The myth of the effective strongman? Internal constraints, external constraints and economic development in autocracies.

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Abstract

Autocratic regimes vary dramatically in their ability to produce 'better' levels of economic performance. Yet, we currently lack a theoretical framework with which to explore this variation. Much of the current literature is guided by ideas and distinctions that are out of touch with the increasingly institutionalized and homogeneous authoritarian regimes of today. This article presents a new framework for understanding development outcomes in authoritarian regimes. It is argued that the autocrat can be constrained by the ruling elite - this is named internal constraints - and the masses - this is named external constraints. An autocrat, who faces constraints on his rule, will be held accountable for bad outcomes, and it is therefore expected that constraints is associated with better economic outcomes. The article presents and uses a new dataset on elites in 135 countries from 1966 to 2017. Using this dataset, I show that a dictator governs over worse economic outcomes when he faces less constraints on his rule. Furthermore, it is shown that this is not the case for democratic leaders.

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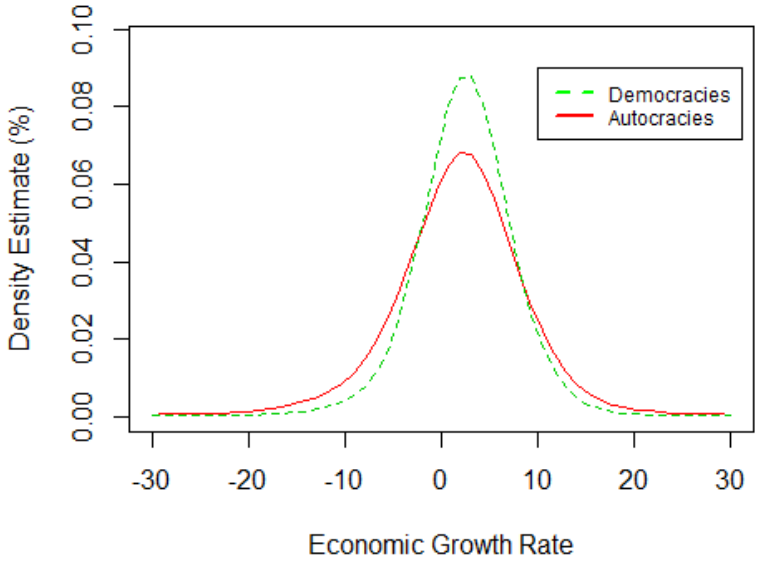
1 Introduction

Strongmen and their proselytes often argue that constraints on the leader hinders economic development. For example, the editorial in the Global Times, a Chinese newspaper, argued that "We are increasingly confident that the key to China's path lies in upholding strong party leadership and firmly following the leadership of the Party Central Committee with Comrade Xi Jinping at the core" following the removal of term limits on the Chinese president (Reuters 2018). Furthermore, these claims are even being repeated by journalists and politicians in democratic countries. A piece in The Times reads that "Trump, Putin, Erdogan and Duterte are unpalatable demagogues in many ways but at least they get things done" (Foges 2018). New research show that these sentiments to an increasing degree are being shared amongst the wider population, and that significant minorities in some countries are in favour of rule by a strong leader (Wike et al. 2017; Brown 2014; Foa and Mounk 2016).

However, despite the huge literature that compares autocracies with democracies and democracies with other democracies, we know little about how development outcomes differ among authoritarian regimes (Miller 2015; Gandhi 2008; Przeworski et al. 2000). Data show (see figure 1) that autocracies and democracies, on average, have about the same rate of growth, but that autocracies have more dispersed growth rates than democracies.[1] This indicates that we may be missing important insights by focusing on the dichotomy between autocracy and democracy. Furthermore, it indicates that autocracies are more likely to produce both high growth, but also catastrophic results, which cause great human suffering. For example, China has within a 50 year time frame both experienced a famine, where 20-45 million people died (Peng 1987), and an economic boom, where hundreds of millions of people were lifted out of poverty. This article will focus on explaining the forces that shape the heterogeneous performance of authoritarian regimes.

[1] Using The Maddison Project, the growth rate in real GDP per capita on average is 2.1 % for autocracies and 2.4 % for democracies in the period from 1950 to 2016, while the standard deviation is 5.7 % for democracies and 8.6 % for autocracies. These results are purely descriptive and does not take other factors into account.

Figure 1: Economic growth distribution among Democracies and Autocracies



Source: Penn World Tables (2015) and Bjørnskov and Rode (2018). Notes: Plotted are the density functions estimated by using the Gaussian kernel and using 3 as a bandwidth. N = 10.298 country years.

The research on economic development in authoritarian regimes can be split into two groups. One line of research argues that quasi-democratic institutions, such as elections and parliaments, in authoritarian regimes promote development by improving state accountability and deliberative decision making (Miller 2015; Gandhi 2008; Blaydes and Kayser 2011; Chandra and Rudra 2015). The main drawback in this literature is that authoritarian regimes are getting increasingly homogeneous in their institutional set-up and that we today face a world, where there is one major type of authoritarian player in town; the party-regime with legislatures. In addition, it can be discussed whether institutions can be taken at face value in authoritarian regimes (Pepinsky 2014). Another line of research focuses on the dictator, the ruling coalition and the length of the leader's tenure (Besley and Kudamatsu 2008; Papaioannou and Van Zanden 2015; Olson 1993; De Mesquita et al. 2005). Besley and Kudamatsu (2008) argue that autocracies will be successful in promoting growth, when an elite can hold a dictator accountable without fear of losing power. Furthermore, Papaionnaou and Van Zanden (2015) argue that growth will decrease over the tenure of the dictator due to increasing information asymmetries between the dictator and his elite.

This article will present a framework which, based on Svolik's concept of two fundamental challenges to the autocrat, combines these two lines of research. Svolik (2012) argues that a dictator can be challenged by the ruling elite and the masses. This can be perceived as two type of constraints; internal constraints, which relate to the relationship between the dictator and the ruling coalition, and external constraints, which relate to the relationship between the dictator and the masses. I argue that when either the ruling coalition is strong and/or the masses are organized outside the ruling regime, the dictator faces a credible threat of rebellion.[2] If this is the case, the dictator is being held accountable for his actions and may be removed in the case of bad economic performance. Furthermore, there are good reasons to suspect that the masses and the ruling elite will be more in favour of policies, which are beneficial for economic growth. It is therefore expected that the two types of constraints are associated with higher economic growth and a decrease in the likelihood of a recession.

I rely on a cross-national time-series dataset to test the empirical implications of this framework for economic growth. The full dataset includes 135 countries that has been authoritarian at some point since 1966. In total, the dataset includes 4,165 authoritarian country years and 1,942 democratic country years in the period from 1966 to 2017. The dataset combines existing sources, such as data from the World Bank and V-Dem, with a new and unique dataset on ministers and elite members in autocracies. Based on this new dataset, I present a new way of measuring intra-elite power balances in autocracies. Here, I divide the average experience of core cabinet members with the tenure of the dictator. This measure is advantageous because it is objective and time-variant. It is expected that a stable cabinet with experienced ministers represents an oligarchic form of rule rather than a personal dictatorship. Furthermore, I rely on a new measure provided by V-Dem to measure the strength of the civil society. This measure focus on the robustness of the civil society and whether it is organized independent of the state (Coppedge and Staton 2017).

The empirical evidence shows that autocrats, who face a weak civil society and a weak ruling coalition, and therefore can rule without accountability or any constraints on their rule, govern over much worse economic outcomes than their constrained peers. The results remain both statistically and substantively significant, when country or dictator is held constant. In other words, the same country or the same dictator performs worse economically, when the dictator becomes more powerful and less accountable. This is, however, not the case in autocracies with very large oil rents. Afterwards, the article show that the results do not hold in democratic countries.

[2]There are no female autocrats in the dataset and I will therefore consistently use male pronouns in this article.

The article represents a contribution to the literature on authoritarian regimes in several ways. First of all, we know little about how economic growth differ between types of autocratic regimes. Second, the article presents a new typology for classifying authoritarian regimes, which makes up for shortcomings in existing typologies such as Geddes' (1999) or Gandhi's (2008). Third, the article presents and uses a new and original dataset on elites in authoritarian countries. This dataset can be used to answer many other research questions. In addition to these academic considerations, this article fills an important empirical gap. As discussed in the beginning, strongmen are gaining strength and use this to remove constraints on their rule and concentrate power. They often do so by fostering a personality cult and by portraying themselves as mythical creatures, who can save the nation and bring along both stability and economic development (Snyder 2018; Arendt 1973; Brown 2014). This article shows that these promises more often than not are false. Instead, powerful dictators perform worse than their more constrained peers and are much more likely to govern over a severe economic recession.

Apart from this introduction, the article consists of 5 parts. In the first part, past work on authoritarianism and economic development is discussed and it is argued that the current literature is insufficient for explaining patterns in modern day authoritarian regimes. In the second part, I present a new framework for understanding development patterns in authoritarian regimes. In the third part, I present the data and the empirical methods, which I use to test this new framework. The results from these test are presented in the fourth part. In the last part, I conclude and discuss further research.

2 Past work on authoritarianism and economic development

There is a growing body of literature, which focus on authoritarian institutions and answers questions such as; *Why do authoritarian regimes have elections?* (Lust-Okar 2006; Gandhi and Lust-Okar 2009; Frye, Reuter, and Szakonyi 2014; Brownlee 2007), *How do authoritarian parliaments function?* (Malesky and Schuler 2010; Truex 2016) and *How does bureacracy work in authoritarian regimes?* (Egorov and Sonin 2011; Shih, Adolph, and Liu 2012; Reuter and Robertson 2012; Lü and Landry 2014; Landry, Lü, and Duan 2018; Aaskoven and Nyrup 2018). Less work has, however, been done on how different types of authoritarian regimes influence development outcomes.

The research on economic development in authoritarian regimes can be divided into two groups. One line of research bases the arguments on the literature on democ-

racies and argues that authoritarian countries with quasi-democratic institutions will provide better economic development. The most prominent study within this field is Gandhi's *Political institutions under dictatorship* (2008). She argues that autocratic institutions are strategic responses from autocrats, who need to compromise with a strong opposition. Legislatures and parliaments therefore serve as a controlled institutionalized channel, which outside groups can use to make demands. She shows that this also changes policy; institutionalized regimes are better at protecting civil rights and they spend less on armed forces. Furthermore, they experience higher economic growth and are more transparent. Other scholars have built upon these ideas and have shown that electoral authoritarianism decreases infant mortality and increases litteracy rates (Miller 2015), while Blaydes and Kayser (2011) show that the population in hybrid regimes have a higher calorie intake than the population in closed authoritarian regimes. Another study is Wright's (2008), who shows that legislatures in military and single-party regimes increase growth and investment, while these institutions in personalist and monarchic regimes decrease growth. Overall, this literature clearly indicates that institutionalized authoritarian countries, where there is a strong opposition, are better at promoting economic development than their closed counterparts.

These studies do, however, have three shortcomings. First, they primarily focus on the relationship between the regime and the opposition, but neglects the relationship between the autocrat and the ruling coalition. They are therefore unable to explain why some closed regimes, such as China post-Mao and Vietnam after reunification, has been relatively successful in promoting economic growth. Second, these studies do not explain much variation in the world of contemporary authoritarian regimes due to the increasing institutional homogeneity amongst authoritarian regimes. Today there are only 5 autocratic regimes in the world where there is no existence of a party system[3]. Furthermore, today virtually all autocracies have legislatures and parliaments (Wig, Hegre, and Regan 2015)[4]. We are therefore facing a world, where there is one major type of authoritarian player in town; the party-regime with legislatures. Third, it is unclear whether it is institutions themselves or the underlying distribution of power, which causes policies beneficial for economic development. Under a dictatorship institutions cannot be taken at face value. According to Pepinsky (2014) they instead mirror the power relations among the dictator, his ruling elite and the opposition, which is excluded from power.

[3]These are Oman, Qatar, Saudi Arabia, Swaziland and United Arab Emirates, while other regimes such as Morocco, do have political parties, which do not compete for the executive power.

[4]In 2010 only one country in the IAEP dataset did not have a legislature; Myanmar, which installed one in 2011

Another group of studies focus more on the dictator and the length of his tenure. Mancur Olson (1993) distinguishes between 'roving bandits', which are leaders that are temporary and expect a brief tenure, and 'stationary bandits', which are permanent and monopolize power over a given area. He argues that a secure autocrat has an encompassing interest in his country, which leads him to provide peace and simultaneausly invest in public goods, which increases productivity and economic development. Papaioannou and Van Zanden (2015) find a strong negative correlation between years in office and both economic growth and the quality of institutions. They attribute this primarily to personal factors, such as change in the personality of the dictator, or increasing information asymmetries due to the 'dictator's dilemma'. This dilemma arises, when the autocrat becomes almighty and cannot be constrained. People will be reluctant to share their information with him, because the bearer of bad news may fall into disgrace and be punished. The unconstrained autocrat is then caught in information asymmetries and lacks a basis for sound economic decision making, which will eventually lead to adverse economic performance (Wintrobe 2000). Besley and Kudamatsu (2008) show that leadership turnover in successful autocracies is higher than in unsuccessful autocracies. They theorize this is because the ruling coalition can remove the autocrat without fear of loosing their power. They therefore argue that a weak opposition is conducive for economic growth, which contradicts the argument made in Gandhi (2008) and Miller's work (2015). Besley and Kudamatsu identify Romania (1948-1977), China (1976-2004) and Brazil (1965-1974) as some of the most successful authoritarian regimes. These regimes were all closed and non-competitive, but with an organized leadership contests within the regime. They should therefore fare badly according to the literature, which focus on electoral institutions.

Another strain of literature is relevant for this study even though it does not deal explicitly with autocracies. Selectorate theory argues that when the winning coalition, e.g. those whose support are essential for the leader to gain a victory, is small, the leader will tend to use private goods to satisfy the coalition, while if it is large the leaders will use public goods to satisfy the coalition. This explains why dictatorships, where the leader relies on a small number of people, performs worse economically than countries, where the power is based on a larger group of people (De Mesquita et al. 2005; De Mesquita and Smith 2011).

Overall, the literature therefore points in different directions; one line argues that quasi-democratic and institutionalized authoritarian regimes will fare well, while another stream argues that authoritarian regimes with an organized elite will provide the best outcomes. These two arguments are not incompatible and the framework presented in part 3 will connect these two strands of literature.

3 A modified approach to authoritarian regimes

3.1 Existing typologies

Early classifications of autocracies focus on the difference between authoritarian and totalitarian regimes (Tullock 1987; Linz 2000). Scholars have since moved beyond this distinction and provided us with a great number of different typologies. These typologies have proven useful for understanding the internal mechanisms of dictatorships and explain outcomes such as government stability (Geddes 1999), quality of government (Charron and Lapuente 2011) and the likelihood of democratic transitions (Hadenius and Teorell 2007). However, the existing typologies face shortcomings, and they are therefore not ideal for the purpose of this article.

Geddes (1999) classifies regimes by the way the leader assumes power, while Gandhi (2008) categorises regimes according to the organization the leader belongs to. Authoritarian leaders therefore belong to the same category throughout their rule, and they are often classified in hindsight. Muammar Gadaffi came to power in Libya through a military coup and then started centralizing power. Gadaffi is therefore an example of an autocrat, whose regime in the early years would belong in the military category, but is classified as personalist because he managed to stay in office. These typologies are therefore not time-variant and do not take into account the changing nature of authoritarian regimes. Furthermore, we are facing a world, where authoritarian countries are becoming increasingly institutionalized and cluster in what Geddes calls the single-party regime group[5], what Gandhi calls the civilian group or what Magaloni and Kricheli (2010) in their classification call single-party and dominant party authoritarian regimes. Furthermore, as discussed earlier on, today virtually all autocracies have legislatures and parliaments (Wig, Hegre, and Regan 2015). Some of the existing distinctions between authoritarian regimes with and without legislatures and/or parties are therefore becoming obsolete. In addition, existing typologies tend to focus on descriptive or institutional features. However, they may primarily be the empirical manifestation of power relationships and do therefore not describe the underlying trends (Pepinsky 2014). A dictator may not be constrained solely because a party or a parliament exists. In addition, some typologies classifies regimes based on their outcomes rather than the underlying factors. One example is, as discussed above, personalist regimes, while another is Wintrobe's four images (Wintrobe 2000), where he differ between totalitarianism, tinpots, tyranny and timocracy.[6] Wintrobe's classification is useful for understanding dictatorships, but becomes self-explanatory and it is

[5]Other parties may exist, but access to office is controlled by a single party

[6]Wintrobe explicitly state that his classification is not a typology

therefore not optimal for predicting outcomes such as growth.

3.2 A new typology

Following Gandhi (2008) and Svolik (2012), I define authoritarian regimes *as regimes in which rulers acquire power by means other than a competitive election, with the exception being when the ruler first enters into power by an electoral process and then consolidates his power at the expense of democracy.* This definition follows a Schumpetarian approach, since the essential part is the notion of a competitive election, and it is binary in its classification of regime types. Regimes with no electoral processes aimed at choosing an executive ruler for the country are thereby autocracies. The same goes for regimes that do have elections, but where the elections do not fulfil the competitive criteria. A competitive election is an election where there is the existence of a reasonably level playing field between incumbents and the opposition (Levitsky and Way 2010, p. 6). In a democracy, elections function as an independent authority, which puts constraints on the ruler and enables the electorate to punish him. However, in a dictatorship there is no independent authority, which can enforce agreements among key political players (Svolik 2012, p. 14). This implies that agreements made at one point can be broken later when they become inconvenient. Yet, breaking promises is not without risk and the option of violence is therefore always on the table to solve disputes in authoritarian politics.

There is almost universal agreement in the literature on that the primary goal of an autocrat is to get into office and remain there (Tullock 1987; Wintrobe 2000; De Mesquita et al. 2005; Svolik 2012; Gandhi 2008). This leads to a very dim view of how authoritarian politics works, where leaders are self-interested and do what is necessary to come to power and stay there. Subsequently, they try to fulfil secondary goals such as implementing policies in accordance with their belief, engaging in grandiose projects or reaping the rents from being in office (Gandhi 2008, p. 82). According to Svolik (2012, p. 3), all autocrats face two fundamental challenges to their rule. The first comes from the masses over which they rule. How are the masses kept under control? This is the problem of authoritarian control. The second challenge arises from those with whom they rule. How do rulers keep the ruling elite under control? This is the problem of authoritarian power-sharing. In the absence of democratic elections, we must look at these relationships to understand how authoritarian leaders are constrained and the two challenges therefore constitute the two types of constraints, which may be faced by an autocrat. All dictators must constantly ask themselves the two questions mentioned before and act accordingly. Dictators, who do not provide sufficient answers to these

questions, will be removed and will often suffer harsh consequences (Svolik 2012)

Based on Svolik's two challenges there are two dimensions on which the autocrat can be constrained and held accountable for his actions in the absence of elections. He can be constrained by the the ruling elite, which I will call *internal constraints*, and the masses, which I will call *external constraints*. Constraints are not perceived in institutional terms, but as the actors' abilities to credibly back up threats with the use of power. Power can here be understood as as the probability that an actor will prevail in the case of a conflict with another actor. The distinction between the different dimensions can be summed up in a typology, which is seen below. It should be noted that the four categories are extreme cases, and that the two dimensions will be treated as degrees in the analysis and not as dichotomous:

Table 1: A new typology of authoritarian regimes

		Level of external constraints	
		Low	High
Level of internal constraints	Low	One-man	Goliath
	High	Machine	Competitive

The typology leads to four ideal types: 1) One-man, 2) Machine, 3) Goliath and 4) Competitive. A one-man regime resembles Geddes' (1999) *personalist regime* or Svolik's (2012) *established autocracy*. In these regimes the dictator has successfully removed both external and internal constraints on his rule. He therefore has a monopoly over policy and do not have any credible threats to his rule. In this group we find the most notorious dictators once they have consolidated their rule. Examples are Joseph Stalin after 1938 (Suny 1997; Montefiore 2007), who eliminated all resistance through the Great Purges and Mao Zedong after 1958 (Teiwes 2001). Contrary to Geddes' typology it is, however, no longer assumed that a dictator belongs to one category during the full length of his tenure. Instead, he can move between categories over time.

In machine regimes, which is a term borrowed from Daniel Slater (2003), there are no external constraints on the regime. Opposition outside the ruling coalition has therefore effectively been eliminated. However, there are still internal constraints on the autocrat, since the ruling party manages to control the dictator. The rule is therefore oligarchic and the autocrat has to govern collectively with fellow party members. Examples are Vietnam after 1976, where North and South Vietnam was merged, and China after 1989, where Deng Xiaoping was replaced by Jiang Zemin. Both regimes have a strong

party structure, where there is a formalized way of choosing and removing the executive, albeit more so in Vietnam than in China (McGregor 2010; Malesky, Abrami, and Zheng 2011).[7]

A Goliath regime is characterized by a strong leader, who has effectively consolidated the power within his ruling coalition and therefore does not face any internal constraints. Nonetheless, he still faces an organized civil society, who credibly can rebel against the regime and have a fair chance of succeeding. Civil society can be strong and organized for historical reasons or due to ethnic or geographical cleavages. The ruler therefore has to take this into account when conducting policy. An example is Gambia (1994-2016). Yahya Jammeh came to power in a coup d'etat in 1994 together with three other officers. Shortly after the coup, two of the other putschist were imprisoned. In 1996, he formed his party 'Alliance for Patriotic Reorientation and Construction' and ruled it with a firm hand and with little opposition from inside the party. Of the 16 original ministers appointed in 1996 only 2 were still in office by 1999. Nonetheless, Jammeh did not manage to thwart external competition. In the period from 1996-2012 his party on average received 62 percent of the votes in presidential elections and 54 percent of the votes in elections for the National Assembly despite repression and fraud.[8] In 2017, Jammeh reluctantly stepped down after an electoral defeat and substantial international pressure.

In competitive regimes there are both internal and external constraints on the autocrat, and he therefore faces a credible threat both from within the ruling coalition and from the masses. Examples are Singapore after Lee Kuan Yew stepped down and Mexico until 2000 under the Institutional Revolutionary Party. Both regimes governed with a relatively strong opposition and an organized party structure with selection mechanisms for the leader.

This typology has similarities with other typologies. For example, one-man regimes are reminiscent of personalist regimes and likewise competitive regimes closely align with the definition of competitive regimes found elsewhere in the literature (Levitsky and Way 2010). It does, however, differ in essential aspects, which are beneficial for the purpose of this article and can provide new insight into authoritarian regimes. First, it is dynamic and allows for variation over time within the same regime. Second, the typology is a response to the clustering in existing typologies, and is able to distinguish between present day authoritarian regimes. Third, it is no longer assumed that the

[7] With Xi Jinping's repeal of presidential term limits and Nguyen Phu Tron of Vietnam's nomination as president both regimes seems to be moving in the direction of a one-man regime.

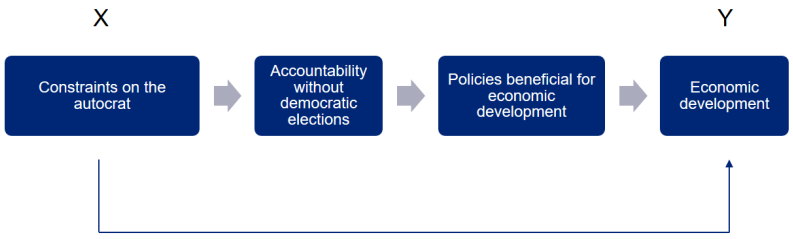
[8] This is based on data from the African Elections Database (http://africanelections.tripod.com/)

ruler is constrained in his actions solely because there is a parliament or a party. Instead, this typology aims to focus on the underlying patterns. The obvious challenge with the typology presented here is that the terms ”internal constraints” and ”external constraints” are fuzzy and difficult to measure objectively compared to, for example, the existence of elections or parties. How to overcome this is discussed later on.

3.3 Theoretical expectations

Much of the literature in economics that focus on economic growth argues that bad growth performances and underdevelopment are caused by misdirected policies or events beyond the control of the leader. They therefore depart from a Machiavellian viewpoint and assume that policy-makers are benign when it comes to economic policies and want to increase the welfare of their citizens, see for example Robinson (1998) for a discussion of this. This article rests on the opposite assumption; authoritarian leaders do not care about their population unless it is essential for their own survival. There is little doubt that investing in infrastructure, respecting the rule of law, facilitating private trade and fighting corruption has a positive effect on the economy (Besley and Kudamatsu 2008, p. 455). The question here is why some dictatorships work in the general interest of its citizen, while others do not. A simple outline of the causal chain is presented in the figure below:

Figure 2: Presentation of the causal mechanism



The basic argument here is that constraints on the autocrat causes economic development. In the absence of elections the two types of constraints ensures that the autocrat is being held accountable for his actions and he may be punished in the case of bad outcomes. This will have a number of positive consequences, which are beneficial for economic development.

First, the level of constraints is decisive for whose preferences that get to influence

the policy making process. There are number of reasons for why the authoritarian leader may not be in favour of implementing economic policies that promotes growth, such as technological development and liberalization of the economy. First, economic growth can lead to a "political replacement effect", i.e. that an increase in economic output will benefit groups other than the autocrat. These empowered groups will eventually want to have a larger say in politics and demand political and economic concessions. Economic development may therefore undermine the relative advantage of the autocrat and make it more likely that he will concede power (Ansell and Samuels 2014; Acemoglu and Robinson 2006). Furthermore, consolidated autocrats tend to focus their energy on implementing policies in accordance with their belief, engage in grandiose projects or reaping the benefits from being in office (Gandhi 2008, p. 82). This has throughout history resulted in absurd policy decisions such as as Saparmurat Niyazov of Turkmenistan's investments in golden statues of himself, or Jean-Bedel Bokassa of Central African Republic's extremely lavish coronation ceremony, which costed 25 percent of the gross national product (Crabb 1978). However, if an organized civil society or a strong ruling coalition credibly can threaten the autocrat with removal, the autocrat will have to listen to their demands. There are good reasons to suspect that the ruling coalition and the masses, on average, will have preferences that are more pro-development than the autocrat. The masses will be more interested in policies that favour broad-based growth since it increases their overall utility, and thereby the utility of the individual person. Through history we have seen that even the most infamous regimes had to cater to the population when they were cementing their power. For example, the Nazi regime engaged on a ambitious *Autobahn* construction project, which moved public sentiment in the regime's favour (Voigtländer and Voth 2017). The ruling coalition is more tricky, and they may team up with the dictator and split the rents from being in office, while caring little about the wider population (De Mesquita and Smith 2011). This is, however, not always the case. The ruling coalition will often have an economic base and represent a specific group of people such as a tribe, a certain business sector or people in a specific geographic area (Brownlee 2007, p. 38). The authoritarian elite will have to provide rents to the group of people they represent, and may therefore be dependent on broad-based economic growth to provide such rents. The dictator will therefore, when he is constrained, have to engage in policies, which provide the *right type* of economic development to stay in power. Or as Wintrobe writes (2000, p. 15): "One way to create loyalty, which is very common in the modern world, is to simulate economic growth".

Second, pluralism will promote a more thoughtful, less rushed decision-making process, where competence will play a larger role. Unopposed and almighty dictators will suffer from information asymmetries and a lack of good advisers. Since he is the source of

all power, people will be reluctant to share their information with him, because the messenger of the bad news or opposing views may well fall in disgrace and be punished. Instead, the advisers will tell the dictator what he wants to hear. The dictator, knowing this, will not trust his advisors and be caught in information asymmetries. This is known as the *dictator's dilemma* (Wintrobe 2000; Papaioannou and Van Zanden 2015). In the worst case this can be disastrous. Infamous cases are Stalin's refusal to believe that Nazi Germany would invade the Soviet Union despite the clear evidence, and Mao's attempt to increase China's steel output at all costs, which partly caused the Great Famine (Montefiore 2007; Dikötter 2010). Furthermore, if the dictator is not held accountable and can purge ministers at will, he will use this to remove threats to his rule. One way of doing this, is to appoint loyal and incompetent subordinates, who cannot credibly threathen the ruler (Egorov and Sonin 2011). This will not be possible if the dictator is constrained in his actions by a strong ruling coalition, who can overthrow him if the dictators attempts to purge them (Svolik 2012). Accountability and oligarchic rule will therefore enable a more stable and competent ruling elite, which can acquire skills and governing experience.

Third, constraints will create stability and foster an environment that is conducive for economic investment. A dictator, who do not face any threats to his rule, can act predatory and expropriate investments without any retaliation. In grave cases, he will capture the state and establish a patrimonial rule with no respect for the rule of law (Fukuyama 2014; North 1991). However, if other actors credibly can retaliate against the dictator in the case of expropriation, investors have some security, which will stimulate investments and foster innovations. This is especially the case for the opposition, which is excluded from power and risks being expropriated by the regime (Gandhi 2008).

Based on the discussion above, the expectation is that both a strong ruling coalition and a strong civil society are associated with better economic development. Nonetheless, the patterns of economic development may differ dependent on the types of constraints and the combination of the two. This article looks at economic development in two ways. First, I look at economic growth. Thereafter, I look at the chance of facing a severe recession. In table 2, the theoretical predictions on economic development for the two types of constraints are shown. While the expectations overall are the same for the two types of outcomes, it is not the case that economic recession is a mirror of economic growth. An unconstrained dictator, who does not face any credible threats to his rule, will be able to act solely according to his own beliefs and preferences and with little guidance from competent subordinates, which, as discussed above, may yield disastrous outcomes. These dictators should therefore be more likely to govern

over a severe economic crisis, and it is therefore expected that economic development is lowest in *one-man regimes*. As a result, any type of constraint will curb the dictator and cause better economic development and decrease the risk of a recession. It is expected that there are diminishing marginal returns from having both types of constraints, i.e. the interaction between the two types of constraints should be negative. This is because either type will be sufficient to avoid the situation, where the dictator is acting without any accountability, while a potential challenge both from within the regime and from the populace increases accountability. It is assumed that dictators move across categories over time, and the two types of constraints are therefore handled as continuous variables that has a linear effect on economic development. The expectation is that the association will be more pronounced for recession than for growth because an eventual recession presents a very clear threat to the dictator if he is facing constraints (De Mesquita and Smith 2010; Flores and Smith 2013; Pepinsky 2009).

Table 2: Theoretical expectations for economic development

		Level of external constraints	
		Low	High
Level of internal constraints	Low	Low development	Medium development
	High	Medium development	High development

4 Empirical Approach and Data

4.1 Data

4.1.1 Definition of regimes and selection of observations

The article will rely on Bjørnskov and Rode's (2018) recently updated dataset to distinguish autocracies from democracies, which is an update and expansion of Cheibub, Gandhi and Vreeland's dataset (2010). This dataset is used because it uses a definition, which mirrors the definition of autocracies given above and because it is the most recent available dataset covering 208 countries and territories up to 2018. Dictators who have a tenure shorter than two years are omitted from the analysis since they often govern in very turbulent periods and do not have time to concentrate the power and implement policies. Furthermore, dictators, who came to power before 1965, are removed from the analysis due to missing observations on the measure of internal constraints. At last, I remove 10 countries from the analysis, where the oil rents are more than 20 percent of the GDP in 2014. This is discussed in an appendix (not included in this version).[9]

[9]These countries are Angola, United Arab Emirates, Republic of Congo, Gabon, Equatorial Guinea, Iraq, Kuwait, Oman, Saudi Arabia, South Sudan and Chad.

4.1.2 Independent variables

Internal constraints

Above, internal constraints are defined as the likelihood that the ruling coalition will prevail in the case of a conflict with the dictator. In other words, can the ruling coalition, which surrounds the dictator, hold him accountable for his actions? Earlier studies have either relied on imprecise proxies such as regime duration or the rate of leadership changes to measure the power balance (Besley and Kudamatsu 2008; Svolik 2012) or on qualitative indepth studies (O'Donnell, Schmitter, and Whitehead 1986; Brownlee 2007). However, as of now there are no better available measures that can be used for comparative analysis (Svolik 2012, p. 110). Here, I present a new variable, which aims at measuring the power balance between the dictator and the ruling coalition. The variable is calculated as the average experience of core members of the ruling elite divided by the experience of the dictator at a given point in time, or mathematically as;

$$r_{dt} = \frac{\frac{\sum_{i=1}^{n} y_{xt}}{n}}{y_{dt}},$$

where r_{dt} is the relative experience of the cabinet ministers, x, to the dictator, d, in year t, and y denotes the experience of the given person. The variable is logged in the analysis since it is right-skewed due to the fact that 1) some dictators have ministers, who are more experienced than them and 2) substantively it makes sense that what matters is not absolute changes but relative changes in the relative experience. The expectation is that more experienced and consolidated cabinet ministers are more likely to provide both opposition and guidance to the authoritarian leader. Furthermore, a low turnaround reflects the dictators inability to change members of the ruling coalition without spurring a rebellion from remaining members (Svolik 2012, p. 63). Thus the governing should be more oligarchic rather than personal. Recent research on cabinet ministers in autocracies support the usefulness of the measure. For example, Kroeger (2018) argues that in African autocracies, personal leaders more easily than party leaders can fire ministers without destabilizing the regime. In addition, there is no shortage of descriptions of how dictators have shuffled around or purged important ministers to consolidate their power (Arendt 1973; Montefiore 2007) and it is well-known in the literature that divisions within the authoritarian elite poses the biggest threat to the dictator (O'Donnell, Schmitter, and Whitehead 1986; Svolik 2012).[10] An

[10]For example, Hannah Arendt (1973, p. 531) argues that "The evidence of Hitler's as well as Stalin's dictatorship points clearly to the fact that isolation of individuals provides not only the mass basis for totalitarian rule, but is carried through to the very top of the whole structure. Stalin has shot almost everybody who could claim to belong to the ruling clique and has moved the members of the Politburo back and forth whenever a clique was on the point of consolidating itself. Hitler destroyed cliques in

argument against this measure of internal constraints is that dictators may fire all non-loyalists, when they take power and replace them with a set of loyalists, who remain in office. However, empirically this does not seem to be the case. Dictators, who purge the cabinet ministers early on in their rule, tend to have a high turnaround of ministers throughout their tenure. This is shown in the appendix. Overall, the measure is far from perfect, but constitutes a substantial improvement compared to other measures used in the literature since it is time-variant and objective.

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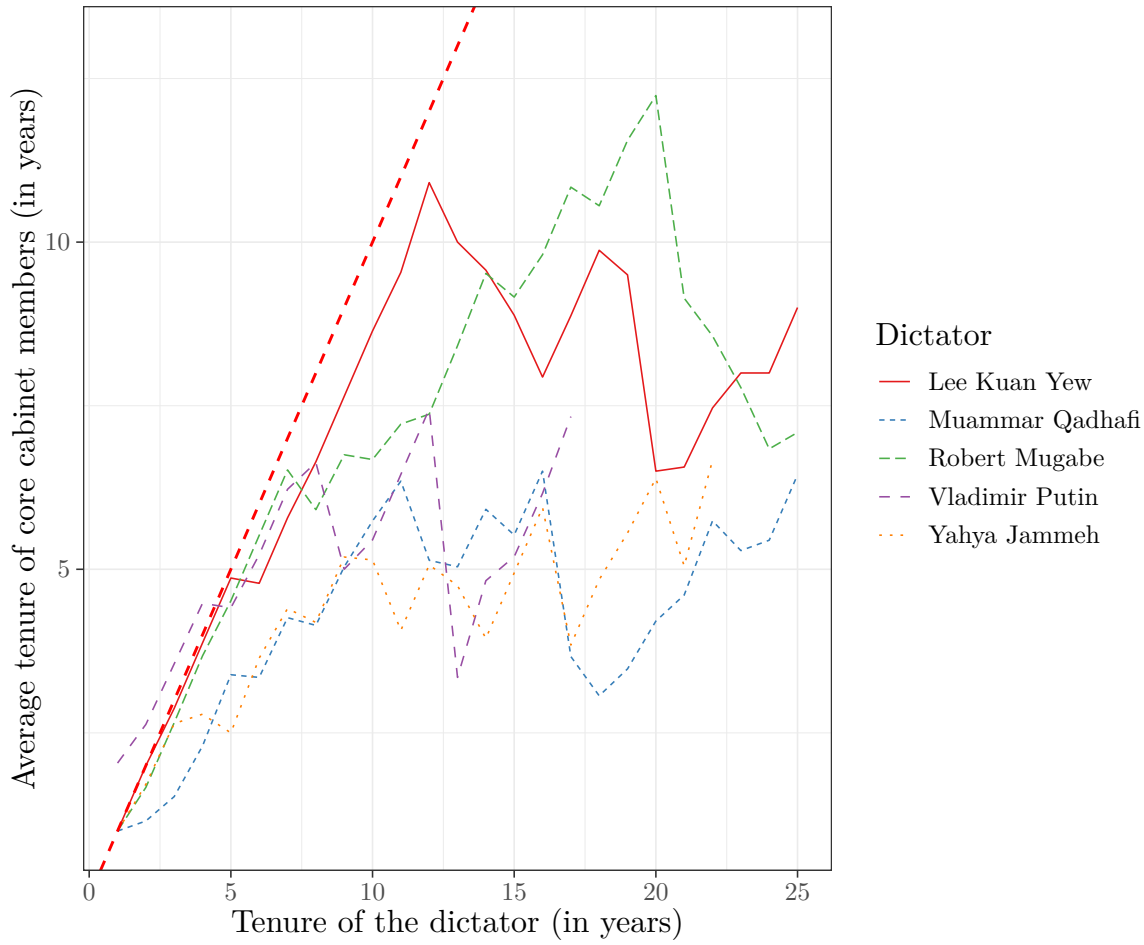
the Nazi Germany with less dramatic means – the only bloody purge having been directed against the Rohm clique which indeed was firmly kept together through the homosexuality of its leading members; he prevented their formation by constant shifts in power and authority"

Figure 3: Relationship between the tenure of the autocrat and average tenure of core cabinet members for selected autocrats



Note: The straight, diagonal and stippled line is a baseline, where the ministers are as experienced as the dictator. The core cabinet members include cabinet ministers, prime minister in presidential systems, deputy president/deputy prime minister and members of a junta/ruling council/politburo.

Unfortunately, there are no extensive datasets on cabinet ministers, which covers a wide range of authoritarian countries. As a result, a new dataset has been created. Here, I rely on the data provided in the The Central Intelligence Agency's directory of Chiefs of State and Cabinet Members of Foreign Governments. This is a directory, which contains the name, date of entry and exit and title of cabinet ministers and other members of the elite in as many countries as it is possible. The earliest available version dates back to 1966 and the directory has been updated at least half-yearly until today. The PDF-files from every July in the period from 1966 to 2017 has been digitalized

through machine learning and extensive manual cleaning.[11] The countries used in this analysis are seen in the appendix. The graph below shows the tenure of the autocrat versus the average tenure of a set of core cabinet members, which is closely related to the measure of internal constraints. In fact, the measure of internal constraints is measured as the horizontal distance to the x-axis for the line of the given dictator divided by the horizontal distance to the straight, diagonal, stippled line. It can be seen that there is huge variation amongst the dictators in the graph. Some autocrats, such as Lee Kuan Yew of Singapore, kept the same cabinet for most of their rule, while others such as Muammar Qadhafi of Libya or Yahya Jammeh of Gambia purged the ruling coalition shortly after coming to office and kept a high turnover throughout their rule.

External constraints

External constraints are defined in the same way as internal constraints, namely as the likelihood that the masses will prevail in the case of a conflict with the autocrat. Again, this is not easy to measure and I must therefore rely on a proxy. Earlier studies have focused on the existence of a multi-party sytem (Gandhi 2008; Svolik 2012), the existence of competitive elections (Miller 2015) or the number of seats the opposition holds in the legislature (Svolik 2012). Instead of relying on the existence of institutions per se, I will here rely on an index of the robustness of the civil society, namely the variable $v2xcs\_ccsi$, provided by the Varieties of Democracy project (2017).[12] This index "sees civil society as an emergent realm of contestation with dictatorship" (Bernhard et al. 2015, p. 3). A robust civil society is understood as one that enjoys autonomy from the state and in which citizens freely and actively pursue their political and civic goals, however conceived, and it therefore has the potential to liberalize and change a dictatorship. Here, it is expected that a strong and robust civil society will be more resistant and more easily can organize and protest against the regime. The costs of rebellion are therefore lower, and a rebellion will be more likely to succeed. The measure is based on in-depth knowledge from country experts. It is therefore not objective and there may be problems in terms of cross-national comparability. However, V-Dem has run an extensive number of tests and used bridge coders to connect the units and ensure comparability across cases and over time (Bernhard et al. 2015, p. 12). Furthermore, it is advantageous due to its extensive geographic and temporal coverage and because it is interval-scaled and varies over time within the same regime. The measure therefore

[11] The directory began in September 1966, and I am therefore using September for 1966 instead of July. It has not been possible to obtain the files from 1971, and I have therefore used the data from February 1972 as a replacement for July 1971.

[12] For a discussion of the variable see `https://www.v-dem.net/media/filer_public/b4/66/b4667c50-1a31-4092-9e44-425f76fae191/v-dem_working_paper_2015_13.pdf`

represents the best available option at the moment.

4.1.3 Dependent variables

For outcome variables, I focus on two measures of economic growth. First, I look at economic growth measured as the growth in PPP converted GDP Per Capita. This is based on the variable *rgdpna* from the Penn World Tables (Feenstra, Inklaar, and Timmer 2015). Second, I look at the likelihood that a country will experience a severe recession. Here, I define a severe recession as negative economic growth of more than 3 percent in a given year.[13] Growth rates from developing countries and dictatorships are notoriously unreliable (Martinez 2017; Wallace 2016; Easterly 2014), and I have therefore triangulated the results by using alternative measures of economic growth from The Maddison Project Database (2018) and the World Bank (2017). These results are added in an appendix.

4.1.4 Control variables

The models includes a set of further control variables. First, I account for tenure of the autocrat and the number of core members of the cabinet, which is based on the data gathered on ministers in authoritarian regimes. Thereby, I account for the fact that both of the independent variables are highly affected by the tenure of the autocrat, where we must expect that ministers are replaced over time and that dictators try to root out independent civil society (Papaioannou and Van Zanden 2015). Furthermore, the average experience of the core members of the cabinet will drop if the cabinet is expanded even if the ministers already in the cabinet remains. Second, I control for logged Gross Domestic Product (GDP) per capita, which is taken from the Penn World Tables (2015). It is expected that less developed autocracies, which may have less constraints on the autocrat, will grow faster than more developed countries (Gandhi 2008, p. 152). Third, I control for socio-economic characteristics, by controlling for the log of population (from the Maddison Project Database (2018)) and the percentage of the population living in urban areas (from the World Bank (2017)). These variables may be related to both the strength of civil society and the measures of economic development. Fourth, domestic conflict may be related to both a drop in the measures of constraints and economic development, and I therefore control for Political Violence (a 0-10 rating of domestic civil and ethnic violence) from Marshall (2017). At last, I control for resource dependence by using oil rents as a percentage of GDP from the World Bank (2017). It is expected that oil rents are related to economic growth and earlier research has shown that dictators, who rely on natural resources, can rely more

[13]The results remain substantively unchanged if a negative growth rate of 2, 3, 4 or 5 percentage points is used as the threshold instead. These results are available upon request.

on repression and can give out fewer concessions (Boix and Svolik 2013; Eibl and Hertog 2017). Datasets, which covers recent years, are preferred in this analysis. However, I have tried running the models with alternative measures for some of the variables such as resource dependency (Haber and Menaldo 2011), and the results remain unchanged.

4.2 Empirical Setup

The first part of the analysis is based on descriptive results, while the second part will try to account for alternative explanations than the one presented in the theory section by using the panel structure of the data.

Constraints on the autocrat is not randomly distributed across countries. However, by using an OLS-regression with country or leader fixed effects I can take this into account and examine what happens to economic growth when constraints on the autocrat decrease or increase in a given country or for a given dictator. Furthermore, it may be the case that autocrats fire ministers or clamp down on civil society in response to bad economic outcomes. I therefore lag the two independent variables. The baseline equation, which measures the effect of constraints on economic development, is then:

$$Y_{it} = \alpha_i + \beta_1 log(IC_{it-1}) + \beta_2 EX_{it-1} + \beta_3 X_{it} + \epsilon_{it},$$

, where IC and EC are indicators of internal constraints and external constraints for country (or dictator) i in year t, α_i denotes country (or dictator) fixed effects, which controls for time-invariant characteristics of the country (or dictator), X_{it} is a set of control variables and ϵ_{it} is the error term. The dependent variable, Y_{it}, is the two measures of economic development; economic growth and a severe recession. Furthermore, I will include an interaction between internal and external constraints in some of the regressions. The regression formula for the interaction effect is not shown here. At last, I also run the regressions, where I include country-, dictator- and year-fixed effects simultaneously. This formula is also not shown here.

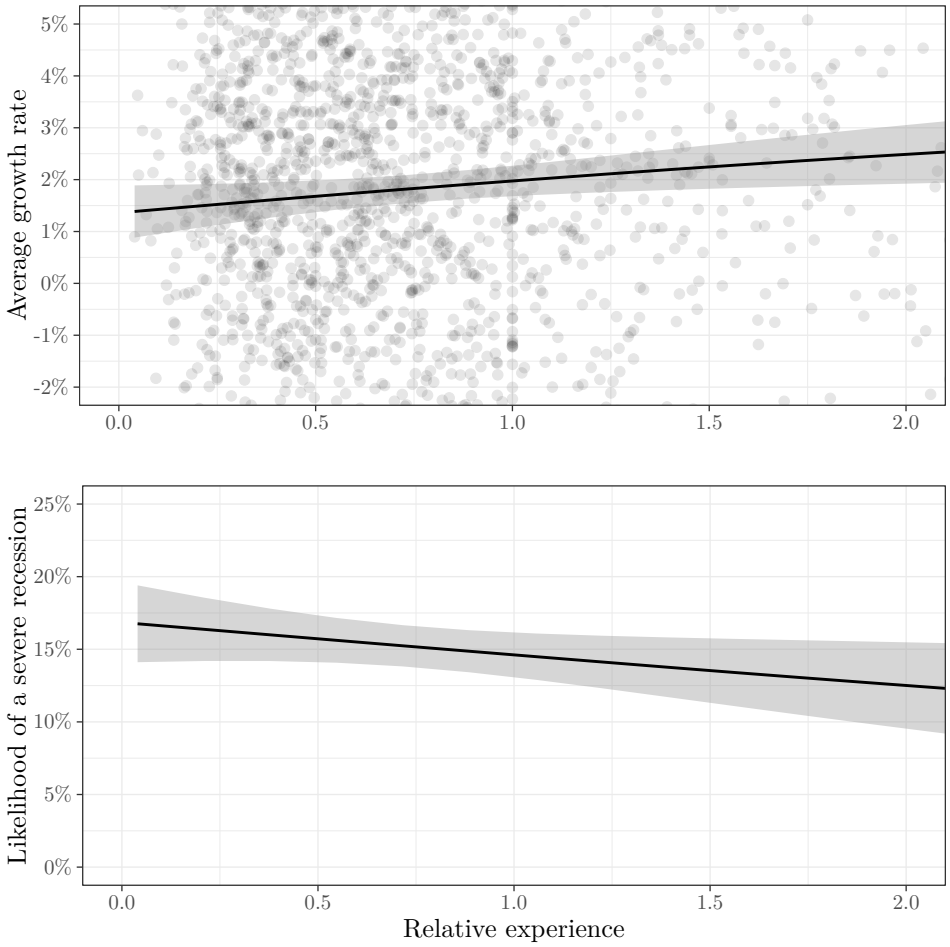
5 Results

5.1 Descriptive results

Do unconstrained autocrats govern over worse economic outcomes than their constrained counterparts? In figure 4 and figure 5 the two independent variables are plotted against the average growth rate and the likelihood of experiencing a recession of three percentage points or more. The results indicate that economic growth increases linearly with the relative experience of the ministers to the dictator. In dictatorships,

where the dictator is ten times as experienced (Relative experience = 0.1) as the average member of the cabinet the average growth rate is 1.4 percent, while dictators, who govern with ministers, who are as experienced as them govern over an average growth rate of 2 percent. Likewise, the chance of experiencing a recession in a given year decreases when the ministers are more experienced relative to the dictator. Naturally, this measure is strongly dependent on the tenure of the dictator, and I account for this in the panel data analysis. It is worth noticing the distribution of the variable. Some dictators have cabinet ministers, who are more experienced than them. Furthermore, they tend to keep these ministers after coming into office. Examples are Lee Hsien Long of Singapore, who faced a set of cabinet ministers that had been in office for more than 13 years on average and Jiang Zemin of China, who took over a cabinet, where the average minister had more than 6 years of experience. In general, leaders will face more experienced ministers, when they come to power through an established party or inherit the position. At the other extreme, we find a group of long running dictators, who have purged the cabinet multiple times. In 2006, the average minister in Muammar Gaddafi's cabinet had just 3 and a half year of experience, while Gaddafi had been in office for 36 years.

Figure 4: Association between the relative experience of ministers to the dictator and economic outcomes

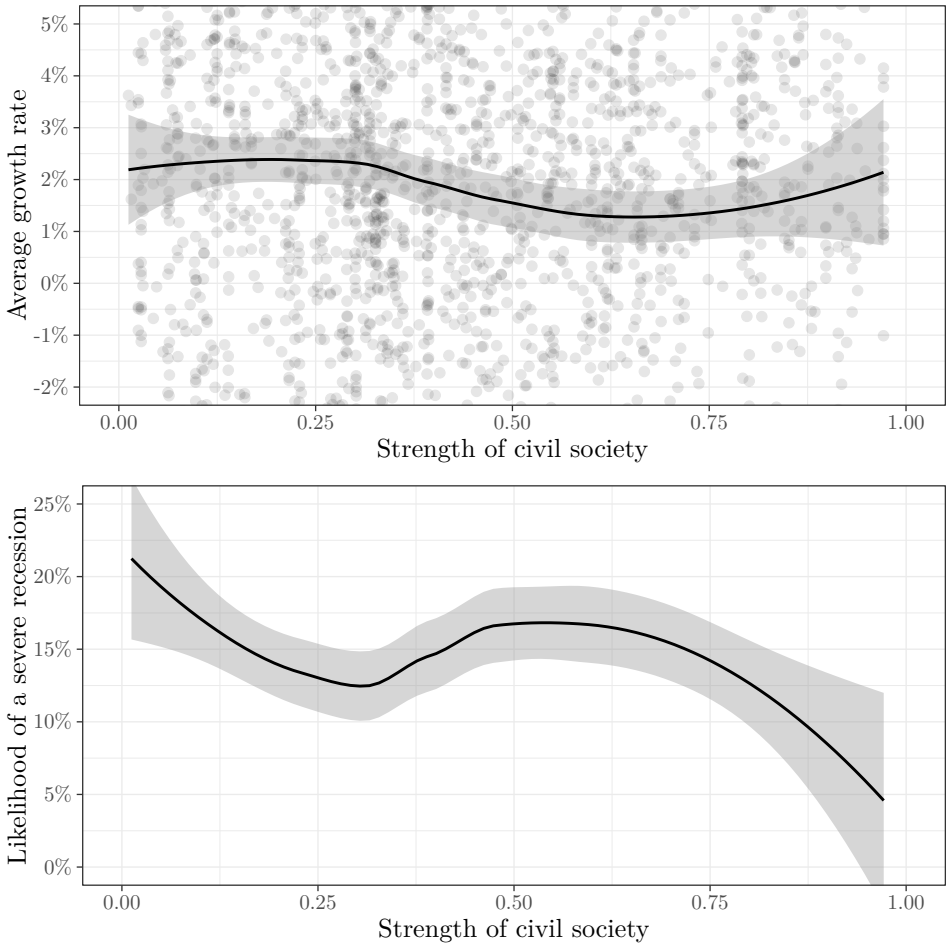


Source: Data on experience from CIA (2017), data on growth from Penn World Tables (2015). Notes: Descriptive statistics. Lowess curve with a span of 1. Whiskers represent 95% confidence intervals. N = 2.538 country years. Lowess curve with a span of 1.

If we turn to the other independent variable, strength of civil society, figure 5 indicates that the likelihood of a severe recession is highest in autocracies, where civil society is non-existent. These are not surprisingly countries such as Cambodia under Pol Pot and Eritrea under the leadership of Isaias Afewerki. This is paradoxically not reflected in the growth rate. The chance of recession decreases until it reaches a minimum at 0.3, and then starts increasing again until it plateau at 0.5. It should be noted that few autocracies score higher than 0.75 on the measure of strength of civil society as seen in the histogram in the appendix. Countries with a score of 0.3 in the strength of civil society are for example Tunisia under Ben Ali or present day Iran. Amongst the group of autocracies with strong civil societies, we find countries such as Taiwan

before democratization and Tanzania under the Chama Cha Mapinduzi. These results provide mixed evidence in support of the theory outlined earlier. The measure of internal constraints, relative experience, is related to better economic development. On the other hand, the proxy for external constraints, strength of civil society, seems to be unrelated to economic growth, but related to a decreased likelihood of experiencing a severe recession.

Figure 5: Association between the strength of the civil society and economic outcomes



Source: Data on strength of civil society from V-Dem (2017), data on growth from Penn World Tables (2015). Notes: Descriptive statistics. Lowess curve with a span of 0.8. Whiskers represent 95% confidence intervals. N = 2.303 country years.

5.2 Panel analysis

5.2.1 Economic growth

The relationship between the two measures of constraints on the autocrat and economic growth is seen in table 4. The first column presents a ”naive” specification in which

I do not include fixed effects. This reflects the figure from the descriptive analysis, and we see that, on average, growth is higher when ministers are more experienced relative to the dictator, while countries with a stronger civil society have lower growth. Column 2 includes the measures of internal and external constraints as well as the tenure of the autocrat and year fixed effects. It is worth noticing that the measure of internal constraints becomes larger and remains positive, while the measure of external constraints remains negative, but no longer is significant. Furthermore, the measure of tenure is positive and significant, which indicate that longer years in office are related to positive economic development, when the measures of internal constraints and external constraints are included. In column 7, I run the full model without the measures of internal and external constraints. Here, the measure of tenure is negatively related to growth. This is a finding, which is known in the literature (Papaioannou and Van Zanden 2015). This indicate that autocrats can sustain high growth rates - or even increasing growth rates - if they do not successfully purge their ministers nor suppress civil society.

In column 3, I include country fixed effects, while leader fixed effects are used in column 4. The variable for tenure remains in the regression. The coefficient for strength of civil society now becomes positive and statistically significant. In the light of the results from column 1, this indicate that countries or dictators, who have a strong civil society in general have lower economic growth. However, when country or leader is held constant, economic growth is higher when civil society is stronger. In fact, a country will experience a growth rate, which is 1.05 percentage points higher if the strength of the civil society increases by a half according to column 3. This is roughly equivalent to the increase in the strength of civil society in Cambodia under Khmer Rouge to Hun Sen. The coefficient for *relative experience* remains significant when fixed effects are included. The same country or dictator will therefore experience higher economic growth when the leader is facing a ruling elite, which is experienced in governing relative to the dictator. From this it follows that countries, which are ruled by a more oligarchic regime, will perform better economically. The size of the coefficient is hard to interpret due to the logistic specification, but a doubling in the relative experience of the ministers is associated with an increase in the annual growth rate of around a half percentage point. To ease interpretation, I run the regression, where the variable for internal constraints it is split into quantiles in an appendix. The first quantile therefore includes the country years, where the dictators face the weakest ruling coalition, while the fourth quantile are countries, where the dictator face the most experienced ruling coalition. It is seen that the average growth rate for the same dictator will be 2.3 percentage points higher in a given year if he is in quantile 4 relative to quantile 1. A large jump in this variable is for example when Idi Amin sent

his entire cabinet on "vacation" in 1973 or the drop we see for Robert Mugabe after 20 years of rule in figure 3. Interestingly, this purge coincides with the implementation of a chaotic land redistribution policy in Zimbabwe, which accelerated economic decline (Times 2017). Column 5 and column 6 includes the interaction term between the measures of internal and external constraints. The term is negative and statistically significant. This indicates that the two types of constraints are imperfect substitutes. As seen in figure 6, the association between relative experience and economic growth diminishes, when the strength of civil society increases and vice versa. As argued in the theoretical part, it is expected that either type of constraints is sufficient to avoid a situation, where the dictator governs without any accountability at all. Here, the dictator has effectively monopolized power, which dramatically increase the chance of policy disasters (Svolik 2012, p. 197).

	Log of relative experience	Strength of civil society	Tenure of the leader	log of gdp per capita	Log of population	Urban population	Civil violence	Number of core members	Oil rent
Log of relative experience	1.00	0.04	-0.73	0.17	0.01	0.15	-0.04	-0.16	-0.04
Strength of civil society	0.04	1.00	-0.04	-0.13	-0.03	-0.03	-0.15	0.02	-0.17
Tenure of the leader	-0.73	-0.04	1.00	-0.06	-0.01	-0.09	0.02	0.30	0.14
log of gdp per capita	0.17	-0.13	-0.06	1.00	-0.25	0.84	-0.16	-0.14	0.36
Log of population	0.01	-0.03	-0.01	-0.25	1.00	-0.31	0.29	0.45	-0.04
Urban population	0.15	-0.03	-0.09	0.84	-0.31	1.00	-0.21	-0.16	0.16
Civil violence	-0.04	-0.15	0.02	-0.16	0.29	-0.21	1.00	0.12	0.00
Number of core members	-0.16	0.02	0.30	-0.14	0.45	-0.16	0.12	1.00	0.16
Oil rent	-0.04	-0.17	0.14	0.36	-0.04	0.16	0.00	0.16	1.00

Table 3: Correlation matrix

I include a list of control variables in column 7-10. The correlation matrix is shown in table 5. The correlation matrix largely confirms the theoretical expectations. For example, it is seen that tenure of the leader is strongly correlated with the measure of internal constraints, more populous countries have larger cabinets, and that oil rent is negatively correlated with strength of civil society. Furthermore, it is seen that the two types of constraints are not correlated.

Table 4: Internal and external constraints and economic growth in autocracies

	Dependent variable:											
	Growth (Penn World Tables)											
	OLS						*panel linear*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(Relative experience)$_{t-1}$	0.42**	1.52***	1.30***	1.19***	2.10***	2.11***		0.94***	1.12***	2.22***	2.30***	1.69***
	(0.19)	(0.26)	(0.30)	(0.37)	(0.50)	(0.56)		(0.31)	(0.38)	(0.57)	(0.69)	(0.62)
Strength of civil society$_{t-1}$	−1.38**	−0.85	2.11**	3.30*	1.54	1.72		1.65	6.50***	4.61**	4.13*	4.40*
	(0.56)	(0.57)	(0.93)	(1.79)	(0.98)	(1.92)		(1.20)	(1.90)	(2.03)	(2.43)	(2.34)
Tenure of the leader		0.13***	0.11***	0.06	0.11***	0.07*	−0.04	0.04	0.03	0.02	0.30***	−0.52
		(0.03)	(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.04)	(0.08)	(0.08)	(0.08)	(0.58)
log(RE)$_{t-1}$ * SC$_{t-1}$					−1.75*	−2.22**				−2.62***	−1.93	−1.51
					(0.90)	(1.00)				(1.01)	(1.25)	(1.15)
Log of gdp per capita							3.02***	2.90***	6.01***	6.07***	2.02*	2.67**
							(0.51)	(0.52)	(0.93)	(0.93)	(1.16)	(1.14)
Log of population							1.90**	1.29	0.93	1.22	−4.88**	−3.73
							(0.82)	(0.88)	(2.12)	(2.12)	(2.36)	(2.30)
Urban population (%)							−0.13***	−0.14***	−0.31***	−0.31***	−0.29***	−0.32***
							(0.04)	(0.04)	(0.07)	(0.07)	(0.09)	(0.10)
Civil violence$_{t-1}$							−0.57***	−0.55***	−0.35***	−0.36***	−0.46***	−0.41***
							(0.10)	(0.11)	(0.13)	(0.13)	(0.15)	(0.14)
Number of core members							0.03	0.03	−0.01	−0.01	0.03	0.07*
							(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Oil rents (% of GDP)											0.08**	0.05
											(0.04)	(0.04)
Constant	2.63***	1.77***										
	(0.28)	(0.33)										
Estimation method: Within year	No	Yes	No	No	No	No	No	No	No	No	No	Yes
Estimation method: Within country	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Estimation method: Within leader	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
Observations	2,517	2,359	2,359	2,222	2,359	2,222	2,255	2,240	2,112	2,112	1,316	1,399
R^2	0.004	0.02	0.01	0.01	0.01	0.01	0.04	0.05	0.05	0.05	0.05	0.20

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

Standard errors in parentheses. RE = Relative experience, SC = Strength of Civil Society. 99 countries and 261 leaders are included in the analysis (column 1-6). 94 countries and 247 leaders are included in the analysis (column 7-10), 164 leaders and 71 countries (column 11-12).

The inclusion of extra variables does little to the results. It can be seen that GDP per capita is positively associated with economic growth, and that richer autocracies therefore grow faster than poorer. Likewise, the coefficient for population size indicate that more populous countries grow faster. The measure of civil violence is lagged because it otherwise would become an intermediating variable. This is so because oppression of civil society or purging of members of the ruling elite often spurs violence. Not surprisingly, it is seen that civil violence is associated with low growth. There is no association between the number of core members and economic growth. An expansion or a compression of the size of the cabinet is therefore not a predictor of economic growth. Oil rents are included in column 11. There is a large literature, which focus on the role of natural resources in authoritarian regimes, and it is therefore important to include in the regression (Eibl and Hertog 2017; Haber and Menaldo 2011; Boix and Svolik 2013). Unfortunately, the number of observations drops drastically and the variable is therefore not included throughout the table. The coefficients for the two types of constraints are not impacted by the inclusion of oil revenues. At last, I run the full model with leader, country and year fixed effects simultaneously. This leaves the results fundamentally unchanged.

5.2.2 Recession

In table 5, the analyses are replicated with *severe recession* as the independent variable.[14] As mentioned before, a severe recession is defined as negative growth of more than 3 percentage points in a given year. This measure is different from the measure of economic growth since it is more likely to be the result of disastrous policies. Furthermore, an economic crisis may cause violent uprisings and jeopardize the rule of the leader (De Mesquita and Smith 2010; Flores and Smith 2013; Pepinsky 2009).

[14]Here, I rely on a linear model due to the ease of interpretation. I have redone all the analyses with a logistic model, and the results are similar. These analyses are available upon request

Table 5: Internal and external constraints and recession in autocracies

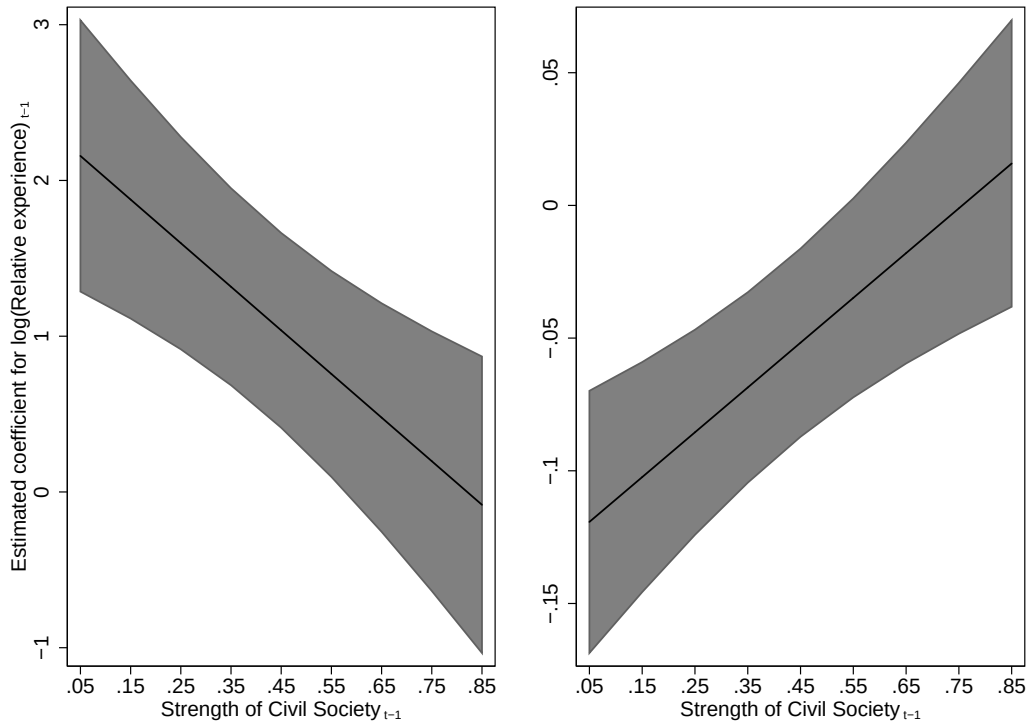
	Dependent variable:											
	Likelihood of experiencing a severe recession (Penn World Tables)											
	OLS						*panel linear*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(Relative experience)$_{t-1}$	−0.02	−0.06***	−0.05***	−0.05**	−0.09***	−0.10***		−0.03*	−0.06***	−0.12***	−0.15***	−0.08**
	(0.01)	(0.01)	(0.02)	(0.02)	(0.03)	(0.03)		(0.02)	(0.02)	(0.03)	(0.04)	(0.04)
Strength of civil society$_{t-1}$	−0.05*	−0.08***	−0.20***	−0.24**	−0.18***	−0.16		−0.08	−0.41***	−0.30***	−0.24*	−0.17
	(0.03)	(0.03)	(0.05)	(0.10)	(0.05)	(0.11)		(0.06)	(0.11)	(0.12)	(0.14)	(0.14)
Tenure of the leader		−0.01***	−0.004***	−0.004**	−0.005***	−0.005**	0.003**	0.001	0.005	0.005	−0.0001	0.06*
		(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.004)	(0.004)	(0.005)	(0.03)
log(RE)$_{t-1}$ * SC$_{t-1}$					0.08	0.11**				0.16***	0.20***	0.11*
					(0.05)	(0.06)				(0.06)	(0.07)	(0.07)
Log of gdp per capita							−0.14***	−0.14***	−0.40***	−0.40***	−0.39***	−0.38***
							(0.03)	(0.03)	(0.05)	(0.05)	(0.07)	(0.07)
Log of population							−0.18***	−0.16***	−0.19	−0.21*	−0.19	−0.24*
							(0.04)	(0.05)	(0.12)	(0.12)	(0.14)	(0.13)
Urban population (%)							0.005**	0.01**	0.01*	0.01*	0.01**	0.02***
							(0.002)	(0.002)	(0.004)	(0.004)	(0.01)	(0.01)
Civil violence$_{t-1}$							0.03***	0.02***	0.01*	0.01*	0.02*	0.01
							(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Number of core members							−0.001	−0.0004	0.003	0.003	0.001	−0.001
							(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
Oil rents (% of GDP)											−0.002	−0.002
											(0.002)	(0.002)
Constant	0.16***	0.20***										
	(0.01)	(0.02)										
Estimation method: Within year	No	Yes	No	No	No	No	No	No	No	No	No	Yes
Estimation method: Within country	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Estimation method: Within leader	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
Observations	2,517	2,359	2,359	2,222	2,359	2,222	2,255	2,240	2,112	2,112	1,316	1,399
R^2	0.002	0.01	0.01	0.01	0.01	0.01	0.04	0.05	0.04	0.05	0.06	0.19

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

Standard errors in parentheses. RE = Relative experience, SC = Strength of Civil Society. 99 countries and 261 leaders are included in the analysis (column 1-6). 94 countries and 247 leaders are included in the analysis (column 7-10), 164 leaders and 71 countries (column 11-12).

Overall, the results mirror the results from the previous tables on economic growth. The two measures of constraints are both related to a decrease in the likelihood that a country will face a recession across all specifications. Furthermore, it is seen in column 7 that a country is more likely to experience a severe recession the longer the dictator is in office. However, this effect disappears when the two measures of constraints are added. Thus the likelihood of a recession only increases over time if constraints on the autocrat are removed.

Figure 6: Interaction between strength of civil society and log of relative experience



Notes: The left graph shows the effect on economic growth, while the right shows the effect on the chance of recession The graph is based on column 10 in table 4 and column 10 in table 5. Whiskers represents 90 percent confidence intervals.

According to the descriptive statistics in the appendix the set of dictatorships in the sample experience a *severe recession* in around 15 percent of all years. This is around twice as often as democracies. However, some types of autocracies are much more likely to experience a severe recession than others. According to column 9, the likelihood that a dictator will experience a severe recession in a given year increases with 41 percentage points if the strength of civil society goes from 1 to 0. Internal constraints seems to

matter less. The likelihood of facing a recession increase by around 4 percentage points if the relative experience is cut by half. This is, however, still a large substantial increase. In column 5-6 and 10-12, the interaction term is added. Again, the two types of constraints functions as substitutes. From the plot, it is seen that the coefficient for internal constraints becomes positive, when civil society is stronger than 0.75. A strong ruling elite therefore only decrease the risk of a recession when civil society is weak. The remaining variables in table 5 show that richer and more populous countries are less likely to experience a recession. In addition, it is not surprising that an increase in civil violence is more likely to cause a severe recession and that an increase in oil rents makes a severe recession less likely.

Overall, the results presented here supports the theory. The empirical analysis uses the dynamic nature of the two variables, and it is seen that the same dictator govern over worse economic outcomes, when there are less constraints on his rule. A dictatorship, which goes from being *Competitive* to *One-man* will therefore have lower growth and a high likelihood of facing a severe recession. Dictatorships, which have either internal constraints (*Machine*) or external constraints *Goliath* will have middling levels of economic development. Furthermore, the two types of constraints functions as imperfect substitutes; so an increase in one type of constraints decrease the importance of the other.

Three modern dictatorships exemplify the theory presented here, namely Russia under Vladimir Putin, Turkey under Recep Erdogan and Venezuela under Hugo Chavez. At the turn of the millennia all three countries were relatively democratic, and in all three countries an authoritarian strong-man managed to capitalize frustrations in the population and get to power through the ballot box. In the first years of their tenure, growth rates were high and better than comparable countries (Bank 2017). Nonetheless, the three leaders centralized power and removed obstacles to their rule. Under Putin, the strength of civil society in Russia has dropped from 0.75 to 0.28, Turkey has seen a drop from 0.68 to 0.18 under Erdogan and Venezuela from 0.75 to 0.49 under Chavez. Likewise, they have purged potential opposition within the ruling coalition. Examples are the removal of the well-respected Minister of Finance Alexei Kudrin in Russia (Myers 2015) and the departure of Mehmet Şimşek from the government in Turkey, which was followed by the appointment of Erdogan's son in law as Minister of Finance. Meanwhile, Venezuela has experienced musical chairs in the cabinet, where Hugo Chavez on average changed 46 percent of his ministers every year.[15] In the latter years, all three countries have performed badly economically.[16]

[15] After 14 years of rule Putin scored 0.34 on the measure of internal constraints, Erdogan scored 0.28 and Chavez scored 0.30. The average score for dictators in the sample is 0.44 after 14 years

[16] According to the World Bank, Russia had negative growth in 2014 to 2016, Turkey has had decent

These bad economic outcomes are arguably due to decisions taken at the very top of the regimes. Russia faced a financial crisis as a result of international economic sanctions following Russia's invasion of Crimea, a decline in oil prices and increasing kleptocratic behavior (Hille 2018). While the decline in oil prices is outside Putin's control, the invasion of Crimea and the kleptocratic behavior is directly the result of Putin's actions and could have been avoided. In Turkey, Erdogan amongst other things has taken increasing control over monetary policies and opposed increasing interest rates to stop the plunge of the lira, deriding them as a "tool of exploitation". In addition to this, he has sparked a diplomatic crisis with the US, purged competent officials and shown increasing disregard for the law (Pitel 2018). Amongst other things, Chavez purged officials in the national oil company, PDVSA, and took indirect control of the company, which turned out to be disastrous for the company and the Venezuelan economy. In addition, he engaged in irresponsible public spending and made it difficult for foreign companies to invest (Johnson 2018).

5.3 Redoing the analysis under democracy

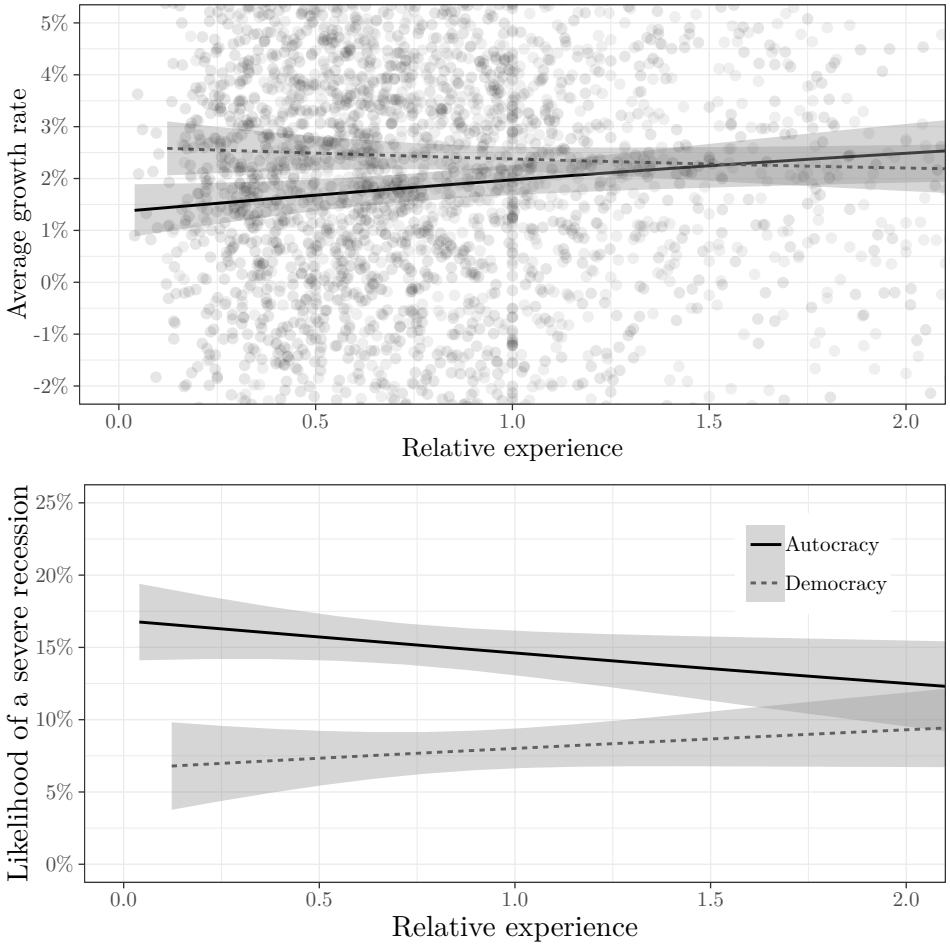
The theory outlined in this article should only apply to dictatorships. Dictatorships are characterized by an absence of free and competitive elections, which decide who gets to hold power. There is therefore an absence of an independent authority, which can enforce agreements, and an ever existing potential for violence (Svolik 2012, p. 15). As a result, the only form of accountability comes from powerful opponents. On the contrary, constraints should matter less in democracies. Here disputes should be solved through functioning institutions, the rule of law and ultimately through the electoral process (Besley 2006). However, there are alternative explanations, which can explain the patterns presented in the analyses above. For example, can a high turnaround in the cabinet cause a loss of experience and skills, which leads to worse decisions and less administrative capacity, or it may be that the measure is related to fundamental political instability. It is hard to see, why these explanations should have a different effect on economic development in democracies than autocracies. To test whether the results are unique to autocracies, I replicate the analyses under democracy. All country years, where the countries in the sample were governed democratically, have therefore been coded as well. Again, leaders, who have been in power for less than two years are excluded. The sample of democratic countries consists of 81 countries with 382 leaders and 1,861 country years.

Figure 7 is a replication of Figure 4, where the descriptive results for democracies are included. Contrary to under autocracy, the relationship between relative experience

growth rates through most of Erdogan's rule, but is currently facing an economic crisis and Venezuela has had negative growth more or less since 2009.

and economic growth seems to be negative, while the relationship between relative experience and the likelihood of a severe recession is positive.

Figure 7: After 2010: Association between the relative experience of ministers to the dictator and economic outcomes by regime type

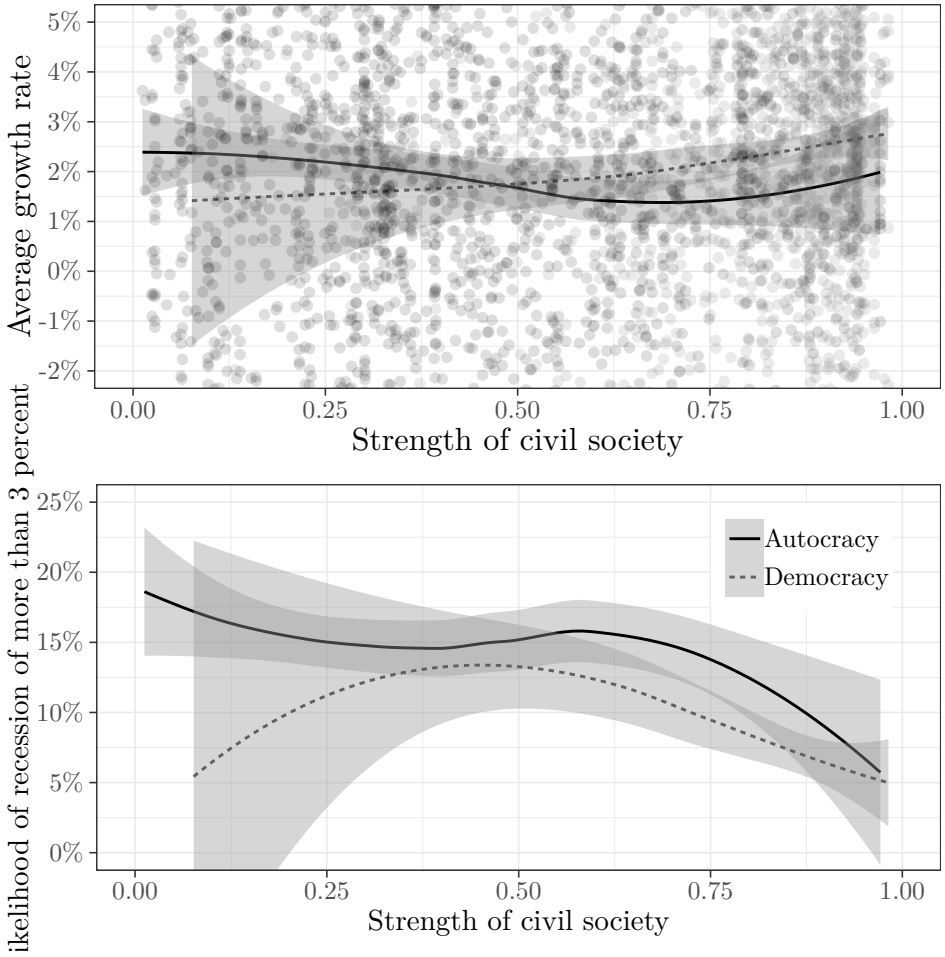


Source: Data on experience from CIA (2017), data on growth from Penn World Tables (2015). Notes: Descriptive statistics. Lowess curve with a span of 1. Whiskers represent 95% confidence intervals. Whiskers represent 95% confidence intervals. N = 2.303 country years (autocracies) and N = 1.072 country years (democracies).

Similarly, figure 8 replicates the results from figure 5 with the democratic country years included. It is seen that democracies in general perform better economically when civil society is strong and are less likely to experience a recession. It should be noted that there are very few democracies, where the strength of the civil society is less than 0.60 as seen in the histograms in the appendix and as indicated by the error bands. Again, the descriptive results do not take into account that some countries in general have higher growth rates and a strong civil society. Therefore, I test the results using fixed

effects.

Figure 8: Association between the strength of civil society and economic outcomes by regime type



Source: Data on experience from CIA (2017), data on growth from Penn World Tables (2015).
Notes: Descriptive statistics. Lowess curve with a span of 1. Whiskers represent 95% confidence intervals. N = 2.303 country years (autocracies) and N = 1.072 country years (democracies).

Table 6: Internal and external constraints and economic growth in democracies

	Dependent variable:											
	Growth (Penn World Tables)											
	OLS						*panel linear*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(Relative experience)$_{t-1}$	−0.05	0.31	−0.06	−0.84*	−1.22	−1.56		−0.12	−1.34***	−2.12	−4.77**	−3.52***
	(0.20)	(0.22)	(0.24)	(0.50)	(1.14)	(1.76)		(0.25)	(0.49)	(1.72)	(1.87)	(1.27)
Strength of civil society$_{t-1}$	1.82**	0.92	0.69	1.36	0.81	1.21		−0.59	3.01	2.88	5.25*	1.97
	(0.76)	(0.76)	(1.05)	(3.14)	(1.06)	(3.16)		(1.22)	(3.07)	(3.09)	(3.02)	(2.18)
Tenure of the leader		0.07*	0.06	−0.14	0.06	−0.14	0.05	0.04	−0.88***	−0.87***	−1.00***	−0.53***
		(0.04)	(0.04)	(0.09)	(0.04)	(0.09)	(0.04)	(0.04)	(0.14)	(0.14)	(0.14)	(0.12)
log(RE)$_{t-1}$ * SC$_{t-1}$					1.44	0.90				0.97	4.77**	4.85***
					(1.39)	(2.10)				(2.05)	(2.19)	(1.52)
Log of gdp per capita							1.98***	2.05***	18.21***	18.19***	25.93***	20.13***
							(0.61)	(0.62)	(1.97)	(1.97)	(2.47)	(2.27)
Log of population							2.51**	2.57**	9.71***	9.62**	24.01***	17.21***
							(1.13)	(1.15)	(3.73)	(3.74)	(4.09)	(4.91)
Urban population (%)							−0.18***	−0.18***	−0.39***	−0.39***	−0.73***	−0.71***
							(0.04)	(0.04)	(0.10)	(0.10)	(0.10)	(0.10)
Civil violence$_{t-1}$							−0.25**	−0.27**	0.11	0.11	0.26	0.38*
							(0.12)	(0.13)	(0.25)	(0.25)	(0.24)	(0.21)
Number of core members							0.01	0.01	0.04	0.04	−0.02	0.02
							(0.03)	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)
Oil rents (% of GDP)											0.07	−0.04
											(0.09)	(0.08)
Constant	0.89	1.50**										
	(0.62)	(0.63)										
Estimation method: Within year	No	Yes	No	No	No	No	No	No	No	No	No	Yes
Estimation method: Within country	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Estimation method: Within leader	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
Observations	1,610	1,471	1,471	1,233	1,471	1,233	1,405	1,405	1,180	1,180	966	1,166
R^2	0.004	0.004	0.002	0.004	0.003	0.004	0.02	0.02	0.10	0.10	0.15	0.45

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

Standard errors in parentheses. RE = Relative experience, SC = Strength of Civil Society. 76 countries and 313 leaders are included in the analysis (column 1-6). 71 countries and 298 leaders are included in the analysis (column 7-10), 249 leaders and 55 countries (column 11-12).

Table 7: Internal and external constraints and recession in democracies

	Dependent variable:											
	Likelihood of experiencing a severe recession (Penn World Tables)											
	OLS						*panel linear*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(Relative experience)$_{t-1}$	0.01	−0.01	0.01	0.04	0.05	0.03		0.02	0.05*	0.04	0.20*	0.15*
	(0.01)	(0.01)	(0.01)	(0.03)	(0.07)	(0.10)		(0.02)	(0.03)	(0.10)	(0.12)	(0.09)
Strength of civil society$_{t-1}$	−0.15***	−0.11**	−0.12*	−0.33*	−0.12*	−0.34*		−0.06	−0.41**	−0.41**	−0.39**	−0.03
	(0.04)	(0.05)	(0.06)	(0.18)	(0.06)	(0.19)		(0.07)	(0.18)	(0.18)	(0.19)	(0.15)
Tenure of the leader		−0.005**	−0.005*	0.002	−0.005*	0.002	−0.005**	−0.003	0.03***	0.03***	0.03***	0.01
		(0.002)	(0.003)	(0.01)	(0.003)	(0.01)	(0.002)	(0.003)	(0.01)	(0.01)	(0.01)	(0.01)
log(RE)$_{t-1}$ * SC$_{t-1}$					−0.05	0.02				0.01	−0.19	−0.18*
					(0.09)	(0.12)				(0.12)	(0.14)	(0.11)
Log of gdp per capita							−0.16***	−0.16***	−0.71***	−0.71***	−0.86***	−0.51***
							(0.04)	(0.04)	(0.12)	(0.12)	(0.16)	(0.16)
Log of population							0.05	0.07	−0.19	−0.20	−0.68***	−0.41
							(0.07)	(0.07)	(0.22)	(0.22)	(0.26)	(0.34)
Urban population (%)							0.004*	0.004*	0.01**	0.02**	0.03***	0.02***
							(0.002)	(0.002)	(0.01)	(0.01)	(0.01)	(0.01)
Civil violence$_{t-1}$							0.01*	0.01	0.004	0.004	−0.01	−0.01
							(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)
Number of core members							−0.002	−0.002	−0.003	−0.003	−0.0003	−0.003
							(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.002)
Oil rents (% of GDP)											−0.01	0.002
											(0.01)	(0.01)
Constant	0.20***	0.18***										
	(0.04)	(0.04)										
Estimation method: Within year	No	Yes	No	No	No	No	No	No	No	No	No	Yes
Estimation method: Within country	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Estimation method: Within leader	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
Observations	1,610	1,471	1,471	1,233	1,471	1,233	1,405	1,405	1,180	1,180	966	1,166
R^2	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.05	0.05	0.06	0.36

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

Standard errors in parentheses. RE = Relative experience, SC = Strength of Civil Society. 76 countries and 313 leaders are included in the analysis (column 1-6). 71 countries and 298 leaders are included in the analysis (column 7-10), 249 leaders and 55 countries (column 11-12).

In table 6 and 7, I replicate the results from table 4 and 5. For the measure of internal constraints we find the reverse relationship than under autocracy. The coefficients are, however, not significant across the models. A democracy will therefore fare no worse - or even better - economically when the leader is more experienced that the cabinet ministers. Again, strength of civil society is related to better economic outcomes, but the variable is in general not significant when looking at economic growth. It is, however, significant, when the dependent variable is chance of recession. Furthermore, it is worth noticing that the coefficient for the interaction effects is reversed in democracies. A democracy with a weak civil society will therefore perform worse, when there is little cabinet turnover. If there is a weak civil society, cabinet turnover does not predict growth.

The analyses indicate that the dynamics are different in democracies, where leaders who score higher on the measure of internal constraints tend to perform worse economically. However, it still seems to be the case that a country performs better economically when civil society is stronger, but the results for this measure are not as clear-cut as for autocracies. An alternative explanation than the one presented in this article would therefore need to account for why the measures of internal and external constraints only are related to economic development in autocracies.

6 Conclusion

The goal of this article is to explain why some authoritarian leaders provide better outcomes in terms of economic development. The article presents a new framework for understanding and classifying authoritarian regimes. Based on this, it is expected that autocrats, who are constrained by a strong ruling coalition or a strong civil society will be held accountable and have to take the preferences and advices of these actors into account when designing their economic policies. If they do not do so, they risk being overthrown. It is argued that both types of constraints should be associated with higher economic growth, and that the interaction between the two is negative and they therefore subdue the effect of each other. The results of the analysis show that the two types of constraints are positively related to economic growth and are associated with a decrease in the likelihood that a country will experience a severe recession. It is shown that these results also hold when country or dictator is held constant; the same dictator or country therefore fares worse economically, when there are less constraints on the leader. Furthermore, I show that the mechanism is not the same for democracies. It should be noted that the framework only works under the scope-condition that the leader does not have access to excessive oil-resources. Overall, the article suggest that there are multiple paths to economic success in authoritarian regimes; both Machine-

regimes such as China and more competitive regimes such as Singapore or Malaysia can implement policies beneficial for economic development, while autocratic regimes without any constraints fare badly economically and are more likely to experience stark declines in living standards.
The results presented in this article are in line with the huge theoretical literature, which focus on how constraints on the executive has spurred economic development (North 1991; Acemoglu and Robinson 2013; Fukuyama 2014). However, the empirical literature, which focus explicitly on autocracies, remains surprisingly limited and offers little insight into the autocracies of today. Furthermore, as argued in the introduction, we have seen a popular resurgence in the belief of the benefits of having a strong leader. A belief, which autocrats are eager to embrace and exploit. This is what I dub "The myth of the effective strongman". In the light of this, the results presented in this article are important, and can help dispel this myth.

The article has yielded a number of important findings, but much work remains to be done. There are at least three areas of further research. First, the line of causality and the theoretical mechanism must be clarified. For example, for the theory to hold, it must be the case that the likelihood of the dictator being disposed goes up if he faces a recession. However, this should be mediated through the level of constraints, and when they are accounted for the association should decrease or even disappear. Second, this article solely looks at economic outcomes and neglects other outcome such as inequality and development. Third, the dataset presented and used in this article can be used to answer a myriad of other questions. For example, is a country more likely to experience a civil war if certain ministers are fired? Why do some dictators appoint female ministers? How is the appointment of ministers used as a strategic tool to stabilize power? Do dictators stay longer if they purge their ministers? Or, which ministers stay after democratization?[17]

[17]The team behind the data collection plans to publish the data online early in 2019, but please feel free to contact the author if you are interested in the data

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7 Appendix

7.1 Descriptive statistics

Table 8: Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Max
Growth in GDP per capita, Penn	2,538	1.89	6.76	−57.37	82.73
Recession of more than 3 percent, Penn	2,538	0.15	0.36	0.00	1.00
log(Relative experience)	2,888	−0.35	0.74	−3.22	2.61
Strength of civil society	2,857	0.40	0.25	0.01	0.97
Tenure of the dictator	2,888	8.51	7.07	1	41
Log of GDP per capita	2,705	8.16	1.14	5.06	12.93
Log of population	2,714	9.17	1.55	4.41	14.13
Urban population (%)	2,850	40.16	22.94	2.50	100.00
Civil violence	2,815	0.82	1.79	0.00	9.00
Oil rents (% of GDP)	1,603	5.29	9.71	0.00	80.99
Number of core members of elite	2,888	23.97	9.63	1	73
Growth in GDP per capita, Maddison	2,702	1.68	6.88	−58.96	80.89
Growth in GDP per capita, World Bank	2,384	1.78	6.26	−62.23	36.98
Recession of more than 3 percent, Maddison	2,702	0.15	0.36	0.00	1.00
Recession of more than 3 percent, World Bank	2,384	0.13	0.34	0.00	1.00

7.2 List of countries

It should be noted that there are fewer years in the main analysis for one the following reasons, 1) The country democratized, 2) A dictator came in to power before 1966, which means that it is not possible to construct the measure of relative experience, 3) A leader is in power for 1 year or less or 4) More than 20 percent of the country's GDP comes from oil resources.

ISO	Country name	Number of years	Years in main analysis	First year	Last year
AFG	Afghanistan	47	40	1966	2018
AGO	Angola	40	0	1976	2016
ALB	Albania	51	6	1966	2016
ARE	United Arab Emirates	45	0	1972	2016
ARG	Argentina	52	13	1966	2018
ARM	Armenia	25	0	1992	2016
AZE	Azerbaijan	25	25	1992	2016
BDI	Burundi	51	36	1966	2016
BEN	Benin	51	20	1966	2016
BFA	Burkina Faso	51	48	1966	2016
BGD	Bangladesh	44	21	1971	2016
BGR	Bulgaria	50	0	1966	2016
BHR	Bahrain	46	18	1971	2016
BLR	Belarus	24	24	1992	2016
BOL	Bolivia	51	10	1966	2016
BRA	Brazil	51	18	1966	2016
BRN	Brunei	33	0	1984	2016
BWA	Botswana	50	0	1967	2016
CAF	Central African Republic	50	40	1966	2016
CHL	Chile	53	17	1966	2018
CHN	China	51	40	1966	2016
CIV	Cote d'Ivoire	51	22	1966	2016
CMR	Cameroon	51	34	1966	2016
COG	Congo, Republic of	51	0	1966	2016
COM	Comoros	51	26	1966	2016
CPV	Cape Verde	43	15	1976	2018
CUB	Cuba	53	11	1966	2018
CYP	Cyprus	53	5	1966	2018

CZE	Czech Republic	51	20	1966	2016
DJI	Djibouti	40	40	1977	2016
DZA	Algeria	51	51	1966	2016
ECU	Ecuador	51	12	1966	2016
EGY	Egypt	44	43	1971	2016
ERI	Eritrea	24	24	1993	2016
ESP	Spain	51	1	1966	2016
ETH	Ethiopia	50	41	1966	2016
FJI	Fiji	46	38	1971	2016
GAB	Gabon	51	0	1966	2016
GEO	Georgia	25	12	1992	2016
GHA	Ghana	50	18	1966	2016
GIN	Guinea	49	25	1966	2016
GMB	Gambia, The	51	22	1966	2016
GNB	Guinea-Bissau	40	29	1975	2016
GNQ	Equatorial Guinea	49	0	1968	2016
GRC	Greece	50	6	1966	2016
GRD	Grenada	44	5	1974	2018
GTM	Guatemala	51	4	1966	2016
GUY	Guyana	51	21	1966	2016
HND	Honduras	51	7	1966	2016
HRV	Croatia	25	0	1992	2016
HTI	Haiti	49	42	1966	2016
HUN	Hungary	51	0	1966	2016
IDN	Indonesia	50	32	1966	2016
IRN	Iran	49	35	1966	2016
IRQ	Iraq	50	0	1966	2016
JOR	Jordan	51	18	1966	2016
KAZ	Kazakhstan	25	25	1992	2016
KEN	Kenya	50	19	1966	2016
KGZ	Kyrgyzstan	25	15	1992	2016
KHM	Cambodia	50	38	1966	2016
KOR	Korea, Republic of	51	7	1966	2016
KWT	Kuwait	51	0	1966	2016
LAO	Laos	51	40	1966	2016
LBN	Lebanon	51	40	1966	2016
LBR	Liberia	50	38	1966	2016

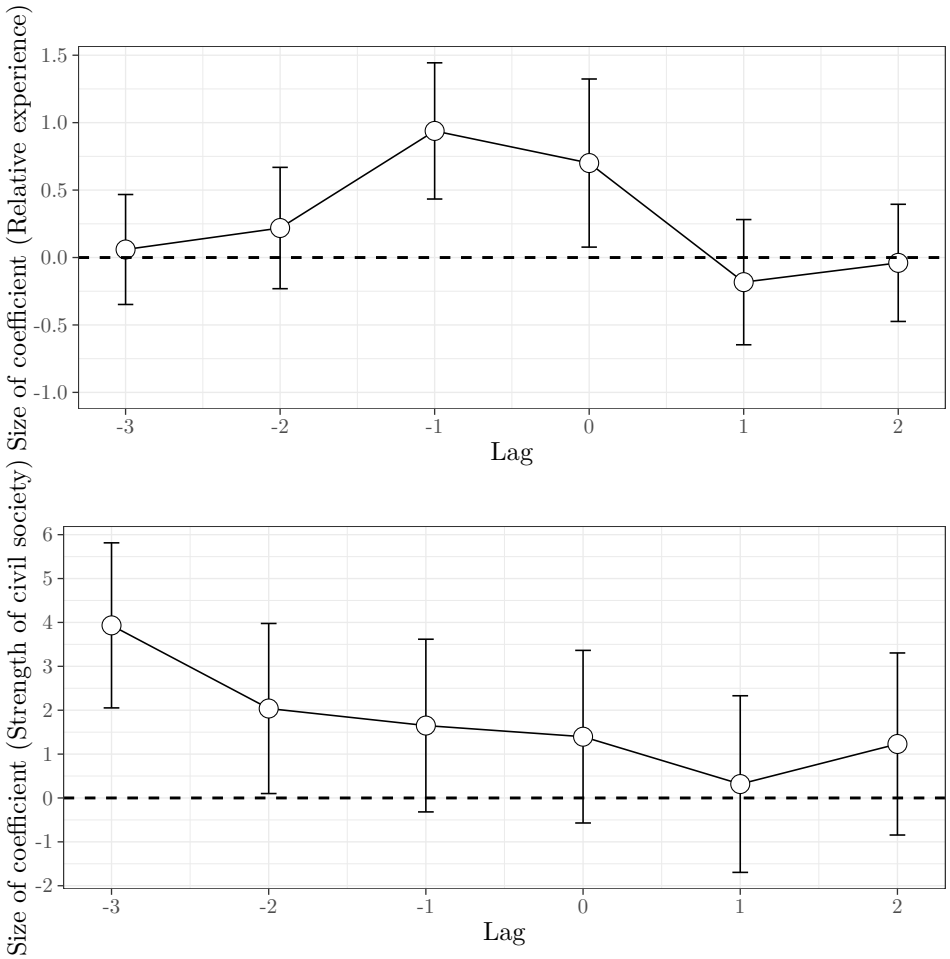
LBY	Libya	45	41	1966	2011
LKA	Sri Lanka	50	12	1966	2016
LSO	Lesotho	50	46	1967	2016
MAR	Morocco	51	17	1966	2016
MDA	Moldova	25	0	1992	2016
MDG	Madagascar	51	33	1966	2016
MDV	Maldives	51	34	1966	2018
MEX	Mexico	51	29	1966	2016
MKD	Macedonia	22	0	1995	2016
MLI	Mali	51	24	1966	2016
MMR	Myanmar	51	27	1966	2016
MNE	Montenegro	20	19	1997	2016
MNG	Mongolia	51	5	1966	2016
MOZ	Mozambique	42	42	1975	2016
MRT	Mauritania	51	35	1966	2016
MWI	Malawi	49	26	1966	2016
MYS	Malaysia	51	37	1966	2016
NAM	Namibia	27	27	1990	2016
NER	Niger	50	22	1966	2016
NGA	Nigeria	50	17	1966	2016
NIC	Nicaragua	51	23	1966	2016
NPL	Nepal	51	38	1966	2016
OMN	Oman	51	0	1966	2016
PAK	Pakistan	50	21	1966	2016
PAN	Panama	51	18	1966	2016
PER	Peru	51	22	1966	2016
PHL	Philippines	53	20	1966	2018
PNG	Papua New Guinea	43	0	1976	2018
POL	Poland	51	18	1966	2016
PRK	Korea, People's Republic	53	25	1966	2018
PRT	Portugal	50	5	1966	2016
PRY	Paraguay	51	0	1966	2016
QAT	Qatar	46	45	1971	2016
ROU	Romania	51	24	1966	2016
RUS	Russia	25	25	1992	2016
RWA	Rwanda	50	43	1966	2016
SAU	Saudi Arabia	51	0	1966	2016

SDN	Sudan	51	44	1966	2016
SEN	Senegal	51	19	1966	2016
SGP	Singapore	51	51	1966	2016
SLE	Sierra Leone	47	26	1966	2016
SLV	El Salvador	51	17	1966	2016
SOM	Somalia	42	38	1966	2016
SRB	Serbia	21	2	1997	2016
SSD	South Sudan	5	0	2012	2016
STP	Sao Tome and Principe	44	16	1975	2018
SUR	Suriname	40	8	1979	2018
SVK	Slovak Republic	24	0	1993	2016
SVN	Slovenia	25	0	1992	2016
SWZ	Swaziland	48	47	1969	2016
SYR	Syria	50	50	1966	2016
TCD	Chad	51	41	1966	2016
TGO	Togo	51	50	1966	2016
THA	Thailand	51	4	1966	2016
TJK	Tajikistan	25	24	1992	2016
TKM	Turkmenistan	25	25	1992	2016
TLS	Timor-Leste	17	0	2002	2018
TUN	Tunisia	50	23	1966	2016
TUR	Turkey	51	3	1966	2016
TWN	Taiwan	51	25	1966	2016
TZA	Tanzania	51	30	1966	2016
UGA	Uganda	51	40	1966	2016
UKR	Ukraine	24	0	1992	2016
URY	Uruguay	51	11	1966	2016
UZB	Uzbekistan	24	24	1992	2016
VEN	Venezuela	51	2	1966	2016
VNM	Vietnam	41	41	1976	2016
YEM	Yemen	51	49	1966	2016
ZAF	South Africa	51	50	1966	2016
ZMB	Zambia	51	15	1966	2016
ZWE	Zimbabwe	36	36	1981	2016

7.3 Changing the time

Below the analyses for growth are repeated with different time lags for the two independent variables, and the coefficients are plotted. The models are based upon column 3 in table 4, which includes country fixed effects. There is no association between the measure of internal constraints, relative experience, and growth when the variable is lagged two or three years. When the variable is lagged with one year the coefficient becomes significant. The results remain much the same when the variable is not lagged. The size of the coefficient drops when the variable is lagged with -1 and becomes insignificant. This indicate that the effect does not go the other way; ministers are not more likely - or only slightly more likely - to get fired when growth is low.

Figure 9: Size of the coefficient for the effect of the two independent variables on growth dependent on the lag

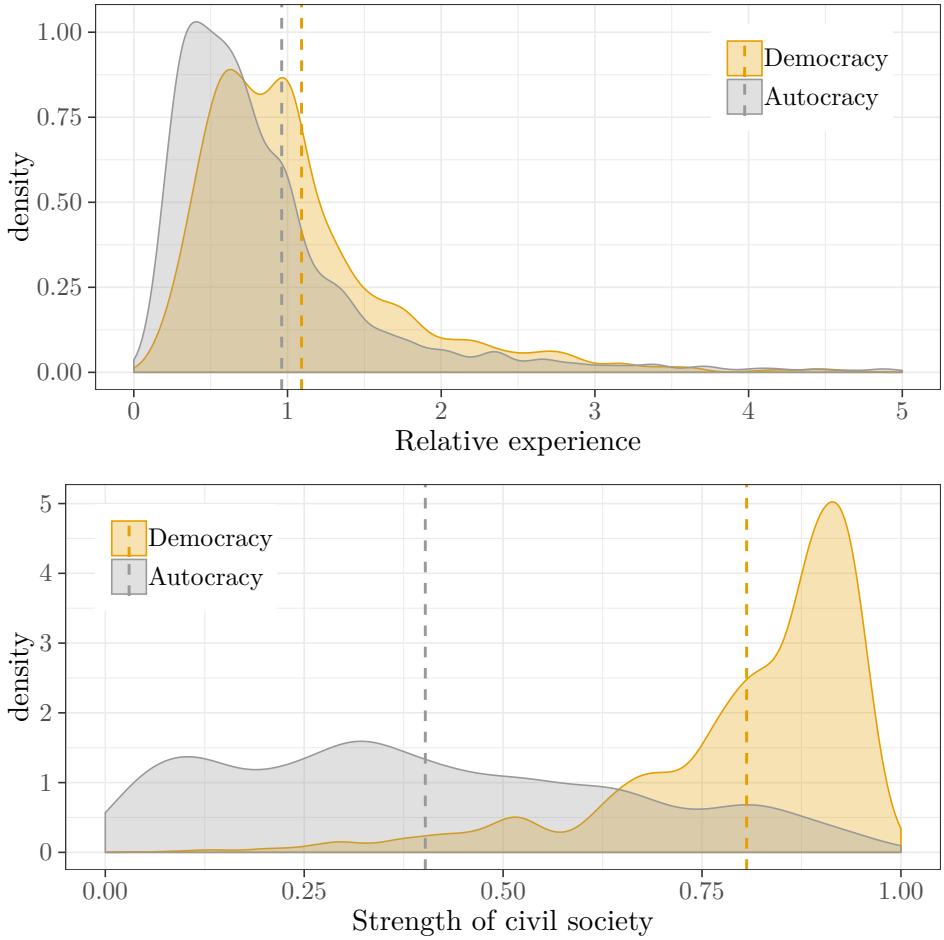


In the second figure the coefficient of strength of civil society is largest when the variable

is lagged with three years. It then gradually drops and becomes insignificant when the lag is -1 or above. This indicate that a strong civil society is associated with higher growth rates several years into the future, and that it is stronger over time. However, it does not seem to be the case that dictators crush civil society in times of low growth.

7.4 Supporting analyses on the measure of internal and external constraints

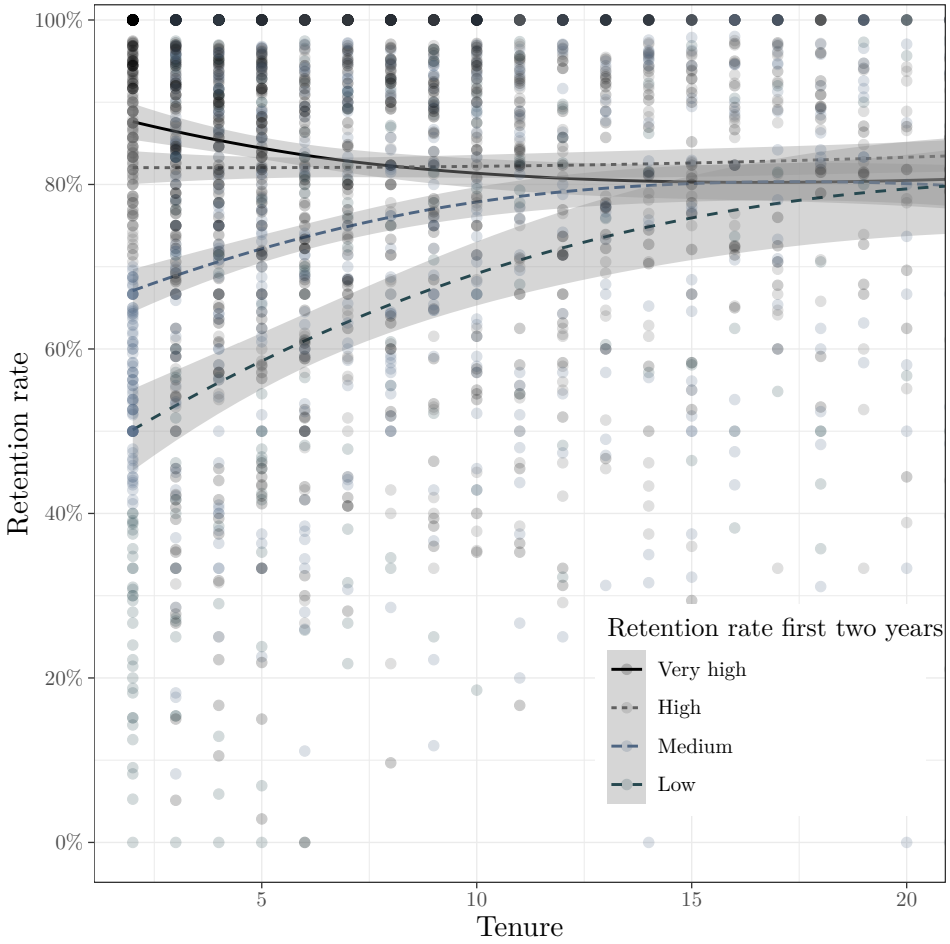
Below histograms for the two independent variables are shown.



Source: Own data created from CIA (2017) and V-Dem (2017).

The graph below plots the average retention rate (the percentage of cabinet ministers who stay in office from one year to the next) over time for four different group of dictators. The groups are divided by the retention rate in the two first years after taking office. Those classified as 'low' have an average retention rate below 40 percent in the first two years after entering office. The corresponding numbers are between 40 and 70 percent for 'medium', 70 to 90 percent for 'high' and more than 90 percent

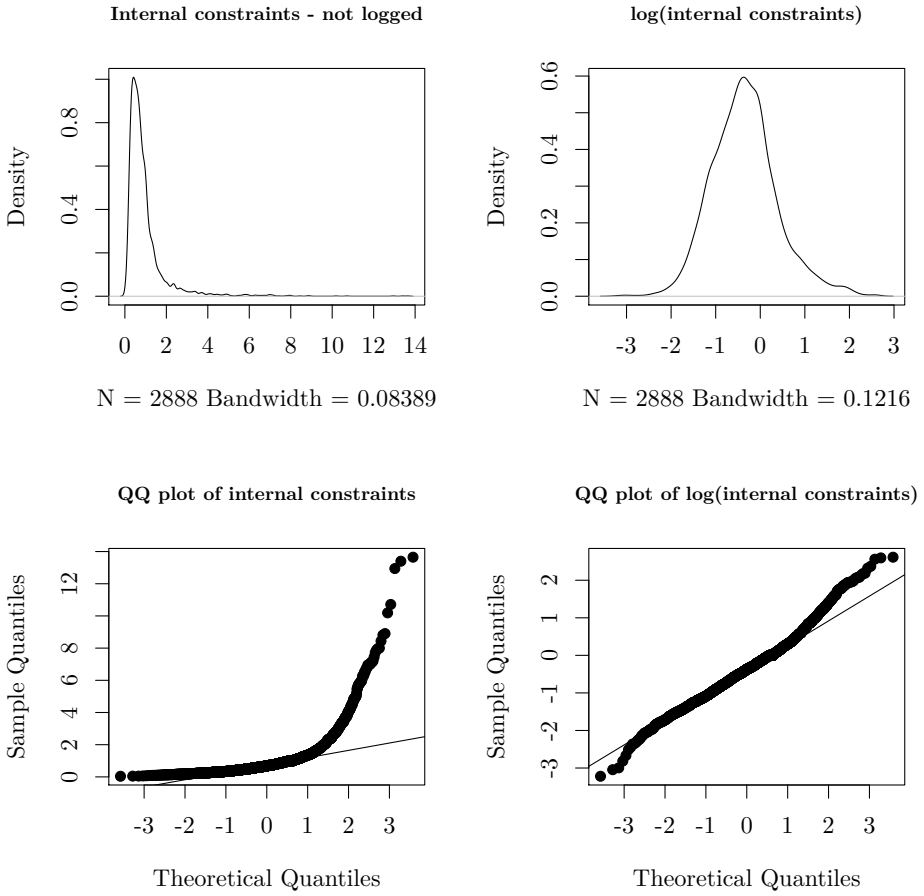
for 'very high'. The plot shows that dictators, who replace the ministers early in their tenure tends to replace ministers more often throughout their tenure. It is therefore not the case that dictators, who purge their ministers after coming to office, tend to keep them throughout their tenure.



Source: Own data created from CIA (2017).

7.5 Log-transformation

The graphs below show two graphical methods for assessing whether the variable for internal constraints is normally distributed. It is seen that *internal constraints* fits a normal distribution much better when it is log-transformed.[18]. As a result, the log transformed version of the variable is used in the analysis.



Source: Own data created from CIA (2017).

[18]The fit is far from perfect after the transformation, which is confirmed by a Shapiro-Wilk test. The p-value is 2.2e-16 for the non-transformed variable, while the p-value is 3.11e-12 for the log-transformed variable

Table 10: Internal and external constraints and recession in autocracies. Relative experience operationalized in quantiles

	Dependent variable:					
	Growth (Penn World Tables)					
	OLS				*panel linear*	
	(1)	(2)	(3)	(4)	(5)	(6)
RE_{t-1}: Quantile 2	0.09	0.96**	0.74	0.22	0.53	−0.07
	(0.36)	(0.42)	(0.45)	(0.44)	(0.46)	(0.44)
RE_{t-1}: Quantile 3	−0.30	1.16**	1.24**	0.63	0.64	0.05
	(0.38)	(0.49)	(0.56)	(0.55)	(0.57)	(0.55)
RE_{t-1}: Quantile 4	1.01***	2.71***	2.34***	2.11***	1.68**	1.82***
	(0.37)	(0.53)	(0.64)	(0.69)	(0.66)	(0.70)
Strength of civil society$_{t-1}$	−1.45***	−0.95*	1.94**	2.75	1.65	5.82***
	(0.56)	(0.57)	(0.94)	(1.76)	(1.20)	(1.88)
Tenure of the leader		0.11***	0.10***	0.02	0.03	−0.05
		(0.03)	(0.03)	(0.03)	(0.04)	(0.08)
Log of gdp per capita					2.88***	6.07***
					(0.52)	(0.93)
Log of population					1.16	1.51
					(0.89)	(2.13)
Urban population (%)					−0.14***	−0.30***
					(0.04)	(0.07)
Civil violence$_{t-1}$					−0.56***	−0.38***
					(0.11)	(0.13)
Number of core members					0.03	−0.02
					(0.03)	(0.03)
Oil rents (% of GDP)	2.31***	0.36				
	(0.34)	(0.56)				
Estimation method: Within year	No	Yes	No	No	No	No
Estimation method: Within country	No	No	Yes	No	Yes	No
Estimation method: Within leader	No	No	No	Yes	No	Yes
Observations	2,517	2,359	2,359	2,222	2,240	2,112
R^2	0.01	0.01	0.01	0.01	0.05	0.05

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

Standard errors in parentheses. RE = Relative experience, SC = Strength of Civil Society. 99 countries and 253 leaders are included in the analysis (column 1-4). 90 countries and 227 leaders are included in the analysis (column 5-6)

Table 11: Internal and external constraints and economic growth in autocracies

	Dependent variable:											
	Growth (Maddision Project)											
	OLS					*panel linear*						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(Relative experience)$_{t-1}$	0.48***	0.84***	0.62**	0.59	1.22**	1.00*		0.73**	0.86**	1.94***	1.68**	1.26**
	(0.18)	(0.25)	(0.29)	(0.36)	(0.47)	(0.53)		(0.31)	(0.37)	(0.56)	(0.66)	(0.59)
Strength of civil society$_{t-1}$	−0.59	0.12	2.63***	4.23**	2.19**	3.49*		1.37	6.38***	4.52**	3.74	3.34
	(0.54)	(0.55)	(0.90)	(1.75)	(0.94)	(1.88)		(1.19)	(1.87)	(2.00)	(2.34)	(2.24)
Tenure of the leader		0.03	0.03	−0.01	0.03	−0.004	−0.05**	0.01	−0.03	−0.03	0.19**	−0.79
		(0.03)	(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.04)	(0.08)	(0.07)	(0.08)	(0.56)
log(RE)$_{t-1}$ * SC$_{t-1}$					−1.35	−1.01				−2.58***	−1.24	−0.88
					(0.85)	(0.96)				(1.00)	(1.19)	(1.10)
Log of gdp per capita							2.83***	2.74***	6.29***	6.35***	3.04***	4.06***
							(0.51)	(0.52)	(0.92)	(0.92)	(1.12)	(1.10)
Log of population							1.67**	1.16	2.25	2.52	−1.95	−0.93
							(0.83)	(0.90)	(2.12)	(2.12)	(2.31)	(2.24)
Urban population (%)							−0.11***	−0.11***	−0.33***	−0.33***	−0.28***	−0.30***
							(0.04)	(0.04)	(0.07)	(0.07)	(0.09)	(0.09)
Civil violence$_{t-1}$							−0.53***	−0.51***	−0.31**	−0.32**	−0.44***	−0.39***
							(0.10)	(0.10)	(0.13)	(0.13)	(0.14)	(0.14)
Number of core members							0.04	0.03	−0.004	−0.01	0.002	0.04
							(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Oil rents (% of GDP)											0.12***	0.09**
											(0.04)	(0.04)
Constant	2.11***	1.77***										
	(0.26)	(0.32)										
Estimation method: Within year	No	Yes	No	No	No	No	No	No	No	No	No	Yes
Estimation method: Within country	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Estimation method: Within leader	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
Observations	2,684	2,518	2,518	2,374	2,518	2,374	2,253	2,238	2,110	2,110	1,313	1,396
R^2	0.003	0.01	0.01	0.005	0.01	0.01	0.04	0.04	0.05	0.05	0.05	0.21

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

Standard errors in parentheses. RE = Relative experience, SC = Strength of Civil Society. 102 countries and 278 leaders are included in the analysis (column 1-7). 94 countries and 247 leaders are included in the analysis (column 8-10), 164 leaders and 71 countries (column 11-12).

Table 12: Internal and external constraints and recession in autocracies

	Dependent variable:											
	Likelihood of experiencing a severe recession (Maddision Growth Tables)											
	OLS						*panel linear*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(Relative experience)$_{t-1}$	-0.02^{*}	-0.05^{***}	-0.03^{**}	-0.04^{*}	-0.04^{*}	-0.06^{**}		-0.02	-0.05^{**}	-0.13^{***}	-0.10^{**}	-0.04
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)		(0.02)	(0.02)	(0.03)	(0.04)	(0.04)
Strength of civil society$_{t-1}$	-0.08^{***}	-0.12^{***}	-0.25^{***}	-0.24^{**}	-0.24^{***}	-0.19^{*}		-0.06	-0.36^{***}	-0.23^{**}	-0.09	-0.08
	(0.03)	(0.03)	(0.05)	(0.10)	(0.05)	(0.10)		(0.06)	(0.11)	(0.12)	(0.14)	(0.14)
Tenure of the leader		-0.005^{***}	-0.005^{***}	-0.01^{***}	-0.005^{***}	-0.01^{***}	0.002^{*}	0.0003	0.001	0.001	-0.01	0.05
		(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.004)	(0.004)	(0.005)	(0.03)
log(RE)$_{t-1}$ * SC$_{t-1}$					0.03	0.06				0.18^{***}	0.15^{**}	0.06
					(0.04)	(0.05)				(0.06)	(0.07)	(0.07)
Log of gdp per capita							-0.12^{***}	-0.12^{***}	-0.35^{***}	-0.35^{***}	-0.24^{***}	-0.25^{***}
							(0.03)	(0.03)	(0.05)	(0.05)	(0.07)	(0.07)
Log of population							-0.16^{***}	-0.14^{***}	-0.10	-0.12	-0.12	-0.15
							(0.05)	(0.05)	(0.12)	(0.12)	(0.14)	(0.14)
Urban population (%)							0.002	0.003	0.01	0.01	0.02^{***}	0.02^{***}
							(0.002)	(0.002)	(0.004)	(0.004)	(0.01)	(0.01)
Civil violence$_{t-1}$							0.03^{***}	0.03^{***}	0.02^{***}	0.02^{***}	0.02^{***}	0.02^{**}
							(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Number of core members							-0.001	-0.001	0.002	0.002	-0.0002	-0.002
							(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
Oil rents (% of GDP)											-0.01^{***}	-0.01^{**}
											(0.002)	(0.002)
Constant	0.18^{***}	0.22^{***}										
	(0.01)	(0.02)										
Estimation method: Within year	No	Yes	No	No	No	No	No	No	No	No	No	Yes
Estimation method: Within country	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Estimation method: Within leader	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
Observations	2,684	2,518	2,518	2,374	2,518	2,374	2,253	2,238	2,110	2,110	1,313	1,396
R^2	0.005	0.01	0.02	0.01	0.02	0.01	0.05	0.05	0.04	0.04	0.05	0.17

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

Standard errors in parentheses. RE = Relative experience, SC = Strength of Civil Society. 102 countries and 278 leaders are included in the analysis (column 1-7). 94 countries and 247 leaders are included in the analysis (column 8-10), 164 leaders and 71 countries (column 11-12).

Table 13: Internal and external constraints and economic growth in autocracies

	Dependent variable:											
	Growth (World Bank)											
	OLS						*panel linear*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(Relative experience)$_{t-1}$	0.46***	0.92***	0.61**	0.62*	1.27**	0.86		0.64**	0.78**	1.58***	1.91***	1.51**
	(0.17)	(0.24)	(0.28)	(0.38)	(0.50)	(0.60)		(0.28)	(0.38)	(0.59)	(0.68)	(0.60)
Strength of civil society$_{t-1}$	−2.07***	−1.42***	1.66*	4.95***	1.21	4.61**		1.40	6.54***	5.34***	4.57*	4.75**
	(0.53)	(0.54)	(0.92)	(1.71)	(0.96)	(1.83)		(1.16)	(1.86)	(1.98)	(2.33)	(2.26)
Tenure of the leader		0.07***	0.08***	0.02	0.08***	0.02	−0.005	0.05	0.04	0.04	0.16*	−1.21*
		(0.03)	(0.03)	(0.04)	(0.03)	(0.04)	(0.02)	(0.03)	(0.08)	(0.08)	(0.08)	(0.68)
log(RE)$_{t-1}$ * SC$_{t-1}$					−1.38	−0.54				−1.81*	−1.88	−1.66
					(0.86)	(1.03)				(1.03)	(1.19)	(1.09)
Log of gdp per capita							3.05***	3.01***	6.35***	6.42***	3.97***	4.89***
							(0.48)	(0.49)	(0.96)	(0.96)	(1.14)	(1.12)
Log of population							0.38	−0.34	−0.50	−0.35	−0.62	0.13
							(0.92)	(1.03)	(2.43)	(2.43)	(2.71)	(2.68)
Urban population (%)							−0.11***	−0.10***	−0.31***	−0.31***	−0.33***	−0.35***
							(0.04)	(0.04)	(0.07)	(0.07)	(0.09)	(0.09)
Civil violence$_{t-1}$							−0.53***	−0.51***	−0.31**	−0.32**	−0.49***	−0.43***
							(0.10)	(0.10)	(0.13)	(0.13)	(0.14)	(0.14)
Number of core members							0.05*	0.05*	0.01	0.003	0.04	0.07*
							(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Oil rents (% of GDP)											0.22***	0.19***
											(0.04)	(0.05)
Constant	2.87***	2.21***										
	(0.28)	(0.33)										
Estimation method: Within year	No	Yes	No	No	No	No	No	No	No	No	No	Yes
Estimation method: Within country	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Estimation method: Within leader	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
Observations	2,359	2,216	2,216	2,089	2,216	2,089	2,012	1,997	1,880	1,880	1,244	1,323
R^2	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.08	0.23

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

Standard errors in parentheses. RE = Relative experience, SC = Strength of Civil Society. 99 countries and 253 leaders are included in the analysis (column 1-7). 90 countries and 227 leaders are included in the analysis (column 8-10), 157 leaders and 69 countries (column 11-12).

Table 14: Internal and external constraints and recession in autocracies

	Dependent variable:											
	Likelihood of experiencing a severe recession (World Bank)											
	OLS						*panel linear*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(Relative experience)$_{t-1}$	−0.01	−0.04***	−0.03**	−0.04*	−0.07***	−0.08**		−0.02	−0.04*	−0.12***	−0.14***	−0.09**
	(0.01)	(0.01)	(0.02)	(0.02)	(0.03)	(0.03)		(0.02)	(0.02)	(0.03)	(0.04)	(0.04)
Strength of civil society$_{t-1}$	−0.03	−0.06**	−0.13**	−0.20**	−0.10*	−0.14		−0.05	−0.33***	−0.21*	−0.18	−0.14
	(0.03)	(0.03)	(0.05)	(0.10)	(0.05)	(0.10)		(0.07)	(0.11)	(0.12)	(0.14)	(0.14)
Tenure of the leader		−0.005***	−0.004***	−0.004**	−0.004***	−0.005**	0.0002	−0.002	−0.01	−0.01	−0.01	0.04
		(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.005)	(0.004)	(0.005)	(0.04)
log(RE)$_{t-1}$ * SC$_{t-1}$					0.08*	0.10*				0.17***	0.21***	0.15**
					(0.05)	(0.06)				(0.06)	(0.07)	(0.07)
Log of gdp per capita							−0.12***	−0.11***	−0.28***	−0.29***	−0.30***	−0.32***
							(0.03)	(0.03)	(0.06)	(0.06)	(0.07)	(0.07)
Log of population							−0.06	−0.04	0.11	0.10	−0.003	−0.04
							(0.05)	(0.06)	(0.14)	(0.14)	(0.16)	(0.16)
Urban population (%)							0.002	0.002	0.01**	0.01**	0.02***	0.02***
							(0.002)	(0.002)	(0.004)	(0.004)	(0.01)	(0.01)
Civil violence$_{t-1}$							0.02***	0.02***	0.01	0.01	0.02**	0.02**
							(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Number of core members							−0.0001	−0.0001	0.002	0.002	−0.002	−0.004
							(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Oil rents (% of GDP)											−0.01***	−0.01***
											(0.003)	(0.003)
Constant	0.14***	0.18***										
	(0.02)	(0.02)										
Estimation method: Within year	No	Yes	No	No	No	No	No	No	No	No	No	Yes
Estimation method: Within country	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Estimation method: Within leader	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
Observations	2,359	2,216	2,216	2,089	2,216	2,089	2,012	1,997	1,880	1,880	1,244	1,323
R^2	0.001	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.03	0.04	0.07	0.20

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

Standard errors in parentheses. RE = Relative experience, SC = Strength of Civil Society. 99 countries and 253 leaders are included in the analysis (column 1-7). 90 countries and 227 leaders are included in the analysis (column 8-10), 157 leaders and 69 countries (column 11-12).