third value - 2 - stands for regimes which have multiparty legislatures. Yet, this indicator does not distinguish between those regimes which allow for oppositional parties and those which merely set up satellite parties, faking a multiparty regime. Second, my operationalization of cooptation as simulating pluralism cuts across existing typologies of hegemonic and closed regimes. While non-competitive multiparty systems are seen as a defining feature of hegemonic regimes (Sartori, 2005; Brownlee, 2009), operationalizations of this regime type are rather coarse and classify several regimes which simulate pluralism as closed regimes.<sup>10</sup>

For the operationalization of both forms of legitimation, I refer to the expert survey of von Soest and Grauvogel (2017a,b) on legitimacy claims of authoritarian regimes. The survey relies on nearly 300 questionnaires completed by internationally renowned country experts, assessing six basic legitimation strategies. Table 3.2 lists these strategies and shows how I aggregate them to measure specific and diffuse support of legitimation.

**Table 3.2:** Operationalization of Legitimation

Abbr.	Full Name	Strategies (Combined by Logical OR)	Source
legd	Diffuse support of legitimation	Foundational Myths (fomyth) Ideology (ideo) Personalism (perso)	von Soest and
legs	Specific support of legitimation	International Engagement (inteng) Procedures (proc) Performance (perf)	Grauvogel (2017a)

The survey of von Soest and Grauvogel (2017a,b) collects assessments of the most recent autocratic regime in a country, resulting in observations per regime span. <sup>11</sup> This limits the time-sensitivity of my analysis and demands for a meaningful

<sup>&</sup>lt;sup>10</sup>Brownlee (2009) considers regimes as hegemonic if they score above 4 on the DPI indicator on legislative AND executive elections. Yet, this categorizes regimes such as Kazakhstan or Uzbekistan as closed although their legislative elections take place within classical examples of fake multiparty systems.

<sup>&</sup>lt;sup>11</sup>The varying definitions of autocracy underlying von Soest and Grauvogel's (2017a) survey data and this article result in diverging determinations of regime beginnings and ends. I follow Geddes et al. (2014) concerning the timings of regime spans and refer to von Soest and Grauvogel's (2017a)

aggregation of the other indicators which are based on country observations per year. When looking at the data, it is striking that several regimes have become increasingly repressive over the years of their endurance.<sup>12</sup> In order to account for this crucial aspect, the average values for the time spans were weighted in favor of the latest regime years.<sup>13</sup>

### 3.4.3 Calibration Strategy and Robustness Tests

Calibration is a crucial step in set-theoretic methods in which set membership scores are assigned to cases. This process requires reasoned decisions on what full membership and full non-membership in each fuzzy set mean and where the point of indifference or crossover point should be located (Schneider and Wagemann, 2012, 32). By combining theoretical knowledge and empirical evidence, the difference between relevant and irrelevant variation is made (Ragin, 2008, 82-83).

Following these basic principles of calibration, I chose the anchors in Table 3.3 according to the meaning of the sets. To ensure a high content validity of all sets, I checked several of the "borderline" cases to see whether the assigned membership scores are coherent with the case knowledge at hand. In some cases, alternative positions of the anchors seemed equally plausible. For more substantive decisions in this regard, I conducted detailed robustness tests.<sup>14</sup>

Table 3.3: Anchors for Calibration

Label	High repp	High repc	High coopv	High coops	High fomyth	High ideo	High perso	High in- teng	High proc	High perf
Fully in	1	2	5	crisp	4.5	4	4.4	3.5	5	5
Crossover	4.2	5.4	1.2	>4, <7	3.1	3.1	2.9	2.1	3.4	3.5
Fully out	6	9	-1	crisp	2	1.5	1	1	2	2

time specifications as the beginning and end of observation.

<sup>&</sup>lt;sup>12</sup>This includes Turkmenistan, Uzbekistan, Belarus, Iran, Eritrea, and Ethiopia.

<sup>&</sup>lt;sup>13</sup>More specifically, each observation per year was weighted by the regime's length in this particular year, starting in 1991.

<sup>&</sup>lt;sup>14</sup>The R scripts of the various robustness tests are available here: https://dataverse.harvard.edu/dataverse/sfm. Figure C.1, C.2, and C.3 in the Appendix provide an overview of the distribution of the raw and calibrated data.

Generally, the robustness tests illustrate that slight alterations of the anchors do not significantly change the results of the analysis. To make the choice of anchors more transparent, I further explain some of the more substantial tests and decisions. Concerning both forms of repression, the chosen crossover points seem rather low, classifying most cases as more in than out of the set. However, moving up the crossover points – particularly for the set of "high amounts of repression of physical integrity rights" (high repp) – would place regimes such as Turkmenistan as out of the set. In view of the empirical evidence about the highly coercive nature of this regime (Human Rights Watch, 2017b), it is therefore reasonable and in line with the meaning of the set to choose a lower anchor and accept the rather unequal distribution of the calibrated data.

As the histograms in the appendix show, the distribution of the raw data on cooptation as compensating vulnerability is slightly skewed. This makes the calibration procedure an even more delicate issue. The tests of alternative anchors reveal that lower crossover points lead to model ambiguity which complicates the QCA results (Rohlfing, 2015, 3). Higher crossover points decrease the content validity of the concept since all cases scoring above zero are per definition already over-compensating (Schmotz, 2015, 448).

While von Soest and Grauvogel (2017b) propose calibration anchors for all the legitimation variables in their truth table analysis, I changed most of these anchors for several reasons. First, the chosen crossover points by von Soest and Grauvogel (2017b) are (with minimal deviations) based on the mean values of the respective base variables. While this can make sense in some instances and coincide with other reasons for choosing these locations of the anchors, the mean values should never be applied systematically when calibrating data. Such purely data-driven calibrations are flawed and can significantly diminish the content validity of the calibrated sets (Schneider and Wagemann, 2012, 33). Second, von Soest and Grauvogel (2017b, appendix) refer to gaps in the raw data to justify their placements of the anchors. In general, this is a valid strategy since noticeable drops in the data can indicate relevant differences between the respective cases. Yet, it

is not a convincing approach if the raw data is pervaded by many gaps as it is the case for the legitimation variables. In contrast to von Soest and Grauvogel (2017b), I place the anchor of "high amount of foundational myths" above 3, for example, because I argue that Myanmar (score of 3.00) uses the successful struggles of independence only partly as a source of legitimacy<sup>15</sup> and should not be a member of this set. In contrast to this, the experience of independence has a central role in the official narrative of the Uzbek regime (score of 3.25) which is why this case should be indeed a member of the set.<sup>16</sup> The adjustments of the other anchors follow similar rationales. The R scripts test and compare these anchors with those of von Soest and Grauvogel (2017b) which further highlights their robustness.

# 3.5 Summary of the Findings

## 3.5.1 Analysis of Authoritarian Persistence

The test of necessity for the outcome authoritarian persistence reveals that no single condition or its logical negation passes the minimum thresholds of consistency, coverage and relevance. The test further shows several disjunctions of conditions with high consistency and coverage values. Yet, all of them have low relevance values, indicating the trivialness of necessity for these logical OR combinations. The test of necessity concludes therefore with no statement on necessary conditions or combinations of them.

For the test of sufficiency, the truth table in this analysis consists of 64 rows, representing all logically possible combinations of the six conditions. Table 3.4 is an abbreviated form of the truth table. It contains only those rows for which there is enough empirical evidence available, meaning here that at least one case is assigned to the respective row.<sup>17</sup>

<sup>&</sup>lt;sup>15</sup>The military regime of Myanmar primarily referred to battles against ethnic separatists and communist insurgencies or the promotion of Buddhism and the reinvigoration of monarchical traditions for claiming its legitimacy (McCarthy, 2010).

<sup>&</sup>lt;sup>16</sup>For more information about the heavy propagation of the "ideology of national independence" in Uzbekistan, see Maerz (2017) and March (2003).

<sup>&</sup>lt;sup>17</sup>Table C.1 in the Appendix provides the full names of all cases in this analysis.

Table 3.4: Truth Table for the Outcome Authoritarian Persistence

Row	Repp	Repc	Coopv	Coops	Legd	Legs	Outcome	n	Consist.	Cases
60	1	1	1	0	1	1	1	7	0.982	CUB,RUS,MOR,LIB,SUD,
										CHN,DRV
28	0	1	1	0	1	1	1	4	0.982	SWA,UAE,OMA,MAL
20	0	1	0	0	1	1	1	2	0.967	BAH,QAT
59	1	1	1	0	1	0	1	1	0.966	PRK
24	0	1	0	1	1	1	1	1	0.933	KZK
18	0	1	0	0	0	1	1	1	0.932	KUW
8	0	0	0	1	1	1	1	1	0.915	CON
23	0	1	0	1	1	0	1	1	0.903	LAO
52	1	1	0	0	1	1	1	6	0.901	CS,UGA,ERI,ALG,IRN,SAU
56	1	1	0	1	1	1	1	9	0.890	BLR,AZE,RWA,ETH,ANG,
										YEM,TKM,TAJ,UZB
16	0	0	1	1	1	1	1	2	0.888	BFO,MZM
63	1	1	1	1	1	0	1	2	0.886	CDI,CAO
55	1	1	0	1	1	0	1	1	0.881	SYR
32	0	1	1	1	1	1	1	3	0.864	MAA,TAZ,JOR
49	1	1	0	0	0	0	1	1	0.855	MYA
64	1	1	1	1	1	1	1	3	0.804	ZIM,EGY,INS
48	1	0	1	1	1	1	1	1	0.794	CAM
12	0	0	1	0	1	1	1	3	0.782	GAM,GHA,ZAM
47	1	0	1	1	1	0	0	1	0.764	BNG
29	0	1	1	1	0	0	0	1	0.750	KYR
54	1	1	0	1	0	1	0	1	0.748	DRC
62	1	1	1	1	0	1	0	1	0.737	TUN
61	1	1	1	1	0	0	0	3	0.725	CEN,CHA,PAK
10	0	0	1	0	0	1	0	1	0.716	GAB
46	1	0	1	1	0	1	0	1	0.698	THI
44	1	0	1	0	1	1	0	1	0.664	MEX
42	1	0	1	0	0	1	0	2	0.503	SEN,TOG
34	1	0	0	0	0	1	0	1	0.489	PER

All rows above the consistency value of 0.77 are considered sufficient for the outcome authoritarian persistence. The rationale for determining this consistency threshold is twofold. First, the value of 0.77 represents a gap in the consistency values, indicating a notable drop of consistency. Yet, there are also other gaps before and after 0.77. On that account, the second reason is that including row 47 (consistency of 0.764) in the logical minimization process would mean to include a logically contradictory case since Bangladesh is a non-persistent authoritarian regime. In contrast to this, the cases in row 64 (consistency of 0.782) are all persistent authoritarian regimes, which further suggests that this row can be seen as sufficient for the outcome.

For the logical minimization of the sufficient rows, I assume the presence rather than the absence as directional expectation for all conditions beside repression of physical integrity rights. The usage of high amounts of this form of coercion is costly and can damage the population's legitimacy belief in the regime (Gerschewski, 2013) which is why I make no assumptions for the logical remainders of this condition. Based on this, the intermediate solution formula (Table 4) is obtained.<sup>18</sup>

Table 3.5: Intermediate Solution Formula for the Outcome Authoritarian Persistence

Sufficient Paths, Connected by Logical OR <sup>a</sup>	Consistency	Cov.rb	Cov.u <sup>b</sup>
REPC*COOPS*LEGD	0.87	0.28	0.12
REPC*coops*LEGS	0.96	0.33	0.07
REPP*REPC*coops	0.92	0.24	0.04
COOPV*COOPS*LEGD*LEGS	0.78	0.18	0.01
repp*COOPS*LEGD*LEGS	0.89	0.17	0.01
repp*COOPV*LEGD*LEGS	0.87	0.28	0.02
Overall solution	0.89	0.73	

<sup>&</sup>lt;sup>a</sup> Capital letters indicate presence, small letters absence, \* denotes logical AND.

The intermediate solution formula has a high consistency value at 0.89 and explains 73 percent of all the cases which are coded as persistent autocratic regimes. By suggesting six sufficient conjunctions, it is a rather comprehensive equifinal explanation of authoritarian persistence. This is further underscored by the low unique and much higher raw coverage of each path (26 cases are covered by more than one path). The discussion section provides a detailed interpretation of this solution formula.

## 3.5.2 Analysis of No Authoritarian Persistence

The test of necessity for the outcome no authoritarian persistence concludes that there is no condition or conjunction of conditions which pass the consistency, coverage and relevance of necessity thresholds. The truth table for the sufficiency

<sup>&</sup>lt;sup>b</sup> Cov.r = raw coverage; Cov.u = unique coverage.

<sup>&</sup>lt;sup>18</sup>This article mostly relies on the intermediate solution formula and reports the other solution formulas in the Appendix. All operations for the analysis are done in R (2017) and make use of the QCA package of Dusa and Thiem (2016, v. 2.2.) and the SetMethods package of Medzihorsky et al. (2016, v. 2.1.).

test of no authoritarian persistence (Table C.7 in the Appendix) shows that no single row passes the minimum consistency threshold of 0.75 (Schneider and Wagemann, 2012, 129). This indicates that the hexagon is not a suitable framework for explaining why authoritarian regimes break down since it cannot identify enough commonalities among the non-persistent regimes. Interestingly, the empirical test of Gerschewski's three pillars in the context of autocratic elections comes to similar results (Schneider and Maerz, 2017, 223). This strongly suggests that in the case of regime failure, the interplay of repression, legitimation and cooptation has already stopped working and that there are other causal mechanisms at work.<sup>19</sup>

## 3.6 Discussion

The intermediate solution formula for the outcome authoritarian persistence suggests six paths. Due to their strong overlap, I consider the last two paths as logical equivalents and summarize them to one configuration. This leads to five configurations of the hexagon. These configurations reflect the different combinations of survival strategies which keep autocratic regimes persistent. I call these combinations (1) hegemonic, (2) performance-dependent, (3) rigid, (4) kleptocratic and (5) adaptive configurations of the hexagon.

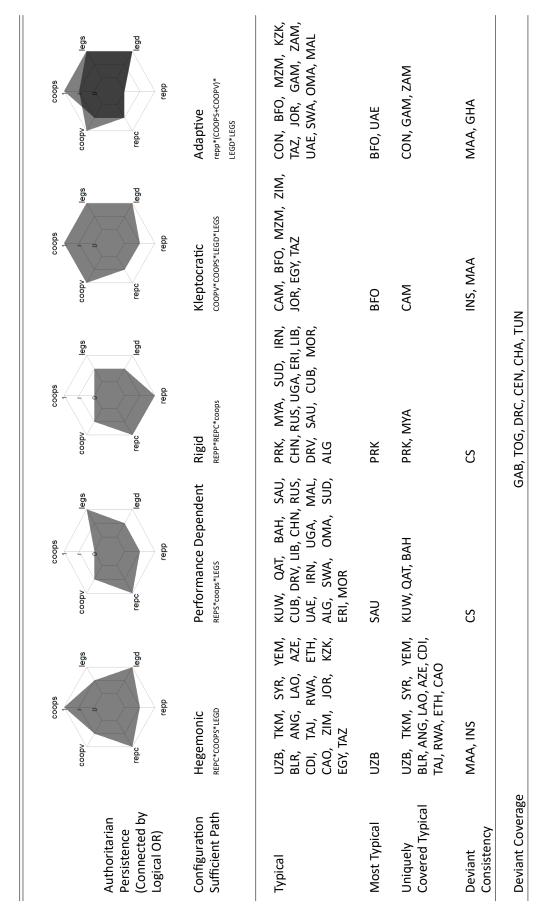
The five configurations or "faces" of authoritarianism are illustrated in Table 3.6. The first row of this table provides a graphical illustration of the solution formula that transfers the Boolean expressions of each path into the respective configuration of the hexagon. The hexagon functions here as a radar chart with 1 and 0 meaning the *presence* or *absence* of the sets as suggested by the prime implicants<sup>20</sup> of the solution formula. The "r" in between these values indicates logically redundant prime implicants which might have been present before the logical min-

<sup>&</sup>lt;sup>19</sup>Another reason could be the rather skewed outcome set. Future research might test whether a larger proportion of non-persistent regimes would allow the hexagon to identify more commonalities.

<sup>&</sup>lt;sup>20</sup>The prime implicants are the end products of the logical minimization process and cannot be omitted from the solution formula without violating the truth table statement. In contrast to this, the *logically redundant* prime implicants can be dropped since all primitive expressions are also covered without them (Schneider and Wagemann, 2012, 109-111).

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Table 3.6: The Many Faces of Authoritarian Persistence



imization but were dropped from the respective solution term during the process of logical minimization due to their redundancy. The second part of the table, row 4 to 7, gives information about the type of cases covered by each path. Following Schneider and Rohlfing (2013), the categorization into typical, most typical, uniquely covered, and deviant cases facilitates a more fine-graded interpretation of the solution formula. The last row of the table contains those cases which are not covered by any paths of the solution formula. These deviant cases regarding coverage would need to be analyzed in explorative process tracing (Schneider and Rohlfing, 2013, 574) since their mechanisms of ensuring authoritarian persistence are not explained by the hexagon.

The defining feature of the first configuration - called hegemonic - is that it uses cooptation as simulating pluralism together with high amounts of diffuse legitimation and repression of civil and political rights.<sup>22</sup> In other words, these authoritarian regimes can be described by their hegemonic multiparty systems which merely *pretend* pluralism. This façade is backed up by intensively propagating ideologies, foundational myths or the personality of autocratic leaders and secured by strictly limiting the liberties of the population such as freedom of speech, assembly and association.

The most typical case<sup>23</sup> of the hegemonic configuration is Uzbekistan. Besides having an appalling human rights record (Human Rights Watch, 2010), the regime strongly propagates an official ideology as a pre-political consensus on delicate issues such as religion and the role of the state (Maerz, 2017). Furthermore, the regime maintains an elaborated system of satellite parties, each of them having fallacious names such as Uzbekistan's Liberal Democratic Party or People's Democratic Party of Uzbekistan. Particularly tricky in this regard is that although the

<sup>&</sup>lt;sup>21</sup>Note that these are mostly conflict-ridden countries and rather marginal cases of authoritarian persistence.

<sup>&</sup>lt;sup>22</sup>Besides relying on a less ambiguous operationalization, the decisive difference to earlier categorizations of hegemonic authoritarianism is precisely this focus on the combined effects of these three features of the hexagon: I consider only those regimes as hegemonic which display high amounts in each of these features and thereby prove to be persistent.

<sup>&</sup>lt;sup>23</sup>The most typical case has the highest consistency due to being closest to the ideal typical case which has full membership in all the conditions of the respective path (Schneider and Rohlfing, 2013, 581).

latter party enjoyed the official support of the recently deceased president Islam Karimov, it is not a dominant party (Bader, 2009, 111). Thus, parliamentary elections in Uzbekistan make indeed a pluralistic impression - at least at first glance - since the parties' share of seats is rather equally distributed (OSCE, 2009).

The other typical cases of the hegemonic configuration, most of them uniquely covered, also combine repression, diffuse legitimation and fake pluralism as their strategy of survival. However, some of them have a more distinctive dominantparty system. In Angola, for example, the ruling Movimento Popular de Libertação de Angola (MPLA) draws its legitimacy from the myths about the country's war of independence and is uncontested in its predominance. The repressive regime officially tolerates other parties, yet, none of them receives significant shares of seats in the elections which are frequently accompanied by corruption, official intimidation or other incidences of fraud (Vines and Weimer, 2009, 288). Not so obvious cases which exhibit this configuration of authoritarianism are Laos and Turkmenistan.<sup>24</sup> Egypt, Yemen and Syria proved to be persistent throughout the period of observation in this analysis. However, while the latter has been going through a highly entangled and cruel civil war for several years, the first two countries experienced regime changes after the Arab Spring. These cases and the regime of the Ivory Coast would need to be studied in more detail to illuminate the deviant mechanism leading to regime failure after 2010.

The second configuration of persistent authoritarianism are the so-called performance-dependent regimes due to their strong reliance on specific sources of legitimacy. Typical cases showing this configuration of the hexagon are the United Arab Emirates, Iran, Algeria or Oman - all resource-rich countries which allure their people with a good socio-economic performance but also broadly control them by suppressing civil and political rights. Many of the performance-dependent regimes, in particular the uniquely covered Gulf states of Kuwait, Qatar and Bahrain and the

<sup>&</sup>lt;sup>24</sup>Laos grants a small amount of non-partisan people seats in the National Assembly (Gainsborough, 2012, 40). Simulating these elites political participation points to similar cooptation patterns as observed in the other cases of hegemonic authoritarianism. While the Turkmen regime allows de jure for multiple parties, the registration of the Party of Industrialists and Entrepreneurs in 2012 is the first de facto incidence in this regard.

most typical case of Saudi Arabia, are classical examples of rentierism (Beblawi and Luciani, 1987). Yet, this configuration includes also China, Vietnam and Cuba. These communist regimes might have high growth rates or claim significant improvements in the field of education and health as their achievements, but are also known for boosting non-material, symbolic or simply non-existing successes as their accomplishments (e.g. Hoffmann, 2015). Besides combining carrot and stick, the third defining feature of the performance-dependent regimes is that none of them greatly simulates pluralism. On the contrary, they rather divide at both extreme ends of this cooptation strategy: While some are long-running monarchies or communist states, the others do indeed allow for real electoral competition.

The most striking characteristic of the third configuration is that these regimes hugely apply both forms of repression. Following Schneider and Maerz (2017, 229), I call this configuration rigid authoritarianism. The name is based on the assumption that autocracies which are severe offenders of physical integrity rights are less flexible since their legitimacy is constantly at stake (Gerschewski, 2013, 28). Furthermore, such terrorizing and intimidating methods are costly. Nevertheless, there is still a range of autocratic regimes with a rampant history of human rights violations. This configuration of authoritarianism typically includes internationally isolated regimes which are known for their extremely ruthless and brute leaders: North Korea, the military regime of Myanmar, conflict-ridden Sudan and Eritrea, also known as the North Korea of Africa (Weldehaimanot, 2010, 232).

Puzzling cases of this configuration are those regimes which allow for electoral competition (e.g. Russia, Uganda or Algeria). Since the approval of even minimal amounts of competition creates significant uncertainties for the ruling elites (Schedler, 2013), these regimes try to control such risks by using intense repression of physical integrity rights. However, this is an irrational and highly ambiguous strategy since it can easily delegitimize the regime and play into the hands of the opposition. Therefore, it is a rather unstable configuration of the hexagon, which nevertheless results in authoritarian persistence.

The nexus between high amounts of specific legitimation and repression of physical integrity rights constitutes another unstable but persistent configuration of the hexagon.<sup>25</sup> This rather counter-intuitive combination of strategies is found in all those regimes - competitive or closed - which are covered by both the rigid and performance-dependent configuration. Post-QCA case studies could further reveal how these regimes nevertheless endure. In addition, a closer examination of Libya and Myanmar as those cases which turned out to be less resilient after 2010 would provide insights into the ambiguous effects of severe repression on the resilience of authoritarian regimes.

The fourth configuration is called kleptocratic. In contrast to the other configurations, kleptocratic regimes intensively use both forms of legitimation and cooptation, resulting in over-compensation and kleptocracy. This configuration includes only few cases. The only uniquely covered case - Cambodia - uses also high amounts of repression of physical integrity rights. This indicates that in light of the more parsimonious configurations of the other persistent autocracies, kleptocratic authoritarianism fritters resources. Most of the persistent autocracies do not need to use as many strategies at once as this configuration does. Particularly concerning the two cooptation strategies, it seems like applying both of them in high amounts is not needed for autocratic survival. As it is the case in Cambodia, this merely promotes a kleptocratic elite (Hughes, 2008, 71).

Adaptive authoritarianism is the last configuration of persistent authoritarianism in this analysis. These regimes are more flexible since they promote specific and diffuse support of legitimation without applying severe forms of repression of physical integrity rights (Schneider and Maerz, 2017, 225). Instead, they adopt and exploit seemingly democratic institutions and rely on electoral fraud, censorship and other, subtler means of limiting civil and political rights. Particularly the resource-rich countries with this configuration combine this "rule by velvet fist" (Guriev and Treisman, 2015) with a sophisticated usage of the new information technologies. Kazakhstan, for example, has an impressive set of e-government

<sup>&</sup>lt;sup>25</sup>Gerschewski (2013, 28) calls this combination the Achilles heel of autocracies.

websites, revealing a surprising citizen-responsiveness (Maerz, 2016). Together with various claims to legitimacy, such tools enhance the efficiency and capacity of the regimes and thereby strengthen their resilience. Studies on typical cases of this modern form of authoritarianism could further explore such institutional manipulations that seem to replace traditional forms of coercion. Research about the deviant cases of Mauritania, Ghana or the long-running but recently failed regimes of Burkina Faso and Gambia might hint at instances in which this mechanism stops working. As mentioned, one hunch in this regard is that the intense use of both forms of cooptation is a waste of resources which can have destabilizing effects over longer periods of time. The majority of the resilient regimes with this configuration applies only one of the cooptation techniques in high amounts. Overall, the adaptive configuration might be trendsetting in modern authoritarianism: By combining one of the cooptation strategies with both forms of legitimation, these regimes are capable of largely avoiding the risks and costs of harsh repression.

## 3.7 Conclusion

This article classified persistent authoritarian regimes as per their strategies to survive by applying fuzzy-set Qualitative Comparative Analysis. Based on the framework of the hexagon of authoritarian persistence, the analysis inquired about successful combinations of different strategies of repression, cooptation and legitimation. The empirical assessment of 62 regimes resulted in five configurations of the hexagon which provide novel and multifaceted explanations about why some authoritarian regimes are more enduring than others.

Based on these findings, there are several avenues for future research. The discussion of the five configurations of authoritarian persistence could merely illustrate the key aspects of the regimes' varying survival strategies. However, following Schneider and Rohlfing (2013), I made detailed suggestions for post-QCA research on typical and deviant cases which would help to further explore the mechanisms of authoritarian persistence and breakdown, respectively. Apart from this,

future studies might find better ways of operationalizing the concept of authoritarian persistence which minimize the constraints when using censored data and allow to test the configurations in a larger set of cases. While this article benefited from novel indicators on legitimating authoritarianism, such innovative approaches are still rather limited in their empirical scope. Hence, it is another desideratum to further improve the data availability for this crucial aspect of authoritarian rule and thereby advance our understanding of authoritarian resilience.

Study 4

# The Language of Democracy in Hegemonic Authoritarianism

This study was prepared for the APSA Annual Meeting 2017 in San Francisco and has been submitted to a peer-reviewed journal. The full title is "Simulating Pluralism: The Language of Democracy in Hegemonic Authoritarianism."

## 4.1 Introduction

Does is matter what autocrats say? Recent contributions point to the linkages between the language style of authoritarian leaders and the survival of their regime (Windsor et al., 2015; Dowell et al., 2015; Windsor et al., 2017). This article adds to this nascent strand of literature and studies the language authoritarian leaders use to legitimate their rule on national and international level. More concretely, I look at the rhetoric differences in the official communication of closed, competitive, and hegemonic authoritarian regimes.<sup>1</sup>

Hegemonic authoritarian regimes are frequently seen as a residual category, comprising all those regimes which do not classify as competitive or closed autocracies (Donno, 2013). Furthermore, the mechanism of how these regimes manage to survive remains nebulous since recent studies have drawn most attention to the phenomenon of competitive authoritarianism (Levitsky and Way, 2010; Schedler,

<sup>&</sup>lt;sup>1</sup>This article uses autocracy, authoritarian regime and dictatorship interchangeably.

2013; Handlin, 2016, 2017). While closed regimes have no elected legislative or a single-party rule, competitive regimes allow for several parties to compete during elections. In contrast to this, hegemonic regimes typically install non-competitive multiparty systems which merely pretend pluralism while the regime maintains a strong grip on power (Brownlee, 2009). This article is particularly interested in how the leaders of hegemonic systems use language to justify and perpetuate their non-competitive multiparty regimes.

The findings of the article show that hegemonic regimes make use of a surprisingly democratic style of language to maintain the façade of simulating pluralism. The rhetoric strategy of talking like democrats and faking a participatory style of government helps them to promote elite cohesion, gain legitimacy and thereby prolong their rule. Contrary to Windsor et al. (2017, 9) who suggest that there is only little variation among authoritarian regime types concerning their use of formal language, I find that this linguistic strategy of hegemonic regimes is systematically different to the official communication styles in closed or competitive regimes: Although politically more open, competitive regimes talk less about democracy. The findings further reveal that the leaders of closed regimes hardly refer to democracy in their speeches.

The empirical examinations in this article compare the language of political leaders by applying quantitative and qualitative text analysis. Due to the general problems of data availability in autocratic regimes, the quantitative text analysis is limited to those autocracies which provide on their official websites a collection of translated English speeches delivered by their leaders. The text corpus for the dictionary-based logit scaling (Laver and Garry, 2000; Lowe et al., 2011) comprises 2,074 speeches of the leaders in 22 countries. The analysis focuses on autocracies but includes also a selection of speeches delivered by current leaders of democracies to better illuminate the differences between autocratic and democratic styles of language. The subsequent case studies are a qualitative and contextualized assessment of the language used by the leaders of hegemonic Uzbekistan, closed Saudi Arabia and competitive Russia to further highlight the rhetoric differences among autocrats.

The article proceeds as follows: The next section provides a conceptualization of autocratic and democratic styles of language. Subsequently, I elaborate on the simulation of pluralism as the defining feature of hegemonic authoritarianism and, based on this, formulate hypotheses for the analysis of the language of political leaders. After summarizing the major findings of the twofold empirical examinations, I consider alternative explanations for the results. The conclusion discusses broader implications of the findings and provides some recommendation for future research.

## 4.2 Autocratic and Democratic Styles of Language

Recent autocracy research highlights the importance of legitimation for the survival of authoritarian regimes (Gerschewski, 2013; Schneider and Maerz, 2017; Dukalskis and Gerschewski, 2017). Following a non-normative understanding of legitimation as the rulers' efforts to make the population *belief* in their legitimate authority (Weber, 2002), most of these novel contributions focus on this process of institutionalizing persuasion.<sup>2</sup> Language is a powerful tool in this regard and autocracies organize spectacular events for spreading the word of their rulers (e.g. Adams, 2010). In the age of the Internet, an increasing number of authoritarian regimes translate these speeches into English and publish them on shiny official websites to further strengthen their national and international legitimacy (Maerz, 2016).

Several contributions assess public discourses and the language of autocrats in one or a small number of cases (March, 2003; Megoran, 2008; Omelicheva, 2016; Maerz, 2017). However, there is only little research about the rhetoric of authoritarian regimes which is based on large quantities of texts. The recently expanded toolbox of quantitative text analysis provides innovative approaches for analyzing political texts (Grimmer and Stewart, 2013) - yet, this burgeoning literature has

<sup>&</sup>lt;sup>2</sup>Due to general problems of accessing reliable data in authoritarian settings and especially because of the issues of conducting surveys in such surroundings, measuring the actual amount of legitimacy belief among the population of authoritarian countries poses great difficulties. First attempts are Frye et al. (2017); Mazepus (2017) and Thyen (2017).

been mainly focused on democratic settings. Exceptions are Dowell et al.'s (2015) and Windsor et al.'s (2015) study of the language of Mao Tse-Tung, Fidel Castro, and Hosni Mubarak during natural disaster crises or Windsor et al.'s (2017) analysis of leaders' language and political survival strategies in the MENA region. By applying computational linguistic analysis, these contributions investigate about the leaders' mental constructs from a psychological perspective. Dowell et al. (2015) and Windsor et al. (2015), for example, illustrate how autocrats use more complex and formal language during crises in order to demonstrate authority and leadership strength. In addition, Windsor et al.'s (2017) analysis proposes that those leaders who use a more positive language and reduce blame and anxiety in their speeches have higher chances to survive times of political instability.

This article continues these first and fruitful explorations of how language can contribute to authoritarian persistence. Yet, as opposed to Windsor et al. (2017, 9) who suggest that different types of autocracies use similar language, I anticipate that there are crucial variations among autocratic regimes concerning their use of formal language - particularly if it concerns the leaders claims to legitimacy. First observations show that several autocrats apply a rigorously authoritarian style of language. They legitimate their authority by constantly emphasizing that they provide for stability, order, and unity. They stress traditional values and thereby justify their paternalist style of ruling, promote nationalism or - depending on the regime type - refer to religion and remind the people that they see themselves called by God. Yet, there seem to be other authoritarian leaders which attempt to talk like democrats. While it is rather obvious that they rule in an authoritarian manner, these leaders refer to their country as democratic and speak strikingly often about reforms and democratic institutions. It is the aim of the article to further illuminate these different rhetoric patterns and thereby contribute to a better understanding of the varying mechanisms of legitimating authoritarian rule.

To analyze the rhetoric strategies of political leaders, I broadly distinguish between autocratic and democratic styles of language. The general ambiguity of language poses challenges when defining such categories. Autocrats make use of

both concepts of language in varying degrees. The leaders of democracies also occasionally draw on rather autocratic categories of language - in particular populist and overly conservative ones. Therefore, measures of autocratic and democratic styles of language are fuzzy in this regard because they do not necessarily reflect the de-facto degree of authoritarianism or democracy. However, since this article does not aim at measuring degrees of authoritarianism but rather focuses on how different autocrats make strategic use of language, this twofold division is meaningful for the analysis.

Figure 4.1 illustrates the multilevel concept of language which I construct as a framework to study the language of political leaders. By following the basic guidelines of Goertz (2006) for concept formation, the two categories of the first level represent the mutually exclusive antipodes of autocratic versus democratic language. The second level contains more fine-graded categories to distinguish whether the political leaders emphasize autocratic or democratic procedures and illiberal or liberal ideological orientations. The key words in each of these subcategories further describe these concepts and serve as semantic orientation for building the dictionary for the analysis.

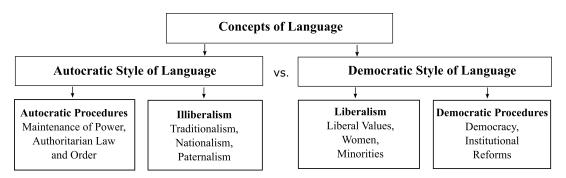


Figure 4.1: Autocratic and Democratic Styles of Language

The subcategory of autocratic procedures is emphasized by a comparatively frequent usage of terms which represent a strict and uncontested maintenance of power (e.g. defense, military, monarchy). Authoritarian law and order means, for example, that autocrats construct a discourse of danger which condemns opponents as "evil" and constantly threatens them with penalty, prosecution, and prison. Illiberal ideological orientations are expressed by overemphasizing tradi-

tional values, paternalism, and nationalism - typically done by a range of autocrats but currently also a distressing trend among Western right-wing populists. As opposed to this, the subcategories of a democratic style of language imply that political leaders stress liberal values, the rights of women and minorities or human rights in general, and speak about the (seemingly) democratic procedures and implemented reforms in their (authoritarian) country. The section on the construction of the dictionary further highlights the differences between these two styles of language and provides word examples.

Based on this concept of language, the dictionary-based analysis of autocratic and democratic styles of language in this article is a straight-forward assessment of how often and when political leaders emphasize certain political procedures and ideological orientation. In this sense, my text-analytic approach is similar to those quantitative text analyses which typically examine party manifestos and speeches in democracies to infer policy positions on a left-right scale (e.g. Laver and Garry, 2000; Laver et al., 2003; Lowe et al., 2011; Proksch and Slapin, 2012). Several of these left and right classifiers - particularly concerning liberal and traditional values - are also reflected in the concept of democratic and autocratic styles of language. Yet, due to the inclusion of autocratic settings, my analysis comes along with different assumptions about the intention of the speeches in authoritarian or democratic contexts.

One crucial difference between the speeches in democratic and autocratic contexts is that the latter follow a more distinct purpose of legitimation. Contrary to authoritarian regimes, the legitimacy of democracies relies on a range of concrete procedures and transparent processes and is not merely a façade controlled by the regime. The speeches of political leaders in democracies might also aim at strengthening the people's belief in the legitimacy of the government. Yet, their main intentions are to communicate diplomatic goals to an international audience or policy positions to potential voters and electioneer in a competitive struggle over political influence. Based on this, I argue that with decreasing degrees of electoral competition and growing authoritarianism, the leaders' speeches are less about policy positions and more about legitimating authoritarianism.

# 4.3 Simulating Pluralism in Hegemonic Regimes

This article classifies autocracies in competitive, hegemonic, and closed regimes. Compared to other regime classifications which are based on discrete data (e.g. Geddes et al., 2014; Wahman et al., 2013; Cheibub et al., 2010), this categorization refers to continuous data and helps to distinguish the fully closed regimes from their more open counterparts. As illustrated in Figure 4.2, hegemonic and competitive regimes are generally seen as sub types of electoral authoritarianism which is situated between democracy and closed autocracy. Closed autocracies have no elected legislature or rule with a single-party regime. Competitive regimes allow for at least a minimum amount of *real* competition during multiparty elections. Hegemonic regimes are frequently seen as a residual category which includes all those regimes which do not classify as competitive or closed autocracies (Brownlee, 2009; Donno, 2013). This article zooms in on hegemonic authoritarianism and provides deeper theoretical reflections and new empirical findings about how this hitherto rather under-studied regime type manages to survive.

Closed Autocracy	Electoral Autocracy		Democracy
	Hegemonic Regimes	Competitive Regimes	Democracy

Figure 4.2: Concepts of Political Regimes

If compared to competitive regimes, the most crucial difference and also defining feature of hegemonic regimes is that even though they hold regular elections, they do not allow for *real* electoral competition, hence there is no meaningful level of contestation (Brownlee, 2009, 524). Instead, they exhibit a hegemonic party system (Sartori, 2005, 205-206) which is either clearly dominated by the party of the ruling regime or an artificial arrangement of several satellite parties to *pretend* contestation and pluralism.

Cameroon's ruling party - called the People's Democratic Movement - is one example of a hegemonic party next to which officially allowed opposition parties have no real chance to compete (Pelizzo and Nwokora, 2016). Uzbekistan set up

several satellite parties which also have impressively democratic names - e.g. People's Democratic Party of Uzbekistan or the Liberal Democratic Party. At first sight, this multiparty system makes indeed the impression that the regime shares some of its power. Yet, at second sight, the agendas of these "government-friendly parties" hardly differ and it is rather evident that they have been installed by the regime as a farce while keeping full control over the party system and marginalizing any real opposition (Bader, 2009).

How do hegemonic regimes manage to maintain these toy parliaments and rubber stamp politics over longer periods of time? As recent contributions highlight, authoritarian rulers rely not only on repression but institutionalize sophisticated strategies of cooptation and legitimation to ensure their survival (Gandhi, 2008; Gerschewski, 2013; Schneider and Maerz, 2017). Beside strictly limiting civil and political rights, hegemonic authoritarian regimes use their non-competitive multiparty systems to co-opt elite groups. Engaging them in hegemonic or satellite parties makes these elites believe that they have a stake in the regime's survival.

To credibly promote the non-competitive multiparty systems as seemingly pluralistic institutions and make their authority look legitimate, I further argue that hegemonic regimes strategically use a democratic style of language. Speaking like democrats is one tool of legitimation which they use to disguise the fully-fledged authoritarian nature of the regime and sustain the illusory façade of pluralism. Thus, I expect to find an inflated use of democratic terms in the speeches of hegemonic regimes. Based on this, I formulate a first hypothesis for the analysis of the official communication of hegemonic, closed or competitive regimes.

H1: The leaders of hegemonic regimes use a democratic style of language in their official speeches.

Using democratic terms in their official speeches is not an exclusive characteristic of the leaders of hegemonic regimes. Yet, I assume that there are crucial variations in frequency and context of using such terms in hegemonic, closed and competitive regimes. I expect that the leaders of closed regimes hardly deploy

them in their speeches - simply because they do not set up non-competitive multiparty systems which need to be communicated as being democratic institutions. As their name says, these regimes are politically closed and I expect their rhetoric strategies to focus rather on legitimating their heredity lines and other autocratic procedures of power maintenance.

H2: Closed regimes hardly refer to a democratic style of language in their official communication.

Compared to hegemonic and closed regimes, competitive regimes are politically more open and closer to democracies. Hence, one could assume that the leaders of competitive regimes also use the most democratic style of language among all autocrats. Yet, I expect that the speeches of competitive regimes reveal less democratic terms than those of hegemonic regimes because competitive regimes invest not as much resources and rhetorical means in faking pluralism. I hold that they rather have to deal with the repercussions of allowing minimal amounts of real electoral competition and emphasize in their official communication those topics and policies which help them to maintain the status quo.

H3: The leaders of competitive regimes use less democratic terms than those of hegemonic regimes.

To empirically test these hypotheses, the different regime categories need to be operationalized. Recent literature on regime classifications engages with the challenges of distinguishing between competitive authoritarianism and early forms of democracy (e.g. Handlin, 2017; Bogaards, 2012). To avoid ambiguity, this article relies on the rather minimal definition of autocracy by Geddes et al. (2014, 317) which is based on the electoral process.<sup>3</sup> Concerning the borderlines between the three autocratic regime types, non-competitive multiparty systems are generally seen as a defining feature of hegemonic regimes (Sartori, 2005; Brownlee, 2009).

<sup>&</sup>lt;sup>3</sup>A regime is autocratic if (1) the executive achieved power by other means than fair, competitive and free elections, (2) the executive achieved power by fair, competitive and free elections but changed these rules afterwards or (3) the military prevents the compliance with these rules or changes them.

Yet, operationalizations of this regime type have been rather coarse and classified several regimes which simulate pluralism as closed or competitive regimes, as I explain in more details in Table D.1 in the Appendix. This Table further illustrates how I follow Brownlee (2009, 524) and make use of the DPI indicators on competitiveness in legislative and executive elections (Beck et al., 2001) but suggest two crucial refinements of the operationalization. The section about data and case selection provides further information about how many cases in each of these regime types the analysis refers to.

# 4.4 Comparing the Language of Political Leaders

## 4.4.1 Methods and Dictionary

I use quantitative and qualitative techniques of text analysis to examine the language of autocrats. Given the novelty of analyzing large quantities of speeches from authoritarian contexts, this mixed-method approach is most suitable and enables me to cross-validate the results. It is also in line with one of the basic principles of text analysis suggested by Grimmer and Stewart (2013, 4): Automated text analysis can augment, but not replace thorough reading of texts. The quantitative dictionary-based analysis of 2,074 speeches is preceded by the careful construction and validation of the dictionary and succeeded by qualitative case studies.

The dictionary comprises 241 terms and is based on the additive concepts of language in Figure 4.1: A democratic style of language is measured by word frequencies in the subcategories of democratic procedures and liberalism. The measurement of an autocratic style of language refers to the frequencies in the subcategories of autocratic procedures and illiberalism.

Generally, the dictionary consists of terms with as little ambiguity as possible. Some of the terms<sup>4</sup> were adopted from Laver and Garry's (2000) dictionary for

<sup>&</sup>lt;sup>4</sup>Laver and Garry's (2000) categories on institutions, law and order, values and groups were partly adopted and renamed. However, my dictionary does not include any economic terms because these terms are not explicitly autocratic or democratic (e.g. economic liberalism does not necessarily conform with political liberalism).

estimating policy positions from political texts. Yet, because the validity of a dictionary for quantitative text analysis is highly context-specific, I collected the large majority of the terms during the qualitative assessment of a stratified sample of speeches<sup>5</sup> - used as a pool of key words - and with the help of recent literature on legitimation patterns and official rhetoric in authoritarian regimes (e.g. von Soest and Grauvogel, 2017a; Maerz, 2017; Omelicheva, 2016; Pruzan-Jørgensen, 2010; Matveeva, 2009; Megoran, 2008). To validate the dictionary, I qualitatively checked the context of all codings in a sample of 110 speeches.<sup>6</sup> This robustness test allowed me to identify and exclude frequent negations and ambiguous terms and thereby ensure that the assigned terms in the dictionary do indeed measure the proposed concepts.<sup>7</sup>

Examples of those terms which measure the emphasize of democratic procedures include the stemmed words democra\*, election\*, fair\*, parliament\*, reform\*, transparen\*, or vote\*. The category on liberalism comprises evident terms such as free\*, liberal\*, tolera\*, but includes also words such as discriminat\*, authoritarian\*, or repressi\* which are typically used to demand for more civil and political liberties. Following this logic vice versa, anarch\*, chaos, destabili\*, and obscen\* or pervert\* are in the categories of autocratic procedures and illiberalism. Other terms for autocratic procedures are defen\*, protect\*, securit\* or stabil\*, for illiberalism discipline, moral\*, tradition\*, patriot\* or pride.8

#### 4.4.2 Data and Case Selection

This article studies the language of autocrats by looking at their publicly delivered speeches. A growing number of autocratic regimes sets up official e-government websites to propagate modernity and thereby gain national and international legitimacy (Maerz, 2016). The case selection for the analysis is guided, first, by the

<sup>&</sup>lt;sup>5</sup>I chose the most recent international and national speech in each case to grasp current terminology.

<sup>&</sup>lt;sup>6</sup>I randomly picked 5 per cent of the speeches in each case, excluding those taken as pool of key words.

<sup>&</sup>lt;sup>7</sup>I used Lowe's (2015) Yoshikoder for constructing and validating the dictionary.

<sup>&</sup>lt;sup>8</sup>The full lists of words in each category of the dictionary are available at: https://dataverse.harvard.edu/dataverse/sfm.

installation of such websites and second, by the number of the uploaded and officially translated English speeches of the regimes' current leaders. To qualify as selected case, there had to be at least 10 translated speeches on the website of the respective regime. This two-step procedure of case selection resulted in a collection of 2,074 speeches from the leaders of 22 countries, as shown in Table 4.1. The democratic cases were randomly selected by data availability. I included them primarily for illustration purposes and to contrast the language styles of democrats with those of autocrats. I also included Turkey and Hungary as so-called backsliding cases (Blockmans and Yilmaz, 2017; Greskovits, 2015) because I was curious whether and how their recent reverting to authoritarian practices is reflected in their official communication.

**Table 4.1:** Cases and Corpus of Speeches for the Analysis

0	T a	1	Fire	1 4	Ch
Case	Type <sup>a</sup>	Leaders	First	Last	Speechesb
Kuwait	closed	Sabah Al-Ahmad Al-Jaber Al-Sabah	2006	2015	128
North Korea	closed	Kim Jong Un	2012	2016	24
Saudi Arabia	closed	King Abdullah, King Salman <sup>c</sup>	2010	2016	63
United Arab Emirates	closed	Mohammed bin Rashid Al Maktoum	2000	2016	86
Azerbaijan	hegemonic	Ilham Aliyev	2010	2017	442
Cameroon	hegemonic	Paul Biya	2013	2017	51
Jordan	hegemonic	King Abdulla II.	1999	2017	100
Kazakhstan	hegemonic	Nursultan Nazarbajev	2007	2017	15
Singapore	hegemonic	Lee Hsien Loong	2010	2017	59
Tajikistan	hegemonic	Emomali Rahmon	2004	2017	68
Uzbekistan	hegemonic	Islam Karimov, Shavkat Mirziyoyev <sup>c</sup>	2010	2016	27
Malaysia	competitive	Dato' Sri Mohd Najib	2017	2017	13
Morocco	competitive	King Mohammed VI.	2012	2017	101
Russia	competitive	Vladimir Putin	2012	2017	325
Uganda	competitive	Yoweri Museveni	2011	2016	59
Hungary	backsliding	Viktor Orban	2014	2017	162
Turkey	backsliding	Recep Tayyib Erdoğan	2014	2017	39
Canada	democratic	Justin Trudeau	2015	2017	23
Denmark	democratic	Lars Løkke Rasmussen	2009	2017 <sup>d</sup>	55
Germany	democratic	Angela Merkel	2009	2017	64
Norway	democratic	Erna Solberg	2013	2017	122
Great Britain	democratic	Theresa May	2016	2017	48
Corpus					2,074

<sup>&</sup>lt;sup>a</sup> While some speeches were delivered in 2016 and 2017, the DPI indicators for the categorization of closed, hegemonic and competitive regimes (Beck et al., 2001, cf. Table D.1 in the Appendix) go only until 2015 - yet, none of the autocratic countries in this analysis significantly changed during the last two years.

<sup>&</sup>lt;sup>b</sup> Table D.2 in the Appendix provides the sources of the speeches.

<sup>&</sup>lt;sup>c</sup> The cases of Saudi Arabia and Uzbekistan include also several speeches of the new leaders since 2015 and 2016 because leadership succession was not followed by regime change.

<sup>&</sup>lt;sup>d</sup> The speeches cover Rasmussen's I., II. and III. cabinet (2009-2011 and 2015-2017).

<sup>&</sup>lt;sup>9</sup>The material of North Korea consists rather of letters than speeches - yet, remarkably, all available texts were translated in 9 different languages and published on the official website of the regime. The uploaded texts of Russia, Hungary and Great Britain include occasional interviews and dialogues or joint statements with other persons. These texts were filtered to get the leaders' statements only. Speeches uploaded in languages other than English were excluded.

Due to the general problems of data availability for authoritarian contexts, a rather obvious constraint concerning data selection is that the collection of speeches is limited to those which are made publicly available in English on the official website of authoritarian regimes. This could bear the potential of selection bias. One problem, for example, could be that it is only certain types of regimes, countries or leaders that install such websites and upload their speeches in English. However, as Maerz (2016) illustrates, the habit of maintaining professional websites to gain internal and external legitimacy is not a unique characteristic of one particular regime type but rather a general trend in modern authoritarianism. Moreover, also if alternative classifications of authoritarian regimes in military, monarchic or party-based types (Geddes et al., 2014, e.g.) are applied, there is no regular pattern observable. The same is true concerning types of leaders: the selected regimes are ruled by various kinds of leadership groups. While several authoritarian regimes which offer numerous speeches on their website are resourcerich countries, other regimes such as Uzbekistan and Tajikistan illustrate that such country-specific characteristics vary among the selected cases.

Beside this, another potential selection bias could be that it is only a certain type of speeches which are made available on the website of authoritarian regimes. Yet, as the mentioned robustness tests with a random sample of the selected speeches in each case have shown, the collection of texts is a diverse mixture of speeches delivered at various national and international occasions. Hence, they address either a national or international audiences (or both) and deal with a range of economic and political issues and are therefore representative for assessing the general language styles of political leaders.

The speeches are of varying number, length, and quality and cover diverging periods of time. Yet, while the summary of the findings provides confidence intervals for the estimated positions in each case, I broadly neglect these differences of range and time coverage for building the corpus because I assume that a regime consciously creates its "electronic face" and thereby controls its perceived image in the Internet. In this sense, the analysis captures a double process of le-

gitimation which addresses a national or international public (or both): the actual *text* of a speech delivered at some real-life national or international occasion and the subsequent *selection* of speeches published online by the respective regime. The corpus of 2,074 speeches<sup>10</sup> was cleaned of punctuation, numbers and separators. Words were set to lowercase and stemmed before the frequencies of the (stemmed) dictionary terms were counted.

#### 4.4.3 Statistical Model

To get from the "raw" counts of the dictionary application to a sound measurement of relative frequencies of autocratic and democratic styles of language, I adopt Lowe et al.'s (2011) spatial model of logit scaling. I chose this model because their approach has no pre-defined endpoints, accounts for the relative difference between opposed categories, works also well for aggregated categories and is generally superior to earlier methods of scaling, as the comparisons of Lowe et al. (2011) illustrate. They apply the model to measure the relative balance of policy positions on a left-right scale with a logistic function of word counts attached to the positive and negative (left and right) side of the dimension.

In this article, I assign the positive ends to democratic and the negative ends to autocratic styles of language. I denote the number of scores for democratic emphasis D and for autocratic emphasis A. The output  $\theta$  is an estimate of the position on the autocratic-democratic scale. Drawing on Lowe et al.'s (2011) empirical logit scale, this is defined as:

$$\theta^D = \log \frac{A}{D}$$

To improve the model structure, Lowe et al. (2011) add 0.5 to all counts. This is a standard statistical practice which can also be used as a measure to reduce bias in the case of estimating the proportions of categories. As explained by Lowe et al. (2011, 132), this makes particularly those estimates more stable which are derived

<sup>&</sup>lt;sup>10</sup>I collected all speeches with the help of web-scraping techniques, comprising several packages in R as explained in Munzert et al. (2015) and the 3.4.0 Selenium (2017) package in Python.

from rather small counts. The logit is therefore expressed as:

$$\theta^D = \log \frac{A + .5}{D + .5}$$

The application of the model in this article comes with three constraints. First, the resulting scale does not account for differences in the language of autocrats over time. Yet, this is rather a problem of data availability since there are simply not enough speeches available in each case for measurements per year. Second, the model does not account for the varying size of data in each case, influencing the robustness of the respective results. Thirdly, I expect the word frequency counts to be affected by random noise and other bias. Due to the latter two constraints, I adopt Lowe et al. (2011, 134) simple Bayesian approach of computing standard errors and confidence intervals for the estimates of  $\theta$ . Given that a standard Beta prior over the proportions of A and D words with parameters of  $a^A = a^D = a$  implies a posterior distribution over position, this is approximated for  $A+D \geq 10$  as:

$$\theta^D|A,D{\sim} \mathrm{Normal}(\mu,\sigma^2)$$
 
$$\mu = \log\frac{A+a}{D+a}$$
 
$$\sigma^2 = (A+a)^{-1} + (D+a)^{-1}$$

As Lowe et al. (2011, 134) explain, setting a=.5 corresponds to a symmetrical invariant Jeffreys prior, here over autocratic and democratic styles of language. This suggests the following 95 percent confidence interval:<sup>11</sup>

$$[\theta^D-1.96\sigma,\theta^D+1.96\sigma]$$

<sup>&</sup>lt;sup>11</sup>All operations were done in R (2017, v. 3.4.0.) with the quanteda (Benoit et al., 2017, v. 0.9.9.) and tm package (Feinerer and Hornik, 2017, v. 0.7-1.). The replication files are available at: https://dataverse.harvard.edu/dataverse/sfm.

## 4.4.4 Findings

#### **Quantitative Analysis**

Figure 4.3 illustrates the findings of the dictionary-based logit scaling of 2,074 speeches by political leaders from 22 countries. It shows the estimated position for each case on the scale of autocratic to democratic styles of language as negative to positive ends of both axes. Following the concepts of languages in Figure 4.1, the x axis measures the leaders' emphasis of liberalism or illiberalism, the y axis the leaders' emphasis of democratic or autocratic procedures. Similar to Medzihorsky et al. (2017, 6), I integrated the 95 percent region of the estimated confidence intervals as lightly-colored ellipses around each case.

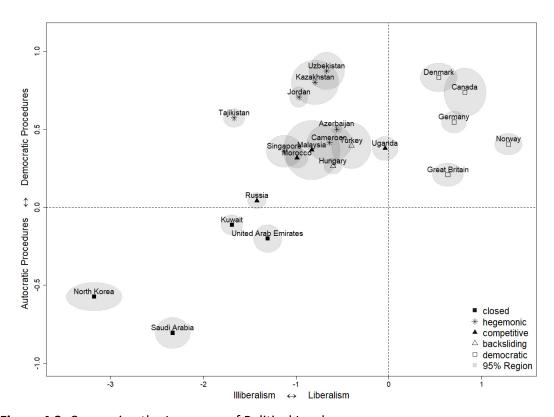


Figure 4.3: Comparing the Language of Political Leaders

It is striking that almost all hegemonic regimes in this analysis emphasize democratic procedures in a comparatively high degree. With the slight deviation of Singapore, they outperform all the other inspected cases of authoritarianism. Uzbekistan is at the very top of the scale, closely followed by Kazakhstan, Jordan and Tajikistan. Their scores of speaking about democratic procedures compare to those of democracies or even outrun them. Yet, a crucial difference is that the language of hegemonic regimes clearly accentuates illiberalism whereas the democrats in this analysis stress liberalism. While these findings confirm my first hypothesis and show that the leaders of hegemonic regimes overstate the talk about democracy, they also highlight that this language of democracy in non-democratic surroundings typically lacks elements of liberalism.

Regarding the closed regimes in this analysis, it is not surprising that in contrast to the other cases, they are all below the zero level of emphasizing democratic procedures or liberalism. This supports my second hypothesis: Intensively talking about democracy is neither a plausible nor a particularly effective strategic tool in the long-running monarchies of Saudi Arabia, Kuwait and United Arab Emirates. Also the isolated regime of North Korea seems to draw mostly on other rhetoric strategies. While Saudi Arabia has the highest scores in stressing autocratic procedures in its official communication, it is North Korea which makes use of the most illiberal language in this analysis.

The findings concerning the competitive regimes in this analysis suggest that their leaders are also talking about democracy - yet, as assumed in the third hypothesis, in more moderate dimensions. Uganda, Morocco, and Malaysia show average performances concerning the democratic procedures dimension. Due to a comparatively small amount of speeches from the current Malaysian prime minister Dato' Sri Mohd Najib, this distinct case of competitive authoritarianism<sup>12</sup> is based on a relatively coarse estimate. Yet, the more robust findings for Russia - the other typical case of competitive authoritarianism in this analysis - suggest that Putin is hardly talking about democratic procedures or liberal values if compared to hegemonic regimes. This is a counter-intuitive finding because hegemonic regimes are generally more closed, isolated and often also more repressive than competitive regimes.

<sup>&</sup>lt;sup>12</sup>Malaysia and Russia score 7 in both DPI indicators and are therefore considered as typical competitive regimes (Beck et al., 2001, cf. Table D.1 in the Appendix). Uganda and Morocco are rather borderline cases: Uganda scores 6 in the legislative and 7 in the executive elections indicator but is generally considered as competitive (Levitsky and Way, 2010, 32). Morocco has low scores in the executive elections indicator due to its monarchic nature, yet, allows for competitive legislative elections which are not based on a satellite party system (score of 7 and Stepan et al., 2014).

The democratic cases in this analysis score as one would expect for the speeches delivered by the leaders of consolidated democracies: situated in the positive area of both axes, they speak explicitly of democratic procedures and stress liberal values. Interestingly, the two backsliding cases of Hungary and Turkey deviate from this pattern. Their reverting to less open forms of government manifests in the speeches of Viktor Orban and Recep Tayyib Erdoğan with illiberal styles of language which are similar to those of several authoritarian regimes.

It is generally noticeable that illiberalism outweighs in all of the observed authoritarian regimes. While Uganda is the only case which is closest to positive scores on liberalism, Juche-driven North Korea and religious Saudi Arabia have strikingly negative values on this dimension. Furthermore, all regimes - also the closed ones - perform better in emphasizing democratic procedures than speaking about liberal values. This indicates that autocrats feign less about freedom, openness, equality and transparency but rather speak about seemingly democratic elections and reforms in their country. One reason for this could be that it is much more challenging to fake liberalism in illiberal surroundings. Hence, the illiberalism-liberalism scale can be seen as a rough predictor of authoritarianism and democracy, while the scale of democratic versus autocratic procedures points to the hypocritical cases of hegemonic authoritarianism which vapor about democracy while perpetuating a full-blown authoritarian rule.

#### **Qualitative Analysis**

The qualitative analysis have the purpose to further illustrate the difference in language styles among autocrats by looking at the context of frequently used terms in the official communication of Uzbekistan, Saudi Arabia, and Russia. I chose these cases because they represent each of the authoritarian regime types: Uzbekistan is a hegemonic regime, the monarchic regime of Saudi Arabia is politically closed, Russia holds regular elections which are generally considered as (minimally) competitive (Beck et al., 2001; Hyde and Marinov, 2012). The analysis assesses excerpts of the regimes' speeches with the help of Yoshikoder's key-word-in-context

tool (Lowe, 2015). This tool extracts for each term of the dictionary the five precedent and subsequent words in the respective texts, allowing to access the background of recurring terms and, based on this, select relevant text passages for further inquiries.

#### The Language of Democracy in Hegemonic Uzbekistan

Authoritarian Uzbekistan refers remarkably frequent to democratic procedures in its official communication. The qualitative analysis provides details about this intense rhetoric boasting of democracy in national and international speeches. Islam Karimov, the long-running but last year deceased president of independent Uzbekistan, constantly stresses in his speeches the regime's apparent aim of building a democratic state, intensifying the democratic transformation and "consolidating democratic values in the minds of the people". However, similar to the justification patterns in other post-Soviet regimes (Roberts, 2015a, 154), he keeps pointing out that the country follows its "own model of democratization," dispelling any critique about the failure to achieve this goal. After the death of Karimov in 2016, the regime managed a smooth leadership succession and installed Shavkat Mirziyoyev as president. Loyal to his predecessor, he praises the democratic reforms which have been apparently accomplished under Karimov's rule and likewise claims to be committed to "building a free, democratic, humane state."

Another iterative element in the official communication of the regime is the alleged democratic electoral process. Both leaders talk about their "meetings with voters" and thereby pretend a citizen-orientated style of governance. Political parties in Uzbekistan exist at the pleasure of the president, share similar agendas and have no real influence in the personalist regime (Beacháin and Kevlihan, 2015; Bader, 2009). Yet, both leaders claim the elections to be guided by democratic principles. Despite the ridiculously high election outcomes of the last decades (Beacháin and Kevlihan, 2015, 501), the regime speaks of competitive campaigns.

<sup>&</sup>lt;sup>13</sup>All direct and indirect citations from the speeches refer to the corpus of texts for each case. The Appendix provides the sources for the text corpora.

Mirziyoyev comments for the most recent electoral results that "all foreign observers openly and unanimously acknowledged that the elections were conducted in the atmosphere of sound competition and struggle among political parties." This statement is in sharp contrast to the OSCE's final report about these elections which repeatedly finds a lack of competitiveness and lists a plethora of serious concerns about undue limitations on fundamental freedoms of expression, association and assembly during the electoral process (OSCE, 2016, 1-2). However, as also boldly reported in local newspapers (Tashkenttimes, 2016), other international organizations such as the Shanghai Cooperation Organization (SCO), known for promoting authoritarian norms in Central Asia (Ambrosio, 2008), support this pretense of democracy.

Repeatedly using a few selected terms such as "democratic," "free," and "liberal" is a striking characteristic of Uzbekistan's linguistic strategy. Both presidents apply these buzzwords with great formulaicity - as if the mantra-like repetitions would belie the national and international audience about the fact that Uzbekistan is neither a democratic nor a liberal country and, as the past decades have shown, has also not been en route of becoming one.

While the Uzbek regime strategically uses these buzzwords to simulate democratization and a participatory style of government, its leaders also apply a rather illiberal language. National values and traditions and the spiritual heritage of the Uzbek people are recurring motives. Furthermore, there are frequent references to the country's "centuries-long history" and famous figures claimed to be the glorious ancestors of the Uzbek people (e.g. Amir Timur). As already assessed in great detail in other contributions (Kurzman, 1999; March, 2002; Maerz, 2017), such historic reinterpretations and inventions of a long-standing Uzbek nation-hood<sup>14</sup> serve the regime to foster national consciousness, patriotism, and unity among the people living in post-Soviet Uzbekistan. The regime claims legitimacy for its "great leadership," often equated with Amir Timur's heroic qualities, by highlighting Uzbekistan's stability and contrasting it to the unstable conditions

<sup>&</sup>lt;sup>14</sup>The country of Uzbekistan as such has actually a rather short history, cf. Baldauf (1991).

in neighboring countries. Strict border controls and other means of repression are justified by security needs and the assurance of "not allowing any evil to the country's doorsteps." Combining empty phrases about democratization with such patterns of power maintenance further unmasks the Uzbek presidents' double tracked strategy of speaking like democrats while upholding a strictly authoritarian rule.

#### The Closed Regime of Saudi Arabia

The speeches of Saudi Arabia's leaders are among the most authoritarian if compared to the rhetoric styles of the other cases in this analysis - both in terms of stressing illiberalism and speaking about autocratic procedures. In contrast to the official communication of hegemonic Uzbekistan, the closed regime uses the terms "democratic" or "democracy" not even once in any of the 63 speeches collected for the analysis. Although Saudi Arabia allows for regular municipal elections, the leaders mention these elections only twice in the assessed material, indicating their insignificance for shaping the politics of the country. Other terms emblematic for a democratic style of language are barely used: "free" appears neither often nor in terms of freedom in the country but rather in the context of Saudi Arabia's international demands such as "establishing a free and independent state of Palestine" or making "the middle east free from atomic weapons." "Liberalization" is mentioned only once in economic contexts, the term "liberal" does not occur at all. It is obvious that King Abdullah and King Salman avoid terms with a strong connotation of democracy and use more innocuous words and platitudes such as "peace," "harmony" and "friendship." Yet, also such sporadically applied terminology is outweighed by the frequent use of those words in this article's dictionary which represent an autocratic style of language.

Religion and the authority of the royal family are recurring topics in the official addresses of the long-standing Islamic monarchy. <sup>15</sup> While Uzbekistan - also a coun-

<sup>&</sup>lt;sup>15</sup>Robustness tests have shown that also without including such religious and monarchic terms in the dictionary, Saudi Arabia still outperforms most of the other cases in terms of an autocratic style of language.

try in which the majority of the people is Muslim - rarely refers to "Allah" or "Islam" in its official communication, these and other religious words are among the most frequently used terms in the speeches of Saudi Arabia. As perpetual formulas, both monarchs remind the people in their speeches that they see themselves called by God and led by his will. Other prominent subjects are the country's stability, security in the region and national unity. Sedition calls are considered evil and the people are constantly urged to preserve this unity.

In most of the official speeches of the Saudi kingdom, women are neither addressed nor mentioned. Although for the first time in Saudi Arabia's history women were allowed to run for office during the municipal elections in 2015, they are still subject to a deep-rooted exclusion in Saudi Arabia (Al-Rasheed, 2013). The absence of women in various spheres of life might also explain why in the majority of the speeches, the kings address their audience merely with "dear brothers" and have only recently started to speak occasionally of "brothers and sisters." Despite these and other minimal signs of opening (Le Renard, 2014), Saudi Arabia remains one of the politically most closed regimes in the world. Confirming my second hypothesis, the analysis of its official communication illustrates that the country is also linguistically ruled in a very authoritarian and unprogressive style.

#### The Competitive Regime of Russia

The analysis of the speeches delivered by Vladimir Putin during his current term of office as president of Russia (2012-2017) demonstrates that there is a slight prevalence of talking more about democratic than autocratic procedures. Yet, at the same time, Putin makes use of a comparatively illiberal style of language. The contextualized examination of the texts reveals that while Putin speaks about cultural and ethnic diversity in Russia and describes the country as open and self-respecting, he is also emphasizing traditional values, nationalism and paternalism. Compared to the other cases of authoritarianism, the president's references to the military are remarkably frequent. "Russia's glorious military traditions," its academies, skills, achievements, and latest technologies are overly praised. The

"Great Patriotic War" (WW II) is a recurring topic, the memory about its heroes and sentences like "Russia will always remain invincible" are to endow patriotism, national pride and unity among the people. Other frequent terms are "defend," "Russia's strength" and "stability." These terms are often mentioned in the context of fighting "illegal drugs and migration," "trafficking" and other crimes. Similar to Uzbekistan, the regime is depicted as protector from such threats, legitimizing the strict and repressive policies and measures in this regard.

Concerning democratic procedures, the most salient difference to the rhetoric strategy of hegemonic Uzbekistan is that while Putin talks about recent elections or requires to fight corruption and improve justice and transparency, his speeches broadly lack the cant about the great aim of building a democracy. Indeed, if compared to the Uzbek speeches, the terms "democratic" or "democracy" appear only occasionally, <sup>16</sup> indicating that speaking about democracy is not deemed to be an efficient legitimation strategy for the Russian regime.

One reason for why Putin is rarely applying the terms "democratic" or "democracy" could be Russia's short but resonating experiences with some forms of democracy under the presidency of Boris Yeltsin during the early 1990s. While the Russian constitution adopted in 1993 did not stipulate for today's superpresidentialism, it provided the environment for creating such a large presidential apparatus. As a consequence, the early forms of democracy in Russia were more and more identified with one single person (Fish, 2005, 217). Yet, this also meant that the failures and declining popularity of Yeltsin were accompanied by a growing public skepticism about democracy. As Fish (2005, 224-225) writes, for many Russians the term "democrat" even became a curse word at that time.

Another, more general explanation for why the Russian regime is not excessively using the vague telos of democracy could be that the at least minimally competitive surroundings and de facto existing oppositional forces in the country push the president to talk about concrete policies and agendas. To win the highly asymmetrical but nevertheless existing struggle over political popularity and le-

<sup>&</sup>lt;sup>16</sup>In the 27 speeches of Uzbekistan, the root "democra-" is mentioned at least 44 times. In the significant larger amount of Russia's speeches (325), it appears only 37 times.

gitimacy, he rather stresses the successful performances of the regime and the strength of existing institutions. Naturally, this includes also the propagation of his own institution - the well-established and non-democratic system of Putinism (Fish 2005, Chapter 8.3, Laqueur 2015).

# 4.5 Alternative Explanations

There are several aspects which could serve as alternative explanations for the findings of this article. For example, beside the applied regime categories of closed, hegemonic, and competitive regimes, other regime classifications, e.g. based on discrete data such as Geddes et al. (2014), have to be considered. One question in this regard would be whether it is rather the party-based, personalist, military or monarchic nature which explains why some authoritarian leaders intensively speak about democracy while others make use of an authoritarian style of language. Yet, for the cases observed in this analysis, such categorizations do not bring meaningful insights: While some monarchic regimes stress illiberalism and autocratic procedures, others stick out with legends about democracy. Similar contradictions are to be found for the other categories.

Authoritarian diffusion (e.g. Lankina et al., 2016) as an international factor could also explain why several authoritarian regimes strategically use the telos of democracy while others apply different linguistic tactics. Indeed, some of the high-performing cases of hegemonic regimes share similar historical experiences and geopolitical proximity. Yet, tracing the subtle processes of diffusion is methodologically challenging. In addition, such diffusion effects alone cannot explain why North Korea and Saudi Arabia make use of a particular illiberal rhetoric and hegemonic regimes of different regions apply similar styles of democratic language.

As another international aspect, the variation in language styles among autocrats could be rather a question of whether or not the respective regimes have strong linkages to Western democracies. Such linkages generally include the various efforts of the West to promote democracy in these countries. Hence, this would suggest that particularly those autocratic regimes which are targeted by these programs make strategic use of a democratic style of language to pretend democratization and keep up the financial support and other benefits of these programs (Bastiaens, 2016, 141). However, while several of the hegemonic regimes in this article have been indeed the target of Western democratization efforts, the strength and mutual support for this linkages vary. Furthermore, current trends among some of these regimes (e.g. Uzbekistan or Tajikistan) to strictly restrict or even expel Western NGOs from their countries have been further weakened these linkages (e.g. Ziegler, 2016; Dupuy et al., 2016).

Beside this, factors such as a recent leadership change or even a regime downfall could also influence the choice of language style in the officially delivered speeches by these countries. Yet, the authoritarian regimes in this analysis are mostly persistent and, as the case studies have illustrated, leadership changes in Uzbekistan or Saudi Arabia have not significantly changed their democratic or autocratic language style. Furthermore, it is striking that those hegemonic regimes which intensively talk about democratic procedures and institutional reforms endure already for several decades (e.g. Tajikistan, Kazakhstan, Uzbekistan, Jordan). This indicates that the leaders of these autocracies deem the rhetoric strategy of legitimating their non-competitive multiparty system with a possibly democratic style of language as efficient.

### 4.6 Conclusion

This article examined autocratic and democratic styles of language by analyzing 2,074 speeches of political leaders from 22 countries. In addition, I conducted a contextualized and more fine-graded analysis of speeches delivered by the leaders of hegemonic Uzbekistan, closed Saudi Arabia and competitive Russia. While many of the recent contributions to modern autocracy research study the phenomenon of competitive authoritarianism, the main focus of this article was on hegemonic regimes and the simulation of pluralism as one of their key survival strategies.

The analysis inquired whether this strategy of facilitating elite cohesion and gaining legitimacy is also reflected in the official rhetoric of hegemonic regimes. In this regard, I found evidence for my hypothesis that the leaders of hegemonic regimes use a democratic style of language. Compared to the other cases in this analysis, most hegemonic regimes even seem to overemphasize democracy and democratic procedures in their speeches to feign a clearly non-existing system of pluralism. Yet, as a crucial difference to leaders of democracies, the findings illustrated that this democratic language style of hegemonic regimes broadly lacks elements of liberalism. The reasons for this could be that speaking about liberal values in illiberal surroundings is not of strategic value for the hegemonic regimes when formulating claims to legitimacy in front of a national or international public. While the constant talk about seemingly democratic procedures and institutional reforms is deemed effective, a mock about diversity, openness, and transparency seems to be a much less convincing tool for the leaders of hegemonic regimes. In contrast to this linguistic tactic of hegemonic regimes, the findings showed that the leaders of closed regimes hardly talk about democracy. The results further suggest that also competitive regimes have less aspirations of using a democratic style of language in their official communication.

One constraint of the analysis in this article is the limited amount of cases in each of the three authoritarian regime types. Quantitatively assessing large numbers of speeches delivered by autocrats is a new sub field of autocracy research and this study is rather exploratory. It points to crucial differences concerning the linguistic strategies of autocracies - yet, particularly the findings for competitive regimes need to be tested in a larger amount of cases to further generalize them. Thus, future research needs to find better and more far-reaching methods of data collection for the quantitative analysis of the language of autocrats. Instead of referring to merely those cases of authoritarian regimes which upload English translations on their official websites, improved natural language processing (NLP) and new text mining tools could help to include more cases and sources in multiple (non-European) languages.

The article discussed alternative explanations and illustrated that while some of the international factors might partly contribute to different language styles among authoritarian regimes, the observed variations suggest that regime-level features override other aspects. However, another task for future research would be to further scrutinize the (reciprocal) effects these language styles have on the international level - particularly the language of democracy used by the leaders of hegemonic regimes. Thus, do they indeed gain legitimacy among the international audiences addressed in their speeches? In this regard, it would be fruitful to further disentangle the international from the national speeches. While this analysis traced democratic terms in both kinds of these speeches, a more fine-graded differentiation of the rhetoric styles and applied formulaicity is needed. Further accounting for such language-specific aspects when dealing with hegemonic leaders would help Western democracies and the policy community at large to better identify whether their financially-strong efforts of promoting democracy nurture fake democratic institutions to consolidate authoritarianism or real progress to more open forms of governments.

# **Concluding Remarks**

This dissertation explored different strategies of autocratic power maintenance in modern authoritarianism. As an overarching framework for the various analyses, the dissertation conceptualized the hexagon of authoritarian persistence. This model is based on the assumption that only the combination of various forms of repression, cooptation, and legitimation ensures autocratic survival. Synthesizing recent contributions in the field, these different forms are conceptualized as repression of physical integrity rights, repression of civil and political rights, cooptation as compensating vulnerability or as simulating pluralism, and specific and diffuse support of legitimation. Each of the four studies of this cumulative dissertation illuminated single aspects of these fundamental principles of autocratic rule. Furthermore, they collectively highlighted how authoritarian regimes rely on very different sets of strategies to prolong their rule.

In this concluding chapter, I first summarize the theoretical, methodological and empirical contributions of the four studies by looking at legitimation as one aspect of autocratic rule and major focus of the inquiries. Secondly, I show how the overall findings of my empirical analyses outline a novel and multifaceted picture of autocratic survival: the many faces of authoritarian persistence. After explaining some challenges and limitations of the research in this dissertation and discussing alternative explanations, I consider broader implications of my results and point to several avenues of future research.

## **Novel Forms of Legitimating Authoritarianism**

The inquiry about how authoritarian regimes legitimate their rule has been in many ways the starting point for the research in this dissertation. The relationship between autocratic rulers and the population at large appeared to me as highly interesting research topic while I conducted field work in several of the Central Asian countries. By encountering everyday life under authoritarian conditions, I was puzzled by the great popularity of the despotic, ruthless, brute and often megalomaniac rulers in this region. While this is certainly not true for all parts of the population, I frequently talked with people who obviously *believed* in the legitimate rule of the dictators running their countries. Due to extreme censorship and other strict limitations of civil and political rights, the heavy propagation of such legends of legitimacy is unrivaled and therefore less surprising in isolated regimes such as North Korea and Turkmenistan under the rule of Saparmurat Niyazov (1990-2006). Yet, in light of an increasing globalization and the diffusion of the Internet, modern autocracies are pushed to find new and more subtle ways of gaining legitimacy.

This dissertation examined several of these novel strategies of legitimation in great detail and thereby significantly contributed to the nascent strand of literature on legitimating authoritarianism, as outlined in the introduction (e.g. Gerschewski, 2013; Ahrens et al., 2015; Kailitz and Wurster, 2017; Dukalskis and Gerschewski, 2017; Dukalskis, 2017).

The first study looked at how different authoritarian regimes make use of the Internet to strengthen their rule. The qualitative assessment of e-government platforms in Turkmenistan, Uzbekistan, Kazakhstan, and Russia pointed to crucial differences between competitive and non-competitive regimes in this regard. By proposing a new concept of e-government in autocracies, the study illustrated that while non-competitive regimes use their official websites primarily to gain external legitimacy, the platforms of competitive regimes serve also as tools for gaining internal legitimacy. Beside its theoretical contribution, the added value of this study is also empirical since assessments of e-government in autocracies have been scarce.

Along with other contributions published in a special issue on legitimation strategies in autocracies (edited by Kailitz and Wurster, 2017), the second study, co-authored with Carsten Q. Schneider, illustrated that claims to legitimacy are indeed relevant for the stability of autocratic regimes. The study tested Gerschewski's (2013) three pillars of stability in the context of electoral regimes. While earlier applications of the model looked at the effects of the pillars in isolation of each other by using regression analysis, this study argued that any test of the pillars needs to account for their joint effects. Using fuzzy-set Qualitative Comparative Analysis, the study explored new methodological avenues. The findings revealed that while legitimation alone cannot stabilize autocracy, it unfolds its effects in combination with the other pillars.

Based on the second study's explorations of how repression, cooptation, and legitimation conjointly affect autocratic stability in electoral regimes, the third study continued this investigation into survival strategies of autocracies in general. As the major theoretical contribution of this dissertation, it conceptualized the hexagon of authoritarian persistence. In contrast to Gerschewski's (2013) three pillars, the hexagon is rooted in set theory and able to reflect the diverse combinations of survival strategies in persistent autocracies of any type. Empirically, the fuzzy-set Qualitative Comparative Analysis of the third study provided a more fine-graded picture on how authoritarian regimes manage to survive.

After the second and third study focused on several aspects of autocratic rule at once and made rather general claims about the relevance of legitimation for the survival of autocracies, the last study returned to a detailed assessment of one crucial factor of legitimating authoritarianism. By using techniques of quantitative text analysis to assess 2,074 speeches of current autocratic leaders from 22 countries, this study showed how hegemonic regimes overemphasize democratic procedures in their official communication to back their cooptation strategies of simulating pluralism. Methodologically enriched by a qualitative analysis of selected speeches, the study further illustrated that this rhetoric strategy of legitimation is different to the styles of language in closed and competitive regimes.

## **How Authoritarian Survival Strategies are Combined**

The four parts of this dissertation offered detailed insights from methodologically different angles into the patterns of legitimating authoritarianism. Yet, the contribution of this dissertation goes beyond the in-depth study of legitimation. Thus, the second and particularly the third study illuminated how the interplay of legitimation, cooptation and repression affects authoritarian persistence. Furthermore, the conceptualization and empirical application of the hexagon illustrated that the endurance of authoritarian regimes is not necessarily linked to stability and can take different, sometimes rather unstable forms. The core concepts of the hexagon are repression of civil and political rights, repression of physical integrity rights, cooptation as compensating vulnerability or simulating pluralism, and specific and diffuse support of legitimation. As one major finding of this dissertation, the third study presented five different combinations of these strategies which all stipulate authoritarian persistence and thereby offered a more fine-graded perspective on autocratic survival.

The first configuration of the hexagon - called hegemonic - suggested that authoritarian regimes combine cooptation as simulating pluralism, diffuse legitimation and repression of civil and political rights as their key survival strategy. Typically, these regimes set up fake multiparty systems and toy parliaments and, as illustrated in the fourth study of this dissertation, legitimate these rubber-stamp politics by attempting to speak like democrats.

Other persistent autocratic regimes intensively refer to their achievements and high performance to gain the trust of their people. To maintain full control, they combine this usage of specific support of legitimation with a strict limitation of civil and political rights. These are mostly resource-rich countries which have the capacities to allure the population with socio-economic services. I have called this second configuration of the hexagon performance dependent.

The empirical application of the hexagon further suggested that while many authoritarian regimes violate physical integrity rights, not all of them seem to really need this hard form of repression in order to stay in power. Indeed, it is only the so-

called rigid regimes which rely on both forms of repression. Yet, also for them, this strategy of autocratic power maintenance is costly because terrorizing and intimidating the population is not only financially wearing but fosters also mistrust and thereby increases informational and institutional uncertainties (Schedler, 2013). Particularly those regimes which allow for (minimally) competitive elections but also excessively use both forms of repression further deepen these uncertainties and risk uprisings and an empowerment of the opposition.

Some authoritarian regimes make use of most or even all the six strategies of the hexagon in order to survive. Yet, the findings in the third study of this dissertation proposed that this, especially the usage of both forms of cooptation, is an unnecessary squandering of resources. Such overcompensation nurtures a kleptocratic elite which is why this fourth and empirically rather rare combination of strategies is another unstable configuration of the hexagon.

By combining one of the cooptation strategies with both forms of legitimation, the last configuration of the hexagon, called adaptive, suggested that these regimes are more flexible because they largely avoid the risks and costs of harsh repression. They rather make strategic use of seemingly democratic institutions, the new information technologies and other more subtle control mechanisms such as electoral fraud and censorship. Given the challenges our increasingly globalized and interconnected world poses to autocratic rulers, the regimes which rely on this combination of strategies seem more adaptive and therefore comparatively robust.

## **Limitations and Alternative Explanations**

Generally, research in authoritarian settings is challenging and often constrained by a rather poor data availability and the problem of preference falsification (Roller, 2013). In many ways, this is also true for the four studies presented in this dissertation. More specifically, there are at least three major limitations which have to be acknowledged. First, assessing legitimation in authoritarian contexts is methodologically challenging, as already discussed in the introduction of this dissertation.

The analyses in this dissertation were faced with the difficulty of finding valid indicators for the degrees of legitimacy in authoritarian regimes. In democratic settings, survey data and interviews are used to estimate how much the population actually beliefs in the legitimate rule of the government. Yet, if existing at all, survey data collected in autocracies normally suffers from insufficient reliability. Furthermore, conducting interviews in autocratic settings can bear serious risks (Gentile, 2013) and is scientifically problematic since the respondents might fear the consequences of sharing their true beliefs. Against this backdrop, the four studies in this dissertation are limited to an indirect way of measuring legitimation. By referring to Weber (2002) and Easton (1965), the concepts of specific and diffuse support of legitimation focus on a regime's claims to legitimacy instead of the actual result of the legitimation process. Thus, the empirical measurements here are constrained by the assumption that an autocratic country's population considers the regime as legitimate if the regime provides effectual stimuli for specific and diffuse support. Apart from this, the second study in this dissertation could only refer to proxy indicators of specific and diffuse support (GDP growth, infant mortality rate, protests of population and elites) in order to empirically test Gerschewski's (2013) three pillars. While the third study was able to make use of von Soest and Grauvogel's (2017a) novel expert survey on legitimacy claims in autocracies, also this data is limited in terms of empirical scope and time sensitivity.

Second and connected to this, the analyses in this dissertation do not account for change over time. Due to the problems of finding reliable and valid indicators of legitimation which span over time but also because fuzzy-set Qualitative Comparative Analysis has difficulties to deal with time (Schneider and Wagemann, 2012, Chapter 10.3), the findings presented here illustrated general tendencies in authoritarian regimes but could not reflect how a regime's combination of survival strategies is adjusted over the years or in times of crises, for example. While the introduction of this dissertation outlined a theory of gradual institutional change in authoritarian settings, the empirical inquiries have been constrained in terms of accounting for the effects of these incremental institutional adjustments on authoritarian persistence.

Third, the research presented in each of the four studies is mostly qualitative and highly case orientated. The overall inquiry started with the assessment of four cases (first study) and concluded again with case studies (second part of the last study). This enabled thorough analyses of single mechanisms and also helped to cross-validate some of the more general findings of this dissertation on legitimation. However, while it allowed for more refined perspectives, one trade off is that the findings are limited to the cases studied in the analyses. In addition, also the results of the other studies, referring to up to 62 cases of authoritarian regimes, would need to be tested in a larger amount of cases before they can be further generalized. More generally this means that the hexagon needs to be tested in a larger set of cases. This would also illustrate whether the five configurations of the hexagon presented in this dissertation are collectively exhaustive or if those persistent regimes which could not be included into the analysis reveal other combinations of strategies.

Given these limitations, alternative explanations for this dissertation's findings have to be considered. While several of the studies have already discussed other perspectives of how to explain some of the individual findings such as the rise of e-government in autocracies or the strategic use of a democratic style of language, I reflect here on more general accounts of interpreting the longevity of authoritarian regimes.

Regarding the challenges of measuring legitimation, for example, one could argue that the analysis of legitimacy *claims* does not illustrate that it is indeed the belief of the population in the legitimate authority of a regime which contributes to its persistence. Similar to Marquez's (2016) critique, this would imply that legitimation is irrelevant for explaining autocratic survival - at least as long as its measurement is not directly reflecting the amount of institutionalized persuasion. In addition, a regime's attempts of gaining the support of the people could rather be seen as one aspect of cooptation, supporting the mentioned approaches in current autocracy research which do not analyze legitimation as an individual and crucial factor of autocratic rule (e.g. Gandhi, 2008).

While such a rather parsimonious explanation of authoritarian endurance might sound theoretically compelling and methodologically also more feasible, the second and third study in this dissertation clearly illustrated that the amount and nature of autocratic claims to legitimacy does make a difference for the persistence of the regime. Furthermore, this dissertation draws a clear line between these claims to legitimacy and the concept of cooptation. The efforts of a regime to gain legitimacy address the population at large. In contrast to this, cooptation refers to the strategic ties a regime maintains to a small circle of influential elites which is why these two concepts should not be confused.

Due to this dissertation's limitations of accounting for the changing configurations of the hexagon over time and generalizing the results beyond the assessed cases, there is the possibility that the analyses overlooked other or additional factors of authoritarian persistence. Typically, structural aspects such as the varying size of the autocratic countries, natural resources or the differing degrees of economic development could be brought forward. Such factors certainly have their share and also determine a regime's capacities to make use of the various forms of repression, cooptation, and legitimation. However, none of these aspects alone explain authoritarian survival. As the empirical explorations in this dissertation showed, persistent authoritarian regimes do not all share abundance in natural resources or economic progress but ensure their survival under very different combinations of conditions. Having said this, there could be still other aspects which might significantly contribute to stabilize authoritarian rule in one or several cases not included in the analyses of this dissertation. For example, international factors such as authoritarian diffusion (Lankina et al., 2016) can impact a country's political nature. While the hexagon of authoritarian persistence broadly accounts for such external influences by illustrating the regimes' varying capabilities of applying repression, cooptation, and legitimation, post-QCA case comparisons as discussed in the third study of this dissertation could provide deeper insights and point to crucial factors which might have been omitted in the analyses.

### **Broader Implications of the Findings and Future Research**

Generally speaking, the findings in this dissertation illustrated that authoritarianism seems to get smarter and uses more and more sophisticated methods of ensuring its survival. This poses a range of new challenges - not only for the field of autocracy research but also for the Western policy community at large.

The empirical application of the hexagon of authoritarian persistence high-lighted that there is a type of modern autocracies - called adaptive - which largely avoids severe repression. This, in turn, makes these regimes more flexible. First, because they spend less resources on a costly system of hard repression. Second, because they are less exposed to the risk that the broad application of harsh coercion backfires and alienates the population, resulting in serious crises of legitimacy. Due to this flexibility and also because they apply various kinds of more subtle repression and combine them with highly sophisticated ways of cooptation and legitimation, these regimes appear particularly robust and seem trendsetting in modern authoritarianism.

A typical case which displays the adaptive configuration is the Kazakh regime under Nursultan Nazarbayev. While there have been instances of severe repression (e.g. the Zhanaozen massacre in 2011), they occur rather infrequently. Yet, civil and political rights are still widely restricted (Human Rights Watch, 2017a). Noteworthy are also the many efforts the regime puts in gaining both specific and diffuse support of legitimation among the population (Kudaibergenova, 2016; Omelicheva, 2016; Lewis, 2016). For example, the new capital Astana was created out of basically nothing and has become a shiny symbol of the nation (Fauve, 2015). Based on the country's wealth in natural resources, an ideology of development and growth is heavily propagated (Kudaibergenova, 2015). Ever since the country's independence, today's 77-year old president Nazarbayev has had a solid grip to power. Nevertheless, the regime has managed to adjust to the challenges of modernity and works to appear as progressive as possible. By using a democratic style of language, it wants its citizens to believe that there is real political competition. However, the seemingly pluralistic party system is clearly dominated by

the president's party *Nur Otan* (Isaacs and Whitmore, 2013; Del Sordi, 2016) and there has never been a real choice during executive elections (Beck et al., 2001).

These novel ways of legitimation and cooptation are not only to be found in adaptive authoritarian regimes. Kazakhstan's neighboring regime of Uzbekistan is known for its ruthless abuse of harsh coercion (e.g. the 2005 incidents in Andijan) and differs in many ways from the Kazakh political and economic system (Adams and Rustemova, 2009). Yet, it also increasingly adopts sham democratic institutions. As the findings of this dissertation illustrated, the current president Shavkat Mirziyoyev and also last years deceased president Islam Karimov attempt to speak like democrats, have set up an elaborated system of satellite parties, and simulate competitive election campaigns to hide the true nature of their regime. In particular during the last few years, the regime has started to intensively use the new information technologies and installed a selection of official websites (cf. the first study in this dissertation). While other autocracies such as China and Russia are hesitant to officially embrace Western social media and rather promote their own (controllable) versions of it, Uzbek president Mirziyoyev goes a step further and maintains a daily-updated and responsive facebook profile (Mirziyoyev, 2017).

What are the broader implications of the diffusion of such novel, smart and modern authoritarian styles of government? While the seemingly democratic institutions of a range of contemporary autocracies might have misleadingly appeared to some as first signs of democratization, this new trend in authoritarianism is rather an even stronger opponent to open and liberal political systems. Certainly, the prevention of hard repression is welcomed - yet, as the example of Uzbekistan illustrates, this is not the rule and autocracies find ways to avoid the backfiring effects of severe repression. Furthermore, they invent new methods of coercion and control. While there is research on censorship in autocracies (e.g. Stier, 2015a), more systematic analyses of how authoritarian regimes censor, (ab)use, and manipulate the Internet are needed. Cunning practices such as Russia's "troll factory" (The Guardian Newspaper, 2017) and its (intended) impact on other countries, for example, are still widely unexplored.

Such exertion of influence is linked to the currently growing research on the international dimension of authoritarianism (Tansey, 2016; Bank and Josua, 2017; Tansey et al., 2017; Ambrosio, 2014; Tolstrup, 2015; Bader et al., 2010). While autocratic regimes do not per se promote authoritarianism (Tansey, 2015), regional powers such as Russia or Saudi Arabia (counter)react to Western efforts of promoting democracy in neighboring countries - especially if their interests are at stake (Delcour and Wolczuk, 2015; Hassan, 2015). This interplay between democratic and authoritarian forces can have very unintended effects in those countries the democracy promotion was originally aimed at (Risse and Babayan, 2015; Börzel, 2015) - a field of research which surely needs to be further scrutinized.

Beside this, the international dimension of authoritarianism concerns also the mentioned effects of authoritarian diffusion or learning (Lankina et al., 2016; Bader, 2014). In this regard, another avenue for future research is to link the inquiries about the mechanisms of authoritarian diffusion to detailed assessments of gradual institutional change in authoritarian contexts. While the introduction of this dissertation provided first theoretical concepts, the reflections on how authoritarian regimes adopt new ideas and adjust their institutional settings require to be empirically tested and further enhanced. One example for such diffusion effects is the strikingly similar NGO legislations adopted in Russia, China, and a range of other countries which fear that (foreign funded) NGOs would support political opponents and thereby threaten their rule (Flikke, 2016; Hsu et al., 2017; Dupuy et al., 2016). The investigation into such diffusion effects might also illuminate novel ways of external cooptation. First studies deal with the question of how and under which conditions authoritarian regimes collaborate (von Soest, 2015). Yet, how these forms of external cooptation affect the durability of autocratic regimes still require to be systematically analyzed.

Lastly, and as already discussed in several of the studies in this dissertation, there is the need for deeper and encompassing analyses of the many new methods autocrats apply to legitimate their rule. In that respect, future research might also formulate alternative concepts to specific and diffuse support of legitimation

which enable fine-graded insights into single mechanisms (first steps into this direction are Dukalskis and Gerschewski, 2017; von Haldenwang, 2017). While von Soest and Grauvogel's (2017a) expert survey represents a fruitful starting point, such seminal data sets require to be more comprehensive and time-sensitive. Beside this, surveys among the population in particularly those regimes which I called adaptive could also facilitate crucial insights about legitimating this less repressive and more flexible form of authoritarianism. In the age of the Internet, autocracies leave a growing digital footprint. By making use of the innovative toolbox of quantitative text analysis, the study of the mentioned facebook profile of the Uzbek president and other adaptations to a modern and globalized style of government could help to unmask further faces of authoritarianism.



# Supplementary Material Study 1

## A.1 Guiding Questions for the Analysis

### 1. Audience, Style and Purpose

- Who is the target audience of the website?
- What style of language is used? How many languages are used? What is the primary language and how is the quality of the translations? Is all translated?
- What kind of pictures, photos or symbols does the website display? How many?
- What is the overall impression of the website's first page is it a diffuse or specific source of legitimacy (Easton, 1965)?
- What is the primary purpose of the website? Is there a mission statement (About)?

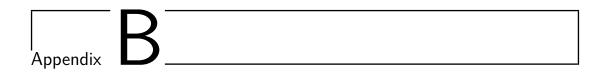
### 2. Information and Transparency

- To what extend does the website provide information about the ongoing political process? What is emphasized? What seems to be less important?
- To what extend does the website provide business related information?
- To what extend does the website provide information about government officials?
- To what extend are the roles and responsibilities of each brand of government explained?

• To what extend can citizens access legislative texts? Are new laws posted on the website?

### 3. Service, Interaction and Participation

- What are the major services offered on the website?
- Does the website provide links to other government services?
- How professionalized are the service functions? Is the website regularly maintained and updated?
- Are there any user statistics?
- Does the website display interactive functions? What kind of functions and to what extend do they facilitate citizens' participation?



# **Supplementary Material Study 2**

### **B.1** Co-Authorship Statement

Declaration of co-authorship regarding the following publication: Study two in this dissertation, reprinted from "Zeitschrift für vergleichende Politikwissenschaft" (Comparative Governance and Politics), Vol 11/2, Carsten Q. Schneider, Seraphine F. Maerz, "Legitimation, Cooptation, and Repression and the Survival of Electoral Autocracies," 213-235, Copyright (2017), with permission from Springer.

The degree of Seraphine F. Maerz' contribution to the publication based on the following scale:

- A: has contributed to the collaboration (0-33%).
- B: has contributed substantially (34-66%).
- C: has to a high degree carried out the work independently (67-100%).

Declaration in each element. A,B, or C

1. Formulating the scientific idea based on theoretical assumptions to be clarified,	В
including formulation of the question to be answered through analytical work and	
research plans.	
2. Planning of analyses, design of the methods in a way that the questions asked	В
under point 1 can be expected to be answered.	
3. Involvement in analytical work with respect to the concrete investigations.	В
4. Presentation, interpretation and discussion of the results.	В

Carsten Q. Schneider (co-author),

Carsten Schrider

November 7, 2017

# **B.2** Overview of Cases

NOTE: The raw data is adopted from Lueders et al. (2014).

Label	Country	Year	Soft	Hard	Unrest	Unrest	GDP	Infant	Party	Rents	Sector	Defe
			repr.	repr.	mass	elite	growth	mort.	Inst.			
DZA_97	Algeria	1997	4	3	0	0	4.10	-15.03	2	44.73	28.42	0
DZA_99	Algeria	1999	1	4	0	0	5.10	-15.82	2	34.80	29.07	0
DZA_02	Algeria	2002	3	4	4	0	2.60	-15.87	2	61.69	32.68	0
DZA_04	Algeria	2004	1	1	0	0	6.90	-16.14	2	72.75	44.91	0
DZA_07	Algeria	2007	1	1	0	0	2	-15.90	2	164.67	36.28	0
DZA_09	Algeria	2009	0	5	0	0	2.40	-17.24	2	232.94	44.65	0
RM_07	Armenia	2007	3	5	0	0	13.20	-20.40	2	8.57	17.82	0
ARM_08	Armenia	2008	3	3	0	0	13.75	-21.34	2	10.75	15.64	0
AZE_01	Azerbaijan	2001	2	4	0	0	11.10	-16.86	2	20.67	40.73	0
VZE_03	Azerbaijan	2003	3	4	0	0	10.60	-16.59	2	25.68	40.73	0
ZE_06	Azerbaijan	2006	2	2	3	1	26.40	-15.52	2	85.79	40.73	0
AZE_08	Azerbaijan	2008	2	2	0	0	25.05	-14.96	2	251.01	42.86	0
3GD_08	Bangladesh	2008	2	0	3	0	6.43	-21.06	0	1.18	13.88	1
BWA_04	Botswana	2004	4	7	0	0	6.28	-14.26	2	24.03	43.47	0
BWA_09	Botswana	2009	3	6	0	0	2.94	-42.28	2	49.94	35.17	0
SFA_05	Burkina Faso	2005	4	4	0	0	4.63	-6.67	2	1.10	19.56	0
MR_97	Cameroon	1997	2	4	0	0	5.00	-2.24	2	6.36	11.56	0
MR_02	Cameroon	2002	2	2	0	0	4.51	-1.60	2	7.36	9.17	0
MR_04	Cameroon	2004	1	4	0	0	4.03	-2.19	2	8.33	10.22	0
MR_07	Cameroon	2007	3	4	0	0	3.22	-3.26	2	14.47	10.92	0
MR_97.1	Cameroon	1997	2	4	0	0	5.00	-2.24	2	6.36	11.56	0
AF_05	Central African Republic	2005	4	3	0	0	1	-0.89	0	1.92	33	0
AF_05.1	Central African Republic	2005	4	3	0	0	1	-0.89	0	1.92	33	0
OG_09	Congo	2009	5	4	1	0	5.57	-3.98	2	176.88	28.45	0
GY_90	Egypt	1990	3	4	1	0	4.97	-24.89	2	4.94	42.73	0
GY_93	Egypt	1993	2	4	4	0	4.43	-22.65	2	3.73	48.57	0
GY_95	Egypt	1995	2	3	1	0	3.97	-23.15	2	3.66	51.14	0
GY_99	Egypt	1999	2	5	0	0	4.04	-25.00	2	2.79	42.97	0
GY_00	Egypt	2000	4	3	0	0	6.11	-25.59	2	3.27	37.60	0
GY_05	Egypt	2005	1	2	0	0	4.09	-25.93	2	6.05	40.29	0
GY_07	Egypt	2007	3	3	0	0	6.84	-26.57	2	11.69	48.80	0
GY_05.1	Egypt	2005	1	2	0	0	4.09	-25.93	2	6.05	40.29	0
LV_91	El Salvador	1991	3	1	0	0	4.83	-18.56	2	1.34	12.55	0
LV_94	El Salvador	1994	6	5	0	1	7.37	-14.64	2	1.39	14.02	0
LV_94.1	El Salvador	1994	6	5	0	1	7.37	-14.64	2	1.39	14.02	0
TH_05	Ethiopia	2005	1	1	2	0	13.57	-19.93	2	1.01	30.92	0
AB_97	Gabon	1997	6	7	0	0	3.63	-6.67	2	243.91	12.92	0
AB_98	Gabon	1998	7	6	0	0	5.74	-6.32	2	227.47	11.56	0
AB_01	Gabon	2001	5	8	0	0	-1.88	-5.49	2	179.64	8.83	0
AB_05	Gabon	2005	4	6	0	0	1.35	-6.72	2	237.44	10.83	0
AB_06	Gabon	2006	4	5	0	0	3.02	-7.30	2	319.03	12.13	0
AB_09	Gabon	2009	3	6	0	0	2.32	-9.33	2	585.63	11.58	0
HA_00	Ghana	2000	5	6	0	0	4.40	-7.92	2	1.80	31.19	1
HA_00.1	Ghana	2000	5	6	0	0	4.40	-7.92	2	1.80	31.19	1
ΓM_91	Guatemala	1991	4	1	0	0	3.10	-19.68	2	1.32	13.77	1
ΓΙ_00	Haiti	2000	5	2	2	1	2.70	-14.11	2	1	20.38	0
UN_90	Hungary	1990	6	8	3	2	0.74	-17.67	1	8.18	90.40	1
N_99	Indonesia	1999	1	0	37	2	-13.13	-16.84	2	6.57	17.26	1
N_92	Iran	1992	0	1	0	0	12.59	-17.64	0	26.25	25.81	0
N_93	Iran	1993	1	3	4	0	4.25	-17.20	0	25.37	27.37	0
N_96	Iran	1996	0	2	1	0	2.65	-17.20	0	24.32	30.49	0
N_97	Iran	1997	0	2	0	0	7.10	-16.34	0	30.86	28.11	1
N_98	Iran	1998	0	1	1	0	3.38	-14.84	0	25.04	25.73	1
N_00	Iran	2000	0	0	5	0	1.93	-10.32	0	22.41	23.36	0
N_01	Iran	2001	0	1	0	0	5.14	-9.49	0	38.63	20.98	0
N_04	Iran	2004	0	2	6	0	7.11	-18.11	0	42.35	29.43	1
80_N	Iran	2008	0	1	0	0	7.82	-19.62	0	104.17	30.74	0
RN_09	Iran	2009	0	0	0	1	2.30	-21.12	0	131.56	31.10	0
IV_00	Ivory Coast	2000	3	3	2	0	1.59	-4.77	0	4.34	21.76	1
IV_01	Ivory Coast	2001	4	1	9	1	-3.70	-4.91	2	5.40	17.01	0
V_00.1	Ivory Coast	2000	3	3	2	0	1.59	-4.77	0	4.34	21.76	0
EN_92	Kenya	1992	1	3	5	1	1.44	8.37	1	1.97	27.60	0

KEN_94	Kenya	1994	2	5	0	0	0.35	14.88	2	1.65	26.57	0
KEN_97	Kenya	1997	3	4	0	0	4.15	8.18	2	1.70	23.33	0
KEN_02	Kenya	2002	4	3	0	0	3.78	-5.04	2	1.91	18.33	1
KEN_92.1	Kenya	1992	1	3	5	1	1.44	8.37	1	1.97	27.60	0
KEN_97.1	Kenya	1997	3	4	0	0	4.15	8.18	2	1.70	23.33	0
KEN_02.1	Kenya	2002	4	3	0	0	3.78	-5.04	2	1.91	18.33	1
KGZ_05	Kyrgyz Republic	2005	4	5	0	0	7.03	-16.47	2	3.22	9.45	0
KGZ_07	Kyrgyz Republic	2007	4	4	3	0	3.10	-16.20	2	4.42	16.30	0
KGZ_09	Kyrgyz Republic	2009	1	6	0	0	8.40	-16.34	2	3.03	14.22	0
KGZ_05.1	Kyrgyz Republic	2005	4	5	0	0	7.03	-16.47	2	3.22	9.45	0
MDG_92	Madagascar	1992	5	2	10	1	-6.31	-9.58	1	1.18	29.08	1
MDG_93	Madagascar	1993	7	6	2	1	1.19	-11.16	1	1.22	28.87	1
MDG_93.1	Madagascar	1993	7	6	2	1	1.19	-11.16	1	1.22	28.87	1
MYS_90	Malaysia	1990	5	6	0	0	9.06	-24.64	2	28.60	23.43	0
MYS_95	Malaysia	1995	2	5	0	0	9.21	-23.08	2	26.62	21.42	0
MYS_99	Malaysia	1999	3	5	3	0	-7.36	-20.63	2	25.53	28.12	0
MYS_04	Malaysia	2004 2008	1	5 4	0	0	5.79	-20	2	47.21	43.64	0
MYS_08 MEX_91	Malaysia Mexico	1991	2 5	0	0	0	6.30 5.07	-19.28 -15.52	2	105.54 14.38	27.62 17.84	0
MEX_91	Mexico	1991	5	3	0 2	0	1.95	-15.76	2	10.58	21.54	0
MEX_97	Mexico	1997	6	1	3	0	5.14	-19.29	2	15.17	24.71	0
MEX_00	Mexico	2000	7	3	1	0	3.87	-22.02	2	12.87	23.65	1
MEX_94.1	Mexico	1994	5	3	2	0	1.95	-15.76	2	10.58	21.54	0
MEX_00.1	Mexico	2000	7	3	1	0	3.87	-22.02	2	12.87	23.65	1
MOZ_09	Mozambique	2009	2	5	1	0	6.83	-20.16	2	9.42	62.70	0
MOZ_09.1	Mozambique	2009	2	5	1	0	6.83	-20.16	2	9.42	62.70	0
NAM_04	Namibia	2004	6	6	0	0	4.24	0.63	2	6.39	24.02	0
NAM_09	Namibia	2009	3	6	0	0	3.37	-23.53	2	48.09	27.27	0
NAM_04.1	Namibia	2004	6	6	0	0	4.24	0.63	2	6.39	24.02	0
NAM_09.1	Namibia	2009	3	6	0	0	3.37	-23.53	2	48.09	27.27	0
NPL_91	Nepal	1991	3	3	13	0	4.64	-16.96	2	1.00	43.20	0
NIC_90	Nicaragua	1990	2	1	1	0	-1.70	-16.83	2	1.21	36.85	1
NIC_90.1	Nicaragua	1990	2	1	1	0	-1.70	-16.83	2	1.21	36.85	1
NER_99	Niger	1999	2	4	0	0	10.42	-15.25	2	2.30	66.40	1
NGA_99	Nigeria	1999	1	4	5	0	1.88	-6.23	0	9.20	39.70	1
PAK_08	Pakistan	2008	2	0	8	2	5.68	-10.47	2	1.68	15.43	1
PRY_93	Paraguay	1993	6	7	0	0	3.42	-11.99	2	1.09	13.49	0
PRY_93.1	Paraguay	1993	6	7	0	0	3.42	-11.99	2	1.09	13.49	0
PER_95	Peru	1995	3	1	0	0	12.82	-22.82	0	9.18	16.49	0
PER_00	Peru	2000	5	2	0	1	0.91	-26.56	2	9.47		0
											17.01	
PER_95.1	Peru	1995	3	1	0	0	12.82	-22.82	0	9.18	16.49	0
PER_00.1	Peru Peru	1995 2000	3 5	1 2	0	1	12.82 0.91	-22.82 -26.56	0	9.18 9.47	16.49 17.01	0
PER_00.1 RUS_95	Peru Peru Russia	1995 2000 1995	3 5 5	1 2 1	0 1	1	12.82 0.91 -4.14	-22.82 -26.56 -4.93	0 2 2	9.18 9.47 28.90	16.49 17.01 20.46	0 0 1
PER_00.1 RUS_95 RUS_03	Peru Peru Russia Russia	1995 2000 1995 2003	3 5 5 5	1 2 1 4	0 1 1	1 1 1	12.82 0.91 -4.14 4.74	-22.82 -26.56 -4.93 -9.55	0 2 2 2	9.18 9.47 28.90 47.43	16.49 17.01 20.46 34.80	0 0 1 0
PER_00.1 RUS_95 RUS_03 RUS_04	Peru Peru Russia Russia Russia	1995 2000 1995 2003 2004	3 5 5 5 3	1 2 1 4 2	0 1 1	1 1 1 0	12.82 0.91 -4.14 4.74 7.30	-22.82 -26.56 -4.93 -9.55 -10.06	0 2 2 2 2	9.18 9.47 28.90 47.43 61.32	16.49 17.01 20.46 34.80 34.70	0 0 1 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07	Peru Peru Russia Russia Russia Russia	1995 2000 1995 2003 2004 2007	3 5 5 5 3 2	1 2 1 4 2	0 1 1 1	1 1 1 0	12.82 0.91 -4.14 4.74 7.30 8.54	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58	0 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99	16.49 17.01 20.46 34.80 34.70 33.83	0 0 1 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08	Peru Peru Russia Russia Russia Russia Russia	1995 2000 1995 2003 2004 2007 2008	3 5 5 5 3 2	1 2 1 4 2 1 3	0 1 1 1 1 2	1 1 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33	0 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47	16.49 17.01 20.46 34.80 34.70 33.83 32.57	0 0 1 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03	Peru Peru Russia Russia Russia Russia Russia Rwanda	1995 2000 1995 2003 2004 2007 2008 2003	3 5 5 5 3 2 0	1 2 1 4 2 1 3	0 1 1 1 2	1 1 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75	0 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70	0 0 1 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08	Peru Peru Russia Russia Russia Russia Russia Rwanda Rwanda	1995 2000 1995 2003 2004 2007 2008 2003 2008	3 5 5 5 5 3 2 0 1 2	1 2 1 4 2 1 3 3	0 1 1 1 1 2 0	1 1 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90	0 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45	0 0 1 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_03 RWA_08	Peru Peru Russia Russia Russia Russia Russia Rwanda Rwanda	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003	3 5 5 5 3 2 0	1 2 1 4 2 1 3	0 1 1 1 2	1 1 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75	0 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45	0 0 1 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08	Peru Peru Russia Russia Russia Russia Russia Rwanda Rwanda	1995 2000 1995 2003 2004 2007 2008 2003 2008	3 5 5 5 3 2 0 1 2	1 2 1 4 2 1 3 3 5	0 1 1 1 1 2 0 0	1 1 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90	0 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45	0 0 1 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_08.1 SEN_93	Peru Peru Russia Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993	3 5 5 5 3 2 0 1 2 1 6	1 2 1 4 2 1 3 3 5 3	0 1 1 1 1 2 0 0	1 1 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75 -6.75	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05	0 0 1 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98	Peru Peru Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Senegal Senegal	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998	3 5 5 5 3 2 0 1 2 1 6 6	1 2 1 4 2 1 3 3 5 3 2 2	0 1 1 1 1 2 0 0 0	1 1 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75 -6.75 2.46	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80	0 0 1 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_03 RWA_03.1 SEN_93 SEN_98	Peru Peru Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000	3 5 5 5 3 2 0 1 2 1 6 6	1 2 1 4 2 1 3 3 5 3 2 2 2 2	0 1 1 1 1 2 0 0 0 0	1 1 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75 -6.75 2.46 -1.71	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45	0 0 1 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1	Peru Peru Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000 1993	3 5 5 5 3 2 0 1 2 1 6 6 4 6	1 2 1 4 2 1 3 3 5 3 2 2 2 2 2 2	0 1 1 1 1 2 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -6.75 2.46 -1.71 -6.75	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45 22.05	0 0 1 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_03 SEN_98 SEN_98 SEN_00 SEN_93.1 SGP_91	Peru Peru Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Singapore	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000 1993 1991	3 5 5 5 3 2 0 1 2 1 6 6 4 6 4	1 2 1 4 2 1 3 3 5 3 2 2 2 2 6 6	0 1 1 1 1 2 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -6.75 2.46 -1.71 -6.75 -30.68	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45 22.05 14.03	0 0 1 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_93	Peru Peru Russia Russia Russia Russia Russia Russia Rwanda Rwanda Senegal Senegal Senegal Singapore Singapore	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000 1993 1991	3 5 5 5 3 2 0 1 2 1 6 6 4 6 4 6 4 3	1 2 1 4 2 1 3 3 5 3 2 2 2 2 6 6 6	0 1 1 1 1 2 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -6.75 2.46 -1.71 -6.75 -30.68 -35.90	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.45 22.05 14.03 13.30	0 0 1 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91	Peru Peru Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Singapore Singapore	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000 1993 1991 1993	3 5 5 5 3 2 0 1 2 1 6 6 4 6 4 6 4 3 3 3	1 2 1 4 2 1 3 3 5 3 2 2 2 2 6 6 6 5 5	0 1 1 1 1 2 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75 -6.75 2.46 -1.71 -6.75 -30.68 -35.90 -30.91	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_991 SGP_91 SGP_93	Peru Peru Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Singapore Singapore Singapore	1995 2000 1995 2003 2004 2007 2008 2008 2003 1993 1998 2000 1993 1991 1993 1997 2001	3 5 5 5 3 2 0 1 2 1 6 6 4 6 4 6 4 3 3 3 3	1 2 1 4 2 1 3 3 5 3 2 2 2 2 6 6 6 5 6	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -30.75 -6.75 2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25 15.30	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_93 SGP_97 SGP_01 SGP_06	Peru Peru Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Senegal Senegal Senegal Singapore Singapore Singapore Singapore	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000 1993 1991 1991 1993 1997 2001	3 5 5 5 3 2 0 1 2 1 6 6 4 6 4 4 3 3 3 3	1 2 1 4 2 1 3 3 5 3 2 2 2 6 6 6 5 6 6 6	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75 -6.75 2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25 15.30 17.01	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_97 SGP_01 SGP_06 ZAF_94	Peru Peru Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Singapore Singapore Singapore Singapore South Africa	1995 2000 1995 2003 2004 2007 2008 2008 2003 1993 1998 2000 1993 1991 1997 2001 2006 1994	3 5 5 5 5 3 2 0 1 2 1 6 6 4 6 4 3 3 3 3 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	1 2 1 4 2 1 3 3 5 3 2 2 2 6 6 6 5 6 6 6 1	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_03 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_91 SGP_97 SGP_01 SGP_06 ZAF_94 LKA_94	Peru Peru Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Singapore Singapore Singapore Singapore Singapore South Africa Sri Lanka	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000 1993 1991 1997 2001 2006 1994	3 5 5 5 5 5 6 7 6 6 6 6 6 6 6 6 6 6 6 7 6 7	1 2 1 4 2 1 3 3 5 3 2 2 2 6 6 6 5 6 6 6 1 2	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 22.05 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03 30.42	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_97 SGP_01 SGP_06 ZAF_94 LKA_94 TZA_00	Peru Peru Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Singapore	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000 1993 1991 1993 1997 2001 2006 1994 1994	3 5 5 5 5 5 3 2 0 0 1 1 6 6 6 4 6 4 3 3 3 3 2 2 3 5 4	1 2 1 4 2 1 3 3 5 5 3 2 2 2 6 6 6 5 6 6 6 1 2 4	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90 4.84	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31 -13.88	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22 1.02	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 22.05 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03 30.42 30.25	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_91 SGP_91 SGP_06 ZAF_94 LKA_94 TZA_00 TZA_05 TZA_00.1 TZA_05.1	Peru Peru Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Singapore	1995 2000 1995 2003 2004 2007 2008 2008 2003 1993 1998 2000 1993 1997 2001 2006 1994 1994 2000 2005 2000	3 5 5 5 5 3 2 0 0 1 1 2 1 6 6 6 4 4 3 3 3 3 2 2 3 3 5 5 4 2 2 4 2 2	1 2 1 4 2 1 3 3 5 5 3 2 2 2 6 6 6 5 6 6 6 1 2 4 3	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90 4.84 7.83	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31 -13.88 -19.93	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22 1.02 1.36	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 22.45 18.70 22.05 20.45 22.05 14.03 13.25 15.30 17.01 18.03 30.42 30.25 40	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_93 SGP_97 SGP_01 SGP_06 ZAF_94 LKA_94 TZA_00 TZA_05 TZA_00.1 TZA_05.1 THA_92	Peru Peru Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Seneg	1995 2000 1995 2003 2004 2007 2008 2008 2003 1993 1998 2000 1993 1997 2001 2006 1994 1994 2000 2005 2000 2005	3 5 5 5 5 3 2 0 0 1 1 2 1 6 6 6 4 4 3 3 3 3 2 3 5 5 4 2 2 4 4 2 2 4	1 2 1 4 2 1 3 3 5 3 2 2 2 6 6 6 5 6 6 6 1 2 4 3 4	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90 4.84 7.83 4.84 7.83 8.56	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31 -13.88 -19.93 -13.88 -19.93 -29.33	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22 1.02 1.36 1.02 1.36 1.85	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03 30.42 30.25 40 30.25 40 10.26	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_91 SGP_06 ZAF_94 LKA_94 TZA_00 TZA_05 TZA_00.1 TZA_05.1 THA_92 THA_07	Peru Peru Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Seneg	1995 2000 1995 2003 2004 2007 2008 2008 2003 1993 1998 2000 1993 1997 2001 2006 1994 1994 2000 2005 2000 2005 1992 2007	3 5 5 5 5 5 3 2 0 0 1 1 2 2 1 6 6 6 4 4 3 3 3 3 5 5 4 4 2 2 4 4 1 1	1 2 1 4 2 1 3 3 5 3 2 2 2 2 6 6 6 5 6 6 1 2 4 3 4 4 3 4 4 3 4 4 4 4 4 4 4 4 4 4 4	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90 4.84 7.83 4.84 7.83 8.56 5.09	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31 -13.18 -19.93 -13.88 -19.93 -29.33 -16.23	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22 1.02 1.36 1.02 1.36 1.85 14.10	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03 30.42 30.25 40 30.25 40 10.26 16.04	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_91 SGP_06 ZAF_94 LKA_94 TZA_00 TZA_05 TZA_00.1 TZA_05.1 THA_92 THA_07 THA_92.1	Peru Peru Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Senegal Senegal Singapore Singapore Singapore Singapore Singapore Singapore Singapore Tanzania Tanzania Tanzania Tanzania Tanzania Tanzania Thailand Thailand	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000 1993 1997 2001 2006 1994 1994 2000 2005 1992 2007	3 5 5 5 5 5 3 2 0 0 1 1 2 1 6 6 6 4 4 6 6 4 3 3 3 5 5 4 2 2 4 4 1 1 4	1 2 1 4 2 1 3 3 5 3 2 2 2 2 6 6 6 5 6 6 1 2 4 3 4 4 3 4 4 3 4 4 4 4 4 4 4 4 4 4 4	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90 4.84 7.83 4.84 7.83 8.56 5.09 8.56	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31 -13.88 -19.93 -13.88 -19.93 -29.33 -16.23 -29.33	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22 1.02 1.36 1.02 1.36 1.85 14.10 1.85	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03 30.42 30.25 40 10.26 16.04 10.26	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_91 SGP_06 ZAF_94 LKA_94 TZA_00 TZA_05 TZA_00.1 TZA_05.1 THA_92 THA_97 THA_92.1 TGO_98	Peru Peru Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Singapore Singapore Singapore Singapore Singapore Singapore Singapore Tanzania Tanzania Tanzania Tanzania Thailand Thailand Thailand Togo	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1998 2000 1993 1991 2006 1994 1994 2000 2005 2000 2005 1992 2007 1992 1998	3 5 5 5 5 3 2 0 0 1 2 1 6 6 6 4 4 3 3 3 5 5 4 2 2 4 4 1 1 4 4 4 4	1 2 1 4 2 1 3 3 5 3 2 2 2 6 6 6 1 2 4 3 4 4 3 4 1 4 3	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90 4.84 7.83 4.84 7.83 8.56 5.09 8.56 14.38	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31 -13.88 -19.93 -13.88 -19.93 -19.93 -29.33 -16.23 -29.33 -4.05	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22 1.02 1.36 1.02 1.36 1.85 14.10 1.85 3.08	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03 30.42 30.25 40 10.26 16.04 10.26 21.30	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_91 SGP_96 ZAF_94 LKA_94 TZA_00 TZA_05 TZA_00.1 TZA_05.1 THA_92 THA_07 THA_92.1 TGO_98 TGO_99	Peru Peru Russia Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Senegal Singapore Singapore Singapore Singapore Singapore Singapore Singapore Singapore Thailand Tanzania Tanzania Tanzania Tanzania Tanzania Thailand Thailand Thailand Togo Togo	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1993 1991 1993 1997 2001 2006 1994 2000 2005 2000 2005 2000 2005 1992 1992 1998 1999	3 5 5 5 5 3 2 0 0 1 2 1 6 6 6 4 4 3 3 3 3 5 5 4 2 2 4 4 1 1 4 4 2 2	1 2 1 4 2 1 3 3 5 3 2 2 2 2 6 6 6 5 6 6 1 2 4 3 4 3 4 4 3 4 4 3 4 4 4 4 4 4 4 4 4	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90 4.84 7.83 4.84 7.83 8.56 5.09 8.56 14.38 -2.30	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31 -13.88 -19.93 -13.88 -19.93 -13.88 -19.93 -29.33 -4.05 -3.73	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22 1.02 1.36 1.02 1.36 1.02 1.36 1.85 14.10 1.85 3.08	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03 30.42 30.25 40 30.25 40 10.26 16.04 10.26 21.30 21.30	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_91 SGP_91 SGP_06 ZAF_94 LKA_94 TZA_00 TZA_05 TZA_00.1 TZA_05.1 THA_92 THA_07 THA_92.1 TGO_98 TGO_99 TGO_02	Peru Peru Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Rwanda Senegal Senegal Senegal Singapore	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1993 1999 1999 2001 2006 1994 2000 2005 2000 2005 2000 2005 1992 1998 1999 2002	3 5 5 5 5 3 2 0 0 1 1 2 1 6 6 6 4 4 3 3 3 3 2 2 4 2 4 4 2 2 4 4 2 2 2	1 2 1 4 2 1 3 3 5 3 2 2 2 6 6 6 1 2 4 3 4 4 3 4 5 5	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90 4.84 7.83 4.84 7.83 8.56 5.09 8.56 14.38 -2.30 -1.63	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31 -13.88 -19.93 -13.88 -19.93 -29.33 -29.33 -4.05 -3.73 -3.82	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22 1.02 1.36 1.02 1.36 1.85 14.10 1.85 3.08 3.74	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 24.45 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03 30.42 30.25 40 10.26 16.04 10.26 21.30 21.30	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PER_00.1 RUS_95 RUS_03 RUS_04 RUS_07 RUS_08 RWA_03 RWA_08 RWA_03.1 SEN_93 SEN_98 SEN_00 SEN_93.1 SGP_91 SGP_91 SGP_96 ZAF_94 LKA_94 TZA_00 TZA_05 TZA_00.1 TZA_05.1 THA_92 THA_07 THA_92.1 TGO_98 TGO_99	Peru Peru Russia Russia Russia Russia Russia Russia Russia Russia Rwanda Rwanda Rwanda Senegal Senegal Senegal Senegal Senegal Singapore Singapore Singapore Singapore Singapore Singapore Singapore Singapore Thailand Tanzania Tanzania Tanzania Tanzania Tanzania Thailand Thailand Thailand Togo Togo	1995 2000 1995 2003 2004 2007 2008 2003 2008 2003 1993 1993 1991 1993 1997 2001 2006 1994 2000 2005 2000 2005 2000 2005 1992 1992 1998 1999	3 5 5 5 5 3 2 0 0 1 2 1 6 6 6 4 4 3 3 3 3 5 5 4 2 2 4 4 1 1 4 4 2 2	1 2 1 4 2 1 3 3 5 3 2 2 2 2 6 6 6 5 6 6 1 2 4 3 4 3 4 4 3 4 4 3 4 4 4 4 4 4 4 4 4	0 1 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12.82 0.91 -4.14 4.74 7.30 8.54 5.25 13.51 7.63 13.51 1.24 3.12 6.35 1.24 10.11 7.03 7.63 9.04 7.37 1.23 6.90 4.84 7.83 4.84 7.83 8.56 5.09 8.56 14.38 -2.30	-22.82 -26.56 -4.93 -9.55 -10.06 -14.58 -15.33 -30.75 -38.90 -30.75 -6.75 -2.46 -1.71 -6.75 -30.68 -35.90 -30.91 -29.27 -20.69 -6.19 -17.31 -13.88 -19.93 -13.88 -19.93 -13.88 -19.93 -29.33 -4.05 -3.73	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.18 9.47 28.90 47.43 61.32 179.99 246.47 1.21 1.83 1.21 3.12 2.55 2.38 3.12 341.56 287.64 381.50 371.17 688.88 9.59 1.22 1.02 1.36 1.02 1.36 1.02 1.36 1.85 14.10 1.85 3.08	16.49 17.01 20.46 34.80 34.70 33.83 32.57 18.70 22.05 20.80 20.45 22.05 14.03 13.30 13.25 15.30 17.01 18.03 30.42 30.25 40 30.25 40 10.26 16.04 10.26 21.30 21.30	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

TGO_07	Togo	2007	2	3	0	0	4.05	-3.46	2	1.67	9.34	0
TUN_99	Tunisia	1999	2	4	0	0	4.97	-21.55	2	5.73	38.02	0
TUN_04	Tunisia	2004	2	4	0	0	5.47	-22.34	2	9.23	41.88	0
TUN_09	Tunisia	2009	1	3	0	0	4.52	-22.64	2	36.65	28.18	0
TUN_99.1	Tunisia	1999	2	4	0	0	4.97	-21.55	2	5.73	38.02	0
TUN_09.1	Tunisia	2009	1	3	0	0	4.52	-22.64	2	36.65	28.18	0
UGA_96	Uganda	1996	3	4	0	0	11.52	-6.60	0	1.02	20.12	0
UGA_01	Uganda	2001	3	2	0	0	3.14	-13.62	0	1.19	23.75	0
UGA_06	Uganda	2006	2	2	1	0	6.33	-15.77	0	1.20	12.29	0
UGA_06.1	Uganda	2006	2	2	1	0	6.33	-15.77	0	1.20	12.29	0
VEN_06	Venezuela	2006	3	2	0	0	10.32	-16.32	2	195.12	50.29	0
ZMB_06	Zambia	2006	4	4	0	0	5.34	-16.48	2	10.81	16.23	0
ZMB_08	Zambia	2008	4	5	0	0	6.19	-19.77	2	30.24	9.95	0
ZMB_01	Zambia	2001	3	5	0	0	3.52	-15.66	2	4.67	31.30	0
ZMB_06.1	Zambia	2006	4	4	0	0	5.34	-16.48	2	10.81	16.23	0
ZWE_95	Zimbabwe	1995	3	6	3	0	9.24	11.50	2	2.88	17.38	0
ZWE_96	Zimbabwe	1996	3	4	2	0	0.16	11.24	2	3.13	16.32	0
ZWE_02	Zimbabwe	2002	2	3	0	0	1.44	4.03	2	2.89	24.45	0
ZWE_05	Zimbabwe	2005	1	2	0	0	-5.81	-8.77	2	5.00	30.95	0
ZWE_08	Zimbabwe	2008	1	1	0	0	-3.65	-14.64	2	6.88	28.95	0
ZWE_08.1	Zimbabwe	2008	1	1	0	0	-3.65	-14.64	2	6.88	28.95	1

### Each Case's Membership Score in Outcome Electoral Defeat and Conditions

abel	Country	Year	leg_spec	leg_diff	coop_form	coop_inf	rep_h	rep_s	Defe
DZA_97	Algeria	1997	0.95	1	1	0.71	0.99	0.73	0
ZA_99	Algeria	1999	0.96	1	1	0.63	0.95	1.00	0
DZA_02	Algeria	2002	0.96	1	1	0.82	0.95	0.95	0
ZA_04	Algeria	2004	0.96	1	1	0.87	1.00	1.00	0
DZA_07	Algeria	2007	0.96	1	1	1.00	1.00	1.00	0
ZA_09	Algeria	2009	0.97	1	1	1.00	0.73	1.00	0
RM_07	Armenia	2007	0.99	1	1	0.03	0.73	0.95	0
RM_08	Armenia	2008	0.99	1	1	0.06	0.99	0.95	0
ZE_01	Azerbaijan	2001	0.97	1	1	0.51	0.95	0.99	0
ZE_03	Azerbaijan	2003	0.97	1	1	0.55	0.95	0.95	C
XZE_06	Azerbaijan	2006	1.00	0.0001	1	0.92	1.00	0.99	0
ZE_08	Azerbaijan	2008	1.00	1	1	1.00	1.00	0.99	C
GD_08	Bangladesh	2008	0.99	1	0.04	0.004	1.00	0.99	1
WA_04	Botswana	2004	0.94	1	1	0.54	0.05	0.73	(
WA_09	Botswana	2009	1.00	1	1	0.75	0.27	0.95	(
FA_05	Burkina Faso	2005	0.62	1	1	0.004	0.95	0.73	(
MR_97	Cameroon	1997	0.50	1	1	0.02	0.95	0.99	(
MR_02	Cameroon	2002	0.33	1	1	0.02	1.00	0.99	(
MR_04	Cameroon	2004	0.19	1	1	0.03	0.95	1.00	(
MR_07	Cameroon	2007	0.15	1	1	0.16	0.95	0.95	(
MR_97.1	Cameroon	1997	0.50	1	1	0.02	0.95	0.99	(
AF_05	Central African Republic	2005	0.02	1	0.83	0.005	0.99	0.73	(
AF_05.1	Central African Republic	2005	0.02	1	0.83	0.005	0.99	0.73	(
OG_09	Congo	2009	0.58	1	1	1.00	0.95	0.27	C
GY_90	Egypt	1990	1.00	1	1	0.01	0.95	0.95	(
GY_93	Egypt	1993	0.99	1	1	0.01	0.95	0.99	C
GY_95	Egypt	1995	1.00	1	1	0.01	0.99	0.99	(
GY_99	Egypt	1999	1.00	1	1	0.01	0.73	0.99	(
GY_00	Egypt	2000	1.00	1	1	0.01	0.99	0.73	(
GY_05	Egypt	2005	1.00	1	1	0.02	1.00	1.00	(
GY_07	Egypt	2007	1.00	1	1	0.08	0.99	0.95	(
GY_05.1	Egypt	2005	1.00	1	1	0.02	1.00	1.00	(
LV_91	El Salvador	1991	0.98	1	1	0.004	1.00	0.95	(
LV_94	El Salvador	1994	0.94	0.95	1	0.004	0.73	0.05	(
LV_94.1	El Salvador	1994	0.94	0.95	1	0.004	0.73	0.05	(
TH_05	Ethiopia	2005	0.99	1	1	0.004	1.00	1.00	(
- GAB_97	Gabon	1997	0.62	1	1	1.00	0.05	0.05	c
- GAB_98	Gabon	1998	0.61	1	1	1.00	0.27	0.01	c
- GAB_01	Gabon	2001	0.54	1	1	1.00	0.01	0.27	c
AB_05	Gabon	2005	0.62	1	1	1.00	0.27	0.73	c
AB_06	Gabon	2006	0.66	1	1	1.00	0.73	0.73	0

GAB_09	Gabon	2009	0.78	1	1	1	0.27	0.95	0
GHA_00	Ghana	2000	0.70	1	1	0.005	0.27	0.27	1
GHA_00.1	Ghana	2000	0.70	1	1	0.005	0.27	0.27	1
GTM_91	Guatemala	1991	0.99	1	1	0.004	1.00	0.73	1
HTI_00	Haiti	2000	0.94	0.05	1	0.004	1.00	0.27	0
HUN_90	Hungary	1990	0.98	0.0001	1.00	0.03	0.01	0.05	1
IDN_99	Indonesia	1999	0.97	0	1	0.02	1.00	1.00	1
IRN_92	Iran	1992	0.99	1	0.54	0.56	1.00	1.00	0
IRN_93	Iran	1993	0.97	1	0.61	0.55	0.99	1.00	0
IRN_96	Iran	1996	0.97	1	0.75	0.54	1.00	1.00	0
IRN_97	Iran	1997	0.97	1	0.65	0.60	1.00	1.00	1
IRN_98	Iran	1998	0.95	1	0.54	0.55	1.00	1.00	1
IRN_00	Iran	2000	0.83	1	0.38	0.52	1.00	1.00	0
IRN_01	Iran	2001	0.79	1	0.23	0.67	1.00	1.00	0
IRN_04	Iran .	2004	0.98	1	0.70	0.69	1.00	1.00	1
IRN_08	Iran	2008	0.99	1	0.76	0.96	1.00	1.00	0
IRN_09	Iran	2009	0.99	0.95	0.77	0.98	1.00	1.00	0
CIV_00	Ivory Coast	2000	0.44	1	0.28	0.01	0.99	0.95	1
CIV_01 CIV_00.1	Ivory Coast	2001 2000	0.48 0.44	0 1	1 0.28	0.01 0.01	1.00 0.99	0.73 0.95	0
KEN_92	Ivory Coast Kenya	1992	0.44	0	0.63	0.005	0.99	1.00	0
KEN_94	Kenya	1994	0.001	1	1	0.003	0.73	0.99	0
KEN_97	Kenya	1997	0.22	1	1	0.004	0.95	0.95	0
KEN_02	Kenya	2002	0.50	1	1	0.005	0.99	0.73	1
KEN_92.1	Kenya	1992	0.01	0	0.63	0.005	0.99	1.00	0
KEN_97.1	Kenya	1997	0.22	1	1	0.005	0.95	0.95	0
KEN_02.1	Kenya	2002	0.50	1	1	0.005	0.99	0.73	1
KGZ_05	Kyrgyz Republic	2005	0.97	1	1	0.01	0.73	0.73	0
_ KGZ_07	Kyrgyz Republic	2007	0.96	1	1	0.01	0.95	0.73	0
_ KGZ_09	Kyrgyz Republic	2009	0.97	1	1	0.01	0.27	1.00	0
KGZ_05.1	Kyrgyz Republic	2005	0.97	1	1	0.01	0.73	0.73	0
MDG_92	Madagascar	1992	0.79	0	0.69	0.004	1.00	0.27	1
MDG_93	Madagascar	1993	0.86	0.05	0.68	0.004	0.27	0.01	1
MDG_93.1	Madagascar	1993	0.86	0.05	0.68	0.004	0.27	0.01	1
MYS_90	Malaysia	1990	1.00	1	1	0.58	0.27	0.27	0
MYS_95	Malaysia	1995	1.00	1	1	0.56	0.73	0.99	0
MYS_99	Malaysia	1999	0.99	1	1	0.55	0.73	0.95	0
MYS_04	Malaysia	2004	0.99	1	1	0.73	0.73	1.00	0
MYS_08	Malaysia	2008	0.99	1	1	0.96	0.95	0.99	0
MEX_91	Mexico	1991	0.96	1	1	0.16	1.00	0.27	0
MEX_94	Mexico	1994	0.96	1	1	0.06	0.99	0.27	0
MEX_97	Mexico	1997	0.99	1	1	0.19	1.00	0.05	0
MEX_00	Mexico	2000	0.99	1	1	0.11	0.99	0.01	1
MEX_94.1	Mexico	1994	0.96	1	1	0.06	0.99	0.27	0
MEX_00.1	Mexico	2000	0.99	1	1	0.11	0.99	0.01	1
MOZ_09	Mozambique	2009	0.99	1	1	0.04	0.73	0.99	0
MOZ_09.1	Mozambique	2009	0.99	1	1	0.04	0.73	0.99	0
NAM_04	Namibia	2004	0.25	1	1	0.02	0.27	0.05	0
NAM_09	Namibia	2009	1.00	1	1	0.74	0.27	0.95	0
NAM_04.1	Namibia	2004	0.25	1	1	0.02	0.27	0.05	0
NAM_09.1	Namibia	2009	1.00	1	1	0.74	0.27	0.95	0
NPL_91	Nepal	1991	0.97	1	1	0.004	0.99	0.95	0
NIC_90	Nicaragua	1990 1990	0.97	1 1	1 1	0.004 0.004	1.00	0.99 0.99	1
NIC_90.1 NER_99	Nicaragua Niger	1999	0.97 0.96	1	1	0.004	1.00 0.95	0.99	1
NGA_99	Nigeria	1999	0.59	1	0.95	0.01	0.95	1.00	1
PAK_08	Pakistan	2008	0.83	0	1	0.005	1.00	0.99	1
PRY_93	Paraguay	1993	0.89	1	1	0.003	0.05	0.05	0
PRY_93.1	Paraguay	1993	0.89	1	1	0.004	0.05	0.05	0
PER_95	Peru	1995	0.99	1	0.08	0.04	1.00	0.95	0
PER_00	Peru	2000	1.00	0.95	1	0.04	1.00	0.27	0
PER_95.1	Peru	1995	0.99	1	0.08	0.04	1.00	0.95	0
PER_00.1	Peru	2000	1.00	0.95	1	0.04	1.00	0.27	0
RUS_95	Russia	1995	0.48	0.73	1	0.58	1.00	0.27	1
RUS_03	Russia	2003	0.79	0.73	1	0.73	0.95	0.27	0
RUS_04	Russia	2004	0.82	1	1	0.82	1.00	0.95	0
RUS_07	Russia	2007	0.94	1	1	1.00	1.00	0.99	0
RUS_08	Russia	2008	0.95	1	1	1.00	0.99	1.00	0
- RWA_03	Rwanda	2003	1.00	1	1	0.004	0.99	1.00	0
RWA_08	Rwanda	2008	1.00	1	1	0.005	0.73	0.99	0
RWA_03.1	Rwanda	2003	1.00	1	1	0.004	0.99	1.00	0
SEN_93	Senegal	1993	0.63	1	1	0.01	1.00	0.05	0
SEN_98	Senegal	1998	0.06	1	1	0.01	1.00	0.05	0

SFN Q0   Senegal   2000											
SSP_91         Singapore         1991         1.00         1         1         1.00         0.27         0.73         0           SGP_93         Singapore         1993         1.00         1         1         1.00         0.27         0.95         0           SGP_95         Singapore         2001         1.00         1         1         1.00         0.27         0.95         0           SGP_06         Singapore         2001         1.00         1         1         1         0.27         0.95         1           ZKF_94         South Africa         1994         0.59         1         1         1         0.04         1.00         0.95         1           LIKA_94         Sri Lanka         1.994         0.57         0.95         1         1         0.004         1.00         0.95         1           TZA_05         Tanzania         2000         0.93         1         1         0.004         0.99         0.99         0           TZA_05.1         Tanzania         2005         0.99         1         1         0.004         0.99         0.93         0.73         1           TZA_05.1         Tanzania         1.00 <td>S</td> <td>EN_00</td> <td>Senegal</td> <td>2000</td> <td>0.69</td> <td>1</td> <td>1</td> <td>0.01</td> <td>1.00</td> <td>0.73</td> <td>1</td>	S	EN_00	Senegal	2000	0.69	1	1	0.01	1.00	0.73	1
S6P 33         Singapore         1993         1.00         1         1         1.00         0.27         0.95         0           S6P 27         Singapore         1997         1.00         1         1         1.00         0.27         0.95         0           S6P 06         Singapore         2006         0.99         1         1         1         0.72         0.99         0           S6P 06         Singapore         2006         0.99         1         1         1         0.72         0.99         0           S6P 06         Singapore         2006         0.99         1         1         1         0.04         1.00         0.95         1           ILKA,94         Sorth Africa         1994         0.97         0.95         1         0.00         0.03         1           IZA,05         Tanania         2000         0.93         1         1         0.00         0.95         0.73         0           IZA,011         Tanzania         2005         0.99         1         1         0.00         0.95         0.73         0           IZA,011         Tanzania         1         1         0.00         0.05 <t< td=""><td>S</td><td>EN_93.1</td><td>Senegal</td><td>1993</td><td>0.63</td><td>1</td><td>1</td><td>0.01</td><td>1.00</td><td>0.05</td><td>0</td></t<>	S	EN_93.1	Senegal	1993	0.63	1	1	0.01	1.00	0.05	0
SGP_97         Singapore         1997         1.00         1         1         1.00         0.73         0.95         0           SGP_01         Singapore         2001         1.00         1         1         1.00         0.27         0.95         0           SGP_04         Singapore         2005         0.99         1         1         1         0.02         0.95         1           ILK_94         Sri Lanka         1994         0.97         0.95         1         0.04         1.00         0.95         0.73           IZA_05         Tanzania         2000         0.93         1         1         0.004         0.95         0.73         0           IZA_051         Tanzania         2005         0.99         1         1         0.004         0.95         0.73         0           IZA_051         Tanzania         2005         0.99         1         1         0.004         0.95         0.73         0           ITA_051         Tanzania         2005         0.99         1         1         0.004         0.95         0.73         1           ITA_052         Thaland         1992         1.00         1         0.01 <td>S</td> <td>GP_91</td> <td>Singapore</td> <td>1991</td> <td>1.00</td> <td>1</td> <td>1</td> <td>1.00</td> <td>0.27</td> <td>0.73</td> <td>0</td>	S	GP_91	Singapore	1991	1.00	1	1	1.00	0.27	0.73	0
SGP_01         Singapore         2001         1.00         1         1         1.00         0.27         0.95         0.9           SGP_06         Singapore         2006         0.99         1         1         1         0.27         0.99         0           ZAF_94         South Africa         1994         0.97         0.95         1         0.004         1.00         0.27         1           TXA_00         Tanzania         2000         0.93         1         1         0.004         0.99         0.0         1.1         0.00         0.05         0.73         0.0         1.1         1.0         0.00         0.0         0.0         0.0         1.0         1.0         1.1         1.0         0.0         0.0         1.0	S	GP_93	Singapore	1993	1.00	1	1	1.00	0.27	0.95	0
SGP_06         Singapore         2006         0.99         1         1         1         0.27         0.99         0           ZAF_94         South Africa         1994         0.59         1         1         0.04         1.00         0.27         1           IXA_94         ST I Lanka         1994         0.97         0.95         1         0.004         1.00         0.27         1           IZA_05         Tanzania         2005         0.99         1         1         0.004         0.99         0.99         0.0           IZA_05.1         Tanzania         2005         0.99         1         1         0.004         0.99         0.9         0.0           ITA_90.1         Tanzania         2005         0.99         1         1         0.004         0.99         0.9         0.0           ITA_92.1         Thailand         2007         0.96         1         0.07         0.15         1.00         1.0         1.0         0.0         0.99         0.2         1.1         1.1         0.00         0.99         0.7         1.1         1.1         0.00         0.95         0.73         1.0         1.0         1.0         1.0         1.	S	GP_97	Singapore	1997	1.00	1	1	1.00	0.73	0.95	0
CAT_94	S	GP_01	Singapore	2001	1.00	1	1	1.00	0.27	0.95	0
Math	S	GP_06	Singapore	2006	0.99	1	1	1	0.27	0.99	0
TZA_00         Tanzania         2000         0.93         1         1         0.004         0.95         0.73         0           TZA_05         Tanzania         2005         0.99         1         1         0.004         0.99         0.99         0           TZA_05.1         Tanzania         2000         0.99         1         1         0.004         0.99         0.99         0           THA_92         Thalland         1992         1.00         1         0.01         0.005         0.95         0.73         1           THA_92.7         Thalland         1992         1.00         1         0.01         0.005         0.95         0.73         1           THA_92.7         Thalland         1992         1.00         1         0.01         0.005         0.95         0.73         1           TKO_98         Togo         1998         1.00         1         1         0.01         0.95         0.73         0           TGO_03         Togo         2002         0.24         1         1         0.01         0.95         0.93         0           TGO_03         Togo         2003         0.18         1         1	Z	AF_94	South Africa	1994	0.59	1	1	0.04	1.00	0.95	1
TZA_05	LI	KA_94	Sri Lanka	1994	0.97	0.95	1	0.004	1.00	0.27	1
T2A_00.1   Tanzania   2000   0.93   1   1   0.004   0.95   0.73   0   1   1   0.004   0.99   0.99   0   1   1   0.004   0.99   0.99   0   0   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   1   1   0.005   0.95   0.73   0   1   0.005   0.95   0.73   0   0   0.005   0.95   0.73   0.95	T.	ZA_00	Tanzania	2000	0.93	1	1	0.004	0.95	0.73	0
T2A_05.1   Tanzania   2005   0.99   1   1   0.004   0.99   0.99   0.7     T3A_92   Thailand   1992   1.00   1   0.01   0.005   0.95   0.73   1     T3A_07   Thailand   1992   1.00   1   0.01   0.005   0.95   0.73   1     T3A_07   Taniland   1992   1.00   1   0.01   0.005   0.95   0.73   1     T3A_08   T0g0   1998   1.00   1   1   0.01   0.09   0.73   0.9     T3A_09   T0g0   1999   0.22   1   1   0.01   0.05   0.73   0.99   0.9     T3A_09   T0g0   1999   0.22   1   1   0.005   0.73   0.99   0.9     T3A_00   T0g0   2003   0.18   1   1   0.005   0.73   0.99   0.9     T3A_00   T0g0   2003   0.18   1   1   0.005   0.73   0.99   0.9     T3A_00   T0g0   2003   0.18   1   1   0.005   0.73   0.99   0.9     T3A_00   T0g0   2007   0.20   1   1   0.005   0.95   0.95   0.95   0.95   0.95   0.95     T3A_00   T0g0   2007   0.20   1   1   0.005   0.95	T.	ZA_05	Tanzania	2005	0.99	1	1	0.004	0.99	0.99	0
THA_92         Thailand         1992         1.00         1         0.01         0.005         0.95         0.73         1           THA_07         Thailand         2007         0.96         1         0.07         0.15         1.00         1.00         1           THA_92.1         Thailand         1992         1.00         1         0.01         0.005         0.93         0.73         1           TGO_98         Togo         1998         1.00         1         1         0.01         0.99         0.73         0           TGO_99         Togo         2002         0.24         1         1         0.005         0.73         0.99         0           TGO_03         Togo         2003         0.18         1         1         0.005         0.73         0.99         0           TGO_07         Togo         2005         0.17         1         0.005         0.95         0.99         0           TUN_09         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_99.1         Tunisia         2009         0.99         1         1         0.65	T.	ZA_00.1	Tanzania	2000	0.93	1	1	0.004	0.95	0.73	0
THA_O7         Thailand         2007         0.96         1         0.07         0.15         1.00         1.00         1           THA_92.1         Thailand         1992         1.00         1         0.01         0.005         0.95         0.73         1           TGO_98         Togo         1998         1.00         1         1         0.01         0.95         0.99         0           TGO_90         Togo         2002         0.24         1         1         0.005         0.73         0.99         0           TGO_03         Togo         2003         0.18         1         1         0.005         0.73         0.99         0           TGO_05         Togo         2005         0.17         1         1         0.005         0.95         0.95         0           TGO_07         Togo         2007         0.20         1         1         0.005         0.99         0         0           TUN_99         Tunlisia         1999         0.99         1         1         0.04         0.95         0.99         0           TUN_99.1         Tunisia         1999         0.99         1         1         0.65	T.	ZA_05.1	Tanzania	2005	0.99	1	1	0.004	0.99	0.99	0
THA_92.1         Thailand         1992         1.00         1         0.01         0.05         0.95         0.73         1           TGO_98         Togo         1998         1.00         1         1         0.01         0.99         0.73         0           TGO_99         Togo         1999         0.22         1         1         0.01         0.95         0.99         0           TGO_03         Togo         2002         0.24         1         1         0.005         0.73         0.99         0           TGO_05         Togo         2003         0.18         1         1         0.005         0.95         0.99         0           TGO_07         Togo         2007         0.20         1         1         0.005         0.99         0         0           TUN_99         Tunisia         2004         0.99         1         1         0.04         0.95         0.99         0           TUN_09         Tunisia         1999         0.99         1         1         0.05         0.99         1         0.01         0.95         0.99         1         0.06         0.95         0.99         0         0         0 <td>Т</td> <td>HA_92</td> <td>Thailand</td> <td>1992</td> <td>1.00</td> <td>1</td> <td>0.01</td> <td>0.005</td> <td>0.95</td> <td>0.73</td> <td>1</td>	Т	HA_92	Thailand	1992	1.00	1	0.01	0.005	0.95	0.73	1
TGO_98         Togo         1998         1.00         1         1         0.01         0.99         0.73         0           TGO_99         Togo         1999         0.22         1         1         0.01         0.95         0.99         0           TGO_02         Togo         2002         0.24         1         1         0.005         0.73         0.99         0           TGO_03         Togo         2003         0.18         1         1         0.005         0.73         0.99         0           TGO_07         Togo         2005         0.17         1         1         0.005         0.95         0.95         0           TGO_07         Togo         2007         0.20         1         1         0.005         0.99         0.9         0           TUN_99         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_09.1         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_09.1         Tunisia         2009         0.99         1         1         0.01         0	Т	HA_07	Thailand	2007	0.96	1	0.07	0.15	1.00	1.00	1
TGO_99         Togo         1999         0.22         1         1         0.01         0.95         0.99         0           TGO_02         Togo         2002         0.24         1         1         0.005         0.73         0.99         0           TGO_05         Togo         2003         0.18         1         1         0.005         0.73         0.99         0           TGO_07         Togo         2007         0.20         1         1         0.005         0.99         0.99         0           TUN_99         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_99         Tunisia         2004         0.99         1         1         0.04         0.95         0.99         0           TUN_99         Tunisia         2009         0.99         1         1         0.04         0.95         0.99         0           TUN_991         Tunisia         2009         0.99         1         1         0.01         0.95         0.99         0           UGA_96         Uganda         2001         0.93         1         0.1         0.05         <	Т	HA_92.1	Thailand	1992	1.00	1	0.01	0.005	0.95	0.73	1
TGO_02         Togo         2002         0.24         1         1         0.005         0.73         0.99         0           TGO_03         Togo         2003         0.18         1         1         0.005         0.73         0.99         0           TGO_05         Togo         2005         0.17         1         1         0.005         0.95         0.95         0           TGO_07         Togo         2007         0.20         1         1         0.005         0.99         0.99         0           TUN_9         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_09         Tunisia         2009         0.99         1         1         0.04         0.95         0.99         0           TUN_99.1         Tunisia         1999         0.99         1         1         0.65         0.99         1.00         0           UGA_95         Uganda         1996         0.99         1         1         0.65         0.99         1.00         0           UGA_06.1         Uganda         2001         0.93         1         0.41         0.004	T	GO_98	Togo	1998	1.00	1	1	0.01	0.99	0.73	0
TGO_03         Togo         2003         0.18         1         1         0.005         0.73         0.99         0           TGO_05         Togo         2005         0.17         1         1         0.005         0.95         0.95         0           TGO_07         Togo         2007         0.20         1         1         0.005         0.99         0.99         0           TUN_99         Tunisia         1999         0.99         1         1         0.04         0.95         0.99         0           TUN_99.1         Tunisia         2009         0.99         1         1         0.04         0.95         0.99         0           TUN_99.1         Tunisia         2009         0.99         1         1         0.05         0.99         1.00         0           TUN_99.1         Tunisia         1         0.95         0.99         0         1         1         0.05         0.99         1         0         0.01         0.95         0.99         0           UGA_95         Uganda         1         0.99         1         0.1         0.04         0.00         0.95         0         0         0         0	T	GO_99	Togo	1999	0.22	1	1	0.01	0.95	0.99	0
TGO_05         Togo         2005         0.17         1         1         0.005         0.95         0.95         0           TGO_07         Togo         2007         0.20         1         1         0.005         0.99         0.99         0           TUN_99         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_04         Tunisia         2004         0.99         1         1         0.04         0.95         0.99         0           TUN_90         Tunisia         2009         0.99         1         1         0.05         0.99         1.00         0           TUN_90.1         Tunisia         1999         0.99         1         1         0.65         0.99         1.00         0           UGA_96         Uganda         1996         0.98         1         0.19         0.004         0.95         0.95         0           UGA_06         Uganda         2001         0.93         1         0.41         0.004         1.00         0.95         0           UGA_06.1         Uganda         2006         0.96         1         0.02         0.00	T	GO_02	Togo	2002	0.24	1	1	0.005	0.73	0.99	0
TGO_07         Togo         2007         0.20         1         1         0.005         0.99         0.99         0           TUN_99         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_04         Tunisia         2004         0.99         1         1         0.04         0.95         0.99         0           TUN_99         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_99.1         Tunisia         1999         0.99         1         1         0.05         0.99         1.00         0           UGA_96         Uganda         2009         0.99         1         1         0.65         0.99         1.00         0           UGA_96         Uganda         2001         0.93         1         0.19         0.004         0.95         0.95         0           UGA_06         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.97         1         1         1.00<	T	GO_03	Togo	2003	0.18	1	1	0.005	0.73	0.99	0
TUN_99         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_04         Tunisia         2004         0.99         1         1         0.04         0.95         0.99         0           TUN_09         Tunisia         2009         0.99         1         1         0.05         0.99         1.00         0           TUN_09.1         Tunisia         1999         0.99         1         1         0.65         0.99         1.00         0           UGA_96         Uganda         1996         0.98         1         0.19         0.064         0.95         0.95         0           UGA_06         Uganda         2001         0.93         1         0.11         0.00         0.95         0.95         0           UGA_06.1         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.96         1         0.02         0.004         1.00         0.99         0           ZMB_06         Zambia         2006         0.97         1         1	T	GO_05	Togo	2005	0.17	1	1	0.005	0.95	0.95	0
TUN_04         Tunisia         2004         0.99         1         1         0.04         0.95         0.99         0           TUN_09         Tunisia         2009         0.99         1         1         0.65         0.99         1.00         0           TUN_09.1         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           UGA_96         Uganda         1996         0.98         1         0.19         0.004         0.95         0.95         0           UGA_06         Uganda         2001         0.93         1         0.19         0.004         1.00         0.95         0           UGA_06         Uganda         2001         0.93         1         0.01         0.004         1.00         0.95         0           UGA_06.1         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.97         1         1         1.00         1.00         0.95         0.73         0           ZMB_08         Zambia         2008         0.99         1	T	GO_07	Togo	2007	0.20	1	1	0.005	0.99	0.99	0
TUN_09         Tunisia         2009         0.99         1         1         0.65         0.99         1.00         0           TUN_99.1         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_09.1         Tunisia         2009         0.99         1         1         0.65         0.99         1.00         0           UGA_96         Uganda         1996         0.98         1         0.19         0.004         0.95         0.95         0           UGA_01         Uganda         2001         0.93         1         0.41         0.004         1.00         0.99         0           UGA_06.1         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.97         1         1         1.00         1.00         0.95         0           ZMB_08         Zambia         2008         0.99         1         1         1         0.06         0.95         0.73         0           ZMB_01         Zambia         200         0.96         1 <t< td=""><td>Т</td><td>UN_99</td><td>Tunisia</td><td>1999</td><td>0.99</td><td>1</td><td>1</td><td>0.01</td><td>0.95</td><td>0.99</td><td>0</td></t<>	Т	UN_99	Tunisia	1999	0.99	1	1	0.01	0.95	0.99	0
TUN_99.1         Tunisia         1999         0.99         1         1         0.01         0.95         0.99         0           TUN_99.1         Tunisia         2009         0.99         1         1         0.65         0.99         1.00         0           UGA_96         Uganda         1996         0.98         1         0.19         0.004         0.95         0.95         0           UGA_06         Uganda         2001         0.93         1         0.41         0.004         1.00         0.95         0           UGA_06.1         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.96         1         0.02         0.004         1.00         0.99         0           ZMB_06         Zambia         2006         0.97         1         1         1.00         1.00         0.95         0           ZMB_08         Zambia         2001         0.96         1         1         0.05         0.73         0.73         0           ZMB_05.1         Zambia         2001         0.96         1         1	Т	UN_04	Tunisia	2004	0.99	1	1	0.04	0.95	0.99	0
TUN_09.1         Tunisia         2009         0.99         1         1         0.65         0.99         1.00         0           UGA_96         Uganda         1996         0.98         1         0.19         0.004         0.95         0.95         0           UGA_01         Uganda         2001         0.93         1         0.41         0.004         1.00         0.95         0           UGA_06         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.97         1         1         1.00         1.00         0.95         0           ZMB_08         Zambia         2008         0.99         1         1         0.06         0.95         0.73         0           ZMB_01         Zambia         2001         0.96         1         1         0.06         0.95         0.73         0           ZMB_05         Zambia         2001         0.96         1         1         0.01         0.73         0.95         0           ZMB_06.1         Zambia         2006         0.97         1         1         0	Т	UN_09	Tunisia	2009	0.99	1	1	0.65	0.99	1.00	0
UGA_96         Uganda         1996         0.98         1         0.19         0.004         0.95         0.95         0           UGA_01         Uganda         2001         0.93         1         0.41         0.004         1.00         0.95         0           UGA_06         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.97         1         1         1.00         1.00         0.95         0           ZMB_06         Zambia         2006         0.97         1         1         0.06         0.95         0.73         0           ZMB_08         Zambia         2008         0.99         1         1         1         0.59         0.73         0.73         0           ZMB_01         Zambia         2001         0.96         1         1         0.01         0.73         0.95         0           ZMB_05.1         Zambia         2001         0.96         1         1         0.01         0.73         0.95         0           ZWE_95         Zimbabwe         1995         0.02         1         1<	Т	UN_99.1	Tunisia	1999	0.99	1	1	0.01	0.95	0.99	0
UGA_01         Uganda         2001         0.93         1         0.41         0.004         1.00         0.95         0           UGA_06         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           UGA_06.1         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.97         1         1         1.00         1.00         0.95         0           ZMB_06         Zambia         2006         0.97         1         1         0.06         0.95         0.73         0           ZMB_08         Zambia         2008         0.99         1         1         0.05         0.73         0.73         0           ZMB_01         Zambia         2001         0.96         1         1         0.01         0.73         0.95         0           ZWE_95         Zimbabwe         1995         0.92         1         1         0.06         0.95         0.73         0           ZWE_05         Zimbabwe         1996         0.001         1         1 <th< td=""><td>Т</td><td>UN_09.1</td><td>Tunisia</td><td>2009</td><td>0.99</td><td>1</td><td>1</td><td>0.65</td><td>0.99</td><td>1.00</td><td>0</td></th<>	Т	UN_09.1	Tunisia	2009	0.99	1	1	0.65	0.99	1.00	0
UGA_06         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           UGA_06.1         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.97         1         1         1.00         1.00         0.95         0           ZMB_06         Zambia         2006         0.97         1         1         0.06         0.95         0.73         0           ZMB_08         Zambia         2008         0.99         1         1         0.59         0.73         0.73         0           ZMB_06.1         Zambia         2001         0.96         1         1         0.01         0.73         0.95         0           ZWE_95         Zimbabwe         1995         0.92         1         1         0.06         0.95         0.73         0           ZWE_05         Zimbabwe         1996         0.001         1         1         0.01         0.27         0.95         0           ZWE_05         Zimbabwe         2005         0.75         1         1 <th< td=""><td>U</td><td>IGA_96</td><td>Uganda</td><td>1996</td><td>0.98</td><td>1</td><td>0.19</td><td>0.004</td><td>0.95</td><td>0.95</td><td>0</td></th<>	U	IGA_96	Uganda	1996	0.98	1	0.19	0.004	0.95	0.95	0
UGA_06.1         Uganda         2006         0.96         1         0.02         0.004         1.00         0.99         0           VEN_06         Venezuela         2006         0.97         1         1         1.00         1.00         0.95         0           ZMB_06         Zambia         2006         0.97         1         1         0.06         0.95         0.73         0           ZMB_08         Zambia         2008         0.99         1         1         0.99         0.73         0.73         0           ZMB_01         Zambia         2001         0.96         1         1         0.01         0.73         0.95         0           ZME_96.1         Zambia         2006         0.97         1         1         0.06         0.95         0.73         0           ZWE_95         Zimbabwe         1995         0.92         1         1         0.06         0.95         0.73         0           ZWE_06         Zimbabwe         1996         0.001         1         1         0.01         0.95         0.95         0           ZWE_05         Zimbabwe         2002         0.01         1         1         0.0	U	IGA_01	Uganda	2001	0.93	1	0.41	0.004	1.00	0.95	0
VEN_06         Venezuela         2006         0.97         1         1         1.00         1.00         0.95         0           ZMB_06         Zambia         2006         0.97         1         1         0.06         0.95         0.73         0           ZMB_08         Zambia         2008         0.99         1         1         0.59         0.73         0.73         0           ZMB_01         Zambia         2001         0.96         1         1         0.01         0.73         0.95         0           ZME_95         Zimbabwe         1995         0.92         1         1         0.01         0.27         0.95         0           ZWE_95         Zimbabwe         1996         0.001         1         1         0.01         0.27         0.95         0           ZWE_02         Zimbabwe         2002         0.01         1         1         0.01         0.95         0.95         0           ZWE_05         Zimbabwe         2005         0.75         1         1         0.01         1.00         1.00         1           ZWE_08         Zimbabwe         2008         0.94         1         1         0.02 <td>U</td> <td>IGA_06</td> <td>Uganda</td> <td>2006</td> <td>0.96</td> <td>1</td> <td>0.02</td> <td>0.004</td> <td>1.00</td> <td>0.99</td> <td>0</td>	U	IGA_06	Uganda	2006	0.96	1	0.02	0.004	1.00	0.99	0
ZMB_06         Zambia         2006         0.97         1         1         0.06         0.95         0.73         0           ZMB_08         Zambia         2008         0.99         1         1         0.59         0.73         0.73         0           ZMB_01         Zambia         2001         0.96         1         1         0.01         0.73         0.95         0           ZME_95         Zimbabwe         1995         0.92         1         1         0.01         0.27         0.95         0           ZWE_96         Zimbabwe         1996         0.001         1         1         0.01         0.95         0.95         0           ZWE_02         Zimbabwe         2002         0.01         1         1         0.01         0.95         0.95         0           ZWE_05         Zimbabwe         2005         0.75         1         1         0.01         1.00         1.00         0           ZWE_08         Zimbabwe         2008         0.94         1         1         0.02         1.00         1.00         0	U	GA_06.1	Uganda	2006	0.96	1	0.02	0.004	1.00	0.99	0
ZMB 08         Zambia         2008         0.99         1         1         0.59         0.73         0.73         0           ZMB 01         Zambia         2001         0.96         1         1         0.01         0.73         0.95         0           ZMB 06.1         Zambia         2006         0.97         1         1         0.06         0.95         0.73         0           ZWE 95         Zimbabwe         1995         0.92         1         1         0.01         0.27         0.95         0           ZWE 96         Zimbabwe         1996         0.001         1         1         0.01         0.95         0.95         0           ZWE 02         Zimbabwe         2002         0.01         1         1         0.01         0.99         0.99         0           ZWE 05         Zimbabwe         2005         0.75         1         1         0.01         1.00         1.00         0           ZWE 08         Zimbabwe         2008         0.94         1         1         0.02         1.00         1.00         0	٧	EN_06	Venezuela	2006	0.97	1	1	1.00	1.00	0.95	0
ZMB 01       Zambia       2001       0.96       1       1       0.01       0.73       0.95       0         ZMB 06.1       Zambia       2006       0.97       1       1       0.06       0.95       0.73       0         ZWE 95       Zimbabwe       1995       0.92       1       1       0.01       0.27       0.95       0         ZWE 96       Zimbabwe       1996       0.001       1       1       0.01       0.95       0.95       0         ZWE 02       Zimbabwe       2002       0.01       1       1       0.01       0.99       0.99       0         ZWE 05       Zimbabwe       2005       0.75       1       1       0.01       1.00       1.00       0         ZWE 08       Zimbabwe       2008       0.94       1       1       0.02       1.00       1.00       0	Z	MB_06	Zambia	2006	0.97	1	1	0.06	0.95	0.73	0
ZMB_06.1         Zambia         2006         0.97         1         1         0.06         0.95         0.73         0           ZWE_95         Zimbabwe         1995         0.92         1         1         0.01         0.27         0.95         0           ZWE_96         Zimbabwe         1996         0.001         1         1         0.01         0.95         0.95         0           ZWE_02         Zimbabwe         2002         0.01         1         1         0.01         0.99         0.99         0           ZWE_05         Zimbabwe         2005         0.75         1         1         0.01         1.00         1.00         0           ZWE_08         Zimbabwe         2008         0.94         1         1         0.02         1.00         1.00         0	Z	MB_08	Zambia	2008	0.99	1	1	0.59	0.73	0.73	0
ZWE_95         Zimbabwe         1995         0.92         1         1         0.01         0.27         0.95         0           ZWE_96         Zimbabwe         1996         0.001         1         1         0.01         0.95         0.95         0           ZWE_02         Zimbabwe         2002         0.01         1         1         0.01         0.99         0.99         0           ZWE_05         Zimbabwe         2005         0.75         1         1         0.01         1.00         1.00         0           ZWE_08         Zimbabwe         2008         0.94         1         1         0.02         1.00         1.00         0	Z	MB_01	Zambia	2001	0.96	1	1	0.01	0.73	0.95	0
ZWE_96         Zimbabwe         1996         0.001         1         1         0.01         0.95         0.95         0           ZWE_02         Zimbabwe         2002         0.01         1         1         0.01         0.99         0.99         0           ZWE_05         Zimbabwe         2005         0.75         1         1         0.01         1.00         1.00         0           ZWE_08         Zimbabwe         2008         0.94         1         1         0.02         1.00         1.00         0	Z	MB_06.1	Zambia	2006	0.97	1	1	0.06	0.95	0.73	0
ZWE_02     Zimbabwe     2002     0.01     1     1     0.01     0.99     0.99     0       ZWE_05     Zimbabwe     2005     0.75     1     1     0.01     1.00     1.00     0       ZWE_08     Zimbabwe     2008     0.94     1     1     0.02     1.00     1.00     0	Z	WE_95	Zimbabwe	1995	0.92	1	1	0.01	0.27	0.95	0
ZWE_05         Zimbabwe         2005         0.75         1         1         0.01         1.00         1.00         0           ZWE_08         Zimbabwe         2008         0.94         1         1         0.02         1.00         1.00         0	Z	WE_96	Zimbabwe	1996	0.001	1	1	0.01	0.95	0.95	0
ZWE_08 Zimbabwe 2008 0.94 1 1 0.02 1.00 1.00 0	Z	WE_02	Zimbabwe	2002	0.01	1	1	0.01	0.99	0.99	0
	Z	WE_05	Zimbabwe	2005	0.75	1	1	0.01	1.00	1.00	0
ZWE_08.1         Zimbabwe         2008         0.94         1         1         0.02         1.00         1.00         1	Z	WE_08	Zimbabwe	2008	0.94	1	1	0.02	1.00	1.00	0
	Z	WE_08.1	Zimbabwe	2008	0.94	1	1	0.02	1.00	1.00	1

## **B.3** Raw Data and Calibration Strategy

Figure B.1: Histograms of the Distribution of the Raw Data

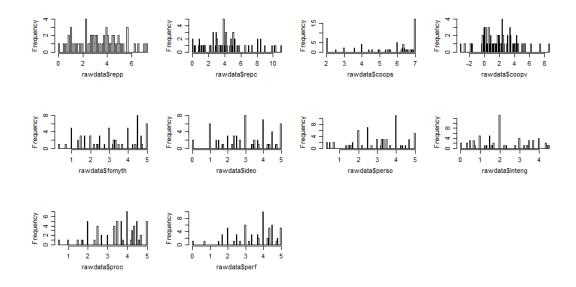


Figure B.2: Histograms of Membership Scores in Condition and Outcome Sets

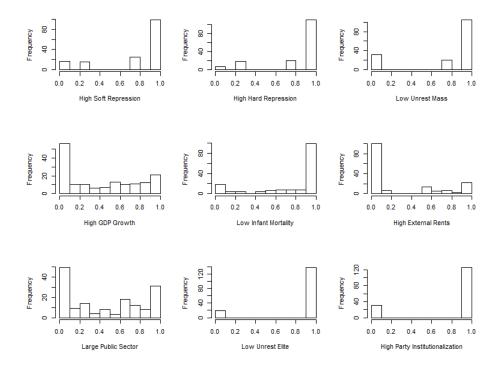
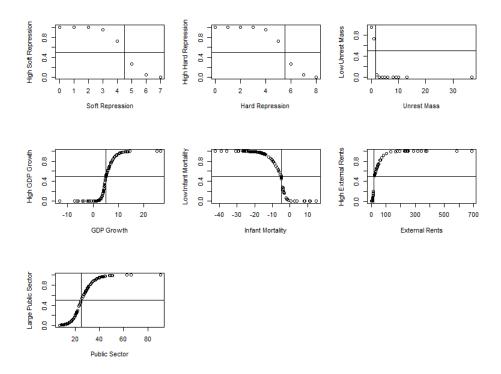


Figure B.3: Plots of Fuzzy Sets Against Base Variables



# **B.4** Additional Tables for the Analyses

Table B.3: Parameters of Fit, Necessity, Outcome Electoral Defeat

Conditions	Consistency of Necessity	Coverage of Necessity	Relevance of Necessity
leg_spec	0.838	0.201	0.237
leg_diff	0.793	0.165	0.088
coop_form	0.776	0.167	0.126
coop_inf	0.101	0.072	0.744
rep_h	0.862	0.200	0.207
rep_s	0.656	0.164	0.264
not leg_spec	0.162	0.157	0.827
not leg_diff	0.207	0.532	0.963
not coop_form	0.224	0.402	0.933
not coop_inf	0.899	0.237	0.327
not rep_h	0.138	0.154	0.850
not rep_s	0.344	0.287	0.824

 $<sup>\</sup>mbox{\ensuremath{^{a}}}$  No conjunction passes the consistency threshold of 0.9.

Table B.4: Truth Table for the Outcome Electoral Defeat

row le	g_spec leg_diff	coop	_form coop_inf	rep	_h rep_s	Outcome	n	incl	PRI	cases
41 1	0	1	0	0	0	1	3	0.94	0.94	HUN_90,MDG_93,MDG_93.1
44 1	0	1	0	1	1	0	2	0.65	0.65	PAK_08,IDN_99
13 1	0	1	0	1	0	0	2	0.52	0.52	MDG_92,HTI_00
52 1	1	0	0	1	1	0	10	0.39	0.39	PER_95,UGA_96,UGA_01,UGA_06,
										BGD_08,THA_92,THA_07,PER_95.1,
										UGA_06.1,THA_92.1
20 0	1	0	0	1	1	0	2	0.33	0.33	CIV_00,CIV_00.1
6 1	1	0	1	1	1	0	2	0.32	0.32	IRN_00,IRN_01
9 1	1	1	0	1	0	0	13	0.27	0.27	MEX_91,MEX_94,MEX_97,MEX_00
										SLV_94,PER_00,SEN_93,MEX_94.1,
										MEX_00.1,SLV_94.1,PER_00.1,SEN_
										LKA_94
2 0	0	1	0	1	1	0	3	0.25	0.25	CIV 01,KEN 92,KEN 92.1
7 1	1	1	0	0	0	0	4	0.22	0.22	PRY 93,GHA 00,PRY 93.1,GHA 00
5 0	1	1	0	0	0	0	2	0.20	0.20	NAM 04,NAM 04.1
0 1	1	1	0	1	1	0	47	0.19	0.19	GTM 91,SLV 91,NIC 90,ARM 07,
										ARM 08,SEN 00,NER 99,BFA 05,
										TGO 98,CMR 97,KEN 02,TZA 00,
										TZA 05,RWA 03,RWA 08,ETH 05,
										MOZ_09,ZMB_06,ZWE_05,ZWE_08
										ZAF 94,TUN 99,TUN 04,EGY 90,
										EGY 93,EGY 95,EGY 99,EGY 00,
										EGY 05,EGY 07,KGZ 05,KGZ 07,
										NPL 91,NIC 90.1,CMR 97.1,NGA 9
										KEN 02.1,TZA 00.1,TZA 05.1,RWA
										MOZ 09.1,ZMB 01,ZMB 06.1,ZWE
										TUN 99.1,EGY 05.1,KGZ 05.1
8 0	1	1	0	1	1	0	15	0.18	0.18	TGO 99,TGO 02,TGO 03,TGO 05,
										TGO 07,CMR 02,CMR 04,CMR 07
										CAF_05,KEN_94,KEN_97,ZWE_96,
										ZWE 02,CAF 05.1,KEN 97.1
3 1	1	1	1	1	0	0	2	0.14	0.14	RUS 03,COG 09
4 1	1	1	1	1	1	0	30	0.09	0.09	VEN 06,RUS 04,RUS 07,RUS 08,
	-	-	-	-	-	ŭ	50	0.05	0.03	AZE 01,AZE 03,AZE 08,GAB 06,
										ZMB 08,DZA 97,DZA 99,DZA 02,
										DZA 04,DZA 07,DZA 09,TUN 09,
										IRN 92,IRN 93,IRN 96,IRN 97,
										IRN 98,IRN 04,IRN 08,IRN 09,
										MYS_95,MYS_99,MYS_04,MYS_08,
										SGP_97,TUN_09.1
8 1	1	1	0	0	1	0	2	0.08	0.08	ZWE 95,KGZ 09
51 1	1	1	1	0	0	0	4	0.08	0.08	GAB 97,GAB 98,GAB 01,MYS 90
52 1	1	1	1	0	1	0	10	0.01	0.01	GAB 05,GAB 09,NAM 09,BWA 04
, 1	1	1	1	U	T	U	10	0.01	0.01	
										BWA_09,SGP_91,SGP_93,SGP_01,
										SGP_06,NAM_09.1

Table B.5: Parsimonious Solution Formula for the Outcome Electoral Defeat

Solution terms <sup>a</sup>	Consister	ncy PRI <sup>b</sup>	Cov.rc
leg_diff*rep_h	0.935	0.935	0.082

<sup>&</sup>lt;sup>a</sup> Capital letters indicate presence, small letters absence, \* denotes logical AND.

Table B.6: Parsimonious Solution Formula, Outcome No Electoral Defeat (Two Models)

Sufficient terms, connected by logical OR <sup>a</sup>	Consistency	PRI <sup>b</sup>	Cov.rc	Cov.uc	M1	M2
LEG_DIFF*COOP_FORM*REP_S	0.878	0.878	0.697	0.445	0.661	0.445
COOP_FORM*COOP_INF	0.928	0.928	0.302	0.021		0.050
COOP_INF*rep_s	0.896	0.896	0.066	0.000	0.030	
M1 Overall	0.878	0.878	0.726			
M2 Overall	0.881	0.881	0.747			

<sup>&</sup>lt;sup>a</sup> Capital letters indicate presence, small letters absence, \* denotes logical AND.

<sup>&</sup>lt;sup>b</sup> PRI = proportional reduction in inconsistency (Mendel and Ragin 2011, Schneider and Wagemann 2012, p. 242).

<sup>&</sup>lt;sup>c</sup> Cov.r indicates the raw coverage.

<sup>&</sup>lt;sup>b</sup> PRI = proportional reduction in inconsistency (Mendel and Ragin 2011, Schneider and Wagemann 2012, p. 242).

<sup>&</sup>lt;sup>c</sup> Cov.r = the raw coverage; Cov.u = unique coverage.

#### **B.5 Robustness Tests**

Table B.7: Alternative Truth Table (n.cut = 1) for the Outcome No Electoral Defeat

rov	leg_s	pec leg_diff	coop	_form coop_inf	rep	_h rep_s	Outcome	n	incl	PRI	cases
62	1	1	1	1	0	1	1	10	0.990	0.990	GAB_05,GAB_09,NAM_09,BWA_04, BWA_09,SGP_91,SGP_93,SGP_01,
61	1	1	1	1	0	0	1	4	0.986	0.986	SGP_06,NAM_09.1
	1							4			GAB_97,GAB_98,GAB_01,MYS_90
8	1	1	1	0	0	1	1	2	0.920	0.920	ZWE_95,KGZ_09
54	1	1	1	1	1	1	1	30	0.914	0.914	VEN_06,RUS_04,RUS_07,RUS_08, AZE_01,AZE_03,AZE_08,GAB_06, ZMB_08,DZA_97,DZA_99,DZA_02, DZA_04,DZA_07,DZA_09,TUN_09, IRN_92,IRN_93,IRN_96,IRN_97, IRN_98,IRN_04,IRN_08,IRN_09, MYS_95,MYS_99,MYS_04,MYS_08, SGP_97,TUN_09.1
53	1	1	1	1	1	0	1	2	0.864	0.864	RUS 03,COG 09
18	0	1	1	0	1	1	1	15	0.821	0.821	TGO 99,TGO 02,TGO 03,TGO 05,
20	U	1	1	Ü	1	1	1	13	0.821	0.821	TGO_99,IGO_02,IGO_03,IGO_03, TGO_07,CMR_02,CMR_04,CMR_07, CAF_05,KEN_94,KEN_97,ZWE_96, ZWE_02,CAF_05.1,KEN_97.1
60	1	1	1	0	1	1	1	47	0.814	0.814	GTM_91,SLV_91,NIC_90,ARM_07, ARM_08,SEN_00,NER_99,BFA_05, TGO_98,CMR_97,KEN_02,TZA_00, TZA_05,RWA_03,RWA_08,ETH_05, MOZ_09,ZMB_06,ZWE_05,ZWE_08 ZAF_94,TUN_99,TUN_04,EGY_90, EGY_93,EGY_95,EGY_99,EGY_00, EGY_05,EGY_07,KGZ_05,KGZ_07, NPL_91,NIC_90.1,CMR_97.1,NGA_9, KEN_02.1,TZA_00.1,TZA_05.1,RWA_MOZ_09.1,ZMB_01,ZMB_06.1,ZWE
											TUN_99.1,EGY_05.1,KGZ_05.1
8	1	0	1	1	1	1	1	1	0.810	0.810	AZE_06
5	0	1	1	0	0	0	0	2	0.798	0.798	NAM_04,NAM_04.1
1	0	1	1	1	1	0	0	1	0.793	0.793	RUS_95
7	1	1	1	0	0	0	0	4	0.783	0.783	PRY_93,GHA_00,PRY_93.1,GHA_00
2	0	0	1	0	1	1	0	3	0.749	0.749	CIV_01,KEN_92,KEN_92.1
9	1	1	1	0	1	0	0	13	0.732	0.732	MEX_91,MEX_94,MEX_97,MEX_00 SLV_94,PER_00,SEN_93,MEX_94.1, MEX_00.1,SLV_94.1,PER_00.1,SEN_ LKA_94
7	0	1	1	0	1	0	0	1	0.706	0.706	SEN_98
6	1	1	0	1	1	1	0	2	0.684	0.684	IRN_00,IRN_01
0	0	1	0	0	1	1	0	2	0.667	0.667	CIV_00,CIV_00.1
2	1	1	0	0	1	1	0	10	0.609	0.609	PER_95,UGA_96,UGA_01,UGA_06, BGD_08,THA_92,THA_07,PER_95.1, UGA_06.1,THA_92.1
		0	1	0	1	0	0	2	0.484	0.484	MDG 92,HTI 00
13	1										
13 14	1 1	0	1	Ō	1	1	0	2	0.354	0.354	PAK 08,IDN 99

Table B.8: Alternative Intermediate Solution Formula (consistency threshold = 0.9) for the Outcome No Electoral Defeat

Sufficient terms, connected by logical OR <sup>a</sup>	Consistend	cy PRI <sup>b</sup>	Cov.rc	Cov.uc
LEG_SPEC*LEG_DIFF*COOP_FORM*COOP_INF*rep_h	0.991	0.991	0.098	0.014
LEG_SPEC*LEG_DIFF*COOP_FORM*COOP_INF*REP_S	0.930	0.930	0.248	0.164
LEG_SPEC*LEG_DIFF*COOP_FORM*rep_h*REP_S	0.955	0.955	0.124	0.040
Overall solution	0.927	0.927	0.301	

 <sup>&</sup>lt;sup>a</sup> Capital letters indicate presence, small letters absence, \* denotes logical AND.
 <sup>b</sup> PRI = proportional reduction in inconsistency (Mendel and Ragin 2011, Schneider and Wagemann 2012, p. 242).

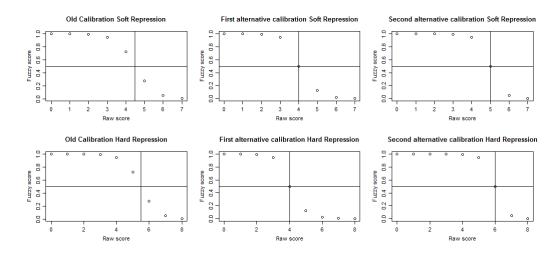
<sup>&</sup>lt;sup>c</sup> Cov.r indicates the raw coverage.

**Table B.9:** Alternative Intermediate Solution Formula (consistency threshold = 0.74, two models) for the Outcome No Electoral Defeat

Sufficient terms, connected by logical OR <sup>a</sup>	Consist.	PRI <sup>b</sup>	Cov.rc	Cov.uc	M1	M2
LEG_SPEC*LEG_DIFF*COOP_FORM*COOP_INF	0.925	0.925	0.273	0.011	0.023	0.126
LEG_DIFF*COOP_FORM*coop_inf*rep_h*rep_s	0.808	0.808	0.054	0.009	0.029	0.009
leg_spec*COOP_FORM*coop_inf*REP_H*REP_S	0.820	0.820	0.145	0.014	0.091	0.014
LEG_SPEC*LEG_DIFF*COOP_FORM*rep_h	0.923	0.923	0.160	0.003		0.012
LEG_SPEC*LEG_DIFF*COOP_FORM*REP_S	0.871	0.871	0.584	0.051	0.294	
LEG_DIFF*COOP_FORM*coop_inf*REP_H*REP_S	0.832	0.832	0.448	0.020		0.239
M1 Overall	0.879	0.879	0.728			
M2 Overall	0.864	0.864	0.700			

<sup>&</sup>lt;sup>a</sup> Capital letters indicate presence, small letters absence, \* denotes logical AND.

Figure B.4: Alternative Calibrations: Plots of Fuzzy Sets Against Base Variables



For further robustness tests and alternative calibrations of the other conditions, see R scripts.

## **B.6** Theory Evaluation

The theory evaluation refers to Gerschewski's (2013) hypothesis of two stable configurations of the pillars. Further theoretical insights not discussed in the paper refer to cells ~TE and T~E which express where our two autocracy models disagree. As shortly mentioned in the paper, our QCA results identify in the lower-left cell (~TE) 8 elections in stable autocracies that Gerschewski does not predict. Because in that cell there is not a single non-stable autocracy, there are good arguments to expand Gerschewski's world in this direction. From Table B.11 below, one can also see how well Gerschewski and we perform in the overall attempt at identifying stable autocracies. Notice, for

<sup>&</sup>lt;sup>b</sup> PRI = proportional reduction in inconsistency (Mendel and Ragin 2011, Schneider and Wagemann 2012, p. 242).

<sup>&</sup>lt;sup>c</sup> Cov.r = the raw coverage; Cov.u = unique coverage.

instance, that there are 13 electoral defeats in cell TE (~Y) that neither Gerschewski nor we would expect to find there. These puzzling cases lend themselves to closer analysis. Even more puzzling are those 26 cases of stable autocracies (Y) in cell ~T~E. For those, neither Gerschewski nor we would expect the outcome, yet they are stable. These cases should be subjected to within-case analysis with the goal of identifying conditions for stability that are ignored by the WZB model and thus also by our QCA.

Table B.10: Intersections of Gerschewski's Two Worlds of Autocracies (T) and Empirical Findings (E), Boolean Expressions

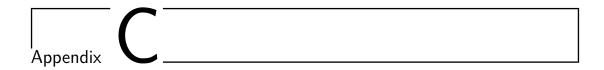
		Our QCA solution	on formula identifies:
		Stable autocracies (E)	Non-stable autocracies (~E)
ž	Stable autocracies	LEG_SPEC+LEG_DIFF*COOP_FROM*REP_S*REP_H+ LEG_DIFF*COOP_FROM*Coop_inf*REP_S*REP_H+ LEG_SPEC+LEG_DIFF*COOP_FORM*COOP_INF*REP_S*	<pre>led_spec*LEG_DIFF*COOP_FROM*COOP_INF*REP_S*REP_H + LEG_SPEC*leg_diff*COOP_INF*REP_S + LEG_SPEC*coop_form*COOP_INF*REP_S</pre>
ts:	(T)	Y.b Covered most likely cases [89] <sup>c</sup> ~Y: Inconsist. most likely cases [13]	Y: Uncovered most likely cases [3] ~Y: Consist. most likely cases [0]
Gerschewski predicts:	Non- stable	LEG_SPEC*LEG_DIFF*COOP_FROM*COOP_INF*rep_s + LEG_SPEC*LEG_DIFF*COOP_FORM*coop_inf*REP_S*rep_h	leg_spec*leg_diff*+leg_diff*coop_inf+leg_spec*coop_form+ coop_form*coop_inf *leg_diff*rep_s+ coop_form*rep_s+ coop_inf*rep_s+leg_spec*rep_s+leg_spec*rep_s+
	autocracies (~T)	Y: Covered least likely cases [8] ~Y: Inconsist. least likely cases [0]	Y: Uncovered least likely cases [26] ~Y: Consist. least likely cases [17]

- Capital letters indicate presence, small letters absence, \* denotes logical AND, + logical OR.
- Capital letters indicate presence, Small letters absence, Tuendes logical AND, Flogical On.
   Y: cases with fuzzy set membership in outcome "No Electoral Defeat" of higher than 0.5, \_Y: cases with fuzzy set membership in outcome "No Electoral Defeat" of lower than 0.5.
- The numbers in squared brackets indicate the number of cases being member of each of the four intersections between T and Y and that are members of the outcome Y and \_Y, respectively.

Table B.11: Intersections of Gerschewski's Two Worlds of Autocracies (T) and Empirical Findings (E), Names of the Cases

		Our QCA solution for	ormula identifies:
		Stable autocracies (E)	Non-stable autocracies (~E)
:	Stable utocracies (T)	Y:*SLV_91, VEN_06, RUS_04, RUS_07, RUS_08, ARM_07, ARM_08, AZE_01, AZE_03, AZE_08, BFA_05, TGO_98, TGO_99, TGO_02, TGO_03, TGO_05, TGO_07, CMR_97, CMR_02, CMR_04, CMR_07, GAB_05, GAB_06, GAB_09, CAF_05, KEN_94, KEN_97, TZA_00, TZA_05, RWA_03, RWA_08, ETH_05, MOZ_09, ZMB_06, ZMB_08, ZWE_96, ZWE_02, ZWE_05, ZWE_08, NAM_09, BWA_04, BWA_09, DZA_97, DZA_99, DZA_02, DZA_04, DZA_07, DZA_09, TUN_99, TUN_04, TUN_09, IRN_92, IRN_93, IRN_96, IRN_08, IRN_09, EGY_90, EGY_93, EGY_95, EGY_99, EGY_00, EGY_05, EGY_07, KGZ_07, NPL_91, MYS_95, MYS_99, MYS_04, MYS_08, SGP_91, SGP_93, SGP_97, SGP_01, SGP_06, CMR_97.1, CAF_05.1, KEN_97.1, TZA_00.1, TZA_05.1, RWA_03.1, MOZ_09.1, ZMB_01, ZMB_06, ZME_05.1, NAM_09.1, TUN_99.1, TUN_09.1, EGY_05.1, KGZ_05.1  "Y: GTM_91, NIC_90, SEN_00, NER_99, KEN_02, ZAF_94, IRN_97, IRN_98, IRN_04, NIC_90.1, NGA_99, KEN_02.1, ZWE_08.1.	Y: AZE_06, IRN_00, IRN_01 ~Y: [no cases]
S	Non- stable utocracies (~T)	Y: RUS_03, GAB_97, GAB_98, GAB_01, COG_09, ZWE_95, KGZ_09, MYS_90  ~Y: [no cases]	Y: MEX_91, MEX_94, MEX_97, SLV_94, PER_95, PER_0 PRY_93, SEN_93, SEN_98, CIV_01, UGA_96, UGA_01, UGA_06, KEN_92, NAM_04, HTL_00, MEX_94.1, SLV_9 PER_95.1, PER_00.1, PRY_93.1, SEN_93.1, CIV_00.1, UGA_06.1, KEN_92.1, NAM_04.1. ~Y: MEX_00, HUN_90, RUS_95, CIV_00, GHA_00, MDG MDG_93, PAK_08, BGD_08, THA_92, THA_07, IDN_99 MEX_00.1, GHA_00.1, MDG_93.1, LKA_94, THA_92.1

<sup>\*</sup> Y: cases with fuzzy set membership in outcome No Electoral Defeat of higher than 0.5, ~Y: cases with fuzzy set membership in outcome "No Electoral Defeat" of lower than 0.5.



# **Supplementary Material Study 3**

### **C.1** Overview Raw and Calibrated Data

NOTE: The time specification behind the regimes' names refer to Geddes et al.'s (2014) definition of autocracy and are the basis for determining a regime's (non-) persistence. NA means that the respective regime was persistent until 2010, the end of their observation. Column 4 and 5 follow von Soest and Grauvogel (2017b) and specify the time span covered by the data.

#### List of Cases and Indicators before Calibration

abbr.	cowcode	regime	start obs.	end obs.	pers	repp	repc	coopv	coops	fomyth	ideo	perso	inteng	proc	perf
ALG	615	Algeria 92-NA	1999	2010	1	3.50	4.67	0.85	7.00	4.67	3.67	3.50	3.00	4.33	3.67
ANG	540	Angola 75-NA	2008	2010	1	3.00	4.00	0.08	5.00	4.00	2.50	3.50	2.00	3.50	5.00
AZE	373	Azerbaijan 93-NA	1993	2010	1	3.28	4.28	1.24	6.92	1.00	2.25	3.25	1.25	3.00	4.00
BAH	692	Bahrain 1971-NA	1991	2010	1	5.40	4.85	-0.72	2.60	2.00	1.00	3.00	0.67	4.67	3.33
BNG	771	Bangladesh 07-08	1999	2010	0	1.42	7.17	1.27	6.00	3.67	2.67	2.00	1.67	3.33	2.67
BLR	370	Belarus 94-NA	1994	2010	1	4.35	2.71	0.21	5.82	2.75	3.50	3.50	2.00	3.50	4.00
BFO	439	Burkina Faso 87-NA	1991	2010	1	5.10	9.95	7.82	5.90	3.00	2.33	4.67	4.33	3.33	3.67
CAM	811	Cambodia 79-NA	1993	2010	1	2.94	8.44	1.41	5.89	4.50	3.50	4.00	1.50	4.50	4.00
CAO	471	Cameroon 83-NA	1992	2010	1	2.89	4.47	3.42	6.47	1.50	2.00	3.00	2.00	1.50	3.00
CEN	482	Cen Afr Rep 03-NA	2003	2010	1	2.88	5.00	2.54	5.75	2.00	1.50	1.50	1.00	2.50	2.50
CHA	483	Chad 90-NA	1996	2010	1	2.73	5.53	4.37	6.73	1.00	0.00	2.00	0.50	2.00	2.50
CHN	710	China 49-NA	1991	2010	1	1.50	0.80	3.11	3.00	5.00	4.75	2.00	3.00	3.50	4.75
CON	484	Congo-Brz 97-NA	2002	2010	1	4.56	8.67	0.42	6.44	3.00	1.00	4.00	4.00	5.00	4.50
DRC	490	Congo/Zaire 97-NA	1997	2010	1	1.10	2.80	0.95	3.43	1.50	1.50	2.50	0.50	2.00	4.00
CUB	40	Cuba 59-NA	2008	2010	1	4.00	0.00	4.08	4.00	5.00	5.00	2.50	4.00	4.50	4.00
EGY	651	Egypt 52-NA	1991	2010	1	3.15	3.85	1.71	6.00	3.25	1.75	2.50	3.25	4.25	4.00
ERI	531	Eritrea 93-NA	1993	2010	1	3.67	3.94	-1.26	2.00	5.00	3.75	3.25	0.75	1.75	3.75
ETH	530	Ethiopia 91-NA	1995	2010	1	1.94	5.94	0.85	6.38	4.40	4.00	4.00	4.40	3.80	4.80
GAB	481	Gabon 60-NA	1991	2010	1	6.35	6.75	3.72	7.00	2.33	1.67	2.00	2.00	3.33	3.67
GAM	420	Gambia 94-NA	1997	2010	1	5.50	8.36	3.68	7.00	4.00	5.00	4.00	3.50	5.00	4.00
GHA	452	Ghana 81-00	1991	1992	0	5.50	8.50	3.66	2.00	1.67	2.33	3.33	3.67	3.67	4.33
INS	850	Indonesia 66-99	1991	1998	0	1.12	2.38	2.71	6.00	4.25	4.00	4.00	3.50	4.25	5.00
IRN	630	Iran 79-NA	1991	2010	1	1.17	1.35	0.17	6.25	4.50	5.00	2.50	3.00	4.00	3.00
CDI	437	Ivory Coast 99-00	2000	2010	1	2.27	5.00	5.12	6.91	2.50	4.00	2.50	0.00	2.50	2.00
JOR	663	Jordan 46-NA	1991	2010	1	4.60	4.10	1.59	5.70	3.00	3.00	3.67	3.67	4.00	3.00
KZK	705	Kazakhstan 91-NA	1991	2010	1	5.11	4.63	0.85	5.89	1.67	3.00	4.67	3.50	4.00	4.00
PRK	731	Korea North 48-NA	1991	2010	1	0.19	0.05	1.48	3.00	5.00	5.00	4.67	0.33	2.00	1.67
KUW	690	Kuwait 61-NA	1991	2010	1	5.20	4.00	0.87	3.70	2.40	2.00	2.20	2.00	4.20	3.20
KYR	703	Kyrgyzstan 05-10	2005	2010	0	4.67	5.50	1.96	6.50	1.33	1.00	0.33	1.00	2.67	1.67
LAO	812	Laos 75-NA	1991	2010	1	5.10	3.40	0.62	4.55	3.00	3.33	0.67	0.67	2.33	2.00

LIB	620	Libya 69-NA	1991	2010	1	2.50	2.15	3.64	2.00	4.00	4.33	4.00	3.67	3.00	3.33
MAL	820	Malaysia 57-NA	1991	2010	1	4.90	4.40	2.60	7.00	2.20	3.40	1.60	2.80	4.60	4.80
MAA	435	Mauritania 08-NA	2008	2010	0	5.00	4.67	3.74	5.33	1.00	4.00	4.00	0.00	4.50	0.00
MEX	70	Mexico 15-00	1991	1999	0	2.11	10.67	4.63	7.00	4.00	3.00	1.67	2.00	4.67	4.33
MOR	600	Morocco 56-NA	1991	2010	1	4.00	4.15	1.93	7.00	4.50	3.00	4.50	1.50	3.50	2.50
MZM	541	Mozambique 75-NA	2009	2010	1	5.00	7.50	3.39	6.50	5.00	2.00	1.33	1.50	4.33	2.00
MYA	775	Myanmar 88-NA	1991	2010	1	1.20	0.50	-0.08	2.00	3.00	3.00	2.50	2.00	2.50	3.00
OMA	698	Oman 41-NA	1991	2010	1	7.00	2.30	2.44	2.25	4.50	0.00	5.00	2.00	1.00	4.00
PAK	770	Pakistan 99-08	1999	2010	0	0.75	4.00	2.50	5.50	0.67	1.00	0.33	1.67	3.33	2.00
PER	135	Peru 92-00	1991	1999	0	2.22	10.00	0.52	7.00	0.33	1.00	2.67	0.33	4.33	5.00
QAT	694	Qatar 1971-NA	1991	2010	1	7.22	4.00	-1.91	2.00	1.67	2.67	3.33	4.33	1.67	5.00
RUS	365	Russia 93-NA	2000	2010	1	1.82	3.82	1.80	7.00	1.00	1.33	3.17	3.40	4.33	4.33
RWA	517	Rwanda 94-NA	1994	2010	1	2.35	5.53	2.10	3.82	5.00	4.50	5.00	4.00	4.50	5.00
SAU	670	Saudi Arabia 27-NA	1991	2010	1	4.10	0.25	-0.09	2.00	4.50	5.00	5.00	4.50	0.50	4.50
SEN	433	Senegal 60-00	1991	1999	0	2.56	10.33	3.06	7.00	1.33	1.33	0.67	1.33	5.00	2.33
CS	345	Serbia 91-00	1992	2000	0	1.56	2.78	-1.84	7.00	2.00	3.67	3.33	1.00	3.67	0.67
SUD	625	Sudan 89-NA	1991	2010	1	0.60	0.80	0.98	3.45	3.33	4.67	1.67	2.33	3.67	1.67
SWA	572	Swaziland 68-NA	1991	2010	1	5.55	4.20	5.85	3.70	3.50	5.00	5.00	2.00	4.00	3.00
SYR	652	Syria 63-NA	1991	2010	1	3.00	1.60	-2.70	6.95	4.50	4.00	4.00	0.50	2.00	3.00
TAJ	702	Tajikistan 91-NA	1992	2010	1	2.58	5.32	0.25	6.59	3.33	2.33	3.00	0.67	2.67	4.33
TAZ	510	Tanzania 64-NA	1995	2010	1	4.44	5.19	5.23	6.44	3.20	3.00	2.00	1.60	5.00	4.25
THI	800	Thailand 06-07	2006	2010	0	1.60	5.60	1.88	5.80	1.00	3.00	0.50	2.00	4.50	1.50
TOG	461	Togo 63-NA	2005	2010	1	3.50	5.33	3.32	7.00	2.50	2.50	2.50	2.00	3.50	2.00
TUN	616	Tunisia 56-NA	1991	2010	1	3.85	5.05	4.78	5.80	2.50	2.50	2.00	1.00	4.00	4.00
TKM	701	Turkmenistan 91-NA	1991	2006	1	4.80	2.53	0.89	5.00	4.50	4.50	5.00	1.00	2.50	4.50
UGA	500	Uganda 86-NA	2009	2010	1	2.00	3.00	0.12	7.00	4.67	3.00	4.33	4.00	4.00	4.33
UAE	696	Unit Arab Emir 71-NA	1991	2010	1	6.55	1.20	8.95	2.00	4.00	4.50	4.00	3.00	2.00	4.50
UZB	704	Uzbekistan 91-NA	1991	2010	1	3.21	2.16	0.62	5.74	3.25	4.25	3.25	2.00	3.67	4.25
DRV	816	Vietnam 54-NA	1991	2010	1	3.95	1.20	2.19	3.90	4.50	4.50	0.50	1.50	5.00	4.50
YEM	679	Yemen 78-NA	1993	2010	1	2.28	3.83	-0.10	6.42	4.67	4.00	4.00	2.00	3.67	3.33
ZAM	551	Zambia 96-NA	1996	2007	1	4.33	8.25	5.71	7.00	1.50	1.00	4.00	1.50	4.00	4.50
ZIM	552	Zimbabwe 80-NA	1991	2010	1	3.15	4.90	2.64	6.50	4.75	4.00	4.25	2.25	4.25	3.75

The time specification behind the regimes' names refer to Geddes et al.'s (2014) definition of autocracy and are the basis for determining a regime's (non-) persistence. NA means that the respective regime was persistent until 2010, the end of their observation. Column 4 and 5 follow von Soest and Grauvogel (2017b) and specify the time span covered by the data.

### Calibrated Set Membership Values of All Cases

abbr.	cowcode	regime	start	end	pers	repp	repc	coopv	coops	fomyth	ideo	perso	inteng	proc	perf
			obs.	obs.											
ALG	615	Algeria 92-NA	1999	2010	1	0.53	0.77	0.30	0.00	0.96	0.87	0.76	0.87	0.85	0.58
ANG	540	Angola 75-NA	2008	2010	1	0.72	0.74	0.21	1.00	0.87	0.25	0.76	0.43	0.55	0.95
AZE	373	Azerbaijan 93-NA	1993	2010	1	0.73	0.78	0.44	1.00	0.00	0.17	0.67	0.09	0.30	0.73
BAH	692	Bahrain 1971-NA	1991	2010	1	0.09	0.59	0.12	0.00	0.05	0.02	0.55	0.02	0.91	0.42
BNG	771	Bangladesh 07-08	1999	2010	0	0.95	0.22	0.51	1.00	0.77	0.31	0.20	0.24	0.46	0.16
BLR	370	Belarus 94-NA	1994	2010	1	0.56	0.94	0.16	1.00	0.28	0.79	0.76	0.43	0.55	0.73
BFO	439	Burkina Faso 87-NA	1991	2010	1	0.20	0.02	0.99	1.00	0.43	0.20	0.97	0.99	0.46	0.58
CAM	811	Cambodia 79-NA	1993	2010	1	0.70	0.10	0.64	1.00	0.95	0.79	0.90	0.17	0.88	0.73
CAO	471	Cameroon 83-NA	1992	2010	1	0.72	0.74	0.81	1.00	0.01	0.12	0.55	0.43	0.02	0.27
CEN	482	Cen Afr Rep 03-NA	2003	2010	1	0.81	0.58	0.72	1.00	0.05	0.05	0.10	0.05	0.13	0.12
CHA	483	Chad 90-NA	1996	2010	1	0.78	0.61	0.91	1.00	0.00	0.00	0.20	0.01	0.05	0.12
CHN	710	China 49-NA	1991	2010	1	0.95	0.98	0.84	0.00	0.98	1.00	0.20	0.87	0.55	0.92
CON	484	Congo-Brz 97-NA	2002	2010	1	0.25	0.07	0.11	1.00	0.43	0.02	0.90	0.98	0.95	0.88
DRC	490	Congo/Zaire 97-NA	1997	2010	1	0.95	0.90	0.29	1.00	0.01	0.05	0.35	0.01	0.05	0.73
CUB	40	Cuba 59-NA	2008	2010	1	0.55	0.99	0.89	0.00	0.98	1.00	0.35	0.98	0.88	0.73
EGY	651	Egypt 52-NA	1991	2010	1	0.78	0.79	0.56	1.00	0.58	0.08	0.35	0.92	0.83	0.73
ERI	531	Eritrea 93-NA	1993	2010	1	0.79	0.92	0.02	0.00	0.98	0.89	0.67	0.03	0.03	0.62
ETH	530	Ethiopia 91-NA	1995	2010	1	0.90	0.57	0.25	1.00	0.94	0.95	0.90	0.99	0.68	0.93

GAB	481	Gabon 60-NA	1991	2010	1	0.03	0.28	0.88	0.00	0.11	0.07	0.20	0.43	0.46	0.58
GAM	420	Gambia 94-NA	1997	2010	1	0.18	0.08	0.84	0.00	0.87	1.00	0.90	0.95	0.95	0.73
GHA	452	Ghana 81-00	1991	1992	0	0.08	0.05	0.90	0.00	0.02	0.20	0.70	0.96	0.62	0.84
INS	850	Indonesia 66-99	1991	1998	0	0.95	0.92	0.73	1.00	0.92	0.95	0.90	0.95	0.83	0.95
IRN	630	Iran 79-NA	1991	2010	1	0.96	0.98	0.16	0.00	0.95	1.00	0.35	0.87	0.75	0.27
CDI	437	Ivory Coast 99-00	2000	2010	1	0.83	0.63	0.95	1.00	0.17	0.95	0.35	0.00	0.13	0.05
JOR	663	Jordan 46-NA	1991	2010	1	0.49	0.82	0.60	1.00	0.43	0.45	0.82	0.96	0.75	0.27
KZK	705	Kazakhstan 91-NA	1991	2010	1	0.34	0.80	0.34	1.00	0.02	0.45	0.97	0.95	0.75	0.73
PRK	731	Korea North 48-NA	1991	2010	1	0.98	0.99	0.61	0.00	0.98	1.00	0.97	0.01	0.05	0.03
KUW	690	Kuwait 61-NA	1991	2010	1	0.09	0.79	0.38	0.00	0.13	0.12	0.25	0.43	0.81	0.36
KYR	703	Kyrgyzstan 05-10	2005	2010	0	0.39	0.53	0.64	1.00	0.01	0.02	0.02	0.05	0.18	0.03
LAO	812	Laos 75-NA	1991	2010	1	0.37	0.90	0.40	1.00	0.43	0.68	0.03	0.02	0.10	0.05
LIB	620	Libya 69-NA	1991	2010	1	0.79	0.94	0.85	0.00	0.87	0.98	0.90	0.96	0.30	0.42
MAL	820	Malaysia 57-NA	1991	2010	1	0.31	0.79	0.71	0.00	0.08	0.73	0.12	0.81	0.90	0.93
MAA	435	Mauritania 08-NA	2008	2010	0	0.21	0.55	0.85	1.00	0.00	0.95	0.90	0.00	0.88	0.00
MEX	70	Mexico 15-00	1991	1999	0	0.86	0.01	0.91	0.00	0.87	0.45	0.13	0.43	0.91	0.84
MOR	600	Morocco 56-NA	1991	2010	1	0.53	0.65	0.67	0.00	0.95	0.45	0.96	0.17	0.55	0.12
MZM	541	Mozambique 75-NA	2009	2010	1	0.21	0.17	0.85	1.00	0.98	0.12	0.08	0.17	0.85	0.05
MYA	775	Myanmar 88-NA	1991	2010	1	0.96	0.99	0.12	0.00	0.43	0.45	0.35	0.43	0.13	0.27
OMA	698	Oman 41-NA	1991	2010	1	0.01	0.90	0.71	0.00	0.95	0.00	0.98	0.43	0.01	0.73
PAK	770	Pakistan 99-08	1999	2010	0	0.97	0.84	0.74	1.00	0.00	0.02	0.02	0.24	0.46	0.05
PER	135	Peru 92-00	1991	1999	0	0.83	0.02	0.33	0.00	0.00	0.02	0.41	0.01	0.85	0.95
QAT	694	Qatar 1971-NA	1991	2010	1	0.01	0.79	0.01	0.00	0.02	0.31	0.70	0.99	0.03	0.95
RUS	365	Russia 93-NA	2000	2010	1	0.91	0.89	0.62	0.00	0.00	0.04	0.63	0.94	0.85	0.84
RWA	517	Rwanda 94-NA	1994	2010	1	0.76	0.57	0.47	1.00	0.98	0.99	0.98	0.98	0.88	0.95
SAU	670	Saudi Arabia 27-NA	1991	2010	1	0.57	0.99	0.23	0.00	0.95	1.00	0.98	0.99	0.00	0.88
SEN	433	Senegal 60-00	1991	1999	0	0.86	0.02	0.80	0.00	0.01	0.04	0.03	0.11	0.95	0.09
CS	345	Serbia 91-00	1992	2000	0	0.93	0.92	0.02	0.00	0.05	0.87	0.70	0.05	0.62	0.00
SUD	625	Sudan 89-NA	1991	2010	1	0.96	0.97	0.53	0.00	0.62	0.99	0.13	0.62	0.62	0.03
SWA	572	Swaziland 68-NA	1991	2010	1	0.14	0.75	0.98	0.00	0.70	1.00	0.98	0.43	0.75	0.27
SYR	652	Syria 63-NA	1991	2010	1	0.81	0.96	0.00	1.00	0.95	0.95	0.90	0.01	0.05	0.27
TAJ	702	Tajikistan 91-NA	1992	2010	1	0.67	0.64	0.19	1.00	0.62	0.20	0.55	0.02	0.18	0.84
TAZ	510	Tanzania 64-NA	1995	2010	1	0.40	0.53	0.96	1.00	0.55	0.45	0.20	0.21	0.95	0.81
THI	800	Thailand 06-07	2006	2010	0	0.92	0.43	0.62	1.00	0.00	0.45	0.02	0.43	0.88	0.02
TOG	461	Togo 63-NA	2005	2010	1	0.61	0.47	0.79	0.00	0.17	0.25	0.35	0.43	0.55	0.05
TUN	616	Tunisia 56-NA	1991	2010	1	0.61	0.73	0.93	1.00	0.17	0.25	0.20	0.05	0.75	0.73
TKM	701	Turkmenistan 91-NA	1991	2006	1	0.51	0.97	0.30	1.00	0.95	0.99	0.98	0.05	0.13	0.88
UGA	500	Uganda 86-NA	2009	2010	1	0.88	0.86	0.19	0.00	0.96	0.45	0.94	0.98	0.75	0.84
UAE	696	Unit Arab Emir 71-NA	1991	2010	1	0.02	0.98	1.00	0.00	0.87	0.99	0.90	0.87	0.05	0.88
UZB	704	Uzbekistan 91-NA	1991	2010	1	0.75	0.98	0.21	1.00	0.58	0.98	0.67	0.43	0.62	0.81
DRV	816	Vietnam 54-NA	1991	2010	1	0.62	0.98	0.71	0.00	0.95	0.99	0.02	0.17	0.95	0.88
YEM	679	Yemen 78-NA	1993	2010	1	0.85	0.89	0.16	1.00	0.96	0.95	0.90	0.43	0.62	0.42
ZAM	551	Zambia 96-NA	1996	2007	1	0.45	0.10	0.96	0.00	0.01	0.02	0.90	0.17	0.75	0.88
ZIM	552	Zimbabwe 80-NA	1991	2010	1	0.85	0.88	0.70	1.00	0.97	0.95	0.93	0.58	0.83	0.62

CEU eTD Collection

Figure C.1: Histograms of the Distribution of the Raw Data

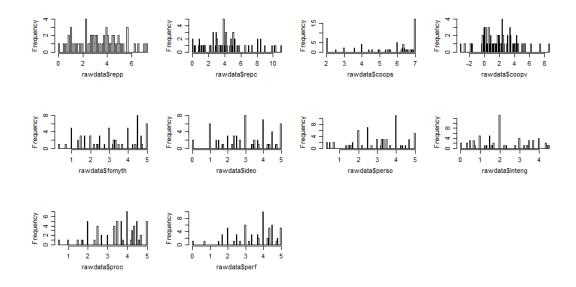


Figure C.2: Histograms of the Base Variables and Calibrated Sets

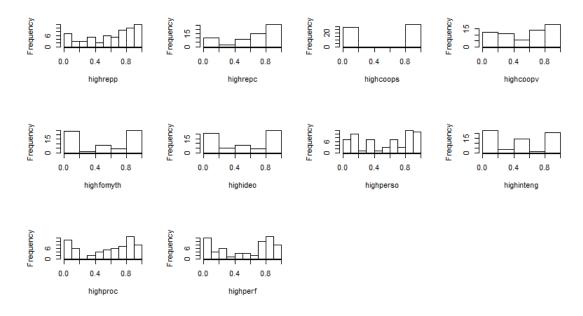
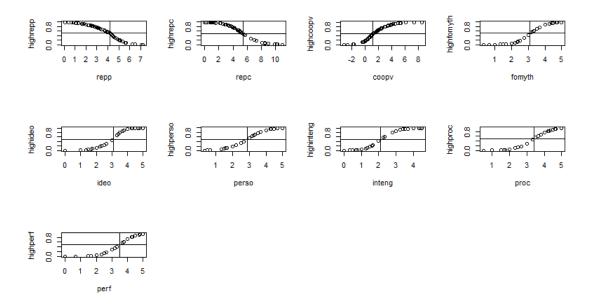


Figure C.3: Plots of Fuzzy Sets Against Base Variables



# C.2 Test of Necessity

Table C.3: Parameters of Fit, Necessity for the Outcome Authoritarian Persistence

Conditions	Consistency	Coverage	Relevance
repp	0.58	0.79	0.76
repc	0.72	0.89	0.82
coopv	0.54	0.79	0.80
coops	0.53	0.82	0.83
legd	0.79	0.87	0.72
legs	0.75	0.82	0.66
not repp	0.42	0.88	0.92
not repc	0.28	0.69	0.86
not coopv	0.46	0.86	0.90
not coops	0.47	0.83	0.87
not legd	0.21	0.69	0.90
not legs	0.25	0.82	0.94

Table C.4: Parameters of Fit, Necessity for the Outcome No Authoritarian Persistence

Canditions	Canaistanau	Coverage	Dalawanaa
Conditions	Consistency	Coverage	Relevance
repp	0.72	0.21	0.46
repc	0.41	0.11	0.36
coopv	0.64	0.21	0.50
coops	0.54	0.19	0.54
legd	0.55	0.13	0.28
legs	0.75	0.18	0.29
not repp	0.28	0.12	0.63
not repc	0.59	0.31	0.74
not coopv	0.36	0.14	0.59
not coops	0.46	0.17	0.56
not legd	0.45	0.31	0.81
not legs	0.25	0.18	0.78

## **C.3** Alternative Solution Formulas

Table C.5: Conservative Solution Formula for the Outcome Authoritarian Persistence

Sufficient terms, connected by logical OR <sup>a</sup>	Consistency	Cov.rb	Cov.u <sup>b</sup>
REPC*LEGD*LEGS	0.90	0.54	0.09
COOPV*COOPS*LEGD*LEGS	0.78	0.18	0.01
REPC*coopv*COOPS*LEGD	0.91	0.21	0.02
repp*COOPS*LEGD*LEGS	0.89	0.17	0.01
repp*COOPV*LEGD*LEGS	0.87	0.28	0.02
REPP*REPC*COOPV*LEGD	0.90	0.29	0.02
repp*REPC*coopv*coops*LEGS	0.97	0.11	0.01
REPP*REPC*coopv*coops*legd*legs	0.85	0.03	0.00
Overall solution	0.89	0.68	

<sup>&</sup>lt;sup>a</sup> Capital letters indicate presence, small letters absence, \* denotes logical AND.

Table C.6: Parsimonious Solution Formula for the Outcome Authoritarian Persistence

Sufficient terms, connected by logical OR <sup>a</sup>	Consistency	Cov.rb	Cov.u <sup>b</sup>
REPC*coops	0.95	0.38	0.03
REPC*LEGD	0.91	0.63	0.04
repp*LEGD	0.90	0.37	0.03
COOPS*LEGD*LEGS	0.85	0.32	0.04
Overall solution	0.89	0.78	

<sup>&</sup>lt;sup>a</sup> Capital letters indicate presence, small letters absence, \* denotes logical AND.

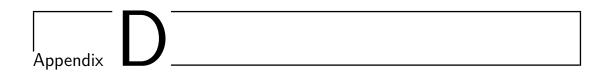
<sup>&</sup>lt;sup>b</sup> Cov.r = raw coverage; Cov.u = unique coverage.

<sup>&</sup>lt;sup>b</sup> Cov.r = raw coverage; Cov.u = unique coverage.

# C.4 Truth Table, No Authoritarian Persistence

Table C.7: Truth Table for the Outcome No Authoritarian Persistence

Row	Repp	Repc	Coopv	Coops	Legd	Legs	Outcome	n	Consist.	Cases
34	1	0	0	0	0	1	1	1	0.511	PER
42	1	0	1	0	0	1	1	2	0.497	SEN,TOG
44	1	0	1	0	1	1	0	1	0.336	MEX
46	1	0	1	1	0	1	0	1	0.302	THI
10	0	0	1	0	0	1	0	1	0.284	GAB
61	1	1	1	1	0	0	0	3	0.275	CEN,CHA,PAK
62	1	1	1	1	0	1	0	1	0.263	TUN
54	1	1	0	1	0	1	0	1	0.252	DRC
29	0	1	1	1	0	0	0	1	0.250	KYR
47	1	0	1	1	1	0	0	1	0.236	BNG
12	0	0	1	0	1	1	0	3	0.218	GAM,GHA,ZAM
48	1	0	1	1	1	1	0	1	0.206	CAM
64	1	1	1	1	1	1	0	3	0.196	ZIM,EGY,INS
49	1	1	0	0	0	0	0	1	0.145	MYA
32	0	1	1	1	1	1	0	3	0.136	MAA,TAZ,JOR
55	1	1	0	1	1	0	0	1	0.119	SYR
63	1	1	1	1	1	0	0	2	0.114	CDI,CAO
16	0	0	1	1	1	1	0	2	0.112	BFO,MZM
56	1	1	0	1	1	1	0	9	0.110	BLR,AZE,RWA, ETH,ANG, YEM, TKM,TAJ,UZB
52	1	1	0	0	1	1	0	6	0.099	CS,UGA,ERI, ALG,IRN,SAU
23	0	1	0	1	1	0	0	1	0.097	LAO
8	0	0	0	1	1	1	0	1	0.085	CON
18	0	1	0	0	0	1	0	1	0.068	KUW
24	0	1	0	1	1	1	0	1	0.067	KZK
59	1	1	1	0	1	0	0	1	0.034	PRK
20	0	1	0	0	1	1	0	2	0.033	BAH,QAT
28	0	1	1	0	1	1	0	4	0.018	SWA,UAE,OMA MAL
60	1	1	1	0	1	1	0	7	0.018	CUB,RUS,MOR LIB,SUD,CHN, DRV



# **Supplementary Material Study 4**

## **D.1 DPI Operationalization of Regime Types**

**Table D.1:** Using the DPI Legislative and Executive Indices of Electoral Competitiveness (Beck et al., 2001) for Measuring Political Regimes

Closed	Hegemonic	Competitive
Both indices have scores of ≤4: no legislature, unelected legislature, or only one elected candidate or party.	<ol> <li>One or both scores of &gt; 4</li> <li>7: multiple parties allowed, but one gets all or 75 percent of available seats.</li> <li>Legislative index scores 7, executive &lt; 7: satellite parties to simulate competition while regime has full control.</li> </ol>	Executive index or both indices have scores of 7: competitive elections for executive, largest party got less than 75 percent of available seats in legislative elections.

This operationalization proposes two refinements of Brownlee's (2009) usage of the DPI indices: First, while Brownlee (2009, 524) states that a regime has to score 7 in at least one index to be classified as competitive, I suggest to be more precise here: if it is both or at least the *executive* index which scores 7 - meaning that the elections for the executive have been competitive - then I consider this regime indeed as competitive. If it is merely the legislative index which scores 7, I classify such regimes as hegemonic because this indicates that the regime maintains satellite parties to simulate pluralism while having full control over the party system. Second, I argue that a regime has to score on *both* the legislative and executive indices  $\leq$ 4 to be categorized as closed. While Brownlee (2009, 524) is not fully clear in this regard and assumedly categorizes also those regimes as closed which score in one of the indices  $\leq$ 4, this refinement draws a clear borderline between hegemonic and closed regimes and rightly accounts for those regimes in which the executive index scores  $\leq$ 4 but which has a non-competitive multiparty system (score > 4) as hegemonic.

# **D.2** Sources of Analyzed Speeches

**Table D.2:** Sources of Speeches

Country	Source of speeches
	(all accessed in April-August 2017)
Azerbaijan	http://en.president.az/news/speeches
Canada	http://pm.gc.ca/eng/news-type/speeches
Cameroon	https://www.prc.cm/en/news/speeches-of-the-president
Denmark	http://www.stm.dk/index.dsp?page=11004&action=page_overview_
	search&l1_valg=3175&l2_valg=-1
Germany	https://www.bundeskanzlerin.de/SiteGlobals/Forms/Webs/BKin/Suche/
	EN/Solr_aktuelles_formular.html?nn=645302&doctype=speech
Hungary	http://www.kormany.hu/en/the-prime-minister/
	the-prime-minister-s-speeches?items=30
Jordan	https://kingabdullah.jo/en/speeches
Kuwait	http://www.da.gov.kw/eng/speeches/amir_speeches_2016.php
Kazakhstan	http://www.akorda.kz/en/speeches
Malaysia	http://www.pmo.gov.my/home.php?page=1676&menu=speech&speech_cat=2
Morocco	http://www.maroc.ma/en/royal-speeches
Norway	https://www.regjeringen.no/en/whatsnew/speeches_articles/id1334/ ?ownerid=875
North Korea	http://www.naenara.com.kp/en/politics/?leader3+3
Russia	http://en.kremlin.ru/events/president/transcripts/statements/
Saudi	http://www.mofa.gov.sa/sites/mofaen/servicesandinformation/news/
Arabia	kingofficialspeeches/Pages/Default.aspx
Singapore	http://www.pmo.gov.sg/newsroom?f%5B0%5D=field_from%3A250&f%5B1%
	5D=field_media_category%3A8
Tajikistan	http://www.president.tj/en/taxonomy/term/5/4
Turkey	https://www.tccb.gov.tr/en/category/558/category/1.html
<b>United Arab</b>	https://sheikhmohammed.ae/en-us/Speeches
Emirates	
Uganda	http://www.statehouse.go.ug/media/speeches
Great	https://www.gov.uk/government/announcements?k
Britain	
Uzbekistan	http://www.press-service.uz/en/news/performance/
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The glossary explains a selection of key terms used in this dissertation and provides definitions applied throughout the work. The glossary also clarifies that for several terms, the operationalization was improved during the four studies of the dissertation because indicators were fruitfully combined or used in a new way and novel data became available.

Adaptive configuration The empirical application of the hexagon of authoritarian persistence in the third study of this dissertation illustrates that there are several regimes which largely avoid the use of severe repression (cf. also the results of the second study). Instead, they intensively use both forms of legitimation and combine them with one of the cooptation strategies in order to remain persistent. By preventing the risks and high costs of harsh repression, these regimes become more flexible which is why I call this configuration adaptive.

Authoritarian persistence This dissertation defines authoritarian persistence as a regime's endurance over time - possibly also under unstable conditions. By referring to Schedler's (2013) theory of uncertainty in authoritarian regimes, I see this endurance as a constant struggle between pro-regime and anti-regime actors over the power to shape the institutional settings. As the various studies in this dissertation illustrate, authoritarian persistence can take many faces. The concept is thus different from Gerschewski's (2013, 23) rather static model of *stability* which suggests that autocratic regimes rest on the three pillars of repression, cooptation, and legitimation once they have managed the stabilization processes.

**Authoritarianism** Linz (2000, orig. 1975) proposed the term authoritarianism to describe the new forms of autocratic regimes which increased in number during the 1970s. These regimes were clearly different to the earlier discussed forms of totalitarianism (see below) because they possessed no guiding ideology or extensive mass mobilizations and typically allowed for limited amounts of pluralism. This first distinction of different forms of autocracies paved the way for later, more fine-graded typologies (e.g. Geddes 1999). While the term

totalitarianism is rarely applied in recent autocracy research, authoritarianism is frequently used as an umbrella term for current types of autocracies.

Autocracy This dissertation uses autocracy, authoritarianism, authoritarian regime (regime is a set of formal and informal institutions), and dictatorship interchangeably and follows Geddes et al.'s (2014, 317) definition which classifies autocracies as such if (1) the executive achieved power by other means than fair, competitive, and free elections, (2) the executive achieved power by fair, competitive, and free elections but changed these rules afterwards or (3) the military prevents the compliance with these rules or changes them.

Autocratic style of language The fourth study in this dissertation conceptualizes a multilevel concept of language to analyze the rhetoric styles of political leaders. This framework distinguishes between autocratic and democratic styles of language. An autocratic style of language comprises the emphasis of autocratic procedures (maintenance of power, authoritarian law and order) and illiberalism (traditionalism, nationalism, paternalism).

**Closed authoritarianism** Closed autocracies have no elected legislature or rule with a single-party regime. While the second study in this dissertation followed Lueders et al.'s (2014) operationalization, Table D.1 in Appendix D provides details about how this regime type is operationalized in a more nuanced way for the last study in this dissertation.

Competitive authoritarianism Competitive authoritarian regimes allow for at least a minimum amount of real competition during multiparty elections. The operationalization of this regime type has been a process in the various studies of the dissertation. While the first study draws on the "national elections across democracy and autocracy" data set (NELDA) of Hyde and Marinov (2012), the subsequent studies rely on Beck et al.'s (2001) indicators on the competitiveness during legislative and executive elections. The latter data (last updated in 2012) provides a more fine-graded scale of (non)competitiveness and handles borderline cases such as Kazakhstan in more appropriate ways. While NELDA categorizes recent Kazakh elections as broadly competitive, Beck et al. (2001) rightly point to the highly noncompetitive nature of the executive elections in Nazarbayev's Kazakhstan. Different to hitherto usages of Beck et al.'s (2001) indicators, the last study in this dissertation proposes a more nuanced differentiation between competitive, hegemonic and closed regimes which is based on both indicators and further explained Table D.1 in the Appendix.

**Cooptation** I follow Gerschewski's (2013, 22) definition of cooptation as the capacities to tie strategic partners to the regime. I further distinguish between two forms of cooptation: Borrowing from Schmotz (2015, 442), I see the first form of cooptation as compensation of vulnerability. Schmotz defines this form of cooptation as the capacity of a regime to compensate for different pressure groups (military, capital, parties, labor, ethnic groups, and landowners)

by offering material benefits or institutional inclusion. Yet, not all regimes offer real compensation - some merely simulate political participation by setting up satellite parties and toy parliaments. This simulation of pluralism is another form of cooptation - typically observed in hegemonic authoritarianism - which gives the elites the feeling that some power is allocated to them while all power remains in the inner circles of the regime (cf. Sartori 2005, 205-206).

- **Critical junctures** This dissertation discusses critical junctures in the context of institutional change in autocracies. Following Capoccia and Kelemen (2007, 348), I define critical junctures "as relatively short periods of time during which there is a substantially heightened probability that agent's choices will affect the outcome of interest".
- **Democratic style of language** The fourth study in this dissertation conceptualizes a multilevel concept of language to analyze the rhetoric styles of political leaders. This framework distinguishes between autocratic and democratic styles of language. A democratic style of language comprises the emphasis of democratic procedures (democracy, institutional reforms) and liberalism (liberal values, women, minorities).
- **E-government** Generally, e-government is defined as "all efforts of governments to use ICTs, particularly the Internet, in order to support government operations, engage citizens, and provide government services" (Linde and Karlsson, 2013, 269). Beside this, the first study in this dissertation proposes a new concept of e-government in autocracies and defines this "as all efforts of the regime to use ICTs, especially the Internet, in order to enhance its legitimacy. Hereby, the regime applies propagandistic language and symbolism but can also exhibit citizen-responsiveness by offering services, access to government-related information and possibilities for interaction which enhance the efficiency, accountability, and modernity of the regime and stimulate economic growth" (cf. Study 1, chap. 1.2).
- **E-participation** E-participation is a sub-concept of e-government and "refers to government initiated efforts to stimulate and increase citizen participation and interaction with government authorities (which is a fundamental value of democratic politics) with the support of ICTs" (Linde and Karlsson, 2013, 269). The first study in this dissertation illustrates that e-participation in autocracies is either underdeveloped or relates to sham or mere routine interactions.
- Electoral authoritarianism Electoral authoritarianism is an umbrella term for hegemonic and competitive regimes. Both of these regime types hold regular elections in multiparty systems. Yet, these elections are generally non-competitive in hegemonic authoritarianism, as further explained below. To distinguish between electoral autocracy and democracy, this dissertation draws on Geddes et al.'s (2014) definition of autocracy (see above).

Hegemonic authoritarianism Hegemonic regimes typically display non-competitive multiparty systems and are thereby different to competitive or closed regimes (see the explanations of both terms above). While the second study followed Lueders et al.'s (2014) operationalization, Table D.1 in the Appendix provides details about how this regime type is operationalized in a more nuanced way for the last study of this dissertation. The third study illustrates how hegemonic regimes remain persistent by combining repression of civil and political rights, diffuse support of legitimation, and cooptation as simulating pluralism as their key survival strategy. I call this successful combination of strategies the *hegemonic configuration* of the hexagon.

Hexagon of authoritarian persistence This dissertation conceptualizes the hexagon of authoritarian persistence as a framework to explain how authoritarian regimes manage to survive. The hexagon is based on Gerschewski's (2013) three pillars of stability but proposes several modifications. The hexagon is rooted in set theory and accounts for asymmetric causal relations, conjunctural causation, and equifinality. Based on this, it can grasp the causal complexity of authoritarian persistence and illuminates how authoritarian regimes use multiple, mutually non-exclusive survival strategies. The hexagon proposes six core survival strategies of autocratic rule: repression of physical integrity rights, repression of civil and political rights, cooptation as compensating vulnerability or as simulating pluralism, and specific and diffuse support of legitimation.

**Institutions** This dissertation relies on a rather broad historic institutionalist definition of institutions as behavioral patterns, formal and informal procedures, routines, norms, principles and conventions (Hall and Taylor, 1996, 6).

**Kleptocratic configuration** The empirical application of the hexagon of authoritarian persistence illustrates that some authoritarian regimes make use of most or even all the six strategies of survival (called the kleptocratic configuration, cf. the results in study three). Yet, the findings of the analysis suggested that compared to the more parsimonious survival strategies of other persistent regimes, the usage of both forms of cooptation is an unnecessary squandering of resources. Such overcompensation nurtures a kleptocratic elite.

**Legitimacy** Legitimacy is the result of legitimation, as explained below. In this sense, I distinguish between claims to legitimacy which political leaders make to gain the support of their people (the process of legitimation) and the actual amount of legitimacy belief among the population (the result). Due to the discussed measurement problems, the studies in this dissertation focus on claims to legitimacy.

Legitimation Legitimation is understood as the process of justifying authority whereas legitimacy refers to its result (see above). I further draw upon the non-normative concept of legitimation by Weber (2002) which assumes that social action is "guided by the belief in the existence of a legitimate order" (ibid., 31). As shown in the various studies of this dissertation, this belief in legitimate authority is not only generated by ideological indoctrination but also performance dependent. To illustrate the two sources of legitimation, I follow Gerschewski (2013) and use Easton's (1965) differentiation between specific (socio-economic performance, the fulfillment of the demands for domestic security, etc.) and diffuse support (ideologies, religious, nationalistic, traditional claims, the charisma of autocratic leaders). While the second study in this dissertation relies on proxy indicators for both forms of legitimation (cf. Table 2.1), the third study suggests a more valid operationalization (cf. Table 3.2) by referring to von Soest and Grauvogel's (2017a) novel survey data.

**Performance-dependent configuration** The empirical test of the hexagon of authoritarian persistence in the third study of this dissertation suggests that some persistent regimes heavily rely on specific sources of legitimation and combine this with a strict limitation of civil and political rights to ensure their survival. Typically, these are resource-rich countries which allure their people with a good socio-economic performance.

**Regime** This dissertation broadly defines a regime as a set of formal and informal institutions (Schedler, 2013, 23). Authoritarian regime is a synonym to autocracy, authoritarianism, and dictatorship (see above).

Repression Repression is broadly defined as the use of force to control people. I further distinguish between highly visible, violent acts that target a large number of people or well-known individuals and less visible forms of coercion such as surveillance, harassment or the denial of employment and education (Levitsky and Way, 2010, 57, and Gerschewski 2013, 21). Borrowing the names for both forms of repression from the CIRI Human Rights Data Project (Cingranelli and Richards, 2013), I call the first form repression of physical integrity rights and the second repression of civil and political rights.

**Rigid configuration** The empirical application of the hexagon of authoritarian persistence in the third study of this dissertation shows that one defining feature of the so-called rigid configuration is that the regimes which display this configuration make heavily use of both forms of repression (cf. also the findings of the second study). The name for this configuration is based on the assumption that those regimes which are severe offenders of physical integrity rights are less flexible since their legitimacy is constantly at stake (Gerschewski, 2013, 28). In addition, the application of heavy coercion is costly which further limits the scope of action for those regimes.

Three pillars of autocratic stability Gerschewski's (2013) framework of the three pillars is based on the assumption that any type of autocratic regime relies on repression, cooptation, and legitimation to stabilize its rule. What differs between the various types of autocracy is the degree of institutionalizing these three fundamental principles of autocratic rule. The three pillars are conceptualized as having two dimensions each: high and low-intensity repression, formal and informal cooptation, specific and diffuse support of legitimation. Gerschewski further hypothesizes that out of all logically possible configurations of the (non)use of these dimensions, only two stipulate autocratic stability - the "two worlds of autocracies" (Gerschewski, 2013, 29-30). While the second study of this dissertation empirically tests the model of the three pillars and the "two worlds" in the context of electoral regimes, the third study further discusses the framework and proposes several modifications. Based on these changes, I conceptualize the hexagon of authoritarian persistence.

**Totalitarianism** By analyzing Bolshevist Russia, Fascist Italy, and Nazi Germany, Arendt (1951) and also Friedrich and Brzezinski (1965) provided detailed descriptions of what they called the phenomenon of totalitarianism. Friedrich and Brzezinski's definition of the term comprises six traits, shortly summarized as possessing an elaborate ideology, a single mass party, a system of terror, a technologically conditioned, near-complete monopoly of control over the entire economy, the media and the military (ibid., 22). These early works of modern autocracy research provided crucial knowledge about the mechanisms of totalitarian systems. Yet, the concept itself was heavily questioned during the early 1970s because of its linkages to the polemics of the Cold War. Because of that and also due to the newly emerged forms of authoritarianism (see above) the term totalitarianism is rarely used in current autocracy research.

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